SECTION 13.0 RESPONSE TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT

The Draft EIR for the proposed ordinances was completed and forwarded to the Governor's Office of Planning and Research (OPR) and a Notice of Completion (NOC) was posted at both OPR and the Office of Los Angeles County Clerk on June 2, 2010. Copies of the Draft EIR and Notice of Availability (NOA) were mailed to 27 agency representatives. The Draft EIR was made available for public review at the Los Angeles County Department of Public Works (LACDPW), Environmental Programs Division, 900 South Fremont Avenue, Alhambra, California 91803 and on the Internet at http://www.bragaboutyourbag.com for a period of 45 days from June 2, 2010, to July 16, 2010. An electronic copy of the Draft EIR was made available at all public libraries in the County, and a hard copy of the Draft EIR was made available at 10 public libraries. An NOA of the Draft EIR for public review was advertised in the *Los Angeles Times*, delivered to all public libraries in the County, and sent via regular mail and/or e-mail to 27 public agency representatives and approximately 459 stakeholders, including private organizations and individuals. Copies of the Draft EIR were also available for purchase, at reproduction cost, from the County.

The public comment period closed on July 16, 2010, at 5 p.m. A total of 11 letters of comment and a petition including over 1,800 signatures were received on the Draft EIR. In addition, the County hosted six public meetings throughout the County to provide the public with key findings of the Draft EIR and to solicit comments. Section 13, Response to Comments on the Draft Environmental Impact Report, provides responses to letters of comment, to the more than 1,800 petition signatures received, and to comments resulting from the public meetings.

This section of the EIR contains a summary of the distribution list for the Draft EIR and a listing of the parties that provided comments during the public review period. The distribution/respondents list has been divided into seven categories: (1) federal agencies, (2) State agencies, (3) regional agencies, (4) County agencies, (5) local agencies, (6) private organizations and individuals, and (7) public meetings.

13.1 SUMMARY DISTRIBUTION LIST/RESPONDENTS

13.1.1 Federal Agencies

There were no federal agencies identified as responsible or trustee agencies pursuant to the California Environmental Quality Act (CEQA); therefore, the NOA and Draft EIR were not distributed to any federal agencies. No comment letters were received from federal agencies.

13.1.2 State Agencies

Twelve State of California agencies received copies of the NOA and the Draft EIR: California Department of Parks and Recreation; California Department of Transportation (Caltrans); California Environmental Protection Agency; California Coastal Commission; California Natural Resources Agency; California Native American Heritage Commission; California Department of Conservation; California Air Resources Board (CARB); California Integrated Waste Management Board (CIWMB); State Water Resources Control Board; California Water Quality Control Board, Region 4; and OPR State Clearinghouse.

The County received one letter of comment from a State agency:

• OPR State Clearinghouse

13.1.3 Regional Agencies

Six regional agencies received copies of the NOA and the Draft EIR: Los Angeles Unified School District, Antelope Valley Air Quality Management District (AVAQMD), South Coast Air Quality Management District (SCAQMD), Southern California Association of Governments, Sanitation Districts of Los Angeles County, and County of Los Angeles Flood Control District. No comment letters were received from regional agencies.

13.1.4 County Agencies

Four County agencies received copies of the NOA and the Draft EIR: County of Los Angeles Fire Department, County of Los Angeles Sheriff's Department, County of Los Angeles Metropolitan Transportation Authority, and the Los Angeles County Clerk. Each of the five supervisorial districts of the County also received copies of the NOA and the Draft EIR. No timely letters of comment were received from County agencies. The County received one letter of comment after the public review and comment period:

• County of Los Angeles Fire Department

13.1.5 Local Agencies

All 88 incorporated cities in the County received copies of the NOA. All County libraries received a hard copy of the NOA and an electronic copy of the Draft EIR. Ten County libraries received a copy of the NOA and a hard copy of the Draft EIR: Montebello Library, Carson Regional Library, A C Bilbrew Library, Culver City Julian Dixon Library, Agoura Hills Library, Angelo M. Iacoboni Library, Rowland Heights Library, Valencia Library, West Covina Library, and Lancaster Regional Library. The local newspaper, the *Long Beach Press Telegram*, also received a notice for publication. The County received two letters of comment from local agencies:

- City of Palmdale
- City of Pasadena

13.1.6 Private Organizations and Individuals

A NOA of the Draft EIR was sent to approximately 459 private organizations and individuals. The County received five letters of comment from private organizations:

- American Chemistry Council
- Heal the Bay
- Renewable Bag Council
- Symphony Environmental Technologies
- Save the Plastic Bag Coalition

The County received two letters of comment from individuals:

- Mr. Lars Clutterham
- Ms. Hillary Gordon

In addition, the County received a petition from Environment California with signatures from over 1,800 petitioners urging the County to ban plastic carryout bags.

13.1.7 Public Meetings

The County, with technical assistance provided by Sapphos Environmental, Inc., conducted one public meeting in each of the County Supervisorial Districts, totaling six public meetings.

- District 1: June 15, 2010, from 6:00 p.m. to 8:00 p.m. at Yvonne B. Burke Community and Senior Center, 4750 West 62nd Street, Los Angeles, California 90056
- District 2: June 16, 2010, from 6:00 p.m. to 8:00 p.m. at East Los Angeles College, 1700 Avenida Cesar Chavez, Monterey Park, California 91754
- District 3: June 22, 2010, from 6:00 p.m. to 8:00 p.m. at Jackie Robinson Park, 8773 East Avenue R, Littlerock, California 93543
- District 4: June 24, 2010, from 6:00 p.m. to 8:00 p.m. at Los Angeles County Arboretum and Botanic Garden, 301 North Baldwin Avenue, Arcadia, California 91007
- District 5: June 29, 2010, from 6:00 p.m. to 8:00 p.m. Agoura Hills / Calabasas Community Center, 27040 Malibu Hills Road, Calabasas, California 91301
- District 6: July 1, 2010, from 6:00 p.m. to 8:00 p.m. City of Long Beach Employee Development Center, 2929 East Willow Street, Long Beach, California 90806

The meetings were held to address public and agency comments on the Draft EIR. The comments from this meeting are included in Memoranda for the Record, which describe the manner in which the workshops were conducted.

13.2 LETTERS OF COMMENT AND RESPONSES

The letters of comment received on the Draft EIR are presented in this subsection with the comments numbered and annotated in the right margin. Responses to the comments follow each comment letter. All changes and additions to the mitigation measures are made for clarification only.

13.2.1 Federal Agencies

No letters of comment were received from federal agencies.

13.2.2 State Agencies

Office of Planning & Research State Clearinghouse Scott Morgan, Acting Director 1400 Tenth Street, P.O. Box 3044 Sacramento, California 95812 Phone: (916) 445-0613



STATE OF CALIFORNIA GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT DIRECTOR

Arnold Schwarzenegger Governor

July 19, 2010

Mr. Coby Skye Los Angeles County 900 South Fremont Avenue, 3rd Floor Alhambra, CA 91803

Subject: Ordinances to Ban Plastic Carryout Bags in Los Angeles County SCH#: 2009111104

Dear Mr. Coby Skye:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on July 16, 2010, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if-you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Mugan

Scott Morgan Acting Director, State Clearinghouse

Document Details Report State Clearinghouse Data Base

SCH# Project Title Lead Agency	111104 ances to Ban Plastic Carryout Bags in Los Angeles County ngeles County			
Туре	EIR Draft EIR			
Description	 The proposed ban on the issuance of plastic carryout bags consists of an ordinance to be adopted prohibiting certain retail establishments from issuing plastic carryout bags in the unincorporated territories of the County of Los Angeles. The County would also encourage adoption of comparable ordinances by each of the 88 incorporated cities in the County. The proposed ordinances being considered would ban the issuance of plastic carryout bags by any retail establishment that is located in the unincorporated territories or incorporated cities of the County. The retail establishments that would be affected by the proposed ordinances include any that (1) meet the definition of a "supermarket" as stated in the California Public Resources Code, Section 14526.5; or (2) are buildings with over 10,000 sf of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and have a pharmacy licensed pursuant to Chapter 9 of Division 2 of the Business and Professions Code. 			
Lead Agend	cy Contact			
Name	Mr. Coby Skye			
Agency	Los Angeles County			
Phone	626-458-5163 Fax			
omail				
Addross				
Address	000 South Fremont Avenue 3rd Floor			
0.4	Albembra State CA Zin 91803			
City				
Project Loc	ation			
County	Los Angeles .			
City				
Region				
Lat / Long				
Cross Streets				
Parcel No.				
Township	Range Section Base			
Drovimity to				
Highways				
Airports				
Railways				
Waterways				
Schools				
Land Use	-			
Project Issues	Air Quality; Biological Resources; Coastal Zone; Cumulative Effects; Solid Waste; Water Quality; Water Supply; Wildlife; Growth Inducing; Other Issues			
Reviewing Agencies	Resources Agency; California Coastal Commission; Department of Conservation; Department of Fish and Game, Region 5; Department of Parks and Recreation; Department of Water Resources; Resources, Recycling and Recovery; Caltrans, District 7; Regional Water Quality Control Board, Region 4; Regional Water Quality Control Bd., Region 6 (Victorville); Department of Toxic Substances Control; Native American Heritage Commission			
Date Received	06/02/2010 Start of Review 06/02/2010 End of Review 07/16/2010			

Note: Blanks in data fields result from insufficient information provided by lead agency.

Office of Planning & Research State Clearinghouse Scott Morgan, Acting Director 1400 Tenth Street, P.O. Box 3044 Sacramento, California 95812 Phone: (916) 445-0613

Response to Letter

The County of Los Angeles thanks OPR for the July 19, 2010, letter confirming that the State Clearinghouse did not receive any letters of comment from State agencies during the public review period for the Draft EIR. The County of Los Angeles also appreciate that OPR confirmed compliance of the Draft EIR with review requirements for draft environmental documents, pursuant to CEQA.

13.2.3 Regional Agencies

No letters of comment were received from regional agencies.

13.2.4 County Agencies

County of Los Angeles Fire Department 1320 North Eastern Avenue Los Angeles, California 90063 Phone: (323) 890-4330



COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE LOS ANGELES, CALIFORNIA 90063-3294

(323) 890-4330

P. MICHAEL FREEMAN FIRE CHIEF FORESTER & FIRE WARDEN

August 19, 2010

Mr. Coby Skye Department of Public Works Environmental Programs Division 900 South Fremont Avenue, 3rd Floor Alhambra, CA 91803

Dear Mr. Skye:

NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT (EIR), ORDINANCES TO BAN PLASTIC CARRYOUT BAGS IN LOS ANGELES COUNTY (FFER #201000109)

The Notice of Availability has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department. The following are their comments:

PLANNING DIVISION:

1. We have no comments at this time.

LAND DEVELOPMENT UNIT:

1. We have no comments at this time.

FORESTRY DIVISION - OTHER ENVIRONMENTAL CONCERNS:

- 1. The statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division includes erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance.
- 2. The areas germane to the statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division have been addressed.

AGOURA HILLS	BRADBURY	CUDAHY	HAWTHORNE
ARTESIA	CALABASAS	DIAMOND BAR	HIDDEN HILLS
AZUSA	CARSON	DUARTE	HUNTINGTON PARK
BALDWIN PARK	CERRITOS	EL MONTE	INDUSTRY
BELL	CLAREMONT	GARDENA	INGLEWOOD
BELL GARDENS	COMMERCE	GLENDORA	IRWINDALE
BELLFLOWER	COVINA	HAWAIIAN GARDENS	LA CANADA-FLINTRIDGE
			LA HABRA

·····

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

LA MIRADA

LA PUENTE

LAKEWOOD

LANCASTER

LAWNDALE

LYNWOOD

LOMITA

MALIBU MAYWOOD NORWALK PALMDALE PALOS VERDES ESTATES PARAMOUNT PICO RIVERA POMONA RANCHO PALOS VERDES ROLLING HILLS ROLLING HILLS ESTATES ROSEMEAD SAN DIMAS SANTA CLARITA SIGNAL HILL SOUTH EL MONTE SOUTH GATE TEMPLE CITY WALNUT WEST HOLLYWOOI WESTLAKE VILLAC WHITTIER Mr. Coby Skye August 19, 2010 Page 2

HEALTH HAZARDOUS MATERIALS DIVISION:

1. We have no comments at this time.

If you have any additional questions, please contact this office at (323) 890-4330.

. .

Very truly yours,

JOHN R. TODD, CHIEF, FORESTRY DIVISION PREVENTION SERVICES BUREAU

JRT:ss

County of Los Angeles Fire Department 1320 North Eastern Avenue Los Angeles, California 90063 Phone: (323) 890-4330

Response to Comment Letter

The County of Los Angeles appreciates that the County of Los Angeles Fire Department took the time to review the Draft EIR. This letter, dated August 19, 2010, notes that the County of Los Angeles Fire Department does not have any substantive comments on the content of the EIR at this time.

13.2.5 Local Agencies

City of Pasadena Steve Mermell, Assistant City Manager Planning and Development Department 175 North Garfield Avenue Pasadena, California 91101

City of Palmdale Richard Kite, Assistant Director of Planning 38300 Sierra Highway Palmdale, California 93550



PLANNING AND DEVELOPMENT DEPARTMENT

July 14, 2010

Coby Skye County of Los Angeles Department of Public Works Environmental Programs Division 900 S. Fremont Ave, 3rd Floor Annex Alhambra, CA 91803-1331

RE: Review of Draft Environmental Impact Report for Ordinances to Ban Plastic Carryout Bags in Los Angeles County

Dear Mr. Skye,

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for Ordinances to Ban Plastic Carryout Bags in Los Angeles County. The Planning and Development Department staff has conducted a cursory review of the DEIR and does not have any substantive comments on the content at this time, however Pasadena appreciates Los Angeles County assisting local cities in permanently reducing the consumption of plastic and paper single-use carryout bags by providing the environmental analysis necessary for establishing bag reduction ordinances.

1

The City of Pasadena values the opportunity to review the referenced document and supports the concept of placing limitations on the distribution of single-use bags in order to reduce solid waste generation and litter reduction throughout the County. The County's efforts are supportive of the City of Pasadena's adopted Green City Action Plan Goal of achieving zero waste to landfills by 2040.

Should you have any questions regarding this letter, please contact me at (626) 744-6936.

Respectfully submitted,

Steve Mermell Assistant City Manager

SM:us

Cc: Theresa Fuentes, City Attorney

175 North Garfield Avenue • Pasadena, CA 91101-1704 (626) 744-4650 www.cityofpasadena.net City of Pasadena Steve Mermell, Assistant City Manager Planning and Development Department 175 North Garfield Avenue Pasadena, California 91101

Response to Comment No. 1

The County of Los Angeles appreciates that the City of Pasadena took the time to review the Draft EIR. This letter, dated July 14, 2010, notes that the City of Pasadena does not have any substantive comments on the content of the EIR at this time, and supports the concept of placing limitations on the distribution of carryout bags to reduce generation of solid waste and facilitate reduction of litter throughout the County of Los Angeles.



PALMDALE a place to call home

June 30, 2010

James C. Ledford, Jr. Mayor

> Tom Lackey Mayor Pro Tem

LAURA BETTENCOURT Councilmember

> MIKE DISPENZA Councilmember

STEVEN D. HOFBAUER Councilmember

38300 Sierra Highway

Palmdale, CA 93550-4798

Tel: 661/267-5100

Fax: 661/267-5122

TDD: 661/267-5167

County of Los Angeles c/o Department of Public Works Attn: Mr. Colby Skye Environmental Programs Division 900 South Fremont Avenue, 3rd Floor Alhambra, CA 91803

RE: Notice of Availability for the Draft Environmental Impact Report (EIR) for the Proposed Ordinances to Ban Plastic Carryout Bags in Los Angeles County

Dear Mr. Skye:

Thank you for the opportunity to review the above referenced project. In response to your Notice of Availability, staff has reviewed the draft EIR. At this time, the City of Palmdale has no comment on the proposed project.

If you have any questions regarding this matter, please contact Susan Koleda or myself at (661) 276-5200.

Sincerely

Sron Kohola

Richard Kite Assistant Director of Planning

1

RK:sk

cc: Ben Lucha

Auxiliary aids provided for

communication accessibility

upon 72 hours' notice and request.

City of Palmdale Richard Kite, Assistant Director of Planning 38300 Sierra Highway Palmdale, California 93550

Response to Comment No. 1

The County of Los Angeles appreciates that the City of Palmdale took the time to review the Draft EIR. This letter, dated June 30, 2010, notes that the City of Palmdale does not have any substantive comments on the content of the EIR at this time.

13.2.6 Private Organizations and Individuals

American Forest & Paper Association Patrick Rita, Renewable Bag Council Phone: (202) 261-1324

Heal the Bay Sarah Abramson Sikich, Coastal Resources Director 1444 9th Street Santa Monica, California 90401 Phone: (310) 451-1500

Lars Clutterham

Hillary Gordon

Environment California

Symphony Environmental Technologies Plc 6 Elstree Gate, Elstree Way Borehamwood Herfordshire WD6 1JD England Phone: +44 (0)20 8207 5900

Save the Plastic Bag Coalition Stephen Joseph, Counsel 350 Bay Street, Suite 100-328 San Francisco, California 94133 Phone: (415) 577-6660

American Chemistry Council Shari M. Jackson, Director, Progressive Bag Affiliates



July 16, 2010

County of Los Angeles Department of Public Works Attn: Mr. Coby Skye Environmental Programs Division 900 South Fremont Avenue, 3rd Floor Alhambra, California 91803

Dear Mr. Skye:

The Renewable Bag Council (RBC), a subsidiary of the American Forest & Paper Association (AF&PA), appreciates the opportunity to comment on the draft Environmental Impact Report. Members of the RBC manufacture and convert renewable, recyclable Kraft paper used for checkout bags used at grocery and retail outlets in Los Angeles County and across the United States.

First, we commend the Department for commissioning such a comprehensive study. Clearly, considerable effort was made at compiling this draft report.

In reading the findings, we noted with interest that the draft EIR cited plastic industry claims that "paper bags are significantly worse for the environment" and used this assertion to opine that green house gas emissions would increase with a shift to paper. Interestingly, the source for plastics industry claims against paper bags is based on the Boustead study, a comparative life cycle assessment that the American Chemistry Council commissioned to compare the performance of paper versus plastic in the natural environment. As plastics industry claims against paper have begun to proliferate in the wake of numerous governmental efforts to ban plastic bags, the RBC took the initiative to review the Boustead study in depth. What we found is that the plastics industry's own LCA actually concludes that paper bags generate 59 percent fewer green house gas emissions compared to plastics from manufacture to point of disposal. The reason is because the Boustead study is based on the faulty premise that plastic and paper bags have identical capacity, when in fact it typically requires 2 to 3 plastic bags to equal the capacity of a single Kraft paper bag. When comparing the two products under this real world

3

1

<u>Page Two</u>

scenario, not only does paper outperform plastics from a green house gas perspective, but using paper bags results in a 33 percent reduction in fossil fuel use.

In terms of overall environmental performance, we would like to reiterate some of the attributes of our product. First, the paper bag is a recycling success story. Many paper bags contain more than 30 percent recycled material, and in some cases, retailers use bags made of 100 percent recycled paper. Paper bags are highly recyclable and are a fixture in community recycling programs throughout California. In fact, California residents frequently use paper bags as their containers when recycling other paper products such as newspapers, magazines, envelopes, and printer paper. According to the U.S. Environmental Protection Agency, paper bags and sacks boast a national recycling rate of more than 37 percent. For paper bags offered at retail that would be covered by the Los Angeles ordinance, the recycling rate is likely significantly higher as many of these bags are routinely recycled at curbside collection programs in the county.

The paper bag is also compostable as evidenced by its use throughout the country for municipal leaf mulching programs. Paper bags are made from a natural fiber, so they are biodegradable, making them ideal for composting applications. In addition, the paper bag is made from a renewable resource – managed forests – that provides habitat for animals and removes large amounts of carbon dioxide from air we breathe. In its stewardship of these lands, the U.S. forest products industry plants 1.7 million new trees each day. In fact, U.S. Forest Service data show that there is more forest land in this country today than existed in 1953.

The Renewable Bag Council stands ready to work with the Department and County lawmakers in crafting a bag policy that results in measurable litter reduction and real benefits for the environment.

Sincerely,

tuch dits

Patrick Rita Renewable Bag Council

Contact: 202/261-1324 Email: prita@orionadvocates.com 3 cont.

4

5

6

7

8

American Forest & Paper Association Patrick Rita, Renewable Bag Council Phone: (202) 261-1324

Response to Comment No. 1

The County of Los Angeles appreciates that the American Forest & Paper Association, Renewable Bag Council took the time to review the Draft EIR and provide comments in a letter dated July 16, 2010. As noted by the Renewable Bag Council, the Draft EIR is comprehensive, and a considerable amount of time was spent analyzing and evaluating the environmental impacts resulting from the proposed ordinances at issue, as well as a number of reasonable alternatives to the proposed ordinances.

Response to Comment No. 2

Comment No. 2 notes that the Boustead Study referenced in the EIR was commissioned by the plastic bag industry. The County of Los Angeles is aware that the Boustead Study was prepared in 2007 on behalf of the Progressive Bag Affiliates. As discussed in the EIR, including, but not limited to, the description on page 3.1-20, the Progressive Bag Alliance was founded in 2005 and is a group of American manufacturers of plastic carryout bags who advocate recycling plastic shopping bags as an alternative to banning the bags. In 2007, they became the Progressive Bag Affiliates of the American Chemistry Council. The County of Los Angeles has included the results of the Boustead Study in the EIR to present the worst-case scenario of the environmental impacts of the proposed ordinances. However, other studies were analyzed, evaluated, and included in the EIR, including the Ecobilan Study, to ensure a more accurate and comprehensive analysis regarding the environmental effects of plastic versus paper carryout bags.

Response to Comment No. 3

Comment No. 3 states that the conclusions of the Boustead Study can be significantly altered depending on the bag capacity assumptions that are used. Comment No. 3 notes that the capacity of a single Kraft paper bag is typically equal to the capacity of two or three plastic bags. In the interest of being conservative, the County of Los Angeles reasonably assumed that the capacity of a paper carryout bag is equal to approximately 1.5 plastic bags. This assumption is supported by several studies that have noted similar conclusions regarding bag size.^{1,2}

Response to Comment No. 4

Comment No. 4 addresses the recyclable content of paper carryout bags. For the purposes of the proposed ordinances, recyclable paper carryout bags are defined on page 2-5 of Section 2.2.3, Definitions, as containing a minimum of 40 percent post-consumer recycled content.

¹ Franklin Associates, Ltd., 1990. Resource and Environmental Profile Analysis of Polyethylene and Unbleached Paper Grocery Sacks. Prairie Village, KS

² Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Report prepared for: Carrefour Group.

Response to Comment No. 5

Comment No. 5 notes the U.S. Environmental Protection Agency's (USEPA's) statistic, stated in Section 2.0, page 2-14, that paper bags and sacks are recycled at a rate of 36.8 percent nationwide. The County of Los Angeles also acknowledges that paper bags are highly recyclable and are commonly recycled via curbside recycling programs throughout California. The recycling rate of 36.8 percent is used for calculations throughout the EIR based on the USEPA's statistic. The County of Los Angeles is aware that this recycling rate includes all types of paper bags, and that recycling rates for paper carryout bags may be even higher in the County of Los Angeles. If the County of Los Angeles assumed a higher rate of recycling for paper carryout bags, the environmental impacts disclosed in the EIR would be proportionally reduced.

Response to Comment No. 6

Comment No. 6 addresses the biodegradability of paper carryout bags. As discussed in the EIR, including, in but not limited to, page 3.2-18, the County of Los Angeles acknowledges that paper bags are biodegradable and compostable,³ and that they do not persist in the marine environment for as long as plastic bags.⁴ The paper used to make standard paper carryout bags is originally derived from wood pulp, which is a naturally biodegradable and compostable material. Due to the biodegradable nature of paper carryout bags, it is acknowledged that paper carryout bags do not pose the same threat to wildlife as plastic carryout bags and associated microplastics.

Response to Comment No. 7

Comment No. 7 notes the number of new trees planted by the forest products industry. This information is acknowledged for the record.

Response to Comment No. 8

The County of Los Angeles appreciates the Renewable Bag Council's willingness to assist the County of Los Angeles in crafting a carryout bag policy that will result in measureable benefits to the environment. That information is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

³ County of Los Angeles, Department of Public Works. Accessed on: 28 April 2010. *Backyard Composting*. Web site. Available at: http://dpw.lacounty.gov/epd/sg/bc.cfm

⁴ Andrady, Anthony L. and Mike A. Neal. 2009. "Applications and Societal Benefits of Plastics." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1977–1984.



tel 310-451-1500 info@ fax 310-496-1902 www.

info@healthebay.org www.healthebay.org

1

Heal the Bay.

July 16, 2010

County of Los Angeles Department of Public Works Attn: Mr. Coby Skye Environmental Programs Division 900 South Fremont Avenue, 3rd Floor Alhambra, CA 91803 Sent via e-mail (cskye@dpw.lacounty.gov)

RE: Ordinance to Ban Plastic Carryout Bags in Los Angeles County, Draft Environmental Impact Report (SCH # 2009111104)

Dear Mr. Skye:

On behalf of Heal the Bay and our 13,000 members, we thank you for the opportunity to review and provide comments on Los Angeles County's Draft Environmental Impact Report ("DEIR") for an ordinance to ban plastic carryout bags. For over 25 years we have worked to make Southern California's watersheds, including Santa Monica Bay, safe, healthy and clean through science, education, research and advocacy.

From our cleanups in Los Angeles County, plastic single-use bags have been one of the top five most abundant items of plastic debris found on Santa Monica Bay beaches.¹ Despite both voluntary and statewide efforts to implement recycling programs, less than 5% of plastic bags are actually recycled²; the majority end up in our landfills and litter stream, polluting inland and coastal environments. We provide detailed comments below regarding the DEIR for the proposed plastic bag ban policy.

Alternative 4 should be selected as the preferred alternative

We applaud the County for moving forward with evaluating project alternatives that include a ban or fee on both single-use plastic and paper carryout bags. As reflected in the DEIR, plastic carryout bags blight Los Angeles communities and pose local environmental threats. Designed only for single-use, plastic bags have a high propensity to become litter and marine debris. These lightweight bags are easily carried great distances by wind when littered or blown from trash receptacles. As plastic debris makes its way into the ocean via stormdrain systems it becomes a persistent threat to marine life. Although plastic may photodegrade, or breaking into smaller

¹ Heal the Bay Adopt-A-Beach Program, Santa Monica Bay Trash Totals since 1999. Data compiled from Heal the Bay's Marine Debris Database available at: <u>www.healthebay.org/mddb</u>.

² California Integrated Waste Management Board (Available at: www.zerowaste.ca.gov/PlasticBags/default.htm); US EPA 2005 Characterization of Municipal Solid Waste, Table 7.



tel 310-451-1500 fax 310-496-1902

info@healthebay.org www.healthebay.org

1 cont.

2

3

4

5

most ubiquitous alternative to plastic, and as indicated in the DEIR, paper bags also pose broad environmental threats. We support the County's inclusion of biodegradable plastic carryout bags in the DEIR and proposed ordinances. Biodegradable plastic bags do not decompose on land or in aquatic environments. Instead, they require high heat and bacteria, such as those present in industrial

pieces when exposed to sunlight, it never completely biodegrades.³ Over 267 species have been affected by plastic debris, including plastic bags, through ingestion or entanglement.⁴ As the

proposed ordinances. Biodegradable plastic bags do not decompose on land or in aquatic environments. Instead, they require high heat and bacteria, such as those present in industrial composting facilities, to break down into constituents that assimilate back into the environment. If the County allows continued use of biodegradable plastic bags but bans plastic carryout bags, it is likely that retailers will shift to the biodegradable alternative, which will not alleviate the environmental blight and impacts caused by single-use bag litter. Allowance of biodegradable bag alternatives would also likely complicate compliance and enforcement, as it is difficult to distinguish these bags from their synthetic plastic counterparts.

Alternative 4, a ban on plastic (including compostable plastics) and paper carryout bags at supermarkets, pharmacies and convenience stores, is the most environmentally preferable alternative. Regulatory action on both plastic and paper bags is critical in driving the use of the most sustainable option, reusable bags, rather than shifting consumer behavior from plastic to paper carryout bags. This double-pronged approach is consistent with single-use bag ordinances being considered by the Cities of Santa Monica and San Jose.

Alternative 2 should be expanded to include a detailed fee provision

The DEIR evaluates a series of potential project alternatives - including a plastic carryout bag ban, a ban on both plastic and paper bags and a plastic bag ban paired with a paper bag fee – however, its analysis of the fee-based alternatives lacks sufficient detail. Alternative 2 would ban plastic carryout bags and place a fee on paper carryout bags at Los Angeles County retail establishments. We recommend that the County use the studies completed to date to include a paper bag fee of \$0.20 cents or higher in the final environmental impact report analysis for Alternative 2.

Several studies have tested a range of fees from \$0.10 to \$0.25 to gauge consumer behavior change and environmental effects.^{5,6,7} One study found that when a range of fees were compared,

⁴ Laist, D. W. (1997). "Impacts of Marine Debris: Entanglement of Marine Life in Marine Debris Including a Comprehensive List of Species with Entanglement and Ingestion Records." In: Coe, J. M. and D. B. Rogers (Eds.), Marine Debris -- Sources, Impacts and Solutions. Springer-Verlag, New York, pp. 99-139.

www.seattle.gov/mayor/issues/bringYourBag/docs/Report_Executive_Summary.pdf.

³ Thompson, R. C. (2004-05-07). "Lost at Sea: Where Is All the Plastic?,". Science **304** (5672): 843.

⁵ City of Seattle Public Utilities (Jan 2008) "Alternatives to Disposable Shopping Bags and Food Service Items," Prepared by Herrera Environmental Consultants, Inc. Available at:



tel 310-451-1500 fax 310-496-1902 info@healthebay.org www.healthebay.org

5 cont.

6

7

Heal the Bay.

a fee of \$0.25 showed greater environmental benefits (i.e., a reduction in litter, energy use and greenhouse gas emissions) compared to lower levies, a voluntary levy, or retailers' voluntary reusable bag promotion efforts.⁸ A recent Seattle study found that when a ban on plastic bags is implemented without a fee or other instrument to regulate paper, it would result in a 40% shift in the use of paper.⁹ However, when a fee was equally applied to both plastic and paper or used in conjunction with a ban on plastic, the resulting behavior shift favored reusable bags over all other types of bags.¹⁰ The City of Santa Monica also completed a paper bag fee study in January 2010, which found that a \$0.20 fee would be appropriate for the City based on an estimated 50% reduction in paper bags. As demonstrated in these studies, placing a high enough fee on consumers rather than on manufacturers and retailers results in the greatest shift to the use of reusable bags, and increases overall environmental benefit.^{11,12} We urge the County to include a minimum \$0.20 fee on paper bags in the Alternative 2 assessment provided in the final environmental impact report.

The DEIR discourages the selection of Alternative 2 as the preferred alternative by stating that a fee on paper carryout bags has the potential to cause increased administrative costs to the County and grocery stores, which would not be expected to result if a ban were issued.¹³ While Heal the Bay supports Alternative 4 as the environmentally preferable option, we believe Alternative 2 would also result in strong environmental benefits throughout the County. Heal the Bay disagrees with the assessment regarding the administrative costs of Alternative 2, as revenues generated from the fee should be used to offset any costs to the County for implementation and enforcement of the ordinances. Furthermore, a portion of the paper carryout bag fee could be retained (we suggest no more than \$0.05 per bag) at the affected stores to cover any compliance costs.

⁶ Cadman, J. et al. (2005). "Proposed Plastic Bag Levy – Extended Impact Assessment Final Report." Prepared for the Scottish Executive Environment and Rural Affairs Department by AEA Technology Environment.

⁷ Australia Department of the Environment and Heritage (Dec 2002). "Plastic Shopping bags - Analysis of Levies and Environmental Impacts." Prepared by Nolan-ITU Pty Ltd.

⁸ Australia Dept. of Environment & Heritage (Dec 2002). *Plastic Shopping bags - Analysis of Levies and Environmental Impacts*. Melbourne, Australia. Prepared by Nolan-ITU Pty Ltd, Victoria, Australia. 2002., Table 6.2.

⁹ City of Seattle Public Utilities (Jan 2008) "Alternatives to Disposable Shopping Bags and Food Service Items," Prepared by Herrera Environmental Consultants, Inc., Table 6-3.

¹⁰ Ibid.

¹¹ Convery, F., McDonnell, S. et al. (2007). "The Most Popular Tax in Europe? Lessons from the Irish Plastic Bag Levy," *Environmental Resource Economics*, 38:1-11.

¹² Pearce D.W., Turner R.K. (1992) "Packaging Waste and the Polluter Pays Principle: A Taxation Solution." *Journal of Environmental Management Planning* 35(1):5–15.

¹³ Sapphos Environmental, Inc. Ordinances to Carryout Plastic Bags in Los Angeles County, June 2 2010 pg. 4-14



Heal the Bay.

1444 9th Street Santa Monica CA 90401

tel 310-451-1500 fax 310-496-1902 info@healthebay.org www.healthebay.org

The scope of the ordinances and environmental review should be expanded to include a wider range of retailers

The DEIR limits qualifying stores for the proposed ordinances to supermarkets and pharmacies with over 10,000 square feet of retail space. However, the DEIR also states that "… the County is considering extending the jurisdiction of the proposed ordinances to stores that are part of a chain of convenience food stores, including franchises primarily engaged in retailing a limited line of goods that includes milk, bread, soda, and snacks, that have a total combined area of 10,000 square feet or greater within the County." ¹⁴ We support this approach and strongly urge the County to include convenience stores within the affected stores by the ordinances. Heal the Bay volunteers frequently encounter plastic bags from convenience stores at beach and river clean-ups. This approach is consistent with AB 1998, currently being considered by the California's legislature.

We further encourage the County to expand the scope of the ordinances and environmental review to include all retail stores, restaurants, liquor stores, and food vendors that distribute single-use carryout bags since these types of establishments also contribute to the plastic bag proliferation problem.¹⁵ A similar approach was taken by the City of Malibu, where the plastic bag ban ordinance applies to all retail stores, regardless of size.¹⁶ Thus, we strongly urge the incorporation of a broader set of retailers within the scope of the final ordinance. To assist with the education period leading up to the ordinance's effective date and any challenges associated with implementation at smaller stores, we support a phased approach, where the ordinance would apply to large grocery stores and pharmacies before smaller convenience stores. This is similar to the approach taken in AB 1998 and the City of Malibu plastic bag ban.

The definition of reusable bags should be strengthened to avoid promotion of thick boutique-type plastic bags

The current definition for "reusable bag," defined in section 2.2.3, may create a loophole to allow slightly thicker and heavier plastic bags from being sold or distributed in lieu of more

10

¹⁴ Sapphos Environmental, Inc., "Ordinances to Ban Plastic Carryout Bags in Los Angeles County INITIAL STUDY." Prepared for: County of Los Angeles Department of Public Works Environmental Programs Division, December 1, 2009.

¹⁵ S. Lopez. "Awash in the Muck of a Single-Use Society" *Los Angeles Times*, September 12, 2007. Steve Lopez observed wrappers and plastic bags from stores such as 7-Eleven and Circle K floating in Compton Creek. Clearly, convenience stores and other retailers are part of the problem.

¹⁶ The City of Malibu Ordinance to Ban Use of Non-compostable Shopping Bags, adopted May 12, 2008. (available at: <u>http://www.ci.malibu.ca.us/download/index.cfm/fuseaction/download/cid/12168/</u>).



tel 310-451-1500 fax 310-496-1902 info@healthebay.org www.healthebay.org

Heal the Bay.

durable cloth-like or woven polypropylene bags as was the case in San Francisco according to news reports.¹⁷ The DEIR states that the County will consider the inclusion of a performance standard and carrying capacity for reusable bags. Instead of mere consideration, these standards should be included in the reusable bag definition within the environmental impact report and ordinance. The absence of a performance standard and weight capacity in the definition may compromise the durability and potential for reuse of a reusable bag, instead allowing for boutique-type bags to qualify for as a reusable bag. The DEIR demonstrates the environmental impacts of reusable bags to air quality, biological resources, water quality, utilities and service systems and green house gas emissions are further reduced each additional time the reusable bag is used, therefore it is critical that the definition for reusable bag truly reflect reusability.

An example of a more appropriate definition is the following:

"Reusable bag" means a bag that is specifically designed and manufactured for multiple reuse and is either made of cloth or other machine washable fabric or made of durable fabric, and has a lifespan of at least 200 uses, with a carrying capacity of 30 pound per use.

An alternative standard for reusable bags is offered by Green SealTM, an independent, non-profit certification organization, which recommends reusable bags have a minimum lifespan of 300 uses and must be durable enough to withstand typical loads under wet conditions.¹⁸

The program objectives should be strengthened

Given the magnitude of the plastic bag pollution problem, Heal the Bay believes that the program objectives, outlined in section 1.10 of the DEIR, need to be strengthened to adequately address this issue. The DEIR currently includes the following areas in the program objectives:

- Reduce the Countywide consumption of plastic carryout bags from the estimated 1,600 plastic carryout bags per household in 2007, to fewer than 800 plastic bags per household in 2013.
- Reduce the Countywide contribution of plastic carryout bags to litter that blights public spaces Countywide by 50 percent.
- Substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the County population with an environmental awareness message).

11 cont.

 ¹⁷ Gorn, D. "San Francisco"s Plastic Bag Ban Interests Other Cities," National Public Radio, March 27, 2008.
 http://www.npr.org/templates/story/story.php?storyId=89135360 (Retrieved October 26, 2009).
 ¹⁸ Green Seal GS-16 Standard for Reusable Utility Bags. Available at:

http://www.greenseal.org/certification/standards/reusable_utility_bags_gs-16.pdf



tel 310-451-1500 fax 310-496-1902 info@healthebay.org www.healthebay.org

Heal the Bay.

Approximately six billion plastic carryout bags are consumed in Los Angeles County each year. A 50 percent reduction in the status quo would result in the distribution of three billion plastic carryout bags annually throughout the County and would not yield a sufficient reduction in plastic bag pollution. Supermarkets, pharmacies, and convenience stores are the largest providers of plastic carryout bags in the County, therefore banning plastic bags at these retailers would likely generate a much larger reduction of their distribution than 50 percent. Most waterways in Los Angeles County, including the Los Angeles River, Malibu Creek, Ballona Creek, and Santa Monica Bay are impaired for trash. An aggressive target would help the County meet the zero trash TMDL requirements or the receiving water quality standards for those impaired waters. Therefore, we urge the County to set stronger, yet realistic objectives, and aim for a minimum of a 90 percent reduction in plastic bag distribution to adequately address this issue.

Additionally, we encourage the County and its retail partners to move forward with a public education and awareness campaign focusing on the negative impacts of plastic carryout bags and the benefits of reusable bags. However, we believe targeting 50,000 residents is a weak objective. Banning plastic carryout bags is inherently a public education action since the majority of residents shop at grocery, pharmacy and convenience stores, so the ban itself is a major step in raising public awareness about the issue. Furthermore, there are simple and mutually beneficial ways to involve retail partners in educational campaigns, such as notices in store parking lots reminding customers to remember their reusable bags. We encourage the County to set a goal of educating 500,000 residents, or 50 percent of the population about the negative impacts of plastic carryout bags and benefits of choosing reusable bags.

The impacts of single use plastics on biological resources should include a lifecycle component

Heal the Bay strongly agrees with the DEIR's assessment that the proposed ordinances would benefit biological resources in the County. We support the thorough analysis within the DEIR on the potential benefits of the proposed ordinances on biological resources within Los Angeles County, including special-status marine species, riparian species and seabirds.

Although the analysis on plastic bag impacts to biological resources is comprehensive, we encourage the County to expand the analysis to include biological impacts from the entire lifecycle of plastic bags. Many of the potential impacts and benefits from the various alternatives outlined in the DEIR are based on a lifecycle assessment methodology. Therefore, biological impacts associated with various stages within the lifecycle of a plastic bag should also be assessed.

14

15

16

17



tel 310-451-1500 fax 310-496-1902 info@healthebay.org www.healthebay.org

Heal the Bay.

Plastic resin pellets are a key component in the manufacturing process of single use plastic carryout bags and are known to have adverse biological impacts.^{19,20} Plastic resin pellets are often used as feedstock for the manufacture of plastic bags. These plastic resin pellets, also known as "nurdles" are a problematic type of litter due to their small size and persistence in aquatic and terrestrial environments.²¹ Plastic resin pellets are not retained by most trash capture devices and if, improperly managed, have a high propensity to be transported through waterways to coastal environments.²² Once in the environment, they can be mistaken for food by birds and other marine life.^{23,24} Plastic resin pellets have also been shown to adsorb toxic chemicals within the marine environment. For example, concentrations of PCBs and DDE on plastic resin pellets collected from Japanese coastal waters were found to be up to 1 million times higher than the levels detected in surrounding seawater.²⁵ The abundance of plastic pellets in the litter stream is a significant environmental issue that has been addressed by a number of environmental agencies including the EPA²⁶ and Ocean Protection Council.²⁷ In 2007, Heal the Bay-sponsored AB 258 was adopted into law, requiring industrial facilities to implement best management practices to control against the release of nurdles into the environment. This law is currently being implemented by the State Water Resources Control Board, yet compliance rates by plastics manufacturers are unknown. Therefore, Heal the Bay requests the County address plastic resin pellets in their final Environmental Impact Report as a plastic bag related threat to biological resources.

Additional environmental impacts associated with single-use plastic carryout bags should be discussed in the Existing Conditions section and assessed in the EIR

Section 2.3.1 of the DEIR evaluates the existing conditions associated with single-use plastic bags in Los Angeles County. This section discusses recycling and disposal rates of plastic bags

20

¹⁹ Takada, H. et.al. Pellet Watch: Global Monotoring of Perisistant Organic Pollutants (POPs using Beached Plastic Resin Pellets; Marine Pollution Bulletin, Vol 58, Issue 10 Oct 2009.

²⁰ Derraik, J. 2002. The pollution of the marine environment by plastic debris. Mar Pollution Bulleting; 44, 842-852 ²¹ State mater reserves a sentral based 2010 (MEA)

²¹ State water resources control board 2010 (MEA).

²² Ocean Protection Council: An Implementation strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter, Nov. 2008.

 ²³ Derraik, J. 2002. The pollution of the marine environment by plastic debris. Mar Pollution Bulleting; 44, 842-852.
 ²⁴ Ocean Protection Council Resolution on Reducing and Preventing Marine Debris, adopted February 8, 2007.

²⁵ Takada, H. et.al. Pellet Watch: Global Monotoring of Perisistant Organic Pollutants (POPs using Beached Plastic Resin Pellets; Marine Pollution Bulletin, Vol 58, Issue 10 Oct 2009. FEE 2007, as reported in Herrera et al (2008). (MEA).

²⁶ US EPA Office of Water, Plastic Pellets in the Aquatic EnvironmentL Sources and Recommendations Final Report, December 1992.

²⁷ Ocean Protection Council: An Implementation strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter, Nov. 2008.



tel 310-451-1500 fax 310-496-1902 info@healthebay.org www.healthebay.org

Heal the Bay.

and accurately reflects the low plastic carryout bags. However, we also recommend the County discuss the challenges associated with plastic bag disposal, recycling and litter management within this section. There is a lack of available domestic plastic bag recycling markets.²⁸ In fact the majority of plastic bags that are recovered to be recycled are sold to foreign markets, including China.²⁹ In Los Angeles County, over 90% of the bags collected in municipalities surveyed ended up being shipped to a landfill rather than recycled, due to contamination from food or pet waste, and their tendency to jam recycling machinery.³⁰ Furthermore, when plastic bags become litter, they frequently clog trash full capture devices, like catch basins and screens. Plastic bags that block these devices render them ineffective and increase screen maintenance cost and local flood risks. Discussion of these challenges in the final environmental impact report will help reflect the existing conditions and impacts associated with single-use plastic bag usage and management in Los Angeles.

Additional Comments:

• Page ES-5 states "although the No Project Alternative would reduce potential impacts to air quality and GHG emissions compared with the proposed ordinances, impacts to biological resources, hydrology and water quality, and utilities and service systems would be exacerbated, rather than avoided or reduced." The DEIR fails to provide substantiation for a reduction in air quality and greenhouse gas emissions impacts caused by the no action alternative. Currently consumers use both plastic and paper carryout bags at Los Angeles County retail establishments. Without the implementation of a single-use bag ordinance, bag consumption would likely go unchanged, and could potentially be reduced due to non-profit environmental organizations, retail establishments, and local government efforts to promote consumer use of reusable bags.

Conclusion

Local momentum is building throughout the state to ban or place fees on single-use carryout bags. We applaud the County for coordinating with other cities that are in the process of conducting environmental assessments of potential policy action to reduce the distribution of single-use bags, and encourage continued local government coordination. Specifically, we encourage the County to coordinate with the City of San Jose, which has proposed to ban both

20 cont.

²⁸ International Coastal Cleanup 2009 Report. "A Rising Tide of Ocean Debris", p. 9. (Accessed on October 23, 2009).

²⁹ 2007 National Post-Consumer Recycled Plastic Bag and Film Report. Prepared by Moore Recycling Associates, Inc. of Sonoma, CA for the Plastics Division of the American Chemistry Council. <u>Testimony</u> provided by Patty

Moore of Moore Recycling Associates at City of Vancouver Planning Commission Meeting, 7 Oct 2008. ³⁰ Los Angeles County (August 2007). "An Overview of Carryout Bags in Los Angeles County - Staff Report to the

⁵⁰ Los Angeles County (August 2007). "An Overview of Carryout Bags in Los Angeles County - Staff Report to the Board of Supervisors," p. 21.



tel 310-451-1500 fax 310-496-1902

info@healthebay.org www.healthebay.org

22 cont.

Heal the Bay.

plastic and paper bags, and the City of Santa Monica, which has proposed to ban plastic and compostable bags and charge a fee on paper bags.

We urge the County to move forward with Alternative 4 as the preferred alternative and adopt the recommendations outlined in this letter to improve the analyses supporting the final environmental impact report. As zero trash TMDLs and waste diversion requirements draw near, it is even more imperative that the County move expeditiously to implement this critical policy.

Sincerely,

4 Sti

Sarah Abramson Sikich Coastal Resources Director

/s/ Marisa Villarreal Legislative Coordinator Heal the Bay Sarah Abramson Sikich, Coastal Resources Director 1444 9th Street Santa Monica, California 90401

Response to Comment No. 1

The County of Los Angeles appreciates that Heal the Bay took the time to review and provide comments on the Draft EIR in a letter dated July 16, 2010. Comment No. 1 notes that plastic carryout bags have been one of the top five most abundant items of plastic debris found by Heal the Bay on Santa Monica Bay beaches since 1999. Comment No. 1 confirms the information and discussion included throughout the EIR regarding the prevalence of plastic carryout bags in the litter stream and their high propensity to be littered. In addition, Comment No. 1 confirms the discussion in Section 3.2 about the impacts of plastic carryout bag litter on biological resources and its potential to pollute inland and coastal waterways. This discussion states, in part, that although plastics break down into smaller pieces over time, these small plastic pieces never completely biodegrade, and thus pose a threat to marine wildlife.

Comment No. 1 also states that paper carryout bags, like their plastic counterparts, pose threats to the environment. The potential environmental impacts of both plastic and paper carryout bags, as discussed in detail throughout the various subsections of Section 3.0, will be considered by the County of Los Angeles Board of Supervisors during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR. Section 4.0 also studies the potential environmental impacts resulting from alternatives that impose a fee or a ban on the issuance of paper carryout bags.

Response to Comment No. 2

Comment No. 2 conveys support for a ban on biodegradable plastic carryout bags as part of the proposed ordinances. Comment No. 2 asserts that biodegradable plastic bags do not decompose on land or in aquatic environments, but require high heat and bacteria similar to the environment of industrial composting facilities, a point that is noted in Section 4.1 and Appendix B. Comment No. 2 also asserts that biodegradable bags would not alleviate the environmental blight and impacts from bag litter, another point that is discussed in Section 4.1 and Appendix B. The information related to biodegradable bags is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 3

Comment No. 3 notes Heal the Bay's preference for Alternative 4 as the most environmentally preferable alternative. Comment No. 3 also notes that regulatory action for both plastic and paper bags is important to encouraging reusable bag use, rather than shifting consumer behavior from plastic to paper carryout bags, with this approach being consistent with ordinances being considered by the Cities of Santa Monica and San Jose. The efforts of both cities were considered during preparation of the EIR. As described in Section 4.2.5, Alternative 4 proposes to ban the issuance of plastic and paper carryout bags at all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores in the County of Los Angeles. The County of Los Angeles developed Alternative 5, which is a hybrid of Alternatives 2, 3, and 4, to ensure a maximum environmental benefit from a fee on the issuance of paper carryout bags and to mitigate

greenhouse gas-related impacts from a shift to paper bag usage to the greatest extent feasible. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores, with no limits on square footage or sales volumes in the County of Los Angeles. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. The analysis of Alternative 5 has been added to Section 4.0 (see Clarifications and Revisions to the Draft Environmental Impact Report, Section 12.2). The commenter's preference for Alternative 4 as the environmentally preferable alternative is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 4

Comment No. 4 recommends that the analysis of Alternative 2 in Section 4.2.3 be expanded to include a more detailed analysis of the implementation of a fee. As described in Section 4.2.3, Alternative 2 proposes to ban the issuance of plastic carryout bags and impose a fee on the issuance of paper carryout bags in the County of Los Angeles. The EIR discusses fees and bans in place for plastic and/or paper carryout bags, including in, but not limited to, Section 2.2.4. So that there may be a maximum environmental benefit realized from a fee on paper carryout bags and to mitigate impacts related to greenhouse gas (GHGs) emissions from a shift to paper bag usage to the greatest extent feasible, the County also developed Alternative 5, which is a hybrid of Alternatives 2, 3 and 4. Alternative 5 would ban the issuance of plastic carryout bags and place a fee of at least \$0.05 on the issuance of paper carryout bags at all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores. The analysis of Alternative 5 has been added to Section 4.0 (see Section 12.2). The analysis of Alternative 5 acknowledged the effectiveness of fee or charge of at least \$0.05, based on the effects of the fee implemented in Washington, DC, which resulted in an 86-percent decrease in the number of carryout bags used in the first month after the fee was implemented.⁵ Accordingly, any amount over \$0.05 could reasonably be expected to better deter the use of paper carryout bags. Comment No. 4 recommends that the County of Los Angeles apply a fee of \$0.20 or higher for paper carryout bags. This suggestion is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 5

Comment No. 5 discusses the various completed studies that have tested a range of fees on carryout bags. The studies referenced were considered during preparation of the EIR and are part of the record. An additional statement has been added to Section 4.2.3.3, Comparative Impacts, for the analysis of Alternative 2 in the EIR discussing the effectiveness of a fee greater than \$0.05 at encouraging a transition to reusable bags (see Section 12.2).

Response to Comment No. 6

Comment No. 6 notes that the Draft EIR appears to discourage the selection of Alternative 2 based on increased administrative costs to the County of Los Angeles and grocery stores, and that Alternative 2 would result in strong environmental benefits throughout the County of Los Angeles. The inclusion of public scoping comments relating to a fee were included in the discussion of

⁵ ABC News. 30 March 2010. "Nickel Power: Plastic Bag Use Plummets in Nation's Capital." Available at: http://abcnews.go.com/Politics/plastic-bag-plummets-nations-capital/story?id = 10239503

Alternative 2 in Section 4.2.3 to present a full record of the issues raised, and were not intended to discourage the consideration or selection of any alternative. The environmental benefits of Alternative 2, along with any beneficial or adverse socioeconomic impacts, will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 7

Comment No. 7 notes that Alternative 2 would generate revenues that should be used to offset any costs to the County of Los Angeles for implementation and enforcement of the proposed ordinances. This would be true if the County of Los Angeles elects to remit a portion of any potential fee to the County of Los Angeles. In Section 4.2.3.3, the County of Los Angeles acknowledges that revenues from the implementation of a fee on the issuance of paper carryout bags could be used for County of Los Angeles programs such as litter clean up, recycling, or public awareness campaigns. However, as noted in public scoping comments received from grocery store representatives, placing a fee on the issuance of paper carryout bags could result in increased administration costs to grocery stores and a reduction in checkout speed. Their comments were included for the benefit of a complete record.

Comment No. 7 also suggests that a portion of the paper carryout bag fee be retained at the affected stores for compliance costs. The suggestion is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 8

Comment No. 8 addresses the range of retailers included in the proposed ordinances and encourages the County of Los Angeles to expand the scope of the proposed ordinances to include convenience food stores. Comment No. 8 notes that Heal the Bay frequently encounters plastic carryout bags from convenience stores at beach and river cleanup events. That information and the suggestion to include convenience stores is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR. The EIR analyzes the potential environmental impacts of Alternatives 3 and 4, which include a ban on the issuance of plastic carryout bags at a wide range of stores, including convenience stores. In addition, as a result of this and other comments, the County of Los Angeles has developed Alternative 5, which is a hybrid of Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volume. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. The analysis of Alternative 5 has been added to Section 4.0 (see Section 12.2).

Response to Comment No. 9

Comment No. 9 urges the incorporation of a broader set of retailers within the scope of the final ordinance and indicates a preference that all retail stores, restaurants, liquor stores, and food vendors that distribute carryout bags be included in the range of retailers affected by the proposed ordinances. As indicated in Alternatives 3 and 4 and hybrid Alternative 5, the EIR does study the environmental impacts resulting from an expanded scope of any proposed ordinance to a broader set of retailers, including all supermarkets and other grocery stores, convenience stores,

pharmacies, and drug stores in the County of Los Angeles. The recommendation to expand the scope of the final ordinance is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 10

Comment No. 10 states support of a phased approach where the proposed ordinances would apply to large grocery stores and pharmacies before they apply to smaller convenience stores. The suggestion is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR. The County of Los Angeles has also analyzed an alternative to the proposed ordinances (Alternative 5) that would apply to large grocery stores and pharmacies before smaller grocery stores, convenience stores, and drug stores. The analysis of Alternative 5 has been added to Section 4.0 (see Section 12.2).

Response to Comment No. 11

Comment No. 11 suggests that there may be a potential "loophole" in the definition of "reusable bag" in Section 2.2.3 that could allow slightly thicker and heavier plastic bags to be sold or distributed. The County of Los Angeles is aware of the potential problem that may be caused if slightly thicker and heavier plastic bags were distributed instead of more durable reusable bags. In response to comments received from the public, including Comment No. 11, the definition of reusable bags has been modified in Section 2.2.3 to include a requirement for reusable bags to have a minimum lifetime of 125 uses (see Section 12.2).

Response to Comment No. 12

Comment No. 12 pertains to the inclusion of a performance standard and carrying capacity for reusable bags in the definition of a reusable bag described in Section 2.2.3. In response to comments received from the public, including Comment No. 12, the definition of reusable bags has been modified in the EIR to include a requirement for reusable bags to have a minimum lifetime of 125 uses and a volume of at least 15 liters (see Section 12.2).

Response to Comment No. 13

Comment No. 13 reiterates the program objectives outlined in Section 2.4.2, and recommends that the program objectives be strengthened. The Countywide objectives do not suggest a limit on the success of any reduction efforts to the minimum levels established by the objectives. The County of Los Angeles Board of Supervisors will evaluate the program objectives during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 14

Comment No. 14 expresses support for a minimum 90-percent reduction in plastic carryout bag distribution to assist with the zero-trash total maximum daily loads requirements. A 90-percent reduction in distribution of plastic carryout bags may not be a feasible objective for the proposed ordinances if they were applied only to stores within the unincorporated areas of the County of Los Angeles that (1) meet the definition of a "supermarket" as found in the California Public Resources Code, Section 14526.5, or (2) are buildings that have over 10,000 square feet of retail space that
generate sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and have a pharmacy licensed pursuant to Chapter 9 of Division 2 of the Business and Professions Code. However, the County of Los Angeles may be able to achieve a more aggressive target of reductions in plastic carryout bag distribution if the scope of the proposed ordinances were expanded to include all supermarkets, pharmacies, and convenience stores within the County of Los Angeles, with no limits on square footage or sales volumes, as part of Alternatives 3, 4, and hybrid Alternative 5, which are discussed within Section 4.0. The County of Los Angeles Board of Supervisors will consider Alternatives 3, 4, and 5 during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 15

Comment No. 15 notes that the objective of the County of Los Angeles to target a minimum of 50,000 residents with a public education and awareness campaign could be strengthened. As previously stated, the current objectives are not intended to be limitations, and they do not suggest that the success of any public education and awareness efforts cannot exceed the minimum levels currently contained in the Countywide objectives. The County of Los Angeles Board of Supervisors will evaluate the program objectives during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 16

Comment No. 16 suggests that the public education and awareness campaign should target 500,000 residents of the County of Los Angeles, or 50 percent of the population. Comment No. 16 notes that placing notices in store parking lots reminding customers to use reusable bags could be a simple yet effective way to increase public education and awareness. The suggestions are acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 17

Comment No. 17 supports the analysis and conclusion in Section 3.2 stating that the proposed ordinances would benefit biological resources.

Response to Comment No. 18

Comment No. 18 recommends expanding the analysis in Section 3.2 to include biological impacts from the entire lifecycle of plastic carryout bags. The County of Los Angeles reviewed several life cycle assessments during preparation of the EIR, and discussed a broad range of life cycle impacts throughout the subsections in Section 3.0. The County of Los Angeles is aware that life cycle impacts of plastic carryout bags, such as impacts on water quality, have the potential to cause indirect impacts to biological resources. The County of Los Angeles Board of Supervisors will consider this comment during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 19

Comment No. 19 addresses the potential impacts of plastic resin pellets (nurdles) to biological resources, and notes that plastic resin pellets are often used for the manufacture of plastic bags.

As noted in the comment, Assembly Bill 258 requires industrial facilities to implement best management practices (BMPs) to control the release of plastic resin pellets into the environment, but this issue is beyond the scope of the proposed ordinances. However, the County of Los Angeles is aware of the potential environmental impacts of plastic resin pellets and recognizes that the proposed ordinances may play a role in the reduction in use of plastic resin pellets by the plastic bag industry. An additional statement about the threat of plastic resin pellets to biological resources has been added to Section 3.2 (see Section 12.2).

Response to Comment No. 20

Comment No. 20 recommends that the discussion in Section 2.3.1 be expanded to discuss the challenges associated with plastic bag disposal, recycling, and litter management. Comment No. 20 notes the lack of available domestic plastic bag recycling markets. Comment No. 20 also notes that in the County of Los Angeles, over 90 percent of the bags collected in municipalities surveyed were shipped to a landfill rather than recycled, due to contamination from food or pet waste, and their tendency to jam recycling machinery. That information is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 21

Comment No. 21 notes that the potential reduction in impacts to air quality and greenhouse gas emissions caused by the No Project Alternative lacks substantiation in Section ES.6. As discussed in Sections 3.1 and 3.3, there is a potential for indirect increases in the emission of certain air pollutants and greenhouse gases as a result of the proposed ordinances, should there be a shift to paper carryout bags, due to the life cycle of paper carryout bags. Therefore, it was concluded that the No Project Alternative would result in less indirect emissions of certain air pollutants (while increasing the emissions of others) and less indirect emissions of greenhouse gases in comparison to a shift to paper carryout bag usage resulting from the proposed ordinances, due to the fact that the No Project Alternative would not result in an increase in distribution of paper carryout bags. The comparative impacts of the No Project Alternative are discussed in detail in Section 4.2.1.

Response to Comment No. 22

Comment No. 22 supports coordination with other cities regarding proposed ordinances to ban or place fees on single-use carryout bags. The County of Los Angeles has coordinated with a number of cities regarding this issue, beginning with the Voluntary Single Use Bag Reduction and Recycling Program, and will continue coordination with cities during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR. In addition, Comment No. 22 indicates a preference for adoption of Alternative 4. As noted in the response to Comment No. 3, the preference is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Public Comment on the Draft Environmental Impact Report

My name is Lars Clutterham. I am a resident of Downey, and my comments here reflect those I made at the public hearing on July 1, 2010, simply from my perspective as a concerned and involved citizen of the greater Los Angeles community.

I'd like to thank the L.A. County DPW Environmental Programs Division and Sapphos Environmental, Inc., for their diligence in creating such a thorough report. Also thank you to the L.A. County Board of Supervisors for having the foresight to raise the issues addressed in the report.

My brief comments include four areas of observation narrowing in focus to my own personal experiences with reusable grocery bags, and a conclusion based on that perspective.

First, as a citizen I am outraged at the egregious obstructionism displayed by the Coalition to Save the Plastic Bag as evidenced not only by its comments in this report, but also in its public statements, including a recalcitrant telephone presence at LADPW Single-Use Bag Reduction Working Group meetings. The Coalition has created a sea of red herrings in its ongoing efforts to thwart the public's interest solely for the purpose of saving its own industry. (There is one exception, to which I'll return in conclusion.) Any reasonable person can see through the false premises, fallacious arguments, and dilatory questions posed by the Coalition, not only in this report, but also on its website.

Second and third, a word about the political climate with respect to plastic bag reduction in Downey, my city of residence, and about my own efforts within the city structure to effect change:

In October 2008, Downey City Council rejected a proposal for a citywide ban on plastic bags, holding the issue over for an as yet to be appointed Green Task Force. The following spring I was appointed as a volunteer member of that same task force, which was commissioned for a one-year term by City Council.

I volunteered to chair an education subcommittee within the task force, charged with finding meaningful educational opportunities outside the sphere of city regulation. After several months of lip service within the task force to the concept of educating through the schools, I approached the Superintendent of the Downey Unified School District directly and obtained permission to create a pilot program at one school in the district for the purpose of teaching the environmental benefits of reusable bags, provided it had the approval of the school's principal. After approaching the Green Task Force with this proposal, its endorsement was recommended to and approved by City Counsel.

In January 2010, a three-tier program was initiated at one Downey elementary school. It began with a full day of instruction including presentations to each grade level, K-5, after which every student received a reusable grocery bag. The second tier was a 1^{1/2}-week school-wide bag redemption program during which approximately 12,000 single-use plastic bags were turned in by students for an additional 1,200 reusable bags awarded to the students. The third tier was a bag decoration contest culminating in an assembly on the 40th anniversary of Earth Day, at which prizes were awarded for all grade levels. (Late in the school year a second school in the district also experienced a day of instruction, including the distribution of reusable grocery bags to

all participating students. I fully expect this program to expand within the school district in the upcoming school year.)

Four area supermarkets were approached to provide reusable bags in support of this program, yet only one, Stater Bros., made \$25 available for the purchase of bags, at market price. Moreover, one aspect of City Council's endorsement of the program authorized the purchase of up to 1,000 bags to support it. Yet the city never made any effort to purchase the bags that Council had approved. Consequently, the entire pilot project was supported exclusively by private donations.

This experience, as well as recent statements from at least one City Council member, leads me to conclude that the current political/business climate in the City of Downey is not conducive to regulatory change where the reduction of single-use plastic bags is the issue.

Fourth, as a way of bringing a personal perspective to my views on this issue, I have a collection of reusable shopping bags, which I displayed at the July 1 public hearing. The first is a bag I acquired while a music student in Paris, France, in 1970. It's made from woven string, and the French call it a "filet." Though it's not as large as a typical American grocery bag, it was big enough during my time in Paris to do one day's shopping for two at the local market.



I also have 3 cotton reusable grocery bags purchased from major grocery chains in San Diego more than 20 years ago, less then a decade after single-use plastic bags came into widespread usage. Even then these bags displayed the phrases "Join the Lucky Environmental Savings Plan" and "Together we can do it . . . CARE: Consumer Action to Restore the Environment," suggesting an early awareness of the environmental toll of carryout grocery bags.



4 cont.

Sadly, I did not recognize at the time the wisdom of using these now 40- and 20+year-old bags continuously, though I am using them again today. That recognition came about 5 years ago, when my wife and I purchased pocket reusable bags from the Pacific Whale Foundation, a non-profit devoted to preserving the world's oceans.





Since about then, both my wife and I have used reusable bags exclusively for all our shopping. At the public hearing on July 1, I lastly displayed 2 reusable bags that I've been using constantly for about the last 3 years. Each of them has had at least 125 uses, counting conservatively, and I anticipate they've got 3 more years of continuous use.



4 cont.

In conclusion, while I have always made some effort towards being environmentally responsible, I have become a strong advocate for reusable bags over the past several years since fully recognizing the astonishing and frightening impact of throwaway bags on local, regional, national and global environments. In this conviction I belong to a very small minority, as bag recycling statistics and public attendance at these very hearings attest. Neither the general public nor local government in my home community shows any real concern over the horrific environmental costs of this practice. It may have had its day, but the tradition of single-use bags for public shopping needs to give way to a more sustainable practice for the future. In all enterprise, technology and tradition become outmoded and are superceded by new products and practices, as in my own profession, the field of music, where the ophicleide (which you've probably never heard of) gave way to the saxophone. Plastic bag manufacturers, such as those represented by the Coalition to Save the Plastic Bag need to retool to provide more responsible products. The Coalition, in the midst of all its specious argumentation, makes one good point: paper bags are not an environmentally acceptable alternative to carryout plastic bags. Their environmental costs are also too high. Therefore, for the good of all citizens of Los Angeles County, and to demonstrate the public leadership that smaller cities such as my own community of Downey so desperately need (even though they may not recognize it), I want to close by expressing my heartfelt wish that the Los Angeles County Board of Supervisors will implement Alternative 4 of the DEIR, banning plastic and paper carryout bags for all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores in Los Angeles County.

I thank you for your time and for your consideration of my comments.

Lars Clutterham July 15, 2010

Lars Clutterham

Response to Comment No. 1

The County of Los Angeles appreciates that the commenter took the time to review the Draft EIR and to provide comments on the document and the proposed ordinances at issue. Comment No. 1 expresses appreciation to the County of Los Angeles for preparing the EIR and to the Board of Supervisors for raising the issues addressed in the EIR. Comment No. 1 notes the commenter's displeasure with the actions of the Save the Plastic Bag Coalition regarding reduction efforts for plastic carryout bags. The commenter states that the ban on plastic carryout bags is in the public's interest and that the effort is being disrupted by Save the Plastic Bag Coalition's efforts and opposition to the ban for the purpose of saving its own industry. This comment is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 2

Comment No. 2 discusses a pilot program implemented at an elementary school in the City of Downey designed to educate students about the benefits of reusable bags by allowing students to redeem plastic carryout bags for reusable bags. While this comment is outside of the scope of CEQA in relation to the EIR, the County of Los Angeles commends the commenter for participating in the pilot program, and hopes that such a program will be expanded within the Downey Unified School District in the future. The County of Los Angeles Board of Supervisors will consider this comment during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 3

Comment No. 3 notes that the pilot reusable bag education program implemented at the elementary school in the City of Downey was supported exclusively by private donations. Comment No. 3 asserts that City of Downey is not likely to regulate the distribution of plastic carryout bags. As discussed in Section 2.4.2, one of the objectives of the proposed ordinances is to collaborate with all 88 incorporated cities of the County of Los Angeles to encourage adoption of comparable ordinances to ban the issuance of plastic carryout bags in their respective cities.

Response to Comment No. 4

Comment No. 4 describes and provides images of several types of reusable bags that the commenter has used throughout his lifetime as alternatives to plastic carryout bags, and notes that several of the reusable bags are at least 30 to 40 years old, and that some have been used as least 125 times. In addition, Comment No. 4 states that the particular bags demonstrated are anticipated to be able to withstand 3 more years of continuous use. The information regarding durability of reusable bags and the potential number of uses of reusable bags will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 5

Comment No. 5 conveys the commenter's support for reusable bags and his discomfort with the lack of concern from the general public and local government in his home community regarding

the environmental impacts of carryout bags. As discussed in Section 2.4.2, one of the objectives of the proposed ordinances is to substantially increase the public's awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and to reach at least 50,000 residents (5 percent of the population) with an environmental awareness message. The County of Los Angeles also intends to conduct outreach to all 88 incorporated cities of the County of Los Angeles to encourage adoption of comparable ordinances to ban the issuance of plastic carryout bags in their respective cities.

Response to Comment No. 6

Comment No. 6 conveys the commenter's support for implementation of Alternative 4 and opinion that paper carryout bags are not an environmentally acceptable alternative to plastic carryout bags. The EIR does study the potential environmental impacts of paper carryout bags in light of the proposed ordinances, as well as the potential environmental impacts that would result from several reasonable alternatives. As described in Section 4.2.5, Alternative 4 proposes to ban the issuance of plastic and paper carryout bags at all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores in the County of Los Angeles. In addition, as described in Section 4.2.3, Alternative 2 also evaluates the potential environmental impacts resulting from placement of a fee on the issuance of paper carryout bags, and notes that the potential environmental impact would indeed be less, considering evidence showing that fees are highly effective in reducing the number of carryout bags used. The greater number of stores at which a fee is implemented, the greater the reduction in potential environmental impacts. The County of Los Angeles has developed an alternative (Alternative 5) that combines Alternatives 2, 3, and 4 to maximize the environmental benefit from a fee on the issuance of paper carryout bags and to mitigate, to the greatest extent feasible, potential greenhouse gas-related impacts resulting from a shift to paper carryout bag usage. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. Section 4.0 has been modified to include the environmental analysis of Alternative 5 (see Section 12.2). The commenter's preference for Alternative 4 is noted for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Hillary Gordon 1823 Camden Ave. #2 Los Angeles, CA 90025 hillgordon@verizon.net

July 16, 2010

County of Los Angeles Department of Public Works Attn: Mr. Coby Skye Environmental Programs Division 900 South Fremont Avenue, 3rd Floor Alhambra, CA 91803 Sent via e-mail (cskye@dpw.lacounty.gov)

Dear Coby Skye,

Thank you for the opportunity to submit comments on the DEIR for Los Angeles County's proposed ban on single-use plastic carryout bags.

I commend the County for tackling this very important issue. I appreciated having the opportunity to attend a public scoping meeting, at which I offered verbal comments. At this time I would like to just make a very brief statement for the written record.

Having now had a chance to read through the DEIR, I would like to voice my support for Alternative 4. While the County is to be commended for proposing the ban on plastic carryout bags, I feel that this, while a good start, does not go quite far enough in addressing the various environmental impacts of the use of any kind of single use bag, whether that be paper or plastic. While I agree that it is absolutely essential that we immediately ban the use of plastic bags, as proposed by this ordinance, I also believe that we must begin to at least phase out, if not entirely eliminate, the use of paper bags as well. As the EIR notes, the production and use of paper bags also has environmental consequences, especially with respect to GHG emissions and the potential impact on solid waste disposal in landfills. As a Zero Waste activist, I firmly believe that we must quickly wean consumers off not only plastic, but paper bags as well. Reusable bags are easily accessible, and if made with safe and durable materials (something that the County should actively pursue, regulate, and enforce), have a life span far in excess of the number of uses noted in the DEIR. I have cloth bags that I have been using for many, many, years; moreover, when, if ever, they reach the end of their lives they will not end up in the trash, but their material will be reused and refashioned for some other purpose.

I recognize that the typical L.A. County shopper has become used to the idea of getting bags at the point and time of purchase. It will undoubtedly take some encouragement to get those consumers into the habit of bringing their own reusable bags to the store every time they shop. But the time for relaxed encouragement has passed. I believe that the time has come for that encouragement to come in the form of a complete ban on single-use bags, both paper and plastic.

Thank you,

Hillary Gordon

2

3

Hillary Gordon

Response to Comment No. 1

The County of Los Angeles appreciates that the commenter took the time to review the Draft EIR and to provide comments. Comment No. 1 expresses the commenter's gratitude to the County of Los Angeles for addressing this important issue, and conveys the commenter's support for implementation of Alternative 4 due to the concern for potential greenhouse gas emissions and solid waste impacts of paper carryout bags. As described in Section 4.2.5, Alternative 4 proposes to ban the issuance of plastic and paper carryout bags by all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores in the County of Los Angeles. The commenter's preference for Alternative 4 is noted for the record and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 2

Comment No. 2 pertains to the use of reusable bags. The EIR, specifically including, but not limited to, Section 2.3.3, discusses the use and lifespan of reusable bags. The County of Los Angeles acknowledges that the EIR conservatively assumed a low number of uses of reusable bags in order to evaluate the environmental impacts in a worst-case scenario. Comment No. 2 also recommends that the County of Los Angeles should impose and enforce a standard for reusable bags has been modified in Section 2.2.3 to include a requirement for reusable bags to be designed for a minimum of 125 uses to minimize the potential environmental impacts from reusable bags (see Section 12.2). The measures that will be used to enforce the proposed ordinances will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 3

Comment No. 3 encourages the County of Los Angeles to comprehensively ban both paper and plastic carryout bags. The commenter's preference is part of the record and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.



Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely.
ENVIRONMENT CALIFORNIA	Print name Adrian Munabi Street City State 2019 E-mail Phone () Volunteer?	ENVIRONMENT CALIFORNIA	Print name Ellen Keek Street City Chapleston State SC zip 29403 E-mail Phone (
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than T million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch , a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.
Environment CALIFORNIA	Sincerely, Print name Migrel Barrera Street City Scarrer Cales State CA 109 9704723 E-mail Phone Volunteer?	Enterand School of the Partie Gerbage Parts ENVIRONMENT CALIFORNIA	Sincerely, Print name Clarife ZCIMS Street City SKKEMAN COLOS State CA ZIP 9/423 E-mail Phone () Volunteer?
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.
Environment CALIFORNIA	Sincerely, Print name LaKingol Thomas 2 Street City L.A State C.A. ZIP 900132 E-mail Phone Volunteer?	Sciences de of the Audit Gordoge Auch ENVIRONMENT CALIFORNIA	Sincerely, Print name STER HANIE DOLAN Street City State ZIP E-mail Phone () Volunteer?



Linemand Line of the Profile Gerbage Plant

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name BERNADICITE 17872 AR829 Street City LDS AN BELES State CA ZIP 90066 E-mail Phone (Volunteer?



Estimated size of the Paul Gorboge Palch

ENVIRONMENT CALIFORNIA For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

. ancin	-
Sincerety, R Cloud	
Print name	
Street	
City CIF State C CC	ZIP
E-mail	
Phone (Volunteer?



ENVIRONMENT

Sincerely, VELA STEINPER6 Print name Stree State CA -91604 City STUDIO CITY 719 E-mail Phone Volunteer?

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban

Sincerely,	1.		
Print name NAUC	5 GALA	6	
Street City L-A	State C4	21P	90066
Phone ()			Volunteer?



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban

Sincerely,	6.201	oly	vida	t	
Yint name	CITA	e La	111110	A	
itreet S	lidu G	Al State	CU+ ZIP	GILOUY	
-mail					
hone (),	1		Volunteer?	

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban







Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely Print name and r averilla Street CA IP GOLZ City 61 State E-mail Volunteer? Phon

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban

Sincerely, Print name Margarita Roja S	
Street	ap. 90033
E-mail Phone	Volunteer?



ENVIRONMEN

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way In taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

	Sincerely, Print name 2	MARIA	Jan	in	/
	Street City A	State	CA	ZIP	2002/
١	E-mail Phone (Volunteer?



State CA

SM

City

E-mail

Phone

ENVIRONMENT

91405

Volunteer?

ENVIRONMENT CALIFORNIA

about

E-mail

LUDY MILLARC, Le Lotystate CA THE GIGDY Volunteer?





carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely



Leonardo Ortean Print nam Street City Cilenstelle State CA 118 912 11C E-mail Phone (Volunteer?





ACTIVITY OF	1000
	>
ENVIRO	NMENT
CALLE	ODMIA
UALIT	UNNIA

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than T million seabirds and 100,000 mammals and sea turties each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	nar - sesa				
Print name	Osval	do	LOP	ez	
Street					
City LA		state	CA	ZIP	90079
E-mail					
Phone					Volunteer?



ENVIRONMENT

Sincerely, Adue Fants Sincerely, Print name SAUL Var,925 Street City L, A State C. A DP 9 0.033 E-mail Phone Volunteer?

Sincerely, Print name Rob Schor VV Street City Goi Wes ville, State FL ZIP 32408 E-mail Phone Volunteer?



around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

	Sincerely,	71 - 1	0
	Print name	Wen Jale	STOGS
	Street	10 Mucodate CA	10 91606
۸.	E-mail	J	
ı	Phone {)	Volunteer?

ENVIRONMEN

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, riAN Cuphar Print nan Street AngelC, state (14 an Los 710 4001 7 E-mail Volunteer?

ENVIRONMENT



Sincerely,

Print nam Street

Gty (

E-mail . Phone (

ENVIRONMENT

Sullor

05 Aug asinto (A 110 GOOSY

Volunteer?

Print name Stephen	Vincena	
Street Austoles	in (A	m 90029
City Der 17 nger G	State C/	//p /00- /

ENVIRONME



Volunteer?

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely

Steel (ity)

E-mail





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, Print na City E-ima Phone (Volunteer?



carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Q. TP 9163

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow. of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Debbie West	eer
Street	
iny Heediclisting (an n	91604
E-mail	
Phone (Volunteer?

Great Pacific Cleanup



ENVIRONMEN ALIFORM

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, C	5.00	-1-	
Print name	MIS C	all n	
Street	101		
City SUL	lotty	State CA.	TH 9401
E-mail			
Phone (_)		Volunteer?



Volunteer?

ENVIRONMENT LIFOR

Sincerely, 1. yenth

Print nam Street 10 110 City E-mail Phone



Dear Los Angeles County Board of Supervisors.

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife; Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT LIFORN

Sincerely, Print name MATHEW SPARROW Street City LOS ANGELES STATE CAL IN 40038 E-mail Volunteer7



ENVIRONMENT

LIFOR

Print

City

E-mail

Phone I



ENVIRONME

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

	Sincerely, Print name	Keya	Masi	sn	
-	Street City Santo	Honica	State OA	711 90403	
A	E-mail Phone (Volunteer?	



	Sincerely,	1.1.1	2
	Print name Mnna	Mour	id i an
	Street	902.4	0/10000
π	City No 170	_State_C/f	DP 91605
IA	E-mail		
	Phone		Volunteer?

single-use plastic grocery bags.

in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, Heather Clumba Print name Street City D. E-mail Phone



ENVIRONME



ENVIRONMENT

Print name Anthony Villa Street City You Whay's state CA 11991405 E-mail Volunteer Phone

For decades, billions of pounds of plastic and other trash have been around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow in taking on this sea of plastics. I urge you to take action to ban

Sincerely, Print name Cassie Bought	on
Street City Sheiman Daksstate (A	71 91423
E-mail Phone (Volunteer?



ENVIRONMENT

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking of this sea of plastics. I urge you to take action to ban

Sincerely,	ſ	11 !	
Print name 2 C	e L	WTH FI	æ
Street Stalo	Monster	-12/19	0405
E-mail		-	
Phone (Volunteer?



Sincerely.

Print name

Street

E-mail

Phone

ENVIRONMENT

Gabriel Burgy -Mohn

Volunteer?

City Los Angeles state CA 21 90626

Sincerely, MaCAPEL TODDES Print name Street City HOLLIDDA State CA 710 MUD28 E-mail Phone (Walunteer? M

ENVIRONMENT

LEOR



ENVIRONMEN

CALIFORN

ENVIRONMENT
CALIFORNIA
Citan vianin

Phone

Street City Kontaha state CA 21193337 E-mail

Volunteer?

trash kill more than 1 million seabirds and 100,000 mammals and sea

Sincerely, Print name POPEER	SCHUBAWI	
Street City LOS ANDELES	state CA	ZIP 90027
E-mail		· ·
Phone (Volunteer?



90405

Volunteer?

Great Pacific

Cleanup

CALIFORNIA	E-mail Phone
	2000

Dear Los Angeles County Board of Supervisors,

4

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,

Print name



Brooke C. Thatawai 90019 City L.A. 710 Volunteer?



ENVIRONMENT ALIFORNU





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling

Dear Los Angeles County Board of Supervisors,

City Hunhafta Stackstate CA

E-mail

Phone (

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

70 92645

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, VIPOTSI HUIL	1
Print name (1021/TIL(M	5
Street Street A	GLOUI
City DIGUIVGII Kate CA _ 7	P I GUL
E-mail	
Phone	Volunteer?



E-mail

Volunteer?

LIFOR

Volunteer? \

LIFORNIA City L



	Print name Thes	CHEN	
	Street		
-	City IRVING	State CA	TIP 92612
	E-mail		
MA	Phone		Volunteer?

ENVIRON

Sincerely, Print name Dr	ZGW	Ha	RWOO	0	
Street	CIM	State	CA	ZIP	91604
E-mail Phone (ţ.				Volunteer?



Volunteer?



Great Pacific

Cleanup



Dear Los Angeles County Board of Supervisors,

Mrs. Ethel S. Oderberg

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT

Sincerely, Katie Law Print name Street SMAID (UN) State (A 91604 7(P **Gity** E-mail Volunteer? Phone (



trash kill more than 1 million seabirds and 100,000 mammals and sea

LISA ADICI Print nam Street CA 70 90040 Gty E-mail Phone (Volunteer?

Great Pacific Cleanup



ENVIRONMEN

carried by wind and waves into the Pacific. The plastic swirling

Dear Los Angeles County Board of Supervisors,

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

For decades, billions of pounds of plastic and other trash have been

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name	NIURA	BAND	
Street	lin (at	ture CA	10 911-04
E-mail	ne cult	State	dr noc i
Phone (-	-	Volunteer?












Fortunately, there are dozens of ways in which we can stop the flow

of plastic pollution into the Pacific, Los Angeles can lead the way

in taking on this sea of plastics. I urge you to take action to ban

single-use plastic grocery bags.

City Juh th Month State

Sincerely, Print name Street

E-mail

Phone

ENVIRONMENT

LIFO

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	
Print name KRISTIN LUND	RUIST
Street	
CitySANTAMONICA State CA	2040405
E-mail	
Phone	Volunteer?

ENVIRONMENT



	Street Parado
CALIFORNIA	E-mail
GALIFURNIA	Phone (

State CA

7P9106

Volunteer?

State CA

Volunteer?

City

E-mail

ENVIRONMENT





of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Mitt	e . 1 . e
Print name MCTI 140	1550
Street	
any Serte Mar State	CH TO JOHAN
6 mail	
Phone ()	Volunteer?

Sincerely,	Rin	i			
Print name	Nut a	100 p	ev		
Street Gty Santa	Homicy	State	¢А	ZIP	90404
E-mail					
Phone (1				Volunteer?



ENVIRONMEN

of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Norm Billing	5
street ory Santa Monsula Ca	ZIP 90404
E-mail Phone (Volunteer?



of trash that's twice the size of Texas. All this trash is creating an

environmental disaster for ocean wildlife; Plastic and other marine

Fortunately, there are dozens of ways in which we can stop the flow

of plastic pollution into the Pacific. Los Angeles can lead the way

in taking on this sea of plastics. I urge you to take action to ban

90409

Volunteer?

7IP

DUNIEL Solumon

city Santa Munica state CA

turtles each year.

Sincerely.

Print name Street

E-mail Phone (

ENVIRONMENT

single-use plastic grocery bags.

trash kill more than 1 million seabirds and 100,000 mammals and sea

	P	ar	2
	5		
-	interied size of		13

ENVIRONM

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print name	Oly.	revattre	
Street City Sawk	e Meniec	t state CA	DP 90405
E-mail	-		
Phone (1		Volunteer



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Ì	Sincerely, Print n <u>ame</u>	n	oni	CA	ORIG	ul	
	Street, Gty Z	A		- Sta	te CA	ZIP	90039
ļ	E-mail Phone						Volunteer?

ENVIRONMEN

Sincere Print na	ely, me Ka	ring t	Alvare	2	
Street City	L.A.	.Šu	ne CA.	ZIP	90039
Phone					Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way

in taking on this sea of plastics. I urge you to take action to ban

single-use plastic grocery bags.

ENVIRONMEN



environmental disaster for ocean wildlife: Plastic and other marine

Fortunately, there are dozens of ways in which we can stop the flow

of plastic pollution into the Pacific. Los Angeles can lead the way

in taking on this sea of plastics. I urge you to take action to ban

Worth Losbrav

71P 90230

Volunteer?

CUPER LIGhstand A

turtles each year.

Sincerely.

Print n Street

Gty

E-mai

Phone (

ENVIRONMENT

ALIFOR

single-use plastic grocery bags.

trash kill more than 1 million seabirds and 100,000 mammals and sea



ENVIRONMEN

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	Gaug	
Print name DERNIE	LATINUZ	¥
Street		
City LOS ANGALISS	State CA	71P 90039
E-mail		
Phone		Volunteer?



Sincerely.

Print name Street

City

E-mail

Phone

ENVIRONMENT

LA

PJ. HANKE

CA

90064

Volunteer?

ENVIRONMENT

ALIFORM

Sincerely,	101	
Print name Mich	nael Sabe	
Street		
aty Glendont	e state CA	ZIP (120)
E-mail		
Phone (Volunteer?



around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic collution into the Pacific. Los Angeles can lead the way

of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

stimuted size of the Posific Garbage Parch



Sincerely,		y bags.	1	4	
Print name	Aller	oil	Min	5	
Street				-	
City	milhi	' State C	1 ZIP C	112-7	÷
E-mail			980AA	141	
Phone				Volunteer?	

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	Alfalo	í.	
Street			
avglehable	State CA	ZIP	91201
E-mail			
Phone (Volunteer?

ENVIRONMENT

ALIFORN





Streat

E-mail

Phone (

City Ust



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Hermanno CA

ZIP 90044

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT

Sincerely, Print n. Street City LONG CRO AState E-mail Volunteer? Phone

Great Pacific Cleanup

ENVIRONMENT

ALIFORNI

Stepat

Gitv

F-mail



ENVIRONMEN'

ALIFOR

around in the ocean has formed the Pacific Garbage Patch, a mass

Dear Los Angeles County Board of Supervisors,

of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling

Crasse

TIP 9 TTHE

Volunteer?

Sincerely,	11-15	0		
Print name Brighte	Lobill	WQ-		
Street				
City Long Beach state	CA	ZIP	90315	
E-mail				
Phone (Volunteer?	ķ









around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	Dalas	1 Cim	
Print name	Lone	N Simi	
Street	1.R	State	zbg. Bold.
E-mail		-	
Phone (. (a		Volunteer?

trash kill more than 1 million seabirds and 100,000 mammals and sea

Sincerely, Print name	STEVE	FLOWER	25
Street City L	A	State (A	ZIP 90066
E-mail Phone (Volunteer?

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name Roborn 1, Hell	il.
Street City/Worfally and State & 14	2110 91602
E-mail / Phone ()	Volunteer?

ENVIRONMENT

ALIFORN







Street

Gity /

E-mail

Phone

ENVIRONMENT

ALIFOR

State Qlif 71P

90265

Volunteer?

-		~		
ENV	RON	MEN	T	
CAL	FO	KN	A	

Sincerely, Print name Step 4	on Bellie	1
Street Sty Malibu	State CA'	20 90265
E-mail		
Phone ()		Volunteer?





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT

Sincerely, Print name Maelle Fonteneau Street 218 90405 at Serta Monicastate CA E-mail Volunteer? Phone (



Cleanup

ENVIRONMENT

LFOR

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling

Sincerely,	
Print name ALSON YOU	
Street	
cay Souther MANNing stone CA	ZIP 96403
E-mail	
Phone (Volunteer?



90765

Volunteer?

carried by wind and waves into the Pacific The plastic swiring around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

tentre .	Sincerely, Print name MVS.	Novrell	
	Street City Mahilu	State CA	ZIP
RNIA	E-mail		
MUMA	Phone ()		



ENVIRO



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

turnated size of the Positie



Sincerely,
Print name Chuc (< Lioi
Street
Gity Studie CrM State CM ZIP 9(Ceoly
E-mail
Phone (
Volunteer?



For decades, billions of pounds or plastic and other trash have been carried by wind and waves into the Patific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print nameC.	rly Got	Hlieb	
City Malin	State	CAE DP	90265
E-mail Phone ()			Volunteer?

Great Pacific Cleanup



Entirented size of the Pecific Garbage Parch

ENVIRONMENT CALIFORNIA

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Jana Gald Coarth		
Print name JCM 0101011111		
Street		hill and
City STUD & Ctty state CA	ZIP	91609
E-mail		
Phone (Volunteer?





turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

HOLLywood state CA. TP

6000

90023

Volunteer?

environmental disaster for ocean wildlife: Plastic and other marine

trash kill more than 1 million seabirds and 100,000 mammals and sea





Sincerely,

Print nam Street

City

E-mail

Phone

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban



ENVIRONMENT

Sincerely,				
Print name	Serve	1		
Street				
any Hal	Lywood	state CA	ZIP 9002	8
E-mail				
Discout 1	14		Volunt	5944



of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	ennis A	Acler	dez_
Street City LA	State	Ca	DP 90025
E-mail) Phone ()			Volunteer?

Great Pacific Cleanup



ENVIRONMEN

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name DOL	oves	nu	nterroza
Street City L As	State	(1)	ZP 90006
Phone ()			Volunteer?



around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Brandi memilar Print nan Stepet TIP CAUDIAL IA A City E-mail Volunteer? Phone



ENVIRONMENT

CALIFORN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, ScottGruber Print nam Street GUY LA State CA 71P 90076 Volunteer?



Great Pacific

Cleanup

ENVIRONMEN

ALIFOR

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name	JEAREL	REELE		
Street	Second lines and he	and a construction		
City		State	ZIP	
E-mail				
Phone (1			Volunteer?

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name	e Sullivar	
Street	State TR ZIP	goslele
Phone ()		Volunteer?

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name	SARAL	ł S.	MAR	2COTTE	
Street City	S	tate CA	ZIP	90026	
E-mail Phone (Volunteer?	





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the **Pacific Garbage Patch**, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

d une of the Points



Sincerely, Print name DAVID ELSENSORN Street City L.A. State CA ZIP 90026 E-mail Phone (Volunteer?

Great Pacific Cleanup



Estimated size at the Pac Gerbage Patch

ENVIRONMENT CALIFORNIA Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name CORE	EY REMI	NETON
Street City LAP	State CA	71P 90026
E-mail	June Off	



neert

Volunteer?

Sincerely,

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Jesus Carlenters

State Cri 71P



Great Pacific

Cleanup

Dear Los Angeles County Board of Supervisors.

Print name Street

E-mail

Phone (

City (-+

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



MicHAEL SYLVESTER Sincerely, Print name Street City LOL ANW State CN DP 9782 E-mail Phone Volunteer?



For decades, billions of pounds of plastic and other trash have been around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name	Jessica.	Prut	ti
Street City Pas	sa de para state	CHJ	21P 9(106
E-mail Phone (Volunteer?

Great Pacific Cleanup





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Sincerely,	
Print name forment 13the	K
Street	
City Senta Monustate CA	TP 90405
E-mail	
Phone (Volunteer?



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name N DANDA FAITH Rock MAN Street (ity L.A - State A ZIP 90036 E-mail Phone Volunteer? 3

ENVIRONMENT

LIFOR

in taking on this sea of plastics. I urge single-use plastic grocery bags.

	_	_		
	100	-	200	2.
-	100		-	
EN	VIR	DNM	ENT	
CA		ND	MI	

Sincerely,	VIINAN	n V	ille te	
Print name	TUTIO	<i>v</i> *	0110110	
Street				
City		State	ZIP	
E-mail				
Phone ()		Vol	unteer? 🗌





Estimated size of the Pacific Gerbäge Patriti

ENVIRONMENT CALIFORNIA

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, AL U.S.	2
Print name MULKIE HEST	Koss
Street	
City Toluca Lalle state C.	H IP 91602
E-mail	
Phone (Volunteer?



Estimated size of the Pacifi Garbage Patch

ENVIRONMENT CALIFORNIA For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name Konald	Leismal	
Street Gity LA	State CA	ZIP 90069
E-mail Phone (Volunteer?



Print name

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely.

Street ENVIRONMENT E-mail Phone

christiana KNON City NORTHPHOME State CA DP 913 Volunteer?



ENVIRONMEN ALIFORM

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,			
Print name	Jeffrey 1	Hines	
Street			
City 9.05	Angeles	State SA	DP GOOLQ
E-mail			
Phone (Volunteer?





Street

E-mail

Phone

ENVIRONMENT

City SANTA Mmi State CH

9040

Volunteer?

7IP

		5	1
CA	VIRO	NMENT	٨
UA.	LIFU	JANI	A

in taking on this sea of plastics. Furge you to single-use plastic grocery bags.	take action to ban
Sincerely,	
Print name William Gree	when
Street	/
City Santa Municastate CH	DP 90405
E-mail	
Phone (Volunteer?





ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name Street State CA TIP City L E-mail Volunteer? Phone (

Great Pacific

Cleanup

ENVIRONMEN'

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

ì	Sincerely, Print name Jessile	Martin	ez
	Street -	State Ca	IP 20404
(E-mail Phone		Volunteer?









name for a first first State

ENVIRONMENT CALIFORNIA Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, ALLIE	2
Print name fabrick herved	
Street .	
City Studio Coly state CA	ZIP 90604
E-mail	
Phone ()	Volunteer?



in taking on this sea of plastics. I urge you to take action to ban

single-use plastic grocery bags.

ENVIRONMENT








Volunteer?

	Sincerely, Jelle Lee	
NT	Street Ba Cal Fiel State (1A ZIP	
NIA	E-mail	Volunteer?

Sincerely, Print name Street City

E-mail Phone

ENVIRONMENT

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow

Volunteer?

For decades, billions of pounds of plastic and other trash have been around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow















Street

E-mail

Phone

ENVIRONMENT

ALIFORN

City LOS UNJELOS State QCL THE 90026

Volunteer?

	Street	000	// / /	15	12/
	City o je E-mail	pange	State C	a 119902	90
ANIA	Phone ()		Vol	unteer?

ENVIRO





Estimated use of the Posific Garbage Patch



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.







Estimated size of the Parit Garbage Patch

Consideration

ENVIRONMENT

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	
Print name Chills (ducci	
Street	
City Los Alwartos state CH	21P 90 730
E-mail	
Phone (Volunteer?



Volunteer?

Constant Colonia II	Print na
and the second s	Street
ENVIRONMENT	City _
CALIFORNIA	E-mail
UALIFURNIA	Phone

Great Pacific

Cleanup

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Estimated size of the Patient Containe Parch



Great Pacific Cleanup

ENVIRONMENT

IFORN

Street

E-mail

Phone (



ENVIRONMEN

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling

Dear Los Angeles County Board of Supervisors,

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

City Now TH HOWNBrate CAT. IP 91601

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	/	
Print name Estate	pincor	<u> </u>
Street .		
City Saverson	State Car-	UP 81350
E-mail		
Phone (Volunteer?











Great Pacific Cleanup

Dear Los Angeles County Board of Supervisors,

City IV, Hollingud

Street

E-mail

Phone (

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

State CA

Voluenteae?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT

Sincerely, Print name Street City N. Hallepoord state CA UP 91601 E-mail Volunteer? Phone (

Great Pacific Cleanup



in taking on this sea of plastics. I urge you to take action to ban

single-use plastic grocery bags.

ENVIRONMENT

LIFOR

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Dear Los Angeles County Board of Supervisors,

City Masser Hills

E-mail

Phone

turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way

For decades, billions of pounds of plastic and other trash have been

around in the ocean has formed the Pacific Garbage Patch, a mass

of trash that's twice the size of Texas. All this trash is creating an

carried by wind and waves into the Pacific. The plastic swirling

Sincerely,	T	51		le c	
Print name	1 min	. 1.4	1.7	$\leq V$	
Gty Lurs	Angeles	State	CA	2P 9002	7
E-mail					
Phone (Volunte	er? Y



Street.

State

91345

Volunteer7



Print nan Street

City

E-mail Phone

ENVIRONMENT

SANT'S NONIC-Actate

CA

Volunteer?

	Print name	Jasmi	ne.	Cog	er	
	City Pour	DOT GIM FI	State	Ca	ZIP G	1402
A	E-mail Phone (0	Volunteer?



in taking on this sea of plastics. I urge you to take action to ban

90405

Volunteer?

710

single-use plastic grocery bags.

Print name Kate Greenberg

City Santa Monica State CA

Sincerely,

Street

E-mail Phone (

ENVIRONMENT

ENVIRONMEN

of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely WVo Roncha	1 tz
street city Stylita, MMULL, state A	2199040S
E-mail Phone	Volunteer?



Print nan City N LCQ istate [E-mail Phone Volunteer?



ENVIRONMENT

Sincerely,	James 1	Janni	5
Street		1000101	1.50
City LH	State C	A 71P	90066
Phone (Volunteer?



Volunteer?

Phone (

Volunteer?

Phone



Street

City.

F-mail

Phone (

ENVIRONMENT

ZIP 90026

Volunteer?

State CA

ENVI	RONMENT
CAL	FORNIA

single-use plastic grocer	stics. Eurge you to y bags.	take action to ban
Sincerely,	DuPaten	c
Street		
City Los Angeles	State CA	ZIP 90027
E-mail		
Phone ()		Volunteer?



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT

Sincerely.			
Print name Ches	Willest		
Street			A72458752
City Topping a	State CA-	ZIP	90290
E-mail			
Phone (Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, CALL, MIL.	20
Print name (ITVY, WIIIM	S
Street Lig Anuer State (A- ZIP	aliot
E-mail	
Phone (Volunteer?

ENVIRONMENT









Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

State

Frohna

ZP 90067

Volunteer?

Estimated size of the Partie Garbage Parch



Great Pacific

Cleanup

Dear Los Angeles County Board of Supervisors,

JIM

Sincerely.

Print nan

Sheed

Gity

E-mail

Phone

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the **Pacific Garbage Patch**, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

	10.1	armig	
nine i	Pieter 1		



Sincerely, Print name Autoria Brandt Burgeyne Street Gry LA State CA 21P 90064 E-mail Phone Volunteer?

Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,



Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the **Pacific Garbage Patch**, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name Debergh Wiss Street City LA State Co ZIP 90Q(Y E-mail Phone () Volunteer?

Great Pacific Cleanup



ENVIRONMEN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	1	
Print name	with Kes	
Street		
City L/7	State CA	ZIP GLOLG
E-mail	Stad Larr	
Phone [Volunteer?



ALIFOR

	Sincerely, Print name ARTHO	Nilos	1/4/	ı
- -	Stree Gty C. A.	State CA	ZIP	90066
IA	E-mail Phone			Volunteer?

ENVIRONME





Great Pacific Cleanup

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Street		
City M.P.	State CA	ZIP 41755
E-mail		
Phone ()		Volunteer?



ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

Sincerely,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,		art	Dr.C.		Δ
Print name	21	+ +	219	150	161
Street _	C				
Gty El	CAI	on s	late C	-9 ZIP	92020
E-mail					
Phone (Volunteer?

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife; Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup



ENVIRONMEN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name R. B.R.D.GGE WAL	9
Street	
City LOGIANSELESSTORE CA	ZIP 9 0069-
E-mail	
Phone ()	Volunteer















Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Andre Huta	1
Print name PTIOIC IIYICA	a
City Los Angeles state CA	2119 90068
E-mail	
Phone (Volunteer?

Great Pacific



ENVIRONMENT

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass

of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

For decades, billions of pounds of plastic and other trash have been

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

í	Sincerely,	
l	Printname WENCESLOO K	amilice
1	Street	
l	City Studio City State of	ZIP 91604
l	E-mail	
	Phone (Volunteer?



environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Elizabeth Yoching Print nar Street 90791 Venia CA 71P City E-ma Phone Volunteer?

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow. of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban

Print name DTE	K LASSEI	5		
City SAN TA NO	AIG State	C.A	ZIP	garlos
E-mail				
Phone ()		~		Volunteer?



ENVIRONMEN

For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name HA	NSLEY GU	ITHRIE
Street	10.1	
City	State	ZIP
E-mail		
Phone ()		Volunteer?



and Doutles	Dear Los Angeles County Board of Supervisors,	Grand Doction	Dear Los Angeles County Board of Supervisors,
GreatPacific	For decades, hillions of pounds of plastic and other track have been	ClearPacine	Far decider, billions of manufa of alastic and other teach basis have
Gieandb	carried by wind and waves into the Pacific. The plastic swirling	cleandb	carried by wind and waves into the Pacific. The plastic swirling
	around in the ocean has formed the Pacific Garbage Patch, a mass	2000 N	around in the ocean has formed the Pacific Garbage Patch, a mass
202002-	of trash that's twice the size of Jexas. All this trash is creating all environmental disaster for ocean wildlife: Plastic and other marine	Action .	of trash that's twice the size of lexas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine
and the second	trash kill more than 1 million seabirds and 100,000 mammals and sea	ATT AND	trash kill more than 1 million seabirds and 100,000 mammals and sea
in the fact	turtles each year.	S. Atlan	turtles each year.
THE.	Fortunately, there are dozens of ways in which we can stop the flow	Set.	Fortunately, there are dozens of ways in which we can stop the flow
5	of plastic pollution into the Pacific. Los Angeles can lead the way	「	of plastic pollution into the Pacific. Los Angeles can lead the way
	single-use plastic grocery bags.	Y W	single-use plastic grocery bags.
			2. V.
Edimated stor of the Pakific	SINCERELY, PHILLIP BARAES	Estimated the of the Pacific Contenue both	Sincerely,
(JSH5028)(HHR)	Print name (1110011 D7111100	Louisinge / Univ	Print name MARIA ApostoloT-
	Street		Street
ENVIRONMENT	City State ZIP	ENVIRONMENT	City CARO OFF Paricstate CAR ZIP 9 1509
CALIFORNIA	E-mail	CALIFORNIA	E-mail
Concerning of the Concerning of the	Phone () Volunteer? []	The second se	Phone (Volunteer?
	All of A second States II Proved States States and All of States States and All of States State		
Great Partific	Dear Los Angeles County Board of Supervisors,	Great Padific	Dear Los Angeles County Board of Supervisors,
Cleanup	For decades, billions of pounds of plastic and other trash have been	Cleanup	For decades, billions of pounds of plastic and other trash have been
Gisencep	carried by wind and waves into the Pacific. The plastic swirling	Giganap	carried by wind and waves into the Pacific. The plastic swirling
	around in the ocean has formed the Pacific Garbage Patch, a mass of teach that's twice the size of Texas. All this trash is creating an	3072 M	around in the ocean has formed the Pacific Garbage Patch, a mass
ZERCA	environmental disaster for ocean wildlife: Plastic and other marine	28312	environmental disaster for ocean wildlife: Plastic and other marine
	trash kill more than 1 million seabirds and 100,000 mammals and sea		trash kill more than 1 million seabirds and 100,000 mammals and sea
	turties each year.	No.	turtles each year.
See.	Fortunately, there are dozens of ways in which we can stop the flow	See.	Fortunately, there are dozens of ways in which we can stop the flow
5 18	of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. Lurge you to take action to han	5 12	of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this say of plastics. Lucre you to take action to hap
V W	single-use plastic grocery bags.	V VA	single-use plastic grocery bags.
· · · · · · · · · · · · · · · · · · ·	Sincaraly -	× ***	Cincomba
Garbage Patch	JULIAN TORRES	Estimated size of the Pilotic Garbage Patch	NEIGH Williams
	Print name		Print name
	Street		Street LOD PONSH PLATER CA 10 9001X
ENVIRONMENT	E mol	ENVIRONMENT	City Constant City The Job D
CALIFORNIA	Phone () Volunteer?	CALIFORNIA	E-mail
	Finance Transition		Priore The Annual Sector
In the local division of the local divisiono	Dave Los Annalos County Bried of Commission		Barda Andrew Martin Alder
Great Pacific	near ros windenes commy positi or substantiers.	Great Pacific	uear Los Angeles County Board of Supervisors,
Cleanup	For decades, billions of pounds of plastic and other trash have been	Cleanup	For decades, billions of pounds of plastic and other trash have been
PARENA	carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch a mass	particip.	carried by wind and waves into the Pacific. The plastic swirling
ALC: NOT	of trash that's twice the size of Texas. All this trash is creating an	ALL ALL AND	of trash that's twice the size of Texas. All this trash is creating an
	environmental disaster for ocean wildlife: Plastic and other marine	25 al 2 m	environmental disaster for ocean wildlife: Plastic and other marine
and the second second	trash kili more than 1 million seabirds and 100,000 mammals and sea turtles each year.	- And the second second	trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.
		No.	
	Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Appeles can lead the way		Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific Lor Angelor can lead the unit
27 6	in taking on this sea of plastics. I urge you to take action to ban	27 (in taking on this sea of plastics. I urge you to take action to ban
C AN	single-use plastic grocery bags.	C AN	single-use plastic grocery bags.
Taimourd strend the Deetle	Sincerely,	Fatimeter (Alexa) (1) of the real	Sincerely,
Garbage Fizik	Print name Tara Crespo	Gerbage Parch	Print name JENNIFER SAELIEB
and the state of t	Street	and the states	Street
CHURDONNENT	City Sherman Callister CA IP 91403	~	City Sta ARLETA State C'A ZIP 91331
CALIEODNIA	E-mail	CALIEODNIA	E-mail
CALIFORNIA	Phone () Ø Volunteer?	CALIFURNIA	Phone (Volunteer?
	the second se		


Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, Taylor Mari Print name Street City LA State Con ZIP 90028 E-mail Volunteer? Phone



ENVIRONMEN

turtles each year.

Ì	Sincerely, Print name SUSANI.	STR	om.
	Street Dry VENICE State (A · m	902-91.
	E-mail Phone (Volunteer?





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the **Pacific Garbage Patch**, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildliffe: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

tionated size of the Faithfic whose Patch



Sincerely, Print name ART UNTEN Street City LOS ANCRIPIState CA ZIP 90015 E-mail Phone (. Volunteer?





ENVIRONMENT

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling

Dear Los Angeles County Board of Sopervisors,

carried by wind and waves into the Pacific Garbage Patch, a mass around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	and the other	rand
Print name	mill il	churc
Street	State CA-	21P 9 80(7
E-mail		
Phone (Volunteer?

Great Pacific	Dear Los Angeles County Board of Supervisors,	Great Padfie	Dear Los Angeles County Board of Supervisors,
Cleanup	For decades, billions of pounds of plastic and other trash have been	Cleanup	For decades, billions of pounds of plastic and other trash have been
585510	around in the ocean has formed the Pacific Garbage Patch, a mass	57553	around in the ocean has formed the Pacific Garbage Patch, a mass
2020 2	of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plactic and other marine	2.5.	of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine
- The second	trash kill more than 1 million seabirds and 100,000 mammals and sea		trash kill more than 1 million seabirds and 100,000 mammals and sea
	turtles each year.		turties each year.
	Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way		Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Appeles can lead the way
27 10	In taking on this sea of plastics. I urge you to take action to ban	27 19	in taking on this sea of plastics. I urge you to take action to ban
4	single-use plastic grocery bags.	4	single-use plastic grocery bags.
Estimated size of the Finally	Sincerely,	Estimated size of the Paulle	Sincerely,
senagerian.	Print name Milton 14, DOWA	Garbeyy Faun	Print name DAVEALT DUWEIT
	Street		Street CA - 9039 /
ENVIRONMENT	GtyState2P	ENVIRONMENT	Email
CALIFORNIA	Phone () Volunteer?	CALIFUKNIA	Phone (Volunteer?
and Dodge	Dear Los Angeles County Board of Supervisors,	Growt Doct Go	Dear Los Angeles County Board of Supervisors,
Cleanup	For decades, billions of pounds of plastic and other trash have been	Cleanup	For decades, billions of pounds of plastic and other trash have been
Gigeneda	carried by wind and waves into the Pacific. The plastic swirling	Greandb	carried by wind and waves into the Pacific. The plastic swirling
	around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an		of trash that's twice the size of Texas. All this trash is creating an
A CAR	environmental disaster for ocean wildlife: Plastic and other marine trach kill more than 1 million seahirds and 100 000 mammals and sea		environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million scalarity and 200,000 mammals and sea
Ster.	turtles each year.	and the second second	turtles each year.
	Fortunately, there are dozens of ways in which we can stop the flow		Fortunately, there are dozens of ways in which we can stop the flow
J-7 11	of plastic pollution into the Pacific. Los Angeles can lead the way	5 12	of plastic pollution into the Pacific. Los Angeles can lead the way
N V	single-use plastic grocery bags.	V W	single-use plastic grocery bags.
Bit maned stars of the Patients	Sincerely,	A constraint size of the Darity	Sincerely,
Garboye Putch	Print name CARSON MOTE	Gorbage Patch	Print name CARIE MAN. SCALCO
	Street		Street
ENVIRONMENT	city & averado state (A JP 45623	ENVIRONMENT	City Versice State CA ZIP 90291
CALIFORNIA	E-mail	CALIFORNIA	E-mail
Transa manage and a series of the series of	Prione (Phone ()
Great Pacific	Dear Los Angeles County Board of Supervisors,	Great Pacific	Dear Los Angeles County Board of Supervisors,
Cleanup	For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swiding	Cleanup	For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling
3059A 👘 👘	around in the ocean has formed the Pacific Garbage Patch, a mass	30724	around in the ocean has formed the Pacific Garbage Patch, a mass
2 Cach	of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine	2 Stank	of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine
	trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year		trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year
	talities each year.	NEC.	
	Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way		Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way
57 19	in taking on this sea of plastics. I urge you to take action to ban	57 6	in taking on this sea of plastics. I urge you to take action to ban
	single-use plastic grocery bags.		single use plastic grocery bags.
Estimated size of the Poolfic. Gerbary Porch	Sincerely, Town Rapick	Estimated day of the Pacific Garbane Parch	Sincerely, Olpin VALL
	Print name - Poprint Correct		Street
	Gity State 71P GOV07		CITYS W State CA THE GIBUILZ
CALIFORNIA	E-mail	CALIFORNIA	E-mail
CALIFORMA	Phane (Volunteer? [CALIFORMA	Phone () Volunteer?



9002

Volunteer?

ZIP





Sincerely,

Print nam Street

City

E-mail

Dear Los Angeles County Board of Supervisors,

GABE STALLE

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turties each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

	6. T. I.		
10.00			
3.			



Sincerely, Rec	tes Bla	Dos	
Street			
City	State	ZIP	
E-mail			
Phone ()			Volunteer?

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	-	n		une et		
Print name	JAU	NEG	OLD	BER	9	
Street City	LA	State	CA	7iP	90027	j,
E-mail						
Phone {					Volunteer?	

Great Pacific Cleanup



ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name	1A	WE AUCE	NT(
Street	<i>k</i>		1	
City		State	ZIP	
E-mail				
Phone ()			Volunteer?



Lancastok State CA TO 93535

Volunteer?

City

E-mail

Phone

ENVIRONMENT

	-
Í R	ENVIRONMENT
C	AT IEODNIA
U	ALIFURNIA

Cit

E-i

Ph

ngle-use plastic grocer	y bags.	
ncerely,		
nt name KENE	PHILL	IRS
eet		
VENICE	State CP1	ZIP 90291
mail		
one ()	/	Volunteer?





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Duzitz Print nam 5treet State City E-mail Volunteer? Phone



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name Julic	Garcia	
Street City Venice	State CA	1 90291
E-mail Phone	J	Volunteer?



ENVIRONMENT LIFOR

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Nicole antidao Print City E 90245 Sectundo State CA E-mai Volunteer? X Phone



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely,	
Print name Chris Serva	
Street	
city Canyon Country tate C.A. 2	1P
E-mail	
Phone (Volunteer?



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	M. CATI	town
Street City Lit	State CA	ZIP 90004
E-mail Phone ()		Volunteer?

Great Pacific Cleanup



ENVIRONME

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print name	HAT SIY	nran knal	я
City	LA	State CA	ZIP 90035-
E-mail			
Phone (1		Volunte



turties each year.

Sincerely,

Gty LA

Print o

F-mail

Phone

ENVIRONMENT

single-use plastic grocery bags.

Fortunately, there are dozens of ways in which we can stop the flow

of plastic pollution into the Pacific. Los Angeles can lead the way

in taking on this sea of plastics. I urge you to take action to ban

State

NATUALIC (LEIGHTON

(A

710 9003 Q

Volunteer?

ENVIRONMENT

trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.







ENVIRO

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

MANUK	Sincerely, Print name Laur	a Siman	onek
	Street City LA	State G	ZIP 97028
ORNIA	Phone ()		Volunteer?





ENVIRONMEN

For decades, billions of pounds of plastic and other trash have been

Dear Los Angeles County Board of Supervisors,

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

٩	Sincerely,	
l	Print name Dathana Devez	
1	Street	
	an Woodland Hillster Ca. zip	91303
	E-mail	
	Phone (Volunteer?



Sincerely,	-1-10	-	- V	05	2
Print name	TON	- 10	10	- j.	
City G	1220Ale	State	CA	ZIP	912 06
E-mail		19461			
and the second					[alumnar?

ENVIRONME

Sincerely,	21	
Print name PILE	Delanez	
Street	, <u>,</u>	
any Nestra	State C.A.	ZIPFICO OL
E-mail		`
Phone (Volunteer?



Cleanup

Print na Street Gity. E-mail ALIFORNI

Dear Los Angeles County Board of Supervisors, **Great Pacific**

City

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

ZIP 9039

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely BARRY WIENER Print man Street L.A E-mail Volunteer? Phone



ENVIRONMENT

ALIFOR



ENVIRONMENT

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

Print name

Street

City

F-mail

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Volunteer?

Sincerely Print nam

Stole City E-mail Phone (Volunteer?



in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

21P90064

Volunteer?

CRAIG HAINES

Sincerely,

Print name

Street

City

E-mail

Phone



Great Pacific

Cleanup

ENV

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

d the r anda	Sincerely, Print name B(1+	io]]	
	street City Los Angelus	J _{State} C44	719 9444
ORNIA	Phone ()		Volunteer?

Dear Los Angeles County Board of Supervisors, **Great Pacific**

single-use plastic grocery bags.

Sincerely.

Print nam

Street

City

E-mail

ENVIRONMENT

ALIFORNIA

Cleanup

ENVIRONMENT

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

in taking on this sea of plastics. I urge you to take action to ban

Sadie Van Geide

State CAD

90766

Volunteer?

Sincerely	Ell a	
Print name, Id	whytellis	
Street	5.40Va	
City LA	State CAZIP 4020	
E-mail		
Phone t	Volunteer?	X





Sincerely. picohs Print name Street city Whos Angeles state CA ZIP 90066 ENVIRONMENT E-mail

single-use plastic grocery bags.

Phone

Volunteer?

trash kill more than 1 million seabirds and 100,000 mammals and sea

Sincerely, CG1	hy Gu	thrie
Street	State C G	no SOSLOU
E-mail	state C	wie er
Phone		Volunteer?



ENVIRONMENT ALIFORN

in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	<i>c</i>
Print name Oscar Gon 241	13
Street	
City Los A. Selos, State CA	219 90,060
E-mail 4	
Phone ()	Volunteer?



Fortunately, there are dozens of ways in which we can stop the flow

ENVIRONMENT

of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name Street 21 900ZC LOS ANGERSSING G City E-mail Volunteer? Phone



ENVIRONMENT

Sincerely,				
Print name En	e bask	in l		
Street				
City LA	State	CA	ZIP	90026
E-mail				
Phone (Volunteer?





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT CALIFORNIA

Sincerely, Print name Jayne Runels Street City TO Danga state GA, ZIP, 90290 E-mail Phone Volunteer?



ENVIRONMEN

Dear Los Angeles County Board of Supervisors.

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name Marliena	Miller	
street City LOS AMARIES state	OF TIP 90026	Ø
E-mail Phone (Volunteer	1





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kull more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name	Pamela	Johnsm
Street City	x Myclone Ca	ZIP-90099
E-mail Phone ()	Volunteer?

Great Pacific



ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name Clinit & Ke	Ily Rockwell
Street	122 2422
E-mail	TALK CAS 10 9107910
Phone (Volunteer?



Volunteer?

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

	Sincerely,	- \	0
	Print name	Sunger	Du
-	Street		
IT	City	State	ZIP
ΪA	E-mail		
in	Phone		



ENVIRONMENT

ALIFORN

ENVIRONME

ALIR

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Diagon com	- 10,1,0
Print name CMINDACE D	Erug
Street	de
any lopaus of state CA	ZIP 91310
E-mail	
Phone	Volunteer?



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,



Great Pacific Cleanup



ENVIRONMEN

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

ì	Sincerely, N 1	Inna
4	Print name I IKE ANT	41/2
	Street	
	City TO PANCA State CA	71P 90290
	E-mail	
i.	Phane (Volunteer?









For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely. Print name TET BLRND Street City (A State, CA 21P, 90076 E-mail Phone Volunteer? For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,				
Print name	7 ff	Sudalen		
Street				
City L	<u> </u>	State CA	ZIP	90061
E-mail				
Phone [1			Volunteer?

ENVIRONMENT











Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Volunteer?

Sincerely, Print name Auc 5 30 5 hours 5 Street City Should of City State 6 A ZIP E-mail

Great Pacific Cleanup



istancied cor of the Pools Garbage Parch

-	 ê	~	-
CĂ	FO	RN	ĬA

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name Ad	Ben - An	
Street City Studio	Citystate CA	7P 91400
Phone ()		Volunteer?











	Environment have not the Partitic Garbagee Partsh	Sincerely, Printname Assine Kido
7		City Los Angeles State CA
	CALIFORNIA	Phone ()

710 9003-7-3307

Volunteer?

single-use plastic grocery bags.

Sincerely, AARON KNAPEK Print nam Street State CA 7P 900 City E-mail Phone (Volunteeri

ENVIRONMENT



Sincerely, OBENTFEDER ICON Print nar Street City ESCUNDID STORE H L. F TP 92026 E-mail Phone (Volunteer?

ENVIRONMENT

in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincere Print na	ne 🗠	A4 L	BLA	HT	
Street . City	L.4		State CA	t ~ 76	90035
E-mail Phone (Volunteer?



trash kill more than 1 million seabirds and 100,000 mammals and sea

in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	. ~ .			\sim		
Print name	ACA	CINY	12.	JIC.	_	_
Street						
City Pur	Sada	A state	Ch	ZIP	9110	1
E-mail		. /				
Phone					Volunteer?	~



Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors; For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Pay Print name Pay Street ZIP 96.946 City West State ZIP 96.946 E-mail Phone Volunteer? Volunteer?	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name UEREMY CRACE Street Gty VALLEY GLEN State CA 78 91461 E-mail Phone (Volunteer?
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Street GiyStateZIPE-mail	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely. Print name Doonly, PALA Street Gty Use Marks State CA 219 9/401 E-mail



ALIFORNI

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Great Pacific Cleanup



ALIFORN

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Print name Quinton	Alixan
Street Gity Victory State 1	CA 719 91607
E-mail	Valuataar







of plastic pollution into the Pacific. Los Angeles can lead the way

in taking on this sea of plastics. I urge you to take action to ban

single-use plastic grocery bags.

Sincerely, Print nam Street Gty S

E-mail

ENVIRONMENT

ALIFOR

of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT

Fortunately, there are dozens of ways in which we can stop the flow.

Sincerely,	/
Print name Skele	hen Wegtlake
Street	11 - 911-29
E-mail	State CA: 21 10031
Phone (Volunteer?










Cleanup

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ANGELA HADNAG

ALIFORNL



Dear Los Angeles County Board of Supervisors,

Steven Berilla

City Los Angeles state CE

Sincerely,

6 Gty

Print nan

Street

E-mail

Sincerely,

Print name Street

E-mail

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT

UA	ZIP	~10427	
	1000	Volunteer?	

94227

Volunteer?



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

90027

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,



Great Pacific Cleanup



ENVIRONMENT

LIFOR

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	1	7	
Print name	ARIC	> KEYES	
Street City Los	Aver	State CH.	TP 90027
E-mail			
Phone (.)		Volunteer?



	1
ENVIRONMENT	
CALIFORNIA	

ingle-use	e plastic grocery	bags.	ge you ti	i take ac	tion to ban	
incerely, fint name	Deb	to	Lio	ht		
treet	NENICE	State	A	ZIP	qceal	
hone					Volunteer	

Sincerely,	0		
Print name ANN 1	ATTERS	22	-
Street VEATER	StateC.A	ZIP	90291
E-mail Phone (Volunteer?









Gty

E-mail



ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

ILE State

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

A 210 90791

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic poliution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	in Cab	iscila
Print name TVICI	na bac	nsun
city Venice	State CA	718 90291
E-mail		
Phone		Volunteer?

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

202

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	ha the	Ale
Print name 00	m Ana	rpq.
Street		0-201
any Valle	State CA	IP YOUR
E-mail		
Phone (Volunteer?

ALIFOR **Great Pacific**



ENVIRONMENT

Cleanup

City ENVIRONMENT E-mail Phone (



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

turtles each year.

ENVIRONMENT

Sincerely, Hoppensterdet Justin Point name Street LA State CA ZIP Gitv E-mail Volunteer? Phone (



around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

ì	Sincerely,			
	Print name Mace	Bat Al	ia.	1.0
1	Street			
	Gity L.A.	State CA -	ZIP	90068
	E-mail			
	Phone ()			Volunteer?



05 Maches State 04

City

E-mail

ENVIRONMENT

LIFOR

Volunteer?

ENVIRONMEN

Phone (

Street City Exeter State CA IP 9322 E-mail



environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Kumpur Print ni Street CA 70063 City E-mail Volunteer? Phone

For decades, billions of pounds of plastic and other trash have been around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

	Sincerely,	1
	Print name Kevic	Scherson
	Street Venice state	Ch 10 90291
İA	E-mail Phone (Volunteer?

ENVIRONME



Summind Jac of the Pople Sind Geboge Parish Print

ENVIRONMENT CALIFORNIA

Sincerely, Nothahe Ignatyan Print name Street State CA City LA 9001.8 710 E-mail Volunteer? Phone



Sincerely, Print name LUCY OR LIPPIDI ONTEREVERATE G. 10 91752 Street City E-mail Phone (Volunteer?





Volunteer?



Cleanup

Great Pacific

City

E-mail

Phone (

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

standed size of the Pacific Sortione Patch

CALIFORNIA

Sincerely,	
Print name Donis Robin	
Street	11.41.
city Jemple City state CA	ZP 9/780
E-mail /	
Phone (Volunteer?



ENVIRONMENT

LIFO



ENVIRONMENT

Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been

City Venice

E-mail

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

ZIP 90291

Volunteer?

Sincerely, Print name VENNA Melfi	
street (ny LOS Angelos state CA	210 90045
Phone ()	Volunteer?



ENVIRONMENT CALIFORNIA

Sincerely. Print name Den is Tessile Street City Records Judothe CA ZIP 90277 E-mail Phone Volunteer?

Print name	
Street Classich In A	ADAT
City LOLENDH State CA	ZIP 400 -
E-mail	
Phone (Volunteer?

		Γ	
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Hill MAM LarK Street	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Batbie pevez Street Gity Machaett as Brance on the print of the pace of the transition of the plastic of the plastic of the plastic of the transition of the plastic of the plastic of the plastic of the transition of the plastic of the plastic of the plastic of the transition of the transition of the plastic of the plastic of the transition of the transition of the plastic of the plastic of the transition of the transit
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Joc J. F. Jon Street ZIP E-mail Yolunteer?	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and seaturtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Dom injc Comey Street City Vensice Street OIP 9:02.91 E-mail Yolunteer?
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name UTIGIE Martiner Street City Sanda Monice State CP ZP 96404 E-mail UTI City Content of the Content of	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Dacklyne Daried Street Gity You'lle State Phone (





Street

E-mail

Phone {

ENVIRONMENT

City Spirth Marica State CA DP 90404

Volunteer?

	Str
ENVIRONMENT	City
CALIFORNIA	E-m
CALIFURINA	Pho







Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, Print name Z	ina Joseph	5
street City Scinta E-mail	Monica State CA	ZIP 90405
Phone (1	Volunteer?





ENVIRONMENT

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	101
Printname Judith	Var Gordien
Street	
City Shermin Casestate	la 11 91423
E-mail	
Phone ()	Volunteer?



carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,) ane Robert Cohen Print name Street City STUDIO City State City ZIP 91601 E-mail Walunteer? X Phone (



carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass

of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name N HAUSSEN	
Street	ZIP 9 16:04
E-mail	Volunteer?



710 90042

Volunteer?

ENVIRONMENT ALIFORN

Streat

E-mail

Phone



Great Pacific Cleanup

Dear Los Angeles County Board of Supervisors,

CITY LOS ANGELESTATE CA

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, MIKE KELLEY Print name Street 90068 LA State CA ZIP City E-mail Volunteer? Phone

Great Pacific Cleanup

ENVIRONMENT

LIFO

Street

City

E-mail



ENVIRONMEN

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name	Mid	hule	ABI	Dor	2
Street	mile				
Gity [A	State	CA	71P 6	20068
E-mail					
Phone ()		<u> </u>	1	Volunteer?

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Volunteer]

9/11/19

folunteer?



Street

City

E-mail

ENVIRONMENT

gitta

ZIP:

State CA

	-
ENVIR	ONMENT
CALIF	ORNIA
UALI	UTITITA

Sincerel	y,			
Print nam	+ Edd	12	whith	2
Street				
City	LA	State	Cpl ZP	96016
E-mail				
Phone (Volunteer?



Great Pacific Cleanup	Ar Los Angeles County Board of Supervisors, decades, billions of pounds of plastic and other trash have been ned by wind and waves into the Pacific Carbage Patch, a mass rash that's twice the size of Texas. All this trash is creating an ironmental disaster for ocean wildlife: Plastic and other marine th kill more than 1 million seabirds and 100,000 mammals and sea cles each year. tunately, there are dozens of ways in which we can stop the flow plastic pollution into the Pacific, Los Angeles can lead the way aking on this sea of plastics. I urge you to take action to ban gle-use plastic grocery bags. terrely, t name SOSE Rome ro Los Angel kostate CA. IP 90019 all 	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name UNISTIMA FLOVES Street Gty USAMACS State CAIPMDATL E-mail PhoneVolunteer?
Great Pacific Cleanup	ar Los Angeles County Board of Supervisors, decades, billions of pounds of plastic and other trash have been ied by wind and waves into the Pacific. The plastic swirling und in the ocean has formed the Pacific Garbage Patch, a mass rash that's twice the size of Texas. All this trash is creating an ironmental disaster for ocean wildlife: Plastic and other marine th kill more than 1 million seabirds and 100,000 mammals and sea tles each year. tunately, there are dozens of ways in which we can stop the flow alastic pollution into the Pacific. Los Angeles can lead the way aking on this sea of plastics. I urge you to take action to ban gle-use plastic grocery bags. terely. trame Darlene Hermander et	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Street Gty State J Volunteer? Volunteer?
Great Pacific Cleanup	r Los Angeles County Board of Supervisors, decades, billions of pounds of plastic and other trash have been red by wind and waves into the Pacific. The plastic swirling ind in the ocean has formed the Pacific Garbage Patch, a mass rash that's twice the size of Texas. All this trash is creating an ironmental disaster for ocean wildlife: Plastic and other marine h kill more than 1 million seabirds and 100,000 mammals and sea les each year. unately, there are dozens of ways in which we can stop the flow lastic pollution into the Pacific. Los Angeles can lead the way king on this sea of plastics. I urge you to take action to ban gle-use plastic grocery bags.	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Emmitted life of the Pallie	Sincerely,
förbige Rm/t	Print name
ENVIRONMENT	City L.A
CALIFORNIA	E-mail Phone (

IOS ZENTENO State CA. ZIP, 90032 Volunteer?



Estimated size of the Pacific Garbage Patich	Sincerely, Print name Max	garel Sheles	11
ENVIRONMENT CALIFORNIA	Street	State Or	n 90054



Volunteer?

ENVIRONMENT

in Santa Monica ca 710 99406 E-mail Volunteer?









environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, (-Iorly Print name Street CA IN good State .. Gtv E-mail Phone Volunteer? trash kill more than 1 million seabirds and 100,000 mammals and sea

Sincerely, Print name POHY 10101 P	Illen	
street City N. HUILMWOOD State	CA 71P	11001
E-mail Phone (Volunteer?



ENVIRONMEN ALIFOR

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name	Alexis	LoCentra	
Street GitySay	· vailing	State CA	ZIP 9135-2
Phone ()		Volunteer?







Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

reactive room Sincerely, Print name Street

ENVIRONMENT CALIFORNIA

ery bags.			
elaye	_		
State	CA	ZIP CILGAJA	
		Volunte	er?
	ery bags. α Ι αυκρ State	ery bags. Pelacy == State C(A)	ry bags. Pellouge= State C(3 ZIP State C) Volumeta

Great Pacific Cleanup



Estimated size of the Pacific Gerbage Patch

ENVIRONMENT CALLEODNIA
CALIFURNIA

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	4	1-	0.52	
Print name	ACTINE	Jain 1	cen,	
Street				
City		State	ZIP	
E-mail				
Phone (1		Volunt	eer? 🗌



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban

turtles each year.

ENVIRONMENT

single-use plastic grocery bags. Sincerely, JOHN WAYNE Print name Street 9160 City STUDIO CITY State CA 71P E-mail Volunteer? Phone (



ENVIRONMEN

trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print name AL NOVI	
Street	
City MERTHERACE State C	71P -11325
E-mail	
Phone	Volunteer?







For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely





Cleanup



ENVIRONMEN

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerety, EMARY Dullet soul	
Print name Criticity Surveyed	
Street	
City Santa Maniastate CA TP	90404
Empli	
E-man	100
Phone (Volunteer?





intechanik

71P

State 614

90291

Volunteer?

Print name Sar

City

E-ma

Phone (

ENVIRONMENT

VINICO

Print name JoH	NM BRO	wn
Street		
ay Vance	State CA	TIP 90291
E-mail		

ENVIRONMEN





Street

E-mail

Phone

ENVIRONMENT

LIFOR

(ILY SANTA MONICASTATE

90400

Volunteer?








around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Un HAGER Print name Street 15075 PLAND State TX ZIP City ____ ENVIRONMENT E-mail Volunteer? Phone





ENVIRONMENT

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

	Sincerely,	Vasquer
	Print name posicer whom	V
20	Street	A. 10 10 10 10 10 10 10 10 10 10 10 10 10
1	City State City State	CIS ZIP TINGE
	E-mail	
1	Phone	Volunteer?







For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,

Print name

Sm

Street

Gty



VRT Henkle

Volunteer?

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name Patricia A. GRACE Street City Bur PRIVK STATE Caliste 91501 E-mail

Volunteer?

Great Pacific

Cleanup

ENVIRONMENT





ENVIRONMENT

Volunteer?

E-mail-

Phone (

ENVIRONMENT E-mail Phone (trash kill more than 1 million seabirds and 100,000 mammals and sea

Print name KRISTEN	STAL	(C+	t
street City Santa Clavita state	CA	ZIP	91350
E-mail Phone		50	Volunteer? 📈

trash kill more than 1 million seabirds and 100,000 mammals and sea

Volunteer?



Volunteer?



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

*	Sincerely, Print name Anthon y Na	Var
	Street City Los Angel S State A	Z
MA	Phone ()	



ENVIRONMENT

ENVIRONM

ALIFO

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name LUPPY	1 Polland	
Street City HOILUWOUD	, State CA	ZIP 90039
E-mail Phone		Volunteer?





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,

Print name	Charlie	Wilk	in)	r
Street	Herthe ward State	CA	710	91496
E-mail	The type and state		<u>21</u> P	100 10
Phone ()			Volunteer?

Great Pacific Cleanup



ENVIRONMEN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name	Jose	Saaved	ra	
Street	Con Da Lo	(14		
City U	CANDIN C	State	ZIP	1.4
Phone ()	Y	J	Volunteer?





Print nam

State (

Street

Gty

E-mail

Phone

ENVIRONMENT

IT
IA

Sincerely, Print name Emily Gömez Rambey Street City SCIN Dirego state (A ZIP 9213) E-mail Phone (____) Volunteer?



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban

ENVIRONMENT

Sincerely,	
Print name ASTRIB WILLIPA	(5
Street	
City SPLADIOCATY State CA	ZIP 91604
E-mail	
Phone ()	Volunteer?



ENVIRONMENT

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	> 1 P I
Print name	Duid Kussif
Street	
city CT	State CAZIP HOOS
E-mail	
Phone ()	Volunteer?



Volunteer?

Phone







ENVIRONMENT

trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Tylen Schoen Print name Street City Or DUG 4286 E-mail Phone i olunteer?

trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name May Ota	
Street (ny LOS Angeles, state CA	71P 9006
Phone ()	Volunteer?

ENVIRONMENT

Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific, The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million scabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastic. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Charlotte City Los Angeles Street City City Los Angeles Street City City Los Angeles Street City City Los Angeles Street Volunteer?	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Lizetta Oxozoo Street City Los Angelos State CA 2P 20020 E-mail Phone (Voluntee? W
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name CRUE SOLIE Street	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely. Print name Auroora Mickaelian Street City Studio City State CA zip 91609 E-mail Phone Volunteer?
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Sett Grippe Street Gty LA State A ZIP 90066 E-mail Phone (Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name DREAM ALARE Street









For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban sinole, use plastic generary bans



Sincerely,	01-	1 . 4/21	
rint name	Kobert	wright	
itreet	th MONIC	the da	10 90405
-mail		State 10	
hone (1		Volunteer?



Great Pacific

Cleanup

ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Ì	Sincerely, Print name SUSAN	C	PA	SICE	
	Street	(7	Q z	P70404	
	Phone (Volunteer?	7



		[
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Jon Flyzgerell, Street Jon Flyzgerell, City Jon Let State CA ZIP JO291 E-mail	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastic. I urge you to take action to ban single-use plastic grocery bags. Sinceret: Print name Print name State ZIP Print name Yulunteer?
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the circu of forces. All this trash is creation an	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

State

ZIP

Volunteer?



Great Pacific

Cleanup

Dear Los Angeles County Board of Supervisors,

Sincerely Print Street

City

E-mail Phone (

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way

ENVIRONME ALFOR

Sincerely, Print name 1/ESENTICE ROUT 19082 Street Gty 205 Ary-cles State CM 20 90023	single use plastic grocery ords.	
Street Gty LOS ANGELES State CA ZIP QU023	Sincerely, Print name MESERICI ROOM	5900,7
Gy LOS ANGLES State CA ZP 90023	Street	19-
	Gty LOS ANGELES State CA	ZIP CA 10 023

Dear Los Angeles County Board of Supervisors, **Great** Pacific

> For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name Redio Anaxy	
street City MOISCO Valloy State CA	ZIP 42553
E-mail	5

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,		0		T a .	
Print name	MA	+KIA	110	LOKIA	
Street	ĹA	State	CA	TIP 900 3	4
E-mail Phone (Voluntee	1





Cleanup

ALIFORN







For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

QUOSG

/olunteer?



	Print name	HAR	GARAT	0 C	Hore
-	Street	6	State	Ca	719
A	E-mail Phone (State		2.0

Sincerely.



ENVIRONMEN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Ì	Sincerely, Print name Colleen	Pac	=ff	
	Street City L.A. Stat	, cA	1090039	
	Phone (Volunteer?	





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name	Edith	Liu	
Street	ĹΑ.	State CA	719 90034
Phone ().		Volunteer?

Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name Cassas	ndra Grife	<i>in</i>
Street		
City A	State OVA	ZIP 90005
E-mail		
Phone ()		Volunteer?

Dear Los Angeles County Board of Supervisors,



Volunteer?

ENVIRONMENT ALIFORNI

E-mail Phone (

single-use plastic grocery bags.

Sincerely, Print nam Street City L



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT

Sincerely. NARCISO MONES Print name Street TIP 9006R City W. Harr WOODstate CA E-mail Phone Volunteer?

Great Pacific Cleanup



ENVIRONMEN

ALIFORN

carried by wind and waves into the Pacific. The plastic swirling

Dear Los Angeles County Board of Supervisors,

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

For decades, billions of pounds of plastic and other trash have been

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,		
Print name 10-44	15112	e7
Street		0.010.85
tity Dis/ B	State CA	ZIP 51765-
E-mail		
Phone (Volunteer?

of trash that's twice the size of Texas. All this trash is creating an trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow

Sincerely, Print name ELECEN H. JA	0.085
Street	ZIP 90039
E-mail Phone ()	Volunteer?



around in the ocean has formed the Pacific Garbage Patch, a mass trash kill more than 1 million seabirds and 100,000 mammals and sea

in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name	ра,	bera 2)rata
Street City B	4	State (2)	OF 50210
Phone (3		Volunteer?



Great Pacific Cleanup

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

State C/4

Netarel

Volunteer?

Sincerely

Print nan

Eas. h.

Street

Gity

E-mail

Phone

E-mail

Phone (

ENVIRONMENT

Great Pacific

Cleanup

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow

ENVIRONMENT

of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name VOUDA FINI 24 Street City Les Angelser State C17 TP 70035

Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely.



Great Pacific Cleanup



ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,		0		
Print name 11	FURALEI	TH1	41PS	
Street LA	State	CAI	P 900 3	35
E-mail				~
Phone (Volunteer?	

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea







For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. Lurge you to take action to ban single-use plastic grocery bags.

surah la Mantio

Volunteer?



Great Pacific

Cleanup



Sincerely,

Print nam

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name	JUDY	NCIL	H	en
Street City	lerndonsiane	VA	ZIP	20170
Phone (1			Volunteer?

Great Pacific



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	Mil	11	1	11
Print name	TIR	enli	geen	PL
Street			,	
City /	(tolly uno,	State (A	ZIP	
E-mail		4.7.1		
Phone (V	olunteer?

Great Pacific Cleanup



-	-
100	>
ENVIRON	MENT
CALIFO	RNIA
Unin U	ACC 11/1

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	1 2	
Print name Der	elle Bein	
Street		
City LA	state C-A	ZIP 90035
E-mail		
Phone ()_		Volunteer?



Fortunately, there are dozens of ways in which we can stop the flow

of plastic pollution into the Pacific. Los Angeles can lead the way

in taking on this sea of plastics. I urge you to take action to ban

W PORTE

Volunteer?

single-use plastic grocery bags.

SILVA

at Souta Monostate CA

Sincerely,

Print nan

E-mail

Phone (

ENVIRONMENT

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name John Forleyt Street City Los Ancelos State CA 210 90827 E-mail Phone () Volunteer?

ENVIRONMENT

ALIFORN



CTATA N DR. 44

Volunteer?

City .

E-mail

ENVIRONMEN

-	5	
EN	VIRONMEN	T
CA	LIFORN	IA

in taking on this sea o single-use plastic gro	f plastics. I un ocery bags,	ge you to	take action to ban	
Sincerely, Print name Ma	via L	e.o		
Street City	State	ĊA	710 90039	
Phone ()			Volunteer?	



Street

Gity :

E-mail

ENVIRONMENT

L E()

70 9001

Volunteer?

1	
ENV	RONMENT
CAL	FORNIA
C. T. L.	

Sincerely, -	Rov	ena	Car	die	1
Street City f	÷ .	State	CA.	ZIP	90027
E-mail Phone (1			3	Volunteer?





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Ì	Sincerely, R	ATRIA CON	r.d	363
	Print name	ATRICE COTS	172	0
1	City S.M.	state CH	ZIP	90405
	E-mail			1. IN
	Phone (Volunteer?

Great Pacific Cleanup



ALIFORN

For decades, billions of pounds of plastic and other trash have been

Dear Los Angeles County Board of Supervisors,

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print name Ta.	nmy Horter	1
Street		
Gity Z.A	State CP	DP 90027
E-mail		
Phone L		Volunteer?



ENVIRONMENT

LIFOR

tanife	Sincerely, Print name	Nuri	a He	yck	
-	Street				
ENT	City		State	ZIP	
NIA	E-mail				
uua	Phone (1			Volunteer?

single-use plastic grocery bags.

ENVIRON



Pillin hanne			-
City LOS ANGIELE	Sstate CA	ZIP ·	10057
E-mail			
Phone (Volunteer?

in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Rachel Street	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Jov@L Site CA DP 4D703 E-mail
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Daniel Benbec Street	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Andrea LUI Street City LUAY City state CF ZIP A0730 E mail Phone Volunteer?
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic procev bass.	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

stimuted size of the Pace arbage Patch

CALIFORNIA

Sincerely,

Print name

City Studio City

Street

E-mail

Phone (

Carrie Macy

State CA

ZIP 91604 Volunteer?

71P 90073

Volunteer?





Great Pacific Cleanup

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely,		
Print name FRANCI	K Louis	-HARIC
Street		100
City LOS ANGELES	State (A	ZIP 70066
E-mail		10
Phone (Volunteer?



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely,



Great Pacific Cleanup



Cleanup

ENVIRONME

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name JASMINSE ALH	MERA
Street	JP 90403
E-mail Phone (Volunteer?

Dear Los Angeles County Board of Supervisors, **Great Pacific**

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife; Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print name	MARY	LOWE		
	the Monio	State CA	DP 9	0405
E-mail				
Phone ()			Volunteer?



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMEN

Sincerely,		
Print name for gra-	Joinda	
Street		
any relation	State CA	110 2045
E-mail		
Phone ()		Volunteer?



ENVIRONMENT
CALIFORNIA
CALIFORMA

turtles each year.

Sincerely -	-1.
Print name h All	And
Street	A CANE
City All State	aft zip was
E-mail	
Phone ()	Volunteer?

Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disater for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastic. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Alison Daded Street Gty Park StaCA Phone () Volunteer?	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, What Mark Mark Mark Mark Mark Mark Mark Mark
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Action	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Street City CANTA MON*CAstate CA ZIP GO401 E-mail Phone (Volunteer?Volunteer?Volunteer?V
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastic. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Liba Street	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Will Orartes Street



ENVIRONMEN

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name KAREN SCHNEIDER Street A City SANTA MORI KAState CA 710 90405 E-mail Phone Volunteer?

ENVIRONMENT

of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely,

Street			
City Los Anne	State	ZIP	
E en all			







For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Estimated We of the Pictus. Galaxie Patch



Sincerely, Print name JDhn EVans Street City L.A. State C.A. ZIP 90049 E-mail Phone (Volunteer?

Great Pacific Cleanup



Estimated size of the Pacific Garbage Patch



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	7
Print name Type CO	9
Street	A
City Barbank State C.A	_ ZIP 91595
E-mail	0.000
Phone (Volunteer?





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Expension date of the Fundle Garbone Parch



Sincerely, Print name Michael Koontz Street City L A State C A ZUP GOOK E-mail Phone (Volunteer? V





ENVIRONMENT

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print nameR.coc	to Car	1.14	
Street City Sails El Maria	State	CA	ZIP 91753
E-mail Phone (100		Volunteer?






For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	in un to t	
hint name	CHAMP (ATC
City L A	State CA	19000
é-mail		50 CESTW
Phone ()		Volunter



ENVIRONME

ENVIRONMEN

ALIFOR

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print har	ne - / p	41	1 million 10		
Street	211	-	(A	10212	
Gity 3	DIF		State	ZIP	



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,

Print name Corlos Maina

any Los Anneles	State CA	710 905143
E-mail		1000
phone (Volunteer?

Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

	1000	
INCE	esy,	4
	1000	

			Street
r	DP 908 44	State OP	aty Lan.
	/	OLIVIAN HERE	E-mail
	Vali		E-mail

Great Pacific Cleanup



ENVIRONMEN

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name	Lisa	S	WART	12	
Street City Ternol	, C.Hy .	State	(A)	ZIP 9175	•
E-mail Phone ()		0.00.00 (44.	Volur	nteer

ENVIRONMEN



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name SUSAN Prasa	Ð
City Jan NUY) state CAL ZIP	1140)
E-mail	
Phone (Volunteer?

Great Pacific Cleanup



ENVIRONMEN

For decades, billions of pounds of plastic and other trash have been

Dear Los Angeles County Board of Supervisors,

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	C	16	0	Sol	ATARR)
Treat					1700	-
City (1-	State	Ch	71090010	5
-mail				-17		
Phone (1		,	Volun	teer?

trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Phone

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

For decades, billions of pounds of plastic and other trash have been

around in the ocean has formed the Pacific Garbage Patch, a mass

of trash that's twice the size of Texas. All this trash is creating an

environmental disaster for ocean wildlife: Plastic and other marine

carried by wind and waves into the Pacific. The plastic swirling



Sincerely. Rosie Pantojo Print name Street LA CA Gty E-mail

Volunteer?

Dear Los Angeles County Board of Supervisors,

single-use plastic grocery bags.

lode

Sincerely,

Print name

State CA TP 9641 E-mail Volunteer? Phone (

Fortunately, there are dozens of ways in which we can stop the flow

of plastic pollution into the Pacific. Los Angeles can lead the way

in taking on this sea of plastics. I urge you to take action to ban



Great Pacific

Cleanup





trash kill more than 1 million seabirds and 100,000 mammals and sea







ENVIRONMEN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name	BRYAN	I EST	REU	GR	
Street City L J.	Angeles	State	CA	ZIP	90034
E-mail Phone (-				Volunteer?





ENVIRONMENT

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Since Print o	ame Nice	de Si	hellcra	(t
Street City	no. Hills	St	ate CA	ZIP 91343
E-mail Phone	()	1943		Volunteer?

Great Pacific	Dear Los Angeles County Board of Supervisors,	Great Pacific	Dear Los Angeles County Board of Supervisors,
Cleanup	For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling	Cleanup	For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling
	around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.		around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.
\$	Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.	4	Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.
Estimated size of the Pacific Contange Parch	Print name Vanesser Herty	Estimated site of two Pacific Garbage Patch	Sincerely, Print name Charisse ONeal
ENVIRONMENT CALIFORNIA	Street City LA State CA ZIP 900003 E-mail Phone (Volunteer)	CALIFORNIA	Street Gity Wn Wood State CA ZIP 90269 E-mail Phone (
Great Pacific	Dear Los Angeles County Board of Supervisors.	Great Pacific	Dear Los Angeles County Board of Supervisors,
Cleanup	For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling	Cleanup	For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling
C.A.C.	around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.		around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.
₹	Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.	\$	Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.
Entertained there of the Paralle	Sincerely,	Estimated size of the Facilie	Sincerely,
and the second second	Print name Matt Har Wordy LCSW	CHILO Y CARA	Print name LI LIONO KIVCYO
ENVIRONMENT	City LA State CA TIP 90042	ENVIRONMENT	City Walnut Park State CH ZIP 9025
CALIFORNIA	E-mail	CALIFORNIA	E-mail
	Phone () Volunteer?	CHIMAN CARTAIN	Phone (Volunteer?

Great Pacific Cleanup

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,



BE JEANNETTE LOPEZ Print name Street CA 90005 LA State 7IP E-mail Volunteer? Phone





ENVIRONMENT

ALIFOR

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,		
Print name COCH	yRE	YES
Street		
City PAGADENA	State CA	21P 90042
E-mail		
Phone ()		Volunteer?





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

710 UD 30

Estimated size of the Pastic Garbage / snin



Great Pacific

Cleanup

Dear Los Angeles County Board of Supervisors,

Srandani

Sincerely,

av Indewo

Print mar

Street

E-mail

Phone

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the **Pacific Garbage Patch**, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Manufactor	100	39	
Sector 14			



single-use plastic grocery bags. Sincerely, Print name PRA CAD Street City C.A. State CA 7/P 90% E-mail Phone (Volunteer?

Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup



Estimated size of the Pold Gurbage Parch

ENVIRONMENT CALIFORNIA Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name Kyvsta P	B	aly	8
Street Gity W . H. [L-powerState	0	ZIP	9/6.1
E-mail			
Phone ()	_		Volunteer?





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Mouskeeper

terte (1)

8/501

Volunteert

EN

ce of the Plankt Wh	Print name 13, 1
RONMENT FORNIA	Street City Pr. LQ E-mail Phone (



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, Print name Fredrik	FA	инев	2	
Street City XORUGLIK	State	CA	ZIP	90656
Phone ()				Volunteer?





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name Joyathan Lung		
Street Give Los Any des State CA	ZIP	90005
E-mail Phone (Volunteer?

Great Pacific Cleanup



ENVIRONMEN

ALIFOR

carried by wind and waves into the Pacific. The plastic swirling

Dear Los Angeles County Board of Supervisors,

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

For decades, billions of pounds of plastic and other trash have been

Print name INARAL	TAI	IMIZ	IAT	1
Street				
City LA	State	co	ZIP	90010
E-mail	-	_		
Phone /				Volunteer



around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban

ENVIRONME

C.	single-use plastic grocery bags.					
Ì	Sincerely, Print name RAV mound	Johnson				
	Street City-LA FUCH TC State	CA 11991744				
A	E-mail Phone ()	Volunteer?				



1	1000	-	-
T. S. S.		>	
EN	IRON	MEN	Ι.
CAL	JFO)KN	LA

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name	Nat	re Lyon	5
Street	À.	State C.A	71 90005
Phone (9		Volunteer?



ENVIRONMENT

E-mail

Phone (

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

	Sincerely Print nam	Callie	Pompo	
Ţ	Street City E-mail	Buttle	State 1-77	ZIP 59701
IA	Phone ()		Volunteer?

ENVIRONME

single-use	e plastic	grocery	bags.	ge you to	take accounte pari	
Sincerely, Print name	M	ulu	gale	a Te	would	
Street	I.a		State	(A	na Qinnx	

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow

of plastic pollution into the Pacific. Los Angeles can lead the way





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, OVTRE MAVI Print na Street 71P G0005 City E-mail Volunteer? Phone



ENVIRONMENT

ALIFORNI

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way



in taking on this sea of plastics. Fur single-use plastic grocery bags,	ige you to take action to ban
Sincerely, Print name FEMANdo	Rami 102
ity has AngelAstate	C.A. 21 90057
Phone (Volunteer?



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	
Print name Stry Hausen	
Street	
City Sherman Dabs State C.A.	TIP 91423
E-mail	
Phone I	Volunteer?

Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, OSCAR De	lcid
Street City L 17 State L	a 10 90005.
E-mail Phone	Volunteer?

Great Pacific Cleanup



1		100	×.	100
			>	
0		TRON	ME	
U	AL	IFU	IKI	AIA

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,		
Print name	anal IL	noma)
Street		
City UNA	State CC	ZIP 9013
E-mail		- DA1 - 55
Phone ()		Volunteer?



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each yeat.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name	1.31			1
Street City	Burbank	State CA	ZIP 915	94
E-mail				



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name Daniel	Kan	1	
Street Gty_B_bank	State	CA	71P 01501
E-mail Phone (Voluntee



CALIFORN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Ectimated size of the Pacific Garbage Patch

	-		5	
6	ENV	RON	MEN	T
C.	AL	IFU	KN	IA

ingle-use pl	lastic grocer	y bags.	194			
incerely, rint name	Horol	d le	č.			
ity (s.c.	Angeles	State	CA	ZIP	90042	
hone (.)				Volunteer?	

Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Icel	ey lope	
Street	State CA ZIP	Gasot
E-mail)		Volunteer?

Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,

Print name Toth Cill	a Sand	oval
Street Gity LA C C	state A	DP 90005
E-mail		Volunteer?

Great Pacific Cleanup



Enimoted size of the Paci Garbage Platch

narbage Pult h

ALIFORN

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass

Dear Los Angeles County Board of Supervisors,

of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print name Miguel	Gur	cit-		
Street City L · A .	State	CA	ZIP	90065
E-mail	<	20		Volunteer?





For decades, hillions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Estimated size of the Pintillic Garbage Pintsh Sincerely

ENVIRONMENT CALIFORNIA





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Estimated Great the Bacilo Gerbage Patch



single-use plastic grocer	y bags.	
Sincerely, Print name JIN 1	see.	
Street		
City Expance	StateCA	218 90503
E-mail		
Phone		Volunteer?

Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the **Pacific Garbage Patch**, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup



Estimated star of the Pách Sarbage Patri

Gerbage Firmt

ALIFORN

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass

Dear Los Angeles County Board of Supervisors,

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

aty SUNGABER	State CA	71P 41776
E-mail		
Phone /		Malurations?





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

	Sincerely, Print name VANESSA GE	TALL
	Street CityPARAmonut State C	4 IP 96723
IA	Phone ()	Volunteer?





LIFO

ENVIRONMENT

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an

For decades, billions of pounds of plastic and other trash have been

Dear Los Angeles County Board of Supervisors,

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turties each year.

Sincerely,		10		
Print name	Johothy	an L)O(an
Street Gity 100	Amore So state	CA	ZIP	10062
E-mail	J.			
Phone (1			Volunteer?



Great Pacific

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific, The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,

Sincerely.

Street

City

E-mail

Phone (

Print name MIA (CTM-Street
Oty L-A State CA ZIP Close5
E-mail
Phone (____)
Volunteer?



ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Essimated size of the Pacific Garbage Patch

ENVIRONMENT CALIFORNIA

Great Pacific Cleanup

Dear Los Angeles County Board of Supervisors,

Print name TERIL SCHERETZ

Los Arales state GA ZIP

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

5	
	Estimated Line of the Parkle
	entropy parch



Print name Mars	g Sens	
City UP	State CA	ZIP 900-3
Phone ()	585	Volunteer?



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific, The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

C 1	in.		N.85	
- 10				

Print name	JOHN.	BELL.	
Street			
Gty Zoon	ORKS	State CA	ZIP 91361
E-mail			
Phone (.)		Volunteer?

Great Pacific Cleanup

ENVIRONMENT



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup



ALIFORN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Sincerely,	
Print name TONIA D	102
Street	
any LOS Angelessiane Ca	DP90005
E-mail	10 22
Phone I	Volunteer?



Great Pacific

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,

CALL MALIC Print name Street 90022 LOS ADULELES STATE CA City E-mail Phone (Volunteer?



ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ZP 90212

Volunteer?



Stree	1			
City	Beverly	Hills	State	C
	10			

Print name Julia Lee

Phone

Sincerely,



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban



single-use plastic grocery bags.	
Sincerely, Print name OSCAR RM	
ing has X State & P 71P	
Phone I	Volunteer?



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	1 11 1	
Print name VGence	la Nelso-	-
Street		
my Fasleward	State CA	ZIP 90301
E-mail		
Phone		Volunteer?

For decades, billions of pounds of plastic and other trash have been

around in the ocean has formed the Pacific Garbage Patch, a mass

of trash that's twice the size of Texas. All this trash is creating an

environmental disaster for ocean wildlife: Plastic and other marine

Fortunately, there are dozens of ways in which we can stop the flow

of plastic pollution into the Pacific. Los Angeles can lead the way

trash kill more than 1 million seabirds and 100,000 mammals and sea

carried by wind and waves into the Pacific. The plastic swirling

Dear Los Angeles County Board of Supervisors,

Great Pacific Cleanup



ENVIRONMENT

in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely

turtles each year.

rint name To Q.	12 6 16	Sanciente
treet	6 6 0	
ity 2466	State C.4	719 40014
-mail		91 A221 A2
hone (Volunteer?





carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, Print nam Street City LOST allesstate E-mail Volunteer? Phone (

Cleanup



ENVIRONMENT

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turties each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name Jeane	ite Valer	ez.	_
City LOS AMORIES	State CA	ZIP	90005
E-mail			-
Phone (Volunteer?

trash kill more than 1 million seabirds and 100,000 mammals and sea



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.





ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Estimated for of the Pacific Geology Patch



Street City L 1 Hal A State CH . 71P 90037 E-mail Phome (Volunteer?



ENVIRONMEN

Dear Los Angeles County Board of Supervisors,

Sincerely, Print name

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name UI	sses Par	is	
Street	State CA	ZIP	90020
E-mail Phone (Volunteer?



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each yeat.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,



Great Pacific Cleanup

ENVIRONMENT



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely	× 1	1/	
Print name 4 9	facl	Vac	100-2
Street A			,
City L.A	· State	CQ.	11 90024
E-mail			
Phone			Volunteer?

Great Pacific Cleanup



Estimated size of the Pool Contrage Potch

ENVIRONMEN'

ALIFOR

of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

turtles each year.

Dear Los Angeles County Board of Supervisors,

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

For decades, billions of pounds of plastic and other trash have been

around in the ocean has formed the Pacific Garbage Patch, a mass

carried by wind and waves into the Pacific. The plastic swirling

Print name VICTOr	Johnso	0
Street Gty bardena	State Ca	ZP 90249
E-mail	- C.	
Phone		Volunteer?

Develop Incolar County Develop County





ENVIRONME

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each yeat.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name JEP	nista-pa	enter
City LA	State Ca	TP 900/1
Email		





Estimated size of the Paole Girboge Patch

ALIFORN

For decades, billions of pounds of plastic and other trash have been

Dear Los Angeles County Board of Supervisors,

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million scabirds and 100,000 mammals and sea turtles each year.

Print name Ezegu	uel (Ban	41	
itteet itty Pico Rivera	State	CA-	ZIP	90660
mail		0		
Phone (0	Volunteer?



70 90255

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific

Cleanup

Dear Los Angeles County Board of Supervisors,

City 140Atmost That's state CO.

Sincerely, Print name Street

E-mail

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT LIFOR

Volunteer? Y Phone (

Sincerely, Print name Adam Madrid Street -City Mordighallo state Ca 11990640 E-mail Volunteer?

Cleanup



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

71P 90232

Volunteer

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,		
Print name Ant.	1. lee	
Street CityWoodkind H-115	State CA	ZP9/364
E-mail		_
Phone (Volunteer?

Great Pacific Cleanup



ENVIRONMENT

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine

Dear Los Angeles County Board of Supervisors,

trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling

Sincerely, Print name Nicholas	Layer,	
Street City Ger In .	state CA	IP 90249
E-mail	,	
Phone (Volunteer?





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the **Pacific Garbage Patch**, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

71P 90029

Volunteer?

Estimated size of the Picific Gerbage Faich

ENVIRONMENT CALIFORNIA







Estimated lize of the Pacific-Garbage Partch



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags,

Sincerely,	Aldara		
Street.	11100	A	11.4
City LOS ANJell	S State CA	ZIP	90006
E-mail			
Phone (Volunteer?





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Frincha Print name Linds	y clark	
Street City Staria Moniou	State CA	ZIP GOUOU
E-mail Phone (5 KV - 50	Volunteer?

Great Pacific Cleanup



Estimated size of the Pools Gerbage Patch

ENVIRONMENT CALIFORNIA Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,		
Print name UENN	IFER 61	REER
Street		
CAY VALENCIA	State CA	2091355
E-mail		
Phone (Volunteer7



ENVIRONMENT

Sincerely, Print name pallin Romero Street Gry Sooth Gale State (A ZIP 90280 E-mail Phone Volunteer?

ENVIRONMENT

Sincerely, Print name Muhammad Riag Street City 2A State CA ZIP Freezo E-mail Phone (, Volunteer?



ENVIRONMENT

Sincerely, DIALULA COG	1/21
Print name DIANNA GAG	NON
City BURBANK State CA	211 91502
E-mail N/A	
Phone (Volunteer?

Sincerely, Print name Mill	Masga	inioun
Street Charolows th	S state	z# 91367
E-mail		
Phone		Volunteer?



Sincerely, Print name AUDREY TADA IAD Street Gty BUYDANIC State C. A. 21P9/1570 1 E-mail Phone (_____) Volunteer?

ENVIRONMENT

Sincerely, Print name Incerne

ENVIRONMENT

Street 21940026 City Los Angeles State CA E-mail Volunteer? Phone



For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass. of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

State CA

IP 94608

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely	V. to		101	6	
Print carr	ne It	ema	ve	1	
Street			0.4		GUDI (
City	La	State	(1	ZIP	90026
E-mail					
Phone ())			14	Volunteer?

Great Pacific

ENVIRONMENT

ALIFO



ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	n. I	20.02
Print name FY AVICI	s ve h	euro.
City Loc Angele	State CA	11 70026
E-mail		
Phone (Volunteer? M

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ichalle Curt

2560

Volunteer?

ENVIRONMENT LIFORN

Great Pacific

Cleanup

Dear Los Angeles County Board of Supervisors,

Sincerely

City LA

E-mail

Phone

Print + Street

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.











For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban cionia una alactic aracam haar

NVIBONMEN

Sincere	ely.	0	7911	
Print na	me Georgi	na leral	Ha	_
Street		,	Married and South	
City Le	* Angeles	State CA	ZIP 90020	-
E-mail				
Phone	(Volunteer?	E.





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	ly no	111 1
Print name UU	dy Mc.	4/1155-04
Street		0.1-
City Malit	ec State C	A 21090245
E-mail		
Phone ()		Volunteer7



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONM CALIFO

turtles each year.

(in Ma); bu	State Ca	710 90265

Street			
City Malik	State	CADI	90265
E-mail			



ENVIRONMENT

turties each year.

Sincerely,	111/	
Print name	Mar I	0
Street	199.01	meth
City KCC	statel	ZIP YOUL
E-mail		
Phone ()		Volunteer?



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name LEGIMAC Satamba Sircerely, Sircerely, Print name LEGIMAC Satamba Sircerely, Sircer

Sincerely, Print name LOIS A. Tharacto City LOS ANGELESTATE COM TO 900 26 ENVIRONMENT E-mail Phone Volunteer?



LIFO

Volunteer?

Phone

Volunteer?

Phone (



ENVIRONMEN

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name LUZ M. GONZALEZ Street Gity LOS AngeleSstate C.A. ZP 90020 E-mail Phone Volunteer?

ENVIRONMENT

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name	TEN	SHARPE	,	
Street	A Marica	State CA	ZIP 90405	
E-mail Phone (Volunteer	10







For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

176

Volunteer?

Sincerely,



unt name 1841.	of free cases of	
treet		
ity LA	State CA	710.9
-mail	2	
hone ()_		

- O. Maria



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, ance and Print manie Stree TPARTe L Gity los Angeles 01 State



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely.



Great Pacific Cleanup



ENVIRONME

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling

Dear Los Angeles County Board of Supervisors,

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print name	met w/	001010
Street		
City	State	ZIP
E-mail		
Phone ()		Voluntee



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Katemia muceny

State CH

90003

Volunteer?

Cleanup



Great Pacific

Cleanup

Dear Los Angeles County Board of Supervisors,

Sincerely

Print nan Street

City LA

E-mail

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban

ENVIRONMENT

single-use plastic grocery bags. Sincerely, Carolyn Hammersly Print name Street City SM State CA IP 20405 E-mail Phone Volunteer?

Great Pacific Cleanup



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerety, Hadi	Harris		
Street City Sink Olavi	State UA	71P	Parley
E-mail			
Phone			Volunteer?

Great Pacific





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,		
Print name OC	rardo zui	m6(3)
Street		
City LA	State (+\	ZIP GOULG
E-mail		
Phone ()		Volunteer?



Sincerely.

Street

E-mail

Phone

ENVIRONMENT

ALIFOR

Print name Olga Polinovsky

City Santa Mondan State CA

71 90405

Volunteer?

Istantied size of the Kinife Sorboar Patch



Sincerely, Print name	Luy	UNAENC	C
Street	PAL	State CA	71 20272
E-mail Phone E	·)	111	Volunteer?





Volunteer? X



Great Pacific

Cleanup

Great City LOS AMGELESSTATE CA TIP 90025

E-mail

Phone (

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Print na	me Huin	i field	15		
Street	00000				
City	SM	State	CA	ZIP C	10405
6-mail				16.0	
Phone.					Volunteer?



Sincerely, Print name JUN	e Louks		
Street City Malla	state A	ZIP	96265
Phone ()			Volunteer?

Dear Los Angeles County Board of Supervisors, **Great Pacific**



ENVIRONMENT

ALIFORNI

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	m 1
Print name Herbert	- May
Street	
City Sanda Monica State	CA 11 10405
E-mail	
Phone (Volunteer?




carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	S. C.C.	I
Print name OCL	nka Erse	ICUIC
Street		
City LA	state CA	NP 90066
E-mail		
Phone (Volunteer?



1000	-	-	5
EMM			
CATT	DO	DN	÷
		IKN	

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,		
Print name Sce 2	(Ichel	and the second
Street	201	
Gty LA	State	ZIP 90000
E-mail		
Phone ()		Volunteer?







Estimated size of the Pacific	Sincerely,
Garboge Parich	Print name IS/G Rives
CALIFORNIA	Street City Cos Argles State E-mail Phone

TP GUC. 6

Volunteer?

Estimated upp of the Pacific

Sincerely,

Print name

City L

E-mail

JONLY Garla

State CA

TIP 9002/.

Volunteer?

ENVIRONMENT CALIFORNIA



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Estimated size of the Pacific

ENVIRONMENT CALIFORNIA

Sincerely, Print name Wesley BARKER Street City Los Augeles State CA ZIP 90045 E-mail Phone Wolunteer?



Estimated rate of the Pacific Contraspe Planch

ENVIRONMENT CALIFORNIA

Sincerely, Print name C. hurlie	B	11	
Street Sust MOAl of State	PA	ZIP	10.109
E-mail Phone			Volunteer?



ENVIRONMENT

LIFOR

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name Kiristal Gittens Street City Los Arxielles State CH ZIP 70070 E-mall Phone () Volunteer?

ENVIRONMENT

Print name	DAVIO	PACKS		
Street				
City L+1	ANLOWS	State C. 9	ZIP	90061
E-mail				
Phone (00			Volunteer?



around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Print name LAURA ANDURON Street City State ZIP F-malf Volunteer? Phone (





ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

Sincerely,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, JENNIFER CHA Print name Street City LOMA

E-mail

LINDA	State CA	71P 92354
		Volunteer?



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seableds and 100,000 mammals and sea turtles each year.

Volunteer7

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,



Great Pacific Cleanup



ENVIRONMEN ALIFORN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Qr	E 1	
Print name TC 1	-Ver beck	ę
Street	1	Martin Market Martin
City SM	State C A	211P 90405
E-mail		
Phone ()		Volunteer?





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, Print name Stephanice Dittus Street in US ANDELES state CA ZIP 90617 E-mail Volunteer? Phone

Great Pacific Cleanup



ENVIRONMENT ALIFORN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than T million seabirds and 100,000 mammals and sea turtles each year.

Volunteer?

Volunteer7

Sincerely,	Δ	1	
Print name	Aua	ho	PEC
Street Gity Los	Augelesian	с.д.	71P 40021
Phone ()		Volunteer?





ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, i oto Ardd Print name Street CAY SAN MAGINSUR CA TR 911 00 E-mail Volunteer?

Great Pacific Cleanup



Phone [

ENVIRONMENT

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine

trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way

For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling

in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Arthur Yniquez Street State CA City LA 718 90066 E-mail

Volunteer?





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the **Pacific Garbage Patch**, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Estimated size of the Pacific Gerbage Patch



Sincerely, Print name JOSIE HEIMAN Street Gty LOS ANGECES State CA 71P 90026 E-mail Phone (_____) Volunteer? Great Pacific

Cleanup

ENVIRONMEN

ALIFOR

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name HF1	DI TOHNS	SON
Street	State CA , Z	P 90026
E-mail Phone		Volunteer?





ENVIRONMEN

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	Tel	$\lambda \in U$	0
Print name	Joel	UCKIND	1
Street	115	1 1 1 1	011-12
City 1/1	thitel	Laco-State CA	ZIP 7107
E-mail		5	
Phone ()	······································	Volunteer?



ENVIRONMEN

ALIFOR

For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print name	arry 123	5
Street City L - A	state CA	71P 90336
E-mail	12.0	

Great Pacific Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and s turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastic. I urge you to take action to ban single-use plastic grocery bags.	Real Control of the second sec
Gradoge Plinch Gradoge Plinch Print name JEANY POULSSON Street City State Zip E-mail Phone (Since of the office off
Great Pacific Cleanup Wind and waves into the Pacific Carbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and se urites each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic gollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastic. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Mint name Ann K Obwrman Sizer My SAMA Menu(A_State CATP_90+02_ Email Into the state CATP_90+02_ Pione () Wounteer?	era Dear Los Angeles County Board of Supervisors. era For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling an ound in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Fuzas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea uritles each year. era Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Pint name I SABELA BRAGA. Sincerely. Pint name I SABELA BRAGA. Charles State CA 2P 900.260 E-mail Pinne
Great Pacific Cleanup Wind and waves into the Pacific Carbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and s turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastic. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Will TEWiZ Street Chy LA State CA_ZP E-mail Phone (Image: Second State Sta

Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name GREGORY RIVERS Street The Howe KodG E-mail	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Carbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Jochen Alw Dear SAAG Street Jochen Alw Dear SAAG City Malling State ZIP Pinel Jochen Alw Dear SAAG
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine. trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name <i>RCTECHBRED GAR</i> . Street Image: State CF	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Sarah Yan Kutvitte Gry Santa Moniegtate City Jup 90 4003 E-mail
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,

Print name Becky Gerwin Street 506 (1) Santafe State NM ZIP X CALIFORNI E-mail Volunteer? Phone (





CALIFORNI

vind and waves into the Pacific.

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name Grayi	Aubrey	
Street City Matibu	State CA J ZIP	90265
E-mail		
Phone (1	Volunteer?



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name Victo	OR GRENN	6L
Street C	State CA	710 90265
E-mail	Julie Ori	
Phone		Volunteer?

Great Pacific Cleanup

ENVIRONMENT

CALIFORN



ENVIRONMENT

CALIFORN

For decades, billions of pounds of plastic and other trash have been

Dear Los Angeles County Board of Supervisors,

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	and the second	
Print name	many Lee	Ryan
Street		
City Los	Augeles State &A	71P 60210
E-mail		
Phone ()	Volunteer?

Sincerely. Print name

Street

Phone i



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine

Fortunately, there are dozens of ways in which we can stop the flow

trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ace DILL

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Humilbur

710 9004

Unlightanie?

90026

Volunteer?

7IP

Sincerely,

Print nar Street

E-mail

Δ Gity L

ENVIRONMENT LIFOR

Great Pacific





For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Chris Maxon Maldonado

State Ca

90066

Volunteer?



Great Pacific

Cleanup

ENVIRONME

ALIFOR



Sincerely,

Print name

City Los Anoreles.

Street

E-mail.

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

			e	Print nam
IP GOU	CĄ	State	LA	City
				E-mail
Volunteer?			1	Phone (

Cleanup



Cleanup

ENVIRONMEN

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific, Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Dear Los Angeles County Board of Supervisors, **Great Pacific**

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	
Print name APM DOM	
Street City Studio CMY state CA	119/100/
E-mail	
Phone	Volunteer?



of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name Street 90066 City bas Aracles State CA 710 ENVIRONMENT F-mall Volunteer? Phone (



ENVIRONMEN ALIFOR

of trash that's twice the size of Texas. All this trash is creating an

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

incerely,	T		reast.	
rint name Julic	2 D	unla	P	
treet ity Los Angeles	State	CA	ZIP	90066
-mail				
hone (Volunteer?





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT ALIFOR

Print name Ketty	Landmann	
Street.		91.215
E-mail	State (A-	//p _10263
Phone (Volunteer?



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, Print name Berry Street 211 90000 State CA-City CA E-mail Volunteer? Phone (

Great Pacific Cleanup

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup



ENVIRONMEN1

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name	Victoria	Contrilas	
Street City Los	Angeles	State CA.	21P 90039
E-mail Phone (Volunteer? X



in taking on this sea of plastics. I urge you to take action to ban

Oward Wedin

State CA

ZIP 90066

Volunteer?

single-use plastic grocery bags.

Sincerely,

ι

Print n.

Street

City

E-mail

Phone

ENVIRONMENT

ALIFOR

of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.





Sincerely,



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

State CA

TIP 90035

Volunteer?

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT ALIFORM





ENVIRONMENT

Sincerely,	
Print name Mester A	(len-1)utton
Street	(A 10 900260
E-mail	Cr1 pr ma
Phone I	Voluntaer?

Sincerely,		
Print name Kist	Da132	+
Street		
City LA	State CA	ZIP 90026
E-mail		_
Phone (Volunteer?



Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way

in taking on this sea of plastics. I urge you to take action to ban

State (F)

710 400 GL

Volunteer?

single-use plastic grocery bags.

- 6

hache

Sincerely.

Print na Street

Gty

E-mail

Phone

ENVIRONMENT

Ì	Sincerely, Print name 1+3 w	und he	linen
	Street	Calitate C 1A	ZIP 9/423
١	Phone ()		Volunteer?



Volunteer?

Phone

Volunteer?





ENVIRONMENT
CALIFURNIA

Street

E-mail

Phone (

City LOS A

Volunteer?

Volunteer?

State CA

210 90068

Street

E-mail

Phone

ENVIRONMENT

City LA

Great Pacific Cleanup Control	ar Los Angeles County Board of Supervisors, decades, billions of pounds of plastic and other trash have been ried by wind and waves into the Pacific The plastic swirling und in the ocean has formed the Pacific Garbage Patch, a mass trash that's twice the size of Texas. All this trash is creating an ironmental disaster for ocean wildlife: Plastic and other marine th kill more than 1 million seabirds and 100,000 mammals and sea tles each year. tunately, there are dozens of ways in which we can stop the flow plastic pollution into the Pacific. Los Angeles can lead the way aking on this sea of plastics. I urge you to take action to ban gle-use plastic grocery bags. cerely, t name Sators Works et Flows et Flows et Flows et Volunteer?	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Miclin 2012 SOID Street Gity UA State CA 710 HOXEM E-mail Phone Volunteer?
Great Pacific Cleanup For and of envira turi Calific Calific Construction Calific Construction Calific Construction Calific Construction Calific Construction Calific Construction Calific Cal	In Los Angeles County Board of Supervisors, decades, billions of pounds of plastic and other trash have been fied by wind and waves into the Pacific. The plastic swiriing und in the ocean has formed the Pacific Garbage Patch, a mass trash that's twice the size of Texas. All this trash is creating an ironmental disaster for ocean wildlife. Plastic and other marine th kill more than 1 million seabirds and 100,000 mammals and sea tles each year. tunately, there are dozens of ways in which we can stop the flow plastic pollution into the Pacific. Los Angeles can lead the way aking on this sea of plastics. I urge you to take action to ban gle-use plastic grocery bags. terely, t name BOWNEE DAMS et	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Street City Cos AncocloS State Call 21P GLOCH E-mail Phone () Volunteer?
Great Pacific Cleanup aro of t env traitur for of p in t sim	It Los Angeles County Board of Supervisors, decades, billions of pounds of plastic and other trash have been ried by wind and waves into the Pacific. The plastic swirling und in the ocean has formed the Pacific Garbage Patch, a mass trash that's twice the size of Texas. All this trash is creating an ironmental disaster for ocean wildlife. Plastic and other marine sh kill more than 1 million seabirds and 100,000 mammals and sea tles each year. tunately, there are dozens of ways in which we can stop the flow plastic pollution into the Pacific. Los Angeles can lead the way aking on this sea of plastics. I urge you to take action to ban gle-use plastic grocery bags.	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch , a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,

Print name Street City 2 17

E-mail Phone (

١

CALIFORNIA

Reberte Oirci

State CA

7IP

Volunteer?

CALIFORNIA

Sincerely, Print name C.F.	ROL	Pot	TER	
itreet Ity LA	State	A	ZIP 90664	
-mail Phone (n. 524	-1-27.00	Volunteer?	





Cleanup

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

07100

Volunteer?



Street Gty L E-mail Phone

Sincerely

Print nan



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban



ENVIRONMENT

single-use plastic gro	cery bags.	
Sincerely,		
Print name NOA L	inlyg	
Street		
(ityralila-	State CA	ZIP 1325
E-mail		
Phone ()		Volunteer?

Great Pacific Cleanup



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely

Print na	me _	Novalie Ste	Civil		
Street . City	N	Holy wood state	(1	ZIP	9 1602
E-mail	_				
Phone					Volunteer?

Great Pacific Cleanup





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Dalas	(I) BAR	
Print name Toccort	WIRM	
Street		
city Malipin	State C.A	ZIP 902-65
E-mail		
Phone (Volunteer?

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea





ENVIRONMENT

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

turtles each year.

ENVIRONMENT

Sincerely, ana Print name Street city Pabadena state 2A ZIP 91104 E-mail Phone Volunteer?

trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Ì	Sincerely,	VIEW
	Street	20110
	E-mail	AP TIGOZ
	Phone ()	Volunteer?





Volunteer?

Phone (

Volunteer?



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name	ivie Do	utel	
Street City L - A +	State C	It ZIP	90028
E-mail Phone ()			Volunteer?



ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,

ENVIRONMENT ALIFORN





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Kimberly Blanco

State (A 21 91681

Volunteer?

Sincerely,

Print name Street

City

E-mail

Notto

ENVIRONMENT IFORN **Great** Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,



Great Pacific



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerel Print nan	. Kimy	unh t	the	malv
Street City	Las Angels	State_CA	ZIP	90027
E-mail Phone (9.	Volunteer?

Great Pacific For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Aliga Chester Print name Aliga Chester 210 40 cm45 Volunteer? Volunteer?	Great Pacific Cleanup Cleanup<
Great Pacific Dear Los Angeles County Board of Supervisors. Arried by wind and waves into the Pacific Carbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Pint name County Plant Carbon County Plant Ca	<text></text>
Great Pacific Cleanup The former of the second sec	Great Pacific Cleanup The second sec

ENVIRONMENT CALIFORNIA

Estimated size of the Pastic Garbaye Fatch	Sincerely. Printname Argentina Eisenhover
	Streets City los augules state Ca 00 90039 Email
CALIFORMA	Phone (Volunteer?









ENVIRONMENT

ALIFORNI

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Frank Fartha Print name Street aty Van Nuip state CA - 21 91401 E-mail Phone Volunteer

Great Pacific Cleanup



ENVIRONMENT

For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	. 0	
Print name SIECE HE	NRG	nt
Street CUENDOG STATECA	ZIP	91246
E-mail		10000000
Phone (Volunteer?





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

stimuted stor of the Paolic Syrbani Path



Sincerely, Print name JESSE CALVECUGAN Street City GIUSENT State A2 DP 85233

Volunteer?





Estimated size of the Papil Gerbage Patal

ENVIRONMENT CALIFORNIA Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	and	1		
Print name AWLER	HINO	p.		
Street City WhitAler	State	(A	ZIP	90601
E-mail		11 T		
Phone (Volunteer?







City ENVIRONMENT E-mail Phone

MARIA GLASSI Print name Street State CA 90008 71P

Volunteer?

ENVIRONMENT

Sincerely,			
nint name DTHEIS	SIN	GEE	
treet	CA	70 91214	
mail			
Phone ()		Volunteer?	
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name Saving Skeeham Street Cat Garescanta state CA _ ZP _ 91.2.144 E-mail Phone (Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name City Venice State CA 20P 90291 E-mail Phone (Volunteer?
--------------------------	--	--------------------------	--
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Mommas Karep Print name Mommas Karep Oty State 219 E-mail	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors. For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife-Plastic and other marine trash kill more than 1 million seablids and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags. Sincerely, Print name John BLOOK Street City JACUESCENTA State CA 21P 91214 E-mail Phone (
Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental discusse for crease will filling the starship in the starship.	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an

-

trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,

KARP 11-1 Print name Street City MERMINISTER State CA 11 92683 CALIFORNI E-mail Phone (Volunteer?



CALIFORNI

environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name PAT	SPERRY		
Street	State CA	ZIP	90068
E-mail Phone ((Volunteer?



Volunteer?

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Estimated size of the People. Garbage Patch Sincerely Print name Street

E-mail

Phone (

ENVIRONMENT CALIFORNIA



ENVIRONMENT

ALIFORN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name Mart	hall tad	Horgen Se.
Street . City Vanice	State CA	ZIP 90271
E-mail		
Phone (Volunteer?



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name Olgg	Soto	
Street City Venice	State Ca	711 90291
Phone (Volunteer?

Great Pacific



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print name GREG	ORY	6	000	o
Street				-
City Ad Mywood	State	CA	ZIP	90068
E-mail				
Dhone I				Mahuntuar?







Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

er Af the Pacific



Sincerely,

Print name	-	20N7	14 2	my	OT.
Street					
City ST.	PIN	CITY State	CA	ZIP	91602
E-mail					
Phone (1			-	Volunteer?



Estimated size of the Audio Garbage Bitch

ENVIRONMEN

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name L	lanie	1 Dumin	ques	
Street			<i>,</i>	
City		State	ZIP	
E-mail				
Phone (1		Volunt	eer?



For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, MILI 7	
Print name 1 la Colm Dur	mall
Street	
any Shermar Astro CA 2	P 91123
E-mail	
Phone (Volunteer?

Great Pacific Cleanup



Entraned stread the Politic Gardage Patch

1	-	1	~	
C	AL	IF()RN	IA

Dear Los Angeles County Board of Supervisors.

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print name Bright	Scot	
Street City Winnether	State CA	ZIP 97 306
E-mail Phone (Volunteer?





710 90027

Volunteer?





Dear Los Angeles County Board of Supervisors,

City.

E-mail

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,



KRISTEN MORFISON Print name Street 10048 State CA City LN E-mail Volunteer? Phone



ENVIRONMENT

LIFO

City

E-mail

Phone (



ENVIRONMENT

Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

NO GUOZT

Volunteer?

900000

Volunteer?

Ì	Sincerely, Drint name E h & ISSMA	
1	street City Los Aregules state CA	210 90035
	E-mailPhone ()	Volunteer?









Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea tortles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

d alue o' tree Antife. Anti-A



single-usi	e plastic grocer	y bags.		
Sincerely,				
Print name	DAJE	mAn	TIWE	
Street	, . , . ,			
City		State	ZIP	
E-mail				
Phone ())			Volunteer?





ENVIRONMENT

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific, The plastic swirling

Dear Los Angeles County Board of Supervisors,

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name AIDA	MARINA	
Street City So: PASA DEJ	UA State CA	21P 91030
Phone (Volunteer?



ENVIRONMENT

Sincerely, Print name Eduardo Pardo Street Line State CA ZUP 90039 Environment ALIFORNIA Phone Line Volunteer?

Sincerely, Print name Danielle Schoe herr Street Gty N. 1401151W. State CA ZIP SIGO/ E-mail Phone (Volunteer? 4







Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,



Print name

Rygod MelyoKANAN Street 7:035 710 Gity State E-mail Volunteer?



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way In taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

ENVIRONMENT

turtles each year. Sincerely, MILLE JONSON Print n Street State CG 710 910039 City E-mail Phone (Volunteer?

Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Print name Ross G AV	min	la	
Street Dira Lon-G	State	CA	ZIP 91752
E-mail Phone (Volunteer?

Great Pacific Cleanup



Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely, Print name CHR1S	KELLY	
Street Gty Los Avereces	State CA	ZIP 90076
E-mail Phone (10.023	Volunteer? X



Entmaned size of the Pacific Get bage Pacifi	Sincerely, Print name Shelton Jent
ENVIRONMENT	any Santon Manilastate CA TH
CALIFORNIA	Phone (

10403

Volunteer? X

single-use plastic grocery bags.

Sincerely. roli MONVILLO Print n Street 9040 State (A) City S E-mail

Volunteer?

ENVIRONMENT

Phone (





Volunteer?

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

City Les Angeles State CA ZIP 90006

ENVIRONMENT

Great Pacific

Cleanup

ENVIRONMENT

Dear Los Angeles County Board of Supervisors,

Print name Michael Park

Sincerely,

Street

E-mail

Phone (

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print nam Street - ,71P (11770 City DEP MECIA State E-mail Volunteer? Phone



around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	0 ber	+ Kull	Th
Print name	Part	1 1 31	
City UP	n.a	State	210 90291
E-mail			
Phone (<u></u>	Volunteer?

Great Pacific Cleanup



ENVIRONMENT LIFOR

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	-	
Print name Bylan	Barreto	
Street		
aty certifies	State CA	ZIP 90703
E-mail		
Phone ()	5.M. (Volunteer?



State CA

GUY VENILE

E-mail

Phone

ENVIRONMENT

ALIFOR

9029

Volunteer?

ZIP

the second second	3
and the second s	0
ENVIRONMENT	1
CATIENDNIA	Ę
CALIFURNIA	p

State CA ZP 10291 ity Veni -mail Volunteer? hone





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Estimated upp of the Pattle Garbage Path

ENVIRONMENT CALIFORNIA

90403
Married III





Estimated size of the Positi Gerbage Patch

ENVIRONMENT CALIFORNIA Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,					
Print name	AL	LAZ	0		and the second
Street					
City FUL	LORTI	State	CA	ZIP	12833
E-mail					
Phone (Volunteer?





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Edimated size of the Public Garboar Patch



Sincerely,	1 1 1 1	
Print name Kissan	A. Dyreuher -	
Street		
any Les Angeles	State CA ZIP 90064	
E-mail		
Phone (Volunteer	1





. Estimated size of the Audik

			~	÷	à
	ENV	IRO	NME	NI	
C	AL	IFC	R	M	1
U	AL	ILL	M	AL.	ų

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,	777 T.T.D. (M. 1512)	
Print name CCAP	Hyn Gionzalez-Saini	L
Street		
city Pasadon	State (A ZIP 11102	5
E-mail CRI	2.538	
Phone ()	Voluntee	17





ENVIRONMEN

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name David CB+	
street Cur fic Alindstate Ca	TIP CADZ TC
E-mail Phone	Volunteer?



ENVIRONMEN LIFOR

carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Sincerely,		
Print name Jorg e	n Chris	isusser
Street		
City Venice	State C A	218 90291
E-mail		-
Phane		Volunteer?





Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

State

Volunteer7

Edonated size of the Parkle. Garbour Patch Sincerely, Print name Street

Gity.

E-mail

Phone

VEINCE



Great Pacific

Cleanup

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

- 1	10.0	684	54	144	
		10			



2				
ĥ	Sincerely,	0		
	Print name Jo	RGE KOS	EVB	ER
	Street			
	Gity	State	ZIP	
	E-mail			
	Phone (Volunteer?

Great Pacific Cleanup



Cleanup

ENVIRONMEN

ALIFOR

Dear Los Angeles County Board of Supervisors,

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	0.			
Print name Teter	Cl	INK	_	
Street		24		
City Ventice	State	(4)	ZIP	90291
E-mail				
Phone				Volunteer?

Great Pacific

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Print name MIFE	L. MAYF	IELD
City GLENDALE	State CA	ZIP 91204
Phone ()		Volunteer?





Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



Sincerely, Print name PALOMA VERGARA Street 71P 90291 State CA City Venice E-mail Phone (Volunteer?



ENVIRONMENT
CALIFORNIA

trash kill more than 1 million seabirds and 100,000 mammals and sea

Sincerely,	A 11.	nA I		
Print name	ollin	1º lak	alic	1
Street			21	
City 5	ad allo	State (C	ZIP	904000
E-mail				
Phone ()			Volunteer?



Sincerely, Print name Street

around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

CA

ZIP

AOZAI

Volunteer?

VANITA GUPTA

State



Great Pacific

Cleanup

Dear Los Angeles County Board of Supervisors,

UTAVE

Gty

E-mail

Phone {

For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.



incerely,		
rint name Eliza	bath So	huertz
itreet ity Venice	State CA	719 902-41
thone ()		Volunteer?



around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Print name	Lisa	Corde	(0)	
Street City V.e.	ni ce	State C/	ZIP.	90291
E-mail			1	
Phone (Volunteer?

Great Pacific Cleanup



ENVIRONMENT

noted size of the Poloti				
nared size of the Paoris				
	1.0	610	26	

of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine

Dear Los Angeles County Board of Supervisors,

trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow

For decades, billions of pounds of plastic and other trash have been

around in the ocean has formed the Pacific Garbage Patch, a mass

carried by wind and waves into the Pacific. The plastic swirling

of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely,	2. 1	
Print name ()EM	refe, ster	ith
Street		
City VEPILE	State_CR	219-1029
E-mail		8 S.C.
Phone (Volunteer?



single-use plastic grocery bags.

iny Santa Mopligsone Ca up 9040

Volunteer?

Sincerely, -

Print name

Street

ENVIRONMENT

ENVIRONMENT

in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely.

Print name Benjamin Ruttenberg Street City Senter Menice State CA. ZIP SOUCH E-mail Volunteer? Phone (



Gty VENICE

E-mail

ENVIRONMENT

State CO

Volunteer? X



State CA

Volunteer?





trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.

Sincerely, Myra Munc Print name Street State CA 710 9.0017 Gtv E-mail Volunteer? Phone (

ENVIRONMENT

trash kill more than 1 million seabirds and 100.000 mammals and sea turtles each year.

Sincerely,	Λ.	SI		
Print name	HMY	stone		
Street		10-10		
City	lince	State CA	ZIP 9	0291
E-mail				
Phone ()			Volunteer?





Sincerely,

Print name Street

E-mail

Phone (

ENVIRONMENT

LIFOR

Samuel Dang 11

20016

Volunteer?

City Los Angeles state CA ZIP

Filomated use of the Pacific Gerbage Pathh



incerely, rint name	لەر	LZ ZIL	epe	
ity U	f .	State C	A ZIP	90025
hone	0.1			Volunteer?

Great Padific	Dear Los Angeles County Board of Supervisors,	Great Pacific	Dear Los Angeles County Board of Supervisors,
Cleanup	For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch , a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.	Cleanup	For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife. Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.
\$	Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.	45	Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.
Estimated size of the Postin Carboge Patch	Sincerely, Print name Tony Han	Estimated size of the Pacific Garboge Patch	Sincerely, Print name Scott Grandis
ENVIRONMENT CALIFORNIA	Street Gity Los Angeles State CA 71P 90006 E-mail Phone () Volunteer?	ENVIRONMENT CALIFORNIA	Street e Oty L.A. State CA ZIP 90014 E-mail Phone () Volunteer?
Great Pacific	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been
	carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.		carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.
. C> ((Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.	\$	Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.
Estimated size of the Pacific Garbage Filtryh	Print name Humberto I, Carmona	Estimated size of the Poolin Scribage Patch	Print name GEORGE WINSAMD
ENVIRONMENT CALIFORNIA	Cty Ctyre 7/D E-mail	CALIFORNIA	City S. 04-63 State CA ZIP 91423
Great Pacific Cleanup	Phone () Volunteer? Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass	Great Pacific Cleanup	Prione Volunteer? Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass

environmental disaster for ocean wildlife: Plastic and other marine

Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way

91

Volunteer?

in taking on this sea of plastics. I urge you to take action to ban

State

turtles each year.

Sincerely,

Gry SHEDWAR

Print nan Street

E-mail

Phone (

ENVIRONMENT

CALIFORNIA

single-use plastic grocery bags.

trash kill more than 1 million seabirds and 100,000 mammals and sea

Sincerely,

ENVIRONMENT

CALIFORNIA

of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year.

Eleanor Blum Print name Street aty Shorman Daks Ca 71P 91473 E-mail Volunteer? Phone (

Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery bags.	Great Pacific Cleanup	Dear Los Angeles County Board of Supervisors, For decades, billions of pounds of plastic and other trash have been carried by wind and waves into the Pacific. The plastic swirling around in the ocean has formed the Pacific Garbage Patch, a mass of trash that's twice the size of Texas. All this trash is creating an environmental disaster for ocean wildlife: Plastic and other marine trash kill more than 1 million seabirds and 100,000 mammals and sea turtles each year. Fortunately, there are dozens of ways in which we can stop the flow of plastic pollution into the Pacific. Los Angeles can lead the way in taking on this sea of plastics. I urge you to take action to ban single-use plastic grocery baos.
Edward say of the Partic Garboye Path ENVIRONMENT CALIFORNIA	Sincerely, Print name Shan L Goo WMING Street Goo State 90060/ ZIP E-mail Phane (Volunteer?	Parameter and the Parameter Gentope Parah ENVIRONMENT CALIFORNIA	Sincerely, Print name Stacey Yourg Street CitySanta Monica State CA ZIP 90403 E-mail Phone () Volunteer?

Environment California

The petitions from Environment California contain over 1,800 signatures supporting a ban on the issuance of plastic carryout bags. The petitions were received on July 15, 2010, during the public comment period. The County of Los Angeles appreciates the efforts of each petitioner to notify the County of Los Angeles of his/her support for a ban on the issuance of plastic carryout bags. The petitions have been included as part of the record; the County of Los Angeles Board of Supervisors will consider the petitions during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.



Symphony Environmental Technologies Plc 6 Elstree Gate, Elstree Way Borehamwood Hertfordshire WD6 1JD England

44 (0)20 8207 5900 Telephone 44 (0)7917 796444 Mobile www.d2w.net dc d2w.net

1

2

3

4

OBJECTIONS to ANNEX B TO THE LOS ANGELES COUNTY DRAFT EIR

Plastic bag bans are not a good idea (<u>http://www.biodeg.org/position-papers/Plastic-bag-bans/?domain=biodeg.org</u>). If plastic carry-out bags are banned, consumers will be forced to pay for bags and bin-liners, and will expect to see some serious justification for this in the middle of a recession. There is no such justification in the draft EIR. If plastic bags made in California are replaced by imported durable bags, people employed in the California plastics industry will lose their jobs.

Research by Guelph Chemical Laboratories in Canada in 2008¹ has shown that "reusable grocery bags can become an active microbial habitat and a breeding-ground for bacteria, yeast, mold, and coliforms. The unacceptable presence of coliforms - ie intestinal bacteria, in some of the bags tested, suggests that forms of E.Coli associated with severe disease could be present in a small but significant proportion of the bags."

More recently, similar research has been carried out with similar conclusions at the University of Arizona² who noted that consumers cannot be relied upon to wash re-usable bags.

The only problem with plastic bags is that they can lie or float around in the environment for decades. Far from seeking to ban oxo-biodegradable plastic bags, LA County should therefore require all short-life plastic products to be oxo-biodegradable.³

Dr. Caroline Jackson M.E.P⁴ made the following statement in July 2008: "Legislation has tended to concentrate on waste which can be collected, and to encourage people

bacte/landing_health.html?blockID=260864&feedID=4210 http://www.mirror.co.uk/news/topstories/2010/07/01/killer-bugs-in-your-re-used-shopping-bags-115875-22373748/ http://www.dailymail.co.uk/health/article-1290983/Beware-deadly-toxins-eco-friendly-shopping-bag.html

⁴ Press statement 18th July 2008.Dr. Jackson is the former Chairman of the Environment, Public Health, and Food Safety Committee of the European Parliament, and was the Rapporteur for the EU Waste Framework Directive.



5th July 2010

and by air mail

By e-mail to CSKYE@dpw.lacounty.gov

¹ (http://www.carrierbagtax.com/downloads/Microbiological_Study_of_Reusable_Grocery_Bags.pdf) ² http://www.necn.com/06/25/10/Study-Eco-friendly-bags-carry-bugs-

³ Governments in the Middle-East have made oxo-biodegradability compulsory. Other governments, in Latin America and Europe have legislated to encourage degradable plastic.



to reduce, re-use, and dispose responsibly of their waste, by recycling, incineration with energy-recovery, or by other disposal routes." **"However, we also need to take account of the fact that we will never succeed in collecting all the waste and that some may remain to disfigure the landscape**. Technologies have now become available which can produce plastic products such as shopping bags, garbage sacks, packaging etc. which are fit for purpose, but will harmlessly degrade at the end of their useful life."

Oxo-biodegradable additives convert ordinary plastic in the presence of oxygen into a material with a completely different molecular structure which can be bio-assimilated in the open environment in the same way as a leaf.⁵ Oxo-biodegradable plastics do not therefore leave fragments of petro-polymers in the environment.

This conversion is done by an abiotic process within a short pre-determined time⁶, but there is no reason why complete biodegradation should be expected to occur in the timescale required for industrial composting by standards such as ASTM D6400.

The lack of composting facilities in LA County is a good reason not to encourage compostable plastic, but it is no reason for not encouraging, still less for banning, oxo-biodegradable plastic products.

Oxo-biodegradable plastics and hydro-biodegradable (compostable) plastics are based on completely different technologies, and are designed for different purposes. These two products must not be confused. Similarly, oxo-biodegradable plastics must not be confused with photo-degradable plastics - which require UV light to cause chain-scission.

Oxo-degradation is defined by CEN (the European Standards Organisation) in TR15351as "degradation resulting from oxidative cleavage of macromolecules" and **oxo-biodegradation as degradation resulting from oxidative and cell-mediated phenomena, either simultaneously or successively.**

Oxo-biodegradable plastic is conventional plastic whose life can be made shorter (or longer) by adding a very small quantity of d_2w . Plastic made with d_2w **costs very little extra**, because it is made with the same machinery and substantially the same raw materials as conventional plastic, and it causes **no loss of jobs in the plastics industry**.

For a video of the plastic degrading see http://www.youtube.com/watch?v=i3TGqcpWJTM

As oxo-biodegradable plastics are designed to degrade then biodegrade if they get accidentally or deliberately into the open environment, they have a **built-in insurance policy.** The process of oxo-biodegradation requires oxygen and bacteria, and will be

⁶ Timescale can be adjusted, by varying the additive formulation, from as little as a few weeks to a year or more.



4 cont.

6

7

⁵ See eg Jakubowicz, I., "Evaluation of Degradability of Biodegradable Polyethylene," *Polym. Degrad. Stab.*, Vol 80, 2003, pp. 39-43.



accelerated by heat and light, all of which are available in the normal environment. If all the plastic had been oxo-biodegradable there would be no Pacific Garbage Patch.

The Loughborough report leaves no doubt that abiotic degradation occurs in the open environment,⁷ They also found ample evidence⁸ that **BIO**-degradation **of oxo-biodegradable plastic occurs** after the additive has reduced the molecular weight to the point where it no longer has the molecular structure of a plastic and can be accessed by naturally-occurring micro-organisms. They found between 15% and 60% in the laboratory⁹ and **they have advanced no reason why biodegradation in the open environment, once begun, should stop.**

Oxo-biodegradable plastics are not designed for degradation in landfills, because if the plastic has been taken to landfill it has already been disposed of responsibly, and degradation in landfill is not necessary or desirable. There will however be limited degradation of oxo-biodegradable plastic in those parts of the landfill where oxygen is present, but unlike paper, compostable plastics and other organic wastes, it will not emit methane in anaerobic conditions.

Oxo-biodegradable additives **do not contain heavy metals**¹⁰ and they are **fit for food-contact**.¹¹

Oxo-biodegradable additives are not harmful and have no negative environmental impact in the production and use phase¹²

There is **no evidence of bio-accumulation**¹³ nor any harmful effect on the environment¹⁴

There is no evidence of accumulation of pollutants¹⁵

Oxo-biodegradable plastics can be tested by the **test methods prescribed by ASTM D6954**. As to the difference between Standard Guides and Specifications see <u>http://www.biodeg.org/files/uploaded/biodeg/Bioplastics Mag-GS article(6).pdf</u>. Oxo-biodegradable plastics can be certified by the Oxo-biodegradable Plastics Association (<u>www.biodeg.org</u>).

The Loughborough researchers say¹⁶ "The length of time to degradation of oxodegradable plastic cannot be predicted accurately because it depends so much on the environmental conditions." This is correct, and it should not be claimed that an oxo-biodegradable product will degrade in anything other than an approximate

¹⁶1(a)



8

⁷ Page 1/2

⁸ 6.2

⁹ 6.1, 6.2 Independent tests conducted to ISO 14855 by the government-accredited LGAI Laboratory in Spain found more than 80%.

¹⁰ Loughborough 2.4 (p. 13)

¹¹ Loughborough 4.1.4, 6.5.1

¹² Loughborough p. 10

¹³ Loughborough p 13, 6.3.1, 6.3.2

¹⁴ Loughborough Page 13

¹⁵ Loughborough 4.1.3.3



timescale. The degradation period depends also on the formulation of the additive and the characteristics of the particular product.	10 cont.
Symphony's d ₂ w technology is constantly improving, and we are developing a formulation which can cause degradation then biodegradation in a very short timescale, whilst still allowing a sufficient period of fitness-for-purpose. Symphony's d ₂ w technology can be programmed to various timescales based on the purpose of the product and the likely environmental exposure. Testing and performance-evaluation is regularly done by natural aging in the environment as well as artificial aging of hundreds of samples every week in the laboratory.	11
Even if biodegradation did not occur, oxo-degradable plastics would still be better for the environment than normal plastic, because the material would rapidly lose its strength and would not block drains or entangle wildlife. Unsightly plastic waste would be reduced without human intervention to invisible non-toxic particles which would join the trillions of other particles already in the environment.	12
The Loughborough researchers have presented evidence that plastic fragments attract toxins in a marine environment, but no evidence that they are any more likely to attract toxins than fragments naturally present in the oceans. In any event a fragment of oxobiodegradable plastic which has undergone the abiotic phase of degradation is no longer a polymer and has a completely different molecular structure.	13
There is no evidence that degradable plastics encourage littering . ¹⁷ This is a claim often made, but without a shred of evidence. Consumers who do not read the labels will not know that the bag is degradable, as it looks the same as ordinary plastic, and it is ridiculous to think that litter-louts will read the label to see whether it is degradable before deciding to throw it away.	14
But suppose for the sake of argument that 10% more bags were discarded. If 1,000 conventional and 1,100 oxo-biodegradable bags were left uncollected in the environment, 1,000 conventional bags would remain in the rivers, oceans, streets and fields for decades, but none of the oxo-biodegradable bags would be left at the end of the short life programmed into them at manufacture.	15
Education may have some effect, but there will always be people who will deliberately or accidentally discard their plastic waste. What will happen to all the plastic waste that will not be recycled or will not be incinerated, and instead will litter the countryside? - would it not be better if the discarded plastic were all oxo-biodegradable?	
For those consumers who do read the labels LA County should require compostable plastic bags to be labelled as follows: <i>"For industrial composting only.</i> <i>Will not degrade in the open environment. Not recyclable. May emit methane in</i> <i>landfill. Please dispose of this and all other packaging responsibly."</i> and should require oxo-biodegradable bags to be labelled as follows: <i>"Oxo-biodegradable</i> <i>bag. Will degrade much more quickly than normal plastic. Recyclable. Not for</i> <i>composting. Limited degradability in landfill. Please dispose of this and all other</i> <i>packaging responsibly."</i>	16

¹⁷ Loughborough Page 14





We agree with the Advertising Standards Authority of South Africa¹⁸ that labelling oxodegradable plastic products as "biodegradable" is **not likely to confuse consumers** into thinking that "biodegradable plastics" are compostable. In addition, it is obvious that in order to see the word "biodegradable" the consumer has looked at the label, which can and should be required to say *"Not for composting."*

Ordinary plastics and oxo-biodegradable plastics are currently made from by-products of oil, natural gas, or coal. These by-products arise because the world needs fuels, and would arise whether or not the by-product were used to make plastic goods. So, **nobody is extracting or importing extra oil, gas or coal to make plastic.** Until other fuels have been developed, it makes good environmental sense to use the byproduct, instead of **using scarce agricultural resources and water to make paper or cloth bags, or vegetable-based plastic.**

RECYCLING

If collected for disposal during their useful life, **oxo-biodegradable plastics can be recycled together with normal oil-based plastics**, but "compostable" plastics cannot.

The Loughborough researchers were aware of the **Oxo-biodegradable Plastics Association s Position-paper on Recycling**¹⁹, but have not allowed it to inform their thinking²⁰ They failed to distinguish between recyclate for making short-life and long-life products; between recyclate whose provenance is known and not known; between products where rapid degradation is desirable and not desirable; between products where recyclate is allowed and not allowed; and cases where stabilisers are necessary whether there is any pro-degradant additive present or not.

Retailer B who gave evidence for the Loughborough Report²¹ "uses oxo-degradable plastics in packaging **because they do not interfere with established recycling streams**."

The researchers have focussed on recycling of post-consumer plastic waste, but the evidence of RECOUP²² a national charity promoting plastics recycling in the UK, is that only "a limited amount of household films are currently collected, baled and sold to reprocessors, and this is often at a negative value. [Normal] plastic film also causes technical issues with sorting equipment in materials-reclamation facilities. The Recoup guide specifies that "[normal post-consumer plastic] film **should not be collected for recycling.**

RECOUP have pointed out that it is the vegetable-based bioplastics, not the oil-based oxo-biodegradable plastics that cause problems for recyclers.

- ²⁰ 1(e)
- ²¹ C 3.2
- ²² C6.4



16 cont.

17

19

¹⁸ http://www.asasa.org.za/ResultDetail.aspx?Ruling=5108

¹⁹ See http://www.biodeg.org/position-papers/recycling/?domain=biodeg.org


The Loughborough researchers themselves accept²³ that "Barriers to recycling include: the high volume-to-weight ratio of [normal] waste plastic, which makes it expensive to collect, store and transport; high levels of contamination, which compromise the quality of the recyclate; the wide range of plastics, which requires sorting; and the low market price for recyclate."

They added "At present there seems to be very little post-consumer recycling of the sort of plastic film products where oxo-degradable plastics are usually used. This is mainly because such material is difficult to collect, is generally of poor quality and is therefore not economically viable for recyclers (Annex C6.4)."

The Quebec report²⁴ shows however that oxo-biodegradable plastic is compatible with recycling. Symphony has also commissioned independent trials which reach the same conclusion.

The best way to recover value from contaminated post-consumer plastic is incineration with energy-recovery, which is being done in other developed countries. This type of feedstock does not contain moisture and has a high calorific value equal to the fossil-resource from which it was made. Modern incinerators do not cause pollution, and the heat is employed for useful purposes instead of wasting this energy source by burying it in landfill.

COMPOSTABLE PLASTICS

These must not be confused with oxo-biodegradable plastics.

Para. 1.1 of ASTM D6400 makes it clear that it is intended for plastic designed for "composting in **municipal and industrial aerobic composting facilities**."

It would be deceptive to describe most types of compostable plastics as **biodegradable**, because they will readily biodegrade only in the special conditions found in industrial composting.

Composting is not the same as biodegradation in the environment. Composting is an artificial process operated for commercial reasons according to a much shorter timescale than the normal processes of nature. Therefore, Standards such as ISO 17088, EN13432, and their American (ASTM D6400-04; D6868) and Australian (AS 4736-2006) equivalents, designed for compostable plastic **should not be applied** to plastic which is designed to biodegrade if it gets into the environment. These Standards are specifications for the special conditions found in **industrial composting**.

Compostable plastics are not in fact useful even for compost, because ASTM D6400 and the other compostable standards require almost complete conversion of the plastic to CO^2 gas within 180 days, thus wasting it by emission to atmosphere – and contributing to climate-change.

19 cont.

20



²³ 1.5



The evidence of the composting company who contributed to the Loughborough report²⁵ is that "the best policy is to allow no plastic bags of any sort in the green waste." Indeed in some countries²⁶ no plastic of any kind is permitted to enter an industrial composting process. Also, the Loughborough researchers found evidence that "compostable" plastic does not always work even in industrial composting.²⁷ This is particularly true of thick cross-section plastic.

The composting company who gave evidence, and the municipal authorities are not encouraging residents to use 'compostable' plastic bags, because of their potentially poor compostability and because of the risk of confusion with ordinary plastic bags by both the consumer and the collection crews. ²⁸

Those few industrial composters who are willing to accept plastic of any kind will therefore want to be sure that is in fact compostable in the particular process (windrow or in-vessel) which they operate. It will not therefore be accepted by them unless it is clearly marked as compostable, for even if oxo-biodegradable plastics did not exist, the composters would still need to make sure that they were not accepting normal plastic, - which would be even less likely to degrade in their composting process. At page 69 the Loughborough report says "The composting facility subsequently changed their policy to allow only certified "compostable' bags and since then **have not had any recurrence of the problem.**

We agree with the packaging manager of Tesco (Britain's largest supermarket) who said on 20th October 2009 that the supermarket "does not see the value in packaging that can only be industrially composted and that municipal authorities do not want it, as it can contaminate existing recycling schemes.

"Compostable" plastics are up to 400% more expensive, they would not readily degrade if they found their way into the open environment; they emit methane deep in landfill; and they compete for land and water resources with food production (see http://www.biodeg.org/position-papers/comparison/?domain=biodeg.org

Composting of organic waste makes sense, but compostable plastic does not²⁹. It is thicker and heavier and requires more trucks to transport it; recycling with oil-based plastics is impossible; and it uses scarce land and water resources to produce the raw material. It is not "renewable" or "sustainable" because substantial amounts of fossil fuels are burned and CO₂ emitted, by the tractors and other machines employed. If buried in landfill, compostable plastic will emit methane (a greenhouse gas 23 times more powerful than CO₂) in anaerobic conditions.

We agree with Germany's Institute for Energy and Environmental Research³⁰ and Ademe, the French Agency for the Environment,³¹ who concluded that oil-based

²⁹ http://www.biodeg.org/files/uploaded/biodeg/Oxo_vs_Hydro-biodegradable.pdf

http://www.biodeg.org/files/uploaded/biodeg/Hydro-biodegradable_Plastic_Production_Process.pdf

³⁰ June 2009 (http://www.kunststoffverpackungen.de/en/news/LCA%20waste%20bags%20-%20Study%20Extract%20B.pdf)

³¹ December 2007



23 cont.

25

²⁵ C6.2

²⁶ Eg French law NFU 44/051

²⁷ C6.2

²⁸ C6.2



plastics, especially if recycled, have a better Life-cycle Analysis than compostable plastics.	26 cont.
LONG-LIFE BAGS	
These are much thicker and more expensive to make and to transport, and a large number of them would be required for the weekly shopping of an average family.	
30,000 jute or cotton bags can be packed into a 20-foot container, but the same container will accommodate 2.5 million plastic carrier-bags. Therefore, to transport the same number of jute or cotton bags 80x more ships and trucks would be required than for plastic bags, using 80x more fuel, using 80x more road space and emitting 80x more CO ₂ .	27
Cloth bags are not hygienic if a tomato is squashed or milk is spilled. As indicated above, research in Canada in 2008 and by the University of Arizona in 2010 has shown that re-usable grocery bags can become an active microbial habitat and a breeding-ground for bacteria, yeast, mold, and coliforms.	28
Whilst sometimes called "Bags for Life" they have a limited life, depending on the treatment they receive, and become a very durable form of litter when discarded.	29
Shoppers do not always go to the shop from home, where the re-usable bags would normally be kept, and consumers are unlikely to have a re-usable bag with them when buying on impulse items such as clothing, groceries, CDs, magazines, stationery etc. Research conducted for the Scottish Executive ³² showed that 92 % cent of people think re-using carrier bags is good for the environment but 59 forget their re-usable bags and have to take new ones at the checkout!	30
As durable bags are a cost to the consumer and carrier-bags are expected to be provided free, one can understand why supermarkets are in favour of reducing the number of carrier bags and increasing the number of durable bags. Even those who give the profit to charity have saved themselves the cost.	31
However, for those who believe in long-term re-usable bags, they can be made from washable extended-life oxo-biodegradable plastic which will last for 3-5 years before they will harmlessly self-destruct, leaving no harmful residues.	32
It is misleading and prejudicial to describe plastic carry-out bags as single-use bags. Shoppers use them many times for their shopping, and then use them for other purposes about the home – ending their useful life often as a trash-can liner.	33

³² http://www.scotland.gov.uk/Topics/Environment/funding-and-grants/carrier-bag-case-studies/Q/EditMode/on



Symphony Environmental Technologies Plc 6 Elstree Gate, Elstree Way Borehamwood Hertfordshire WD61JD England

Response to Comment No. 1

Comment No. 1 expresses concern regarding the economic burdens of plastic bag bans that affect consumers and the California plastics industry. Although CEQA does not require the EIR to analyze of potential economic impacts, the County of Los Angeles Board of Supervisors will consider economic impacts, if any, during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR. The County of Los Angeles notes and appreciates that, despite its location in England, Symphony Environmental Technologies Plc has taken the time to comment on an EIR for proposed ordinances in the County of Los Angeles.

Response to Comment No. 2

Comment No. 2 discusses research conducted in 2008 by Guelph Chemical Laboratories that concluded that bacteria is present in reusable bags. Although CEQA does not require the EIR to analyze health impacts, Section ES.3 addresses potential health concerns related to reusable bags. As discussed in Section ES.3 and as is the case for any reusable household item that comes in contact with food items, such as chopping boards, countertops, tableware, or table linens, reusable bags do not pose a serious risk to public health if consumers care for the bags appropriately and/or clean the bags regularly. If reusable bags are made of cloth or fabric, they can be washed by machine. If reusable bags are made of durable plastic, they can be manually rinsed or wiped clean. Further, to control for any possible public health issues, the County of Los Angeles has clarified the definition for reusable bags to require that the material used in such bags be machine washable. The definition of reusable bags has been updated in Section 2.2.3 (see Section 12.2).

Health risks, if any, from reusable bags can be minimized if the consumer takes appropriate steps, such as washing and disinfecting the bags, using them only for groceries and using separate bags for raw meat products, being careful with where they are stored, and allowing bags to dry before folding and storing.⁶ A representative of the County of Los Angeles Department of Public Health, the County department charged with protecting and improving the health of Los Angeles County residents has stated that the public health risks of reusable bags are minimal.⁷ Further, as discussed in Section 2.2.4, the City and County of San Francisco, since enacting a plastic bag ban in 2007, have not reported negative public health issues related to the increased use of reusable bags.⁸

Comment No. 2 further states that a recent study conducted in 2010 by the University of Arizona noted that consumers cannot be relied upon to wash reusable bags. This comment is beyond the scope of CEQA. Furthermore, the study does not state that consumers cannot be relied upon to wash reusable bags, but it does indicate that any health risk can be minimized if proper care is

⁶ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

⁷ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

⁸ Galbreath, Rick, County of San Francisco, California. 10 May 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, California.

taken with reusable bags, which is consistent with the discussion contained in Section ES.3. Indeed, the study found that washing reusable bags, either manually or by machine, reduced bacterial contamination by more than 99.9 percent.⁹ This comment is noted for the record and will be considered by the County of Los Angeles Board of Supervisors during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 3

Comment No. 3 states that the only problem with plastic bags is that they can lie or float around the environment for decades. This statement is accurate in stating that plastic carryout bags can persist in the environment for decades. The persistence of plastic carryout bag litter is discussed throughout subsections of Section 3.0, and is one of the many reasons why the County of Los Angeles has considered a ban on the issuance of plastic carryout bags. However, there are numerous other environmental problems associated with plastic carryout bags. For example, Section 2.2.1 discusses the significant contribution of plastic carryout bags to litter, particularly within catch basins, and Section 3.2.4 discusses the threat from plastic carryout bag litter and associated microplastics to rare, threatened, and endangered species in the marine environment.

Response to Comment No. 4

Comment No. 4 states that the County of Los Angeles should require that all short-life plastic products be oxo-biodegradable. As discussed in Appendix B to the EIR, synthetic plastics with oxo-biodegradable additives break down into smaller pieces, but the small pieces of plastic remain in the environment for undetermined periods of time. Prior to full degradation, these synthetic plastics can potentially result in adverse environmental impacts similar to those of regular plastic carryout bags with regard to litter and biological resources (described in, but not limited to, EIR Sections 3.5, Utilities and Service Systems, and Section 3.2, Biological Resources, respectively). In addition, the time span needed and extent to which these synthetic plastic fragments will degrade is unclear, as discussed in the study conducted for the United Kingdom Department for Environment, Food, and Rural Affairs: *Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle*.¹⁰ The study prepared by Loughborough University concludes that oxo-biodegradable plastics have the potential to remain as litter for 2 to 5 years before they degrade.¹¹

Comment No. 4 also states, "oxo-biodegradable additives convert ordinary plastic in the presence of oxygen into a material with a completely different molecular structure which can be bioassimilated in the open environment in the same way as a leaf. Oxo-biodegradable plastics do not therefore leave fragments of petro-polymers in the environment." However, the Loughborogh University study determined that "the fate of oxo-degradable plastic after it has fragmented to a fine

⁹ Charles P. Gerba, David Williams, and Ryan G. Sinclair. 8 June 2010. Assessment of the Potential for Cross Contamination of Food Products by Reusable Shopping Bags.

¹⁰ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

¹¹ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

powder is not clear."¹² Although oxo-biodegradable plastic will degrade after an undetermined period of time, the environmental impacts of oxo-biodegradable plastic prior to complete degradation are uncertain.¹³ Further, encouraging a transition to the use of oxo-biodegradable plastic carryout bags would not assist the County of Los Angeles in reducing the number of plastic carryout bags used or the number of plastic carryout bags that become litter on a daily basis, given the bags' lightweight features (making them susceptible to becoming airborne and being littered) that are similar to regular plastic carryout bags. Therefore, requiring stores to issue oxo-biodegradable bags would not assist the County of Los Angeles in attaining the objectives of the proposed ordinances. The proposed ordinances recommend banning the issuance of both compostable and biodegradable bags, including oxo-biodegradable bags.

Response to Comment No. 5

Comment No. 5 states that the lack of commercial composting facilities in County of Los Angeles is a good reason to ban compostable bags, but that it is not a good reason to ban oxo-biodegradable bags. Appendix B to the EIR discusses the inability of oxo-biodegradable products to degrade in accordance with American Society for Testing and Materials D6400; therefore, the County of Los Angeles is aware that oxo-biodegradable products would not degrade in a commercial composting facility. This clarification has been made to Section 2.2.2.3, Section ES.3, and Section 4.1 (see Section 12.2). The County of Los Angeles is also aware that oxo-biodegradable products would not degrade in a landfill, as they do not degrade in landfills or commercial composting facilities, but only degrade fully if left in the natural environment for an extended period of time. As discussed in Appendix B to the EIR, prior to full degradation, oxo-biodegradable plastic breaks apart into smaller pieces that can spread as litter into the marine and inland environments and cause similar negative impacts to the environment as standard plastic carryout bags can cause (described in, but not limited to, Draft EIR Sections 3.5 and 3.2, respectively). A transition to the use of oxo-biodegradable bags would not provide the same degree of environmental benefits as a ban on the issuance of plastic carryout bags.

Response to Comment No. 6

Comment No. 6 discusses compostable versus oxo-biodegradable plastic products. A discussion of the differences between compostable and biodegradable bags is provided in Appendix B to the EIR. Comment No. 6 also asserts distinctions between oxo-biodegradable plastics in contrast to photo-degradable plastics, and oxo-degradation in contrast to oxo-biodegradation. The comment is noted for the record. Comment No. 6 further provides a link to a video showing degradation of oxo-biodegradable bag that begins degrading only after 18 months in the environment. As discussed in Appendix B to the EIR, the County of Los Angeles is aware that the time span needed and extent to which oxo-biodegradable synthetic plastic fragments will degrade is unclear. The study prepared by Loughborough University concludes that oxo-biodegradable plastics have the potential to remain as litter for 2 to 5 years prior to degradation.¹⁴

¹² Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

¹³ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

¹⁴ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

Response to Comment No. 7

Comment No. 7 discusses the degradation process of oxo-biodegradable plastics. The County of Los Angeles has noted this comment for the record and will consider the comment during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR. However, as noted above, the time span needed and extent to which these synthetic plastic fragments will degrade is unclear.¹⁵ The study by Loughborogh University states that oxo-biodegradable plastics will remain as litter for 2 to 5 years prior to degradation.¹⁶ Although oxo-biodegradable plastic will degrade after an undetermined period of time, encouraging a transition to the use of oxo-biodegradable plastic carryout bags used, or the number of disposed plastic carryout bags that become litter on a daily basis. While oxo-biodegradable bags are touted as a solution after bags are littered, the objective of the County of Los Angeles is to prevent the litter from occurring in the first place. Therefore, requiring stores to issue oxo-biodegradable bags would not assist the County of Los Angeles in attaining the objectives of the proposed ordinances.

Response to Comment No. 8

Comment No. 8 notes that oxo-biodegradable plastics are not designed for degradation in landfills and do not emit methane in anaerobic conditions when disposed of in landfills. This comment is noted for the record.

Response to Comment No. 9

Comment No. 9 lists the benefits of oxo-biodegradable plastics and states that oxo-biodegradable additives have no negative environmental impacts. Comment No. 9 uses the study prepared by Loughborough University as the reference for the environmental benefits of oxo-biodegradable plastic.¹⁷ However, the overall conclusion of the Loughborough University study, which is referenced in Appendix B to the EIR, is that "incorporation of additives into petroleum-based plastics that cause those plastics to undergo accelerated degradation does not improve their environmental impact and potentially gives rise to certain negative effects."¹⁸ As discussed in Appendix B to the EIR, prior to full degradation, oxo-biodegradable plastic breaks apart into smaller pieces that have the potential to spread into the marine and inland environments and cause similar negative impacts upon the environment as standard plastic carryout bags. Oxo-biodegradable plastics also have the potential to remain as litter for 2 to 5 years prior to degradation.¹⁹ Therefore,

¹⁵ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

¹⁶ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

¹⁷ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

¹⁸ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

¹⁹ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

requiring stores to issue oxo-biodegradable bags would not assist the County of Los Angeles in attaining the objectives of the proposed ordinances.

Response to Comment No. 10

Comment No. 10 notes that the span of time oxo-biodegradable plastics degrade cannot be accurately predicted. The discussion presented within Appendix B to the EIR supports this statement. The undetermined period of time needed for degradation of oxo-biodegradable plastic carryout bags means that oxo-biodegradable plastic carryout bags will persist in the environment, and as litter, for an uncertain period of time prior to complete degradation. Comment No. 6 provides a link to a video showing degradation of oxo-biodegradable bag that does not begin degrading until after 18 months, and continues degrading for a period of 20 months. As discussed in Appendix B to the EIR, the time needed and extent to which oxo-biodegradable synthetic plastic fragments will degrade is unclear. The study prepared by Loughborough University concludes that oxo-biodegradable plastics have the potential to remain as litter for 2 to 5 years prior to degradation.²⁰

Response to Comment No. 11

Comment No. 11 discusses Symphony Environmental Technologies Plc's efforts to develop an additive to achieve rapid degradation and biodegradation. Although faster degradation would ensure more rapid breakdown of oxo-biodegradable plastic in the natural environment, it could also be potentially disadvantageous to the consumer because the plastic could potentially begin to degrade during the distribution, issuance, or use of the plastic. The study prepared by Loughborough University states that "the fact that they are degradable limits the re-use of oxo-degradable bags: they are unsuitable for storing items for an extended length of time."²¹ In addition, a biodegradable bag that degrades faster would still break down into small plastic pieces in the natural environment that would result in similar adverse impacts to those of regular plastic fragments, prior to full degradation. The degradable bags would also pose litter problems for the County of Los Angeles similar to those posed by standard plastic carryout bags until they degrade. Encouraging a transition to the use of oxo-biodegradable bags would not assist the County of Los Angeles in attaining the objectives of the proposed ordinances.

Response to Comment No. 12

Comment No. 12 states that oxo-biodegradable plastics would be better for the environment than normal plastic, because the material would rapidly lose strength and would not block drains or entangle wildlife. As discussed in the response to Comment No. 4, the time span needed and extent to which oxo-biodegradable plastic fragments will degrade is unclear. Prior to complete degradation, oxo-biodegradable plastic bags would still have the potential to block storm drains or entangle wildlife. The link provided in Comment No. 6 indicates that, prior to degradation, the normal properties of the polymer, such as flexibility and strength, are maintained. If a plastic

²⁰ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

²¹ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

carryout bag rapidly loses strength as suggested in Comment No. 12, its function as a carryout bag would be impaired, calling into question the practicality of such a bag.

Response to Comment No. 13

Comment No. 13 states that a fragment of oxo-biodegradable plastic that has undergone degradation is no longer a polymer. This comment is noted for the record.

Response to Comment No. 14

Comment No. 14 states that there is no evidence that degradable plastics would encourage littering. This comment is noted for the record. The commenter also notes that an oxo-biodegradable bag looks similar to ordinary plastic, and would consequently have the same lightweight features as regular plastic carryout bags, making it just as susceptible to becoming airborne or being littered as an ordinary plastic bag.

Response to Comment No. 15

Comment No. 15 states that if oxo-biodegradable plastic carryout bags end up as litter, they will degrade and will not persist in the environment the same way as "conventional bags that would remain in the rivers, oceans, streets and fields for decades." As discussed in Appendix B to the EIR, prior to full degradation, oxo-biodegradable plastic breaks apart into smaller pieces that have the potential to spread into the marine and inland environments and cause similar negative impacts upon the environment as standard plastic carryout bags. Further, until full degradation has occurred, the oxo-biodegradable bags will remain as litter and still be an urban blight to affected areas. The study prepared by Loughborough University concludes that oxo-biodegradable plastics also have the potential to remain as litter for 2 to 5 years prior to degradation.²² Therefore, requiring stores to issue oxo-biodegradable bags would not assist the County of Los Angeles in attaining the objectives of the proposed ordinances.

Response to Comment No. 16

Comment No. 16 provides suggestions for labeling compostable plastic bags and oxo-biodegradable plastic bags. Although these suggestions do not pertain directly to the EIR, which evaluates proposed ordinances that would ban the issuance of both biodegradable and compostable plastic carryout bags in the County of Los Angeles, they have been noted for the record.

Response to Comment No. 17

Comment No. 17 notes that although plastics are made from byproducts of oil, natural gas, and coal, the production of plastics does not increase the current demand for extracting or importing additional oil, gas, or coal. Comment No. 17 also states that using the byproducts of oil, natural gas, and coal to make plastic is preferable to using scarce agricultural resources and water to make paper or cloth bags. This opinion is noted for the record and will be considered by the County of

²² Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

Los Angeles Board of Supervisors during the decision making process for the proposed County of Los Angeles ordinance and Final EIR.

It is important to note that unlike agricultural and water resources, the byproduct of petroleum refining that is used to manufacture plastic carryout bags is a non-renewable resource. This byproduct of petroleum refining used to manufacture plastic carryout bags is ethane, which is then converted to ethylene. Ethylene is in high demand across the globe and is used to manufacture a variety of products, including plastic resins and petrochemical intermediates.

Response to Comment No. 18

Comment No. 18 notes that oxo-biodegradable plastics can be recycled with normal oil-based plastics, but compostable plastics cannot. This comment is noted for the record. The study prepared by Loughborough University, which is referenced in Appendix B to the EIR, states that "oxo-degradable plastics are not suitable for recycling with main-stream plastics. The recyclate will contain oxo-degradable additives that will render the product more susceptible to degradation. Although the additive producers suggest that stabilizers can be added to protect against the oxo-degradable additives, it would be problematic for recyclers to determine how much stabilizer needs to be added and to what extent the oxo-degradable plastic in existing recycling streams."²³ In addition, the European Plastics Recyclers, the professional representative body of plastic recyclers in Europe, has stated that oxo-degradable additives are incompatible with mechanical recycling, stating, "the OXO degradable additives will jeopardize mechanical recycling as they will pollute the existing waste streams," and that the "uncontrolled presents [*sic*] of additives result in an uncontrolled quality of recycled material."²⁴

Response to Comment No. 19

Comment No. 19 discusses the barriers to and difficulties of recycling post-consumer plastic waste, such as plastic carryout bags, and that vegetable-based bioplastics cause problems for recyclers, too. The County of Los Angeles is aware of these difficulties and that, as a result, plastic carryout bags are not recycled as much as paper carryout bags are recycled.

Response to Comment No. 20

Comment No. 20 notes that, according to the Quebec Report and trials conducted by Symphony Environmental Technologies Plc, oxo-biodegradable plastic is compatible with recycling. This comment is noted for the record. As mentioned in response to Comment No. 18, the study prepared by Loughborough University states, "oxo-degradable plastics are not suitable for recycling with main-stream plastics."²⁵ The European Plastics Recyclers have noted that oxo-degradable

²³ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

²⁴ European Plastic Recyclers. June 10, 2009. Press Release: Oxo Degradable Additives are Incompatible with Mechanical Recycling. Available at:

http://www.plasticsrecyclers.eu/docs/press%20 release/EuPR%20 Press%20 Release%20 - 0.00% Release%20 - 0.0

^{% 20} OXO% 20 Degradables% 20 Incompatibility% 20 with% 20 Plastics% 20 Recycling.pdf

²⁵ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

additives are incompatible with mechanical recycling, and have similarly stated, "the OXO degradable additives will jeopardize mechanical recycling as they will pollute the existing waste streams," and that the "uncontrolled presents [*sic*] of additives result in an uncontrolled quality of recycled material".²⁶

Response to Comment No. 21

Comment No. 21 notes that the best way to dispose of post-consumer plastics is via incineration with energy recovery. This comment is noted for the record. Currently, there is very little incineration of post-consumer waste in the County of Los Angeles. There are currently only three waste-to-energy facilities in California that process municipal solid waste.²⁷

Response to Comment No. 22

Comment No. 22 discusses composting standards and the differences between biodegradable bags and compostable bags. A discussion of the differences between compostable and biodegradable bags is provided in Appendix B to the EIR. The proposed ordinances recommend banning the issuance of both compostable and biodegradable bags, including oxo-biodegradable bags.

Response to Comment No. 23

Comment No. 23 states that compostable bags emit greenhouse gases during degradation. Comment No. 23 also discusses the difficulties associated with composting compostable bags. This comment is noted for the record. The proposed ordinances currently include a recommended ban on the issuance of compostable plastic carryout bags, as described in Section ES.3 and Appendix B to the EIR, avoiding the greenhouse gases associated with degradation of compostable bags. In addition, Appendix B to the EIR also notes the lack of local commercial composting facilities in the County of Los Angeles that are willing to process such bags.

Response to Comment No. 24

Comment No. 24 notes the costs and disadvantages of compostable plastics. This comment is noted for the record. The proposed ordinances currently include a recommended ban on the issuance of compostable plastic carryout bags as described in Section ES.3 and Appendix B to the EIR.

Response to Comment No. 25

Comment No. 25 notes the environmental disadvantages of compostable plastics. This comment is noted for the record. The proposed ordinances currently include a recommended ban on the issuance of compostable plastic carryout bags, as described in Section ES.3 and Appendix B to the EIR.

²⁶ European Plastic Recyclers. June 10, 2009. Press Release: Oxo Degradable Additives are Incompatible with Mechanical Recycling. Available at:

http://www.plasticsrecyclers.eu/docs/press%20release/EuPR%20Press%20Release%20-%20OXO%20Degradables%20Incompatibility%20with%20Plastics%20Recycling.pdf

²⁷ Integrated Waste Services Association. June 2007. *The 2007 IWSA Directory of Waste-to-Energy Plants*. Available at: http://energyrecoverycouncil.org/userfiles/file/IWSA_2007_Directory.pdf

Response to Comment No. 26

Comment No. 26 asserts that the life cycle impacts of oil-based plastics are less significant than the life cycle impacts of compostable plastics. This comment is not disputed in the EIR. For example, as discussed in the EIR, including, but not limited to, Section 3.4.4, life cycle impacts of compostable bags have been shown to have worse impacts upon eutrophication than the impacts from standard plastic carryout bags.

Response to Comment No. 27

Comment No. 27 states that reusable bags would require 80 times more trucks for transportation than plastic bags. This comment is addressed in the EIR, including in Section 3.1 of the Draft EIR. The EIR concurs that an increase in demand for reusable bags would result in additional transport of reusable bags to stores. However, due to the fact that reusable bags are designed to be used multiple times, the number of reusable bags required would be expected to be far less than the number of carryout bags currently used. For example, assuming that the information in Comment No. 27 is accurate, if all reusable bags were to be used more than 80 times prior to disposal, there would be a reduction in truck trips overall as a result of a transition from plastic carryout bags to reusable bags have a minimum lifetime of 125 uses to minimize potential environmental impacts due to the transport of reusable bags (see Section 12.2).

Response to Comment No. 28

Comment No. 28 notes that reusable bags can become an active microbial habitat and a breeding ground for bacteria, yeast, mold, and coliforms. Although CEQA does not require analysis of health impacts, Section ES.3 addresses potential health concerns related to reusable bags. As discussed in Section ES.3, and as is the case for any reusable household item that comes in contact with food items, such as chopping boards, countertops, tableware, or table linens, reusable bags do not pose a serious public health risk if consumers care for the bags accordingly and/or clean the bags regularly. Reusable bags made of cloth or fabric can be wash by machine, and reusable bags made of durable plastic can be manually rinsed or wiped clean. Further, to control for any possible public health issues, the County of Los Angeles has clarified the definition of reusable bags established by the proposed County of Los Angeles ordinance to require such bags to consist of material that is machine washable. The definition of reusable bags has been modified in Section 2.2.3 (see Section 12.2). Health risks, if any, from reusable bags can be minimized if the consumer takes appropriate steps, such as washing and disinfecting the bags, using them only for groceries and using separate bags for raw meat products, being careful with where they are stored, and allowing bags to dry before folding and storing.²⁸ A representative of the County of Los Angeles Department of Public Health, which is charged with protecting and improving the health of County of Los Angeles residents, has stated that the public health risks of reusable bags are minimal.²⁹ Further, as discussed in Section 2.2.4, the City and County of San Francisco, since enacting their

²⁸ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April 2010. Email correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

³⁰ Galbreath, Rick, County of San Francisco, California. 10 May 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, California.

plastic bag ban in 2007, have not reported negative public health issues related to the increased use of reusable bags.³⁰

Response to Comment No. 29

Comment No. 29 expresses concern regarding the durability of reusable bags, and notes that reusable bags become a durable form of litter when discarded. To minimize potential environmental impacts from reusable bags related to solid waste disposal, the definition of reusable bags has been modified in Section 2.2.3 to require such bags to be designed for a minimum of 125 uses (see Section 12.2). With respect to the comment that reusable bags are a durable form of litter, as discussed in Section 3.4 and Section 4.2, the more continued uses there are of reusable bags, the smaller the number of reusable bags in the waste stream. This results in reusable bags being less likely than plastic carryout bags to be littered, and less likely to end up in the ocean or other wildlife habitats. Further, reusable bags are heavier than plastic carryout bags and are less likely to be blown by the wind and end up as litter.

Response to Comment No. 30

Comment No. 30 states that a majority of shoppers tend to forget their reusable bags. As discussed in Section 2.4.2, one of the objectives of the proposed ordinances is to increase the public's environmental awareness with regard to reusable bags. A change to the use of reusable bags would be encouraged through public education program, as well as a ban on the issuance of plastic carryout bags. Consumer use of reusable bags would be expected to increase over time. The comment regarding consumers' tendency to forget to use their reusable bags to stores is noted for the record and will be considered by the County of Los Angeles Board of Supervisors in the decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 31

Comment No. 31 notes that charging consumers for durable bags results in economic benefits to supermarkets. This comment is noted for the record. Comment No. 31 also asserts that "carrier bags" (that is, a plastic or paper carryout bag) are expected to be provided free of charge. However, carrier bags are often not actually free of charge to the consumer, because the cost can be hidden within higher grocery costs.³¹

Response to Comment No. 32

Comment No. 32 notes that washable, extended-life oxo-biodegradable plastic can be used to make reusable bags that will last 3 to 5 years before they degrade and that leave no harmful residues. However, as noted in the response to Comment No. 5, oxo-biodegradable plastic does not degrade in landfills or commercial composting facilities. Therefore, the assertion that reusable bags made from oxo-biodegradable plastic will degrade after 3 to 5 years, would only be true if the bags were left exposed to the elements of the environment, if at all. The proposed County of Los Angeles ordinance will not restrict the use of reusable bags made from oxo-biodegradable bags, as long as the bags meet the definition of a reusable bag as specified in Section 2.2.3 (see Section 12.2).

³¹ Herrera, et al. January 2008. Alternatives to Disposable Shopping Bags and Food Service Items Volume I and II. Prepared for: Seattle Public Utilities.

Response to Comment No. 33

Comment No. 33 opposes references to plastic carryout bags as "single-use bags." The EIR consistently refers to plastic grocery bags as plastic carryout bags. The term "single-use" is used to describe bags, whether plastic or paper, that are intended to be used only once to carry groceries and other goods from a store. The term is not meant to describe other possible uses that a shopper may have for a particular type of bag.

SAVE THE PLASTIC BAG COALITION

350 Bay Street, Suite 100-328 San Francisco, CA 94133 Phone: (415) 577-6660 Fax: (415) 869-5380 E-mail: <u>savetheplasticbag@earthlink.net</u> Website: <u>www.savetheplasticbag.com</u>

July 16, 2010

Via e-mail to: <u>cskye@dpw.lacounty.gov</u>

County of Los Angeles Department of Public Works Attn: Mr. Coby Skye Environmental Programs Division 900 South Fremont Avenue, 3rd Floor Alhambra, CA 91803

RE: Ordinances to ban plastic carryout bags in Los Angeles County: comments on and objections to Draft Environmental Impact Report

INTRODUCTION

Save The Plastic Bag Coalition ("STPB") hereby submits its comments on and objections to the Draft Environmental Impact Report ("DEIR"). STPB's letter dated January 4, 2010 is incorporated herein by reference. The numbered title headings herein are part of the objections.

The stated purpose of the project is to improve the environment and to increase environmental awareness. The DEIR states (at page 2-18) that one of the objectives of the "proposed ordinance *program*" is to "substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the population) with an environmental awareness message." (Emphasis added.) The County is apparently proposing to give at least 50,000 residents a message that each time they use a paper bag or reusable bag, rather than a plastic bag, they are improving the environment. It is therefore crucial that each of those 50,000 or more residents be given the *correct* environmental message. That is one of the reasons (not the only reason) why it is so important to ensure that that the EIR strictly complies with CEQA in all respects and that all of the environmental impacts are disclosed to decision-makers and the public. If the County bases its environmental awareness message on the DEIR, that message will be *incorrect*.

The following statements were contained in a recent Los Angeles Times editorial (June 24, 2010):

"The Great Pacific Garbage Patch is an area of the ocean larger than Texas and thick with floating plastic debris: bottles, bottle caps, bits of packaging and uncountable plastic bags."

"[Under pending bill AB 1998] consumers would pay a minimum of 5 cents each for paper bags, which are more expensive to produce than plastic ones but less environmentally damaging." Intro

http://www.latimes.com/news/opinion/editorials/la-ed-bags-20100624,0,7190647.story

The LA Times' assertions are incorrect.

- There is no such area of the ocean "larger than Texas and thick with floating plastic debris: bottles, bottle caps, bits of packaging and uncountable plastic bags." If such an area existed, it would be clearly visible and there would be photographs of it. There aren't any such photographs, as we can see from Google images.
- Paper bags are more damaging to the environment than plastic bags, not less damaging. This is especially relevant to the County's EIR as the County is not proposing any fee on paper bags. (The Cities of Santa Monica and San Jose are proposing 25-cent fees on paper bags.)

The following statement was contained in a recent editorial in the Daily Breeze (June 17, 2010):

"Plastic bags kill an estimated 1 million seabirds and 100,000 other animals every year, whether from eating the things or getting tangled in them."

<u>http://www.dailybreeze.com/ci_15322044</u>. The same statement was made in an editorial in the Long Beach Press Telegram. <u>http://www.longbeach.gov/civica/filebank/blobdload.asp?BlobID=27697</u>.

Intro

The Times of London has exposed the allegation about 1 million seabirds and 100,000 sea animals being killed by plastic bags each year as a myth based on a typographical error! The survey on which the myth is based found that the deaths are caused by discarded fishing tackle including fishing nets, not plastic bags. A marine biologist at Greenpeace told The Times: "It's very unlikely that many animals are killed by plastic bags. The evidence shows just the opposite." <u>http://www.timesonline.co.uk/tol/news/environment/article3508263.ece</u>. Regrettably, the County in its DEIR has avoided addressing the marine wildlife issue directly, despite the clear request in STPB's January 4, 2010 letter that the issue be properly addressed.

These examples of blatant misinformation show why it is so important that the EIR be *accurate* and *informative*. STPB plans to cite a *correct* EIR in response to incorrect assertions such as those in the aforementioned editorials, to ensure that the "environmental awareness message" that the public and decision-makers receive and their evaluation of the proposed ordinance is not based on myths or misinformation.

STPB is not asserting objections to create a pretext for a lawsuit. The public and decision-makers need an accurate and informative EIR that complies with CEQA, not a lawsuit. The aforementioned editorials demonstrate that need. STPB is legitimately trying to respond to the very real and serious problem of environmental misinformation.

The DEIR is only a draft and STPB hopes that these objections will prompt the County to make corrections and changes that will result in an EIR that fully complies with CEQA and the avoidance of litigation based on a defective EIR.

OBJECTIONS

1. <u>STPB OBJECTS TO THE FAILURE TO DISCUSS, DISCLOSE AND</u> <u>ADDRESS ISSUES AND POINTS IN STPB'S JANUARY 4, 2010 LETTER</u>

STPB objects to the failure of the DEIR to discuss disclose and address the following issues and points in STPB's January 4, 2010 letter.

- Section 1, page 11: ¶¶ B, D
 - Re ¶¶ B, see CEQA Guidelines §15124.
- Section 3, pages 12 to 19: ¶¶ B, C, D, E, F, G, H, I, J, K
 - Re ¶B, STPB objects to the failure to include any data in the EIR on the number of paper bags in the litter stream. This is highly relevant information. The DEIR indicates that plastic bags have a propensity to become litter, but paper bags may also have a propensity to become litter. Moreover, as the proposed ordinances will result in a switch to paper bags, the propensity of paper bags to become litter will be a bigger concern. See the following YouTube video that is hereby made part of the administrative record. The video was taken by STPB's counsel on Wednesday August 5, 2009. The location is Mason Street between Bay Street and Francisco Street in San Francisco. It was the day before street cleaning. Street cleaning on that block is on the first and third Wednesday of each month although it apparently didn't happen that day. There is a Trader Joe's on the same block. Trader Joe's provides paper carryout bags, not plastic. Paper bags are very much a part of the litter stream in San Francisco.

1

http://www.youtube.com/watch?v=pazWMPTCDmE&feature=player_embedded (This replaces the link at page 11 of STPB's January 4, 2010 letter.)

• Note that the link for the Toronto litter survey has changed. The new link is as follows:

http://www.plastics.ca/_files/file.php?fileid=fileXNqTOAdnvk&filename=file_3_2006_toronto_litter_report.pdf

- Section 4, pages 19 to 26: ¶¶ A, B, C, D, E, F, G, H, I, J, K, L, M, N
 - The failure to properly address the marine wildlife issue is discussed below.
- Section 5, pages 26 to 29: ¶¶ A, B, C, D, E, F, G, H, I, J
- Section 6, page 29: ¶¶ A, B, C, D
 - STPB objects to the failure to disclose the costs of paper bag litter.
- Section 10, page 37

!

 \circ CO₂ emissions have major impacts on ocean acidification and marine life, which must be described and disclosed in the EIR. The County will do far more harm than good to marine life by banning plastic bags. STPB objects to the failure to address and disclose this point. See:

http://royalsociety.org/Ocean-acidification-due-to-increasing-atmospheric-carbon-dioxide/

http://news.bbc.co.uk/2/hi/science/nature/8411135.stm.

- Section 11, pages 37 to 39: ¶¶ A, B, C, D
- Section 12, page 40
- Section 13, page 40
- Section 14, page 41: ¶¶ A, B, C, D
- Section 15, pages 41 to 49: ¶¶ A, B, C, D
- Section 16, pages 49 to 50: ¶ A, B
- Section 17, pages 50 to 51
- Section 18, pages 51 to 52
- Section 19, pages 52 to 53: ¶¶ A, B
- Section 20, pages 53 to 54
 - As discussed below, the DEIR addresses the life cycle environmental impacts of low-density polyethylene (LDPE) reusable bags. However, the DEIR contains is no analysis or disclosure of environmental impacts of cloth, jute, nonwoven polypropylene, polyethylene terephthalate (PET), or other non-LDPE reusable bags.
- Section 21, page 55: ¶¶ A, B, C, D
 - It is important to note that reusable bags are exempt from the toxic metals restrictions applicable to plastic and paper bags. Health & Safety Code §25214(h)(2). This exemption was given to reusable bags in a bill sponsored by Assembly Member Julia Brownley (D-Santa Monica). With the restrictions removed, reusable bags provided by stores in the City, including reusable bags imported from China, may legally contain lead, mercury, cadmium, and hexavalent chromium.
 - STPB is submitting herewith the results of testing by Polyhedron Laboratories, an independent laboratory, on two nonwoven polypropylene

1 cont.

"Brag about Your Bag" reusable bags that LA County gave away to the public. (Documents ## 67 and 68.) Three photographs of the actual bag tested in document # 68 are also provided herewith. (Documents ## 69, 70 and 71.) A sample of the bag in document #68 has been retained and will be provided by STPB to the County upon request. The test results show that the bags contained high levels of lead and mercury. Without waiving objection #6 below or any other objection, the County must address this issue and disclose the environmental impacts in the EIR and STPB objects if it does not do so. This is particularly important as the County intends to provide an "environmental awareness message" to consumers.

- Section 22, pages 55 to 56: ¶¶ A, B, C
 - Note that the second link in Section 22 ¶A of STPB's January 4, 2010 letter has changed. The new link is:

http://www.plastics.ca/_files/file.php?fileid=0&filename=file_A_Microbiological_Study_of_Reusable_Grocery_Bags_May20_09.pdf

• There is a new University of Arizona study (link below) issued in June 2010 that indicates that 97% of people who use reusable bags do not wash them. If people become concerned about the hygiene issues associated with reusable bags, many or most people will stop using them and will use paper bags instead if plastic bags are banned. Unfortunately, it only takes one publicized incident to create panic. There would need to be a comprehensive education campaign to make sure people properly and frequently wash their bags. In fact, a reusable bag should be wiped clean or washed after *every* use.

1 cont.

http://www.prweb.com/releases/2010/06/prweb4185254.htm

http://uanews.org/pdfs/GerbaWilliamsSinclair_BagContamination.pdf

- Section 23, page 56: ¶¶ A, B
- Section 24, page 56: ¶¶ A, B, C
- Section 26, pages 59 to 60
- Section 27, page 69
- Section 28, pages 60 to 61

STPB objects on the ground that the DEIR fails to discuss all likely environmental impacts, all reasonably feasible alternatives, and all reasonably feasible mitigation measures, specifically the above sections and paragraphs of STPB's January 4, 2010 letter. An EIR must provide public agencies and the public with detailed information about the effect that a proposed project is likely to have on the environment; list ways in which the significant effects of such a project might be minimized; and indicate alternatives to such a project. (Pub. Res Code §21061.)

!

The core of an EIR is the mitigation and alternatives sections. (Pub. Res. Code §21001(g).) Specifically, the EIR must describe a range of reasonable alternatives to the project that would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. (CEQA Guidelines §15126.6(a).) When an alternative is potentially reasonably feasible, an in-depth discussion is required; when an alternative is rejected, the EIR must 1 cont. describe the specific reasons for rejection. (CEQA Guidelines §15091(c).) Although the level of detail will vary depending upon an alternative's potential for feasibility, in every case, the EIR must disclose the analytic route the agency traveled from evidence to action.

Nothing stated in this letter is intended to waive STPB's objections to the County's failure to address <u>each and every</u> section number and paragraph letter identified above.

2. <u>STPB OBJECTS TO THE QUANTIFICATIONS OF THE INCREASE IN</u> <u>GREENHOUSE GAS EMISSIONS THAT WILL OCCUR IF PLASTIC BAGS</u> <u>ARE BANNED AS THEY ARE INCONSISTENT WITH THE COUNTY'S</u> <u>OWN 6 BILLION PLASTIC CARRYOUT BAGS FIGURE</u>

2

The DEIR purportedly discloses the greenhouse gas ("GHG") impacts of banning plastic bags in the following three tables:

-- CONTINUED ON NEXT PAGE --

!

<u>TABLE 1</u> <u>BASED ON INCLUDING CONVENIENCE</u> <u>AND SMALLER STORES IN BAN</u>

GHG EMISSIONS BASED ON ECOBILAN DATA USING 85-PERCENT CONVERSION FROM PLASTIC TO PAPER CARRYOUT BAGS

		CO _{2e} Emission Sources				1
	Plastic Carryout Bags	Increase Resulting from 85-percent Conversion from Plastic Carryout Bags to Paper Carryout Bags			2020 CO _{2e} Target Emissions	
Emissions Areas	Metric Tons Per Day	Metric Tons Per Day	Metric Tons Per Year	Metric Tons Per Year Per Capita ¹	Metric Tons Per Year Per Capita ¹	
Emissions in the 1,091 stores in the unincorporated territory of the County	98.13	59.02	21,543	0.002	9.6	2 co
Emissions in the 5,084 stores in the incorporated cities of the County	469.96 282.68		103,176 0.0	0.010		
Total Emissions in the County	568.08	341.70	124,720	0.012		

DEIR at page 3.1-15: "The Ecobilan LCA was chosen above the other studies reviewed during preparation of this EIR because it is relatively recent; contains relatively sophisticated modeling and data processing techniques; considers a wide range of environmental indicators; considers paper, plastic, and reusable bags; was critically reviewed by the French Environment and Energy Management Agency; and contains detailed emission data for individual pollutants."

<u>Note</u>: The Ecobilan LCA is the basis for the Scottish report. All references in STPB's January 4, 2010 letter to the Scottish report are in fact to the Ecobilan report. (See Scottish report page 17.)

Note: 85% conversion does not take into account the life cycle GHG impacts of reusable bags.

TABLE 2BASED ON INCLUDING CONVENIENCEAND SMALLER STORES IN BAN

GHG EMISSIONS BASED ON ECOBILAN DATA USING 100-PERCENT CONVERSION FROM PLASTIC TO PAPER CARRYOUT BAGS

	CO _{2e} Emission Sources				2020 CO2e	
	Plastic Carryout Bags	Increase Resulting from 100-percent Conversion from Plastic Carryout bags to Paper Carryout Bags			Target Emissions	2 con
	Metric Tons Per Day	Metric Tons Per Day	Metric Tons Per Year	Metric Tons Per Year Per Capita ¹	Metric Tons Per Year Per Capita ¹	
Emissions in the 1,091 stores in the unincorporated territory of the County	98.13	86.75	31,665	0.003	9.6	
Emissions in the 5,084 stores in the incorporated cities of the County	469.96	415.49	151,655	0.014		
Total Emissions in the County	568.08	502.25	183,320	0.017		

TABLE 3BASED ON EXCLUDING CONVENIENCEAND SMALL STORES FROM BAN

2 cont.

GHG EMISSIONS DUE TO 85- AND 100-PERCENT CONVERSION FROM PLASTIC TO PAPER CARRYOUT BAGS BASED ON VARIOUS STUDIES

	Increase R 85-percen	esulting from t Conversion	Increase Resulting from 100-percent Conversion	
LCA	Metric Tons Per Year	Metric Tons Per Year Per Capita	Metric Tons Per Year	Metric Tons Per Year Per Capita
Ecobilan	19,700	0.002	28,900	0.003
Boustead	38,300	0.004	54,100	0.005
ExcelPlas	73,700	0.007	90,700	0.009
Emission Targets				
California's GHG Target Emissions for 2020	427 million	9.6	427 million	9.6
County's GHG Target Emissions for 2020	108 million	9.6	108 million	9.6

The DEIR states (at page 2-2):

"According to research conducted by the Los Angeles County Department of Public Works (LACDPW), approximately 6 billion plastic carryout bags are consumed in the County each year, which is equivalent to approximately 1,600 bags per household per year."

Based on the 6 billion figure and a 1 paper bag = 1.5 plastic bag ratio, the GHG increases would be as follows:

Increase in GHG emissions per 1,000 paper bag carrying capacity = 0.092 CO_2 equivalent tons (Boustead)

4 billion additional paper bags in LA County divided by 1,000 = 4 million

2 cont.

3

4

4 million x 0.092 = 368,000 added CO₂ equivalent metric tons (100% conversion)

85% of $368,000 = \underline{312,800}$ added CO₂ equivalent metric tons (85% conversion, which does not take into account the life cycle impacts of reusable bags)

The figures of 183,320 (Table 2 100% conversion) and 124,720 (Table 1 85% conversion) CO_2 equivalent tons are inconsistent with the 6 billion plastic carryout bags figure. STPB objects to this inconsistent data in the DEIR on a subject of such paramount importance to decision-makers and the public, especially as the "voluntary" reduction program adopted by the Board of Supervisors on January 22, 2008 is based on percentage reductions. (The DEIR is an integral part of that resolution and the voluntary program.) The discrepancy must be explained or the figures must be corrected.

3. <u>STPB OBJECTS TO THE 183,320 AND 124,720 GHG EMISSIONS FIGURES</u> <u>AS THE LATTER IS NOT 85% OF THE FORMER</u>

The figures of 183,320 (Table 2 100% conversion) and 124,720 (Table 1 85% conversion) CO_2 equivalent metric tons must be incorrect as 124,720 is not 85% of 183,320. This indicates that there are related problems with other figures in the DEIR based on the 100% and 85% conversion factors and possibly other figures. The burden is on the County to check the figures in the DEIR.

4. <u>STPB OBJECTS TO THE ASSERTION THAT BANNING PLASTIC BAGS</u> <u>WILL RESULT IN INCREASED USE OF REUSABLE BAGS</u>

The DEIR states (at page 3.1-14):

"Although the production, manufacture, distribution, and eventual disposal of reusable bags does cause air pollutant emissions, as is the case with any manufactured product, these emissions are significantly reduced when calculated on a per-use basis. Banning the issuance of plastic carryout bags is expected to increase the use of reusable bags, so the air quality impacts are anticipated to be reduced."

The DEIR states (at page 3.3-16):

"Based on a survey of bag usage in the County conducted by reusable Sapphos Environmental, Inc., bags made approximately 18 percent of the total number of carryout bags used in stores that did not make plastic carryout bags readily available to customers; however, reusable bags made up only approximately 2 percent of the total number of bags used in stores that did make plastic carryout bags readily available (Appendix A). Therefore, it is reasonable to estimate that a ban on the issuance of plastic carryout bags would increase the number of reusable bags used by customers by at least 15 percent. Therefore, it is reasonable to estimate that a ban on the issuance of plastic carryout bags would increase the number of reusable bags used by customers by at least 15 percent. Accordingly, it can be assumed that, in a reasonable worst-case scenario, the proposed ordinances would potentially prompt an 85-percent conversion from use of plastic carryout bags to use of paper carryout bags by store customers."

STPB objects to the above-quoted statement on the ground that there is no basis for "expecting" that reusable bag usage will increase if plastic bags are banned. As long as free paper bags are available, the vast majority of people will use they do at stores in San Francisco where plastic bags are banned. In contrast, the city of Santa Monica is proposing a 25-cent fee on paper bags as part of its plastic bag ban ordinance.

5. <u>STPB OBJECTS TO THE USE OF THE 85% AND 100% PLASTIC TO</u> <u>PAPER CONVERSION FACTORS</u>

In Tables 1 and 3 and throughout the DEIR, the rate of conversion from plastic to paper is proposed as 85% or 100%. Customers would have to shift from plastic bags to something. All manufactured products have negative environmental impacts, and reusable bags are no exception. STPB objects to the use of an 85% conversion factor because it does not factor in any environmental impacts for the remaining 15% which is presumably reusable bags. STPB objects to the use of a 100% conversion factor, because it assumes that no consumers whatsoever would switch to reusable bags.

**!

4 cont.

5

6. <u>STPB OBJECTS TO THE FAILURE TO DISCLOSE THE</u> <u>ENVIRONMENTAL IMPACTS OF CLOTH, JUTE, NONWOVEN</u> <u>POLYPROPYLENE, PET, AND OTHER NON-LDPE REUSABLE BAGS</u>

The DEIR (at page 2-4) defines reusable bags as follows:

"Definition. "Reusable bag(s): a bag with handles that is specifically designed and manufactured for multiple reuse and is either (a) made of cloth or other machine-washable fabric, or (b) made of durable plastic that is at least 2.25 mils thick."

The DEIR states (at page 2-15):

"Furthermore, life cycle studies for plastic products have documented the adverse impacts related to various types of plastic and paper bags [footnote 92]; however, life cycle studies have also indicated that reusable bags are the preferable option to both paper bags and plastic bags. [Footnotes 93-95.]"

⁹² Reusable bag manufacturers are also expected to enforce industry standards and recommendations to avoid adverse environmental impacts, including the use of recycled materials.

⁹³ Green Seal, Inc. 13 October 2008. Green Seal Proposed Revised Environmental Standard For Reusable Bags (GS-16). Washington, DC. Available at [link]

⁹⁴ Boustead Consulting & Associates, Ltd. 2007. Life Cycle Assessment for Three Types of Grocery Bags – Recyclable

Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper. Available at [link]

⁹⁵ Green Cities California. March 2010. Master Environmental Assessment on Single-Use and Reusable Bags. Prepared by: ICF International. San Francisco, CA."

The DEIR states (at page 3.3-19):

!

"Comparisons of product LCAs for plastic versus paper provide varying results on the environmental impacts, although several studies show that production of plastic carryout bags generally produces less GHG emissions than the production of paper carryout bags. [Footnotes 49, 50.] The majority of LCAs and other studies that compare plastic, paper, and reusable bags concur that a switch to reusable bags would result in the most beneficial impacts to GHG emissions. [Footnotes 51-57.] Although the production, manufacture, distribution, and eventual disposal of reusable bags does generate GHG emissions, as is the case with any manufactured product, these emissions are significantly reduced when calculated on a per-use basis. As banning the issuance of plastic carryout bags is expected to increase the use of reusable bags, the GHG emission impacts are anticipated to be reduced. Also, the County is considering expanding the scope of the proposed County ordinance to include a performance standard for reusable bags, which would further reduce GHG emission impacts."

⁴⁹ Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France.

⁵⁰ Boustead Consulting and Associates Ltd. 2007. Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper. Prepared for the Progressive Bag Affiliates.

⁵¹ Nolan-ItuPty.Ltd.2002. Plastic Shopping Bags – Analysis of Levies and Environmental Impacts. Prepared for: Department of the Environment, Water, and Heritage: Canberra, AU.

⁵² ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. The Impacts of Degradable Plastic Bags in Australia. Moorabbin VIC, AU.

⁵³ Marlet, C., EuroCommerce. September 2004. The Use of LCAs on Plastic Bags in an IPP Context. Brussels, Belgium.

⁵⁴ The ULS Report. 1 June 2007. Review of Life Cycle Data Relating to Disposable Compostable Biodegradable, and Reusable Grocery Bags. Rochester, MI.

⁵⁵ Hyder Consulting. 18 April 2007. Comparison of existing life cycle analyses of plastic bag alternatives. Prepared for: Sustainability Victoria, Victoria, Australia.

⁵⁶ Herrera et al. January 2008. Alternatives to Disposable Shopping Bags and Food Service Items Volume I and II. Prepared for: Seattle Public Utilities.

⁵⁷ Marlet, C., EuroCommerce. September 2004. The Use of LCAs on Plastic Bags in an IPP Context. Brussels, Belgium.

!

The DEIR states (at page 4-8):

"As banning the issuance of both plastic and paper carryout bags is expected to increase the use of reusable bags, the air quality impacts are anticipated to be reduced in comparison with the proposed ordinances which would not ban paper carryout bags."

The only kind of reusable bag analyzed in the Ecobilan study is an LDPE reusable bag. In this regard, the DEIR states (at page 3.3-22):

"The Ecobilan Study also presented an LCA analysis of a reusable bag that is approximately 2.8 mils thick, weighs 44 grams, and holds 37 liters of groceries. The conclusion from the analysis was that this particular reusable bag has a smaller impact on GHG emissions than a plastic carryout bag, as long as the reusable bag is used a minimum of three times (Table 3.3.5-4, Estimated Daily Emission Changes Due to Reusable Bags Used Three Times Based on Ecobilan Data, and Appendix C). [Footnote 65 citing Ecobilan report.] The impacts of the reusable bag are reduced further when the bag is used additional times. Although the Ecobilan data is particular to a specific type of reusable bag, it illustrates the general concept of how GHG emission impacts of reusable bag manufacture are reduced the more times a bag is used. As banning the issuance of plastic carryout bags is expected to increase the use of reusable bags, the GHG emission impacts are anticipated to be reduced. Therefore, a conversion from plastic carryout bag use to reusable bag use would be anticipated to have reduced impacts upon GHG emissions. Also, the County is considering expanding the scope of its ordinance to include a performance standard for reusable bags, which may further reduce GHG emission impacts." (Emphasis added.)

6 cont.

None of the studies cited in the DEIR includes life cycle analyses of cloth, jute, nonwoven polypropylene, polyethylene terephthalate (PET), or other non-LDPE reusable bags. The Ecobilan report analyzes only LDPE reusable bags. The ExcelPlas study analyzes plastic reusable bags, not cloth, jute, nonwoven polypropylene, polyethylene terephthalate (PET), or other reusable bags. (See DEIR at page 3.3-25.) This is a fatal omission and a violation of CEQA. The assumption in the DEIR is that the life cycles of cloth, jute, nonwoven polypropylene, polyethylene terephthalate (PET), and other non-LDPE reusable bags produce zero environmental impacts if they are reused many times. There is no substantial evidence for such an assumption. Reusable bags are manufactured items with life cycle environmental impacts. As the purpose of the proposed ordinance is to encourage a switch to reusable bags, the omission of life cycle analyses of cloth, jute, nonwoven polypropylene, polyethylene terephthalate (PET), and other non-LDPE reusable bags makes the DEIR inapplicable to such an ordinance, unless reusable bags made of such non-LDPE materials are also banned by the ordinance.

STPB objects to any ordinance banning plastic bags if no EIR is prepared that includes a life cycle analysis of cloth, jute, nonwoven polypropylene, polyethylene terephthalate (PET), and other non-LDPE reusable bags, unless all such reusable bags are also banned.

It is the *County's* responsibility to address the life cycle environmental impacts analysis of cloth, jute, nonwoven polypropylene, polyethylene terephthalate (PET), and other non-LDPE 6 cont. reusable bags, unless all such reusable bags are banned. We call the County's attention to the following statement of law in Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d 296, 311:

> "The agency [will] not be allowed to hide behind its own failure to gather relevant data.... CEQA places the burden of environmental investigation on government rather than the public."

7. STPB OBJECTS TO THE SWEEPING ASSERTION REGARDING **ENVIRONMENTAL IMPACTS OF REUSABLE BAGS**

Footnotes 51 and 92 (at page 1-9 and 2-15 of the DEIR respectively) states

"Reusable bag manufacturers are also expected to enforce industry standards and recommendations to avoid adverse environmental impacts, including the use of recycled materials."

STPB objects to this statement on the following grounds:

- A. It is speculation, argument, and baseless assertion that is not supported by substantial evidence.
- B. There is no explanation of what "industry standards and recommendations" are being referenced in the statement. Most reusable bags are imported. Industry standards in other countries such as China may permit environmental impacts that would be considered completely unacceptable in the United States. Moreover, industry standards may not be enforced and may be routinely violated.
- C. There is no reason why reusable bag manufacturers, especially in China where most reusable bags are made, can be expected to reduce environmental impacts.
- D. The existence of environmental standards and recommendations does not mean that environmental impacts will not occur. Environmental impacts will occur from the life cycles of reusable bags, including manufacturing overseas, and must be disclosed.
- E. There is no substantial evidence that recycling reduces any environmental impacts except the use of virgin source materials, solid waste disposal, and possibly some litter. Recycling is a collection, transportation, washing, and reprocessing operation with significant environmental impacts including energy usage, GHG omissions, and air and water pollution. The County cannot brush these negative recycling impacts aside and not disclose them.

!

7

F. Recycled materials cannot be used to make cloth, jute bags, or nonwoven polypropylene bags. Regarding nonwoven polypropylene and polyethylene terephthalate (PET) reusable bags, one supplier of such bags states as follows:

"Here is the truth about recycled plastic bags. After searching for several years to find a recycled content PP bag, we found that many claims of recycled content are -- at best -- unreliable.

Like you, we've seen bags that say: I used to be a plastic water bottle. But plastic bottles are made of plastic #2, and reusable bags are mostly made from plastic #5. These types of plastic are different materials, as different as cotton is from wool, or aluminum is from steel. Recycling one type into another is technically not possible. The problem with recycling plastic is that most plastic is mixed after the consumer cycle. Mixed plastics cannot be made into PP or other high quality items. When postconsumer plastic is recycled, the result is always black or brown because the inks and dyes used for consumers become part of the mix. I have seen up to 30% recycled content PP fabric, but the quality is not very good, and it is very expensive to make. Our fabric contains 10% recycled content from like-colored industrial scraps. It's a clean and verifiable source of recyclable materials. Our openness and honesty about recycled content is another example of our dedication to corporate responsibility and corporate honesty."

http://www.onebagatatime.com/planet/how-our-bags-help/recycled-plastic/

8. <u>STPB OBJECTS TO THE APPLICATION OF LOS ANGELES COUNTY</u> <u>AND SOUTHERN CALIFORNIA THRESHOLDS OF SIGNIFICANCE TO</u> <u>THE LIFE CYCLE ENVIRONMENTAL IMPACTS OF PLASTIC AND</u> <u>PAPER BAGS</u>

The DEIR states (at page ES-4):

"The analysis undertaken for this EIR determined that direct impacts related to greenhouse gas emissions that would be expected to arise from implementation of the proposed ordinances would be below the level of significance."

The County applies local thresholds of significance as if all of the life cycle environmental impacts of paper bags occur will occur in the Los Angeles area or Southern California. The tables (including but not limited to Tables 1 and 2 above) in the DEIR calculate total emissions "*in the County*." Further, the DEIR states (at page 3.1-1):

7 cont.

8

!

"The analysis of air quality consists of a summary of the regulatory framework to be considered during the decision-making process, a description of the existing conditions within the County, thresholds for determining if the proposed ordinances would result in significant impacts, anticipated impacts (direct, indirect, and cumulative), mitigation measures, and level of significance after mitigation. The potential for impacts to air quality has been analyzed in accordance with Appendix G of the State CEQA Guidelines; the methodologies and significance thresholds provided by the County General Plan, the National Ambient Air Quality Standards (NAAQS), the California Ambient Air Quality Standards (CAAQS), [footnote] and the CAA; guidance provided by the South Coast Air Quality Management District (SCAQMD), Antelope Valley Air Quality Management District (AVAOMD) and California Air Resources Board (CARB); and a review of public comments received during the scoping period for the Initial Study for the proposed ordinances.

Data on existing air quality in the SCAQMD portion of the South Coast Air Basin (SCAB) and the AVAQMD portion of the Mojave Desert Air Basin (MDAB), in which the unincorporated territory and the 88 incorporated cities of the County are located, is monitored by a network of air monitoring stations operated by the California Environmental Protection Agency (Cal/EPA), CARB, and the SCAQMD and AVAQMD. The conclusions contained herein reflect guidelines established by SCAQMD's CEQA Air Quality Handbook."

8 cont.

Plastic and paper carryout bag manufacturing occurs within *and outside* of Southern California. The DEIR (at page 3.1-17) acknowledges this fact in the following statement:

Since the majority of paper carryout bags supplied to the greater Los Angeles metropolitan area are produced in and delivered from states outside of California, or from countries outside of the United States, such as Canada....

As the negative environmental impacts of an increase number of paper bags will occur primarily outside the Los Angeles and Southern California area, local thresholds of significance are inapplicable and legally unsupportable. This is a serious and fundamental defect in the DEIR that violates CEQA. The DEIR should have quantified life cycle GHG and other impacts *wherever they occur* such as in Canada, not only in Los Angeles County or Southern California. As the DEIR states (at page 3.1-22):

"The LCA results cannot reasonably be evaluated in relation to the operational thresholds of significance set by SCAQMD for the SCAB because the operational thresholds are intended for specific

projects located in the SCAB, whereas LCA data cover all stages of production, distribution, and end-of-life procedures related to a particular product. The manufacture and production of paper carryout bags appears not to occur in the SCAB or MDAB, with manufacturing facilities located in other air basins in the United States and in other countries, which may have different emission thresholds and regulations. As noted before, any indirect increase in air pollutant emissions from paper carryout bag manufacturing facilities that would be affected by the proposed ordinancesthough it appears none are located in the County unincorporated and incorporated areas or the SCAB and MDAB-would be controlled by the owners of the paper carryout bag manufacturing facilities in compliance with applicable local, regional, and national air quality standards. Since the majority of paper carryout bags supplied to the greater Los Angeles metropolitan area are produced in and delivered from states outside of California, or from countries outside of the United States, such as Canada, it is not necessary to extrapolate LCA data to determine emission levels for the SCAQMD portion of the SCAB and the AVAQMD portion of the MDAB."

STPB objects to all determinations of significance based on local thresholds that are applicable only to LA County or Southern California. They should be removed from the DEIR in their entirety as they are inapplicable and therefore violate CEQA.

9. <u>STPB OBJECTS TO THE USE OF ALL GLOBAL OR STATEWIDE</u> <u>SOURCES OF CO2 EMISSIONS AS THE THRESHOLD OF SIGNIFICANCE</u> <u>OR TO EVALUATE SIGNIFICANCE</u>

The DEIR states (at page 3.329):

!

"Now that the analysis has been performed for each of the various studies, it is important to look at the quantitative results (1) in context with the GHG emission reduction goals of both California and the County and (2) in a cumulative context. If looking at GHG emissions of CO2e in terms of metric tons per year, concluding that the proposed ordinances would result in GHG emissions in excess of 19,000 to 73,000 metric tons per year for 85-percent conversion from plastic to paper carryout bags, and 28,000 to 90,000 metric tons per year for 100-percent conversion, does appear significant when considered out of context. However, because every nation is an emitter of GHGs and GHGs contribute to global climate change, GHG emissions from individual projects like the proposed ordinances must be considered on a global scale. Due to the fact that more than 28 billion tons of CO2 were emitted to the Earth's atmosphere due to human activities in 2006 alone,

8 cont.

9

GHG emissions on a project level are not generally found to be significant, and it is more useful to consider GHG emissions in a cumulative context. [Footnote.]

In addition, while the Ecobilan, Boustead, and ExcelPas Studies are far from perfect and make a number of assumptions that may not be accurate for the County, the GHG emission impacts from an 85- and 100-percent conversion from plastic to paper carryout bags would be expected to be below the level of significance when considering that California's GHG emissions target for 2020 is 427 million metric tons per year (Table 3.3.2-1 and Table 3.3.5-9) and the County's GHG emissions target for 2020 is 108 million metric tons per year (Table 3.3.3-1 and Table 3.3.5-9). For an 85-percent conversion to paper carryout bags, the LCA results presented above would be equivalent to between 0.005 and 0.017 percent of the target 2020 emissions for California and 0.018 and 0.068 percent of the target 2020 emissions for the County. For a 100percent conversion to paper carryout bags, the LCA results presented above would be equivalent to between 0.007 and 0.021 percent of the target 2020 emissions for California and 0.027 and 0.084 percent of the target 2020 emissions for the County.

As the proposed ordinances could affect the entire County, and the resultant indirect GHG emissions would not occur at any one particular facility, it is reasonable to also consider the indirect emissions on a per-person, or per capita, basis. If analyzing GHG emissions in terms of per capita per year, which takes into account the population of the entire County, an 85 and 100-percent conversion from plastic to paper carryout bags would be expected to be below the level of significance. For an 85-percent conversion to paper carryout bags, the LCA results presented above indicate that the proposed ordinances would indirectly generate between 0.002 and 0.007 metric tons of CO2e per capita, which is between 0.02 and 0.07 percent of the target 2020 carbon footprint per capita of 9.6 metric tons of CO2e per capita suggested by CARB in order to achieve the goals of AB 32. For a 100-percent conversion to paper carryout bags, the LCA results presented above indicate that the proposed ordinances would indirectly generate between 0.003 and 0.009 metric tons of CO2e per capita, which is between 0.03 and 0.09 percent of the target 2020 carbon footprint per capita of 9.6 metric tons of CO2e suggested by CARB. As carryout bags form such a small percentage of the daily carbon footprint per person, it would not be reasonable to assume that the proposed ordinances would result in GHG emissions that would conflict with the goals of AB 32. The GHG emissions impacts for 85percent and 100-percent conversion from plastic to paper carryout 9 cont.

!

bags would be expected to be below the level of significance in comparison with the global anthropogenic emissions of GHGs, which was over 28 billion tons of CO2 in 2006 alone. [Footnote.] If viewed apart from the GHG emissions produced by activities elsewhere in the world, the mass of GHG emissions generated by individual projects such as the proposed ordinances would be so minute that the concentration of GHGs in the Earth's atmosphere would essentially remain the same. Therefore, the project's individual GHG emission impact is considered to be below the level of significance, and further analysis should be discussed in a cumulative context (see Cumulative Impacts subsection, page 3.3-36)."

The DEIR states (at page 3.3-18):

"Although the production of plastic, paper, and reusable carryout bags can be categorized as part of the industrial sector, it is not included in the top 10 contributors. Therefore, evidence indicates that the manufacture of paper carryout bags is not one of the major contributors to total GHG emissions."

Obviously the impact of paper bags appears small when considered on a "global scale." However, that is not the applicable threshold of significance. If that standard is used, with everything being compared to all CO_2 emissions on the entire planet, then very few sources of emissions would appear significant. The same applies to per capita CO_2 emissions, given the broad range of CO_2 producing activities. Further, whether or not paper bags are one of the top 10 contributors to total GHG emissions is not an appropriate or relevant basis for evaluation of significance. All sources of GHG emissions accumulate.

STPB objects to the above-quoted sections of the DEIR as they are misleading to decision-makers and the public and violate CEQA by using inapplicable and invalid thresholds and baselines and thresholds for determining significance in the context of this project.

10. <u>STPB OBJECTS TO ANY THRESHOLD OF SIGNIFICANCE THAT IS NOT</u> <u>BASED ON EVERY BAG CHOICE MADE BY EVERY CONSUMER</u>

The stated purpose of the project is to improve the environment and to increase environmental awareness. The DEIR states (at page 2-18) that one of the objectives of the "proposed ordinance *program*" is to "substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the population) with an environmental awareness message." (Emphasis added.) The County is proposing to give at least 50,000 residents a message that they are making bag choices that *significantly* impact the environment.

Significance in the context of this project is determined by the <u>comparative</u> environmental impacts of different bag choices: which is better for the environment—plastic, paper or reusable.

10

In the context of this project, each consumer's bag choice has a <u>significant</u> environmental impact.

11. <u>STPB OBJECTS TO THE FAILURE TO DISCLOSE THE RESULT OF THE</u> <u>US EPA EQUIVALENCIES CALCULATOR</u>

The DEIR states (at page 2-18) that one of the objectives of the "proposed ordinance *program*" is to "substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the population) with an environmental awareness message." (Emphasis added.)

An EIR is an informational document for decision-makers and the public. The "environmental awareness message" that the County plans to send must be stated in terms that the public can understand. They cannot possibly understand and evaluate the significance of CO_2 equivalent tons. That is why the US Environmental Protection Agency ("US EPA") has an online equivalencies calculator at:

http://www.epa.gov/cleanrgy/energy-resources/calculator.html (Note that this hyperlink has changed since STPB's January 4, 2010 letter)

Results of applying the US EPA calculator must be disclosed in the EIR to convey significances to decision-makers and the public as part of the environmental awareness message. Further, there must be a separate and discrete finding of the increase in GHG emissions using the equivalencies in the US EPA calculator. Failure to make such a disclosure and include such a finding will violate CEQA.

For example, Table 2 quantifies CO_2 equivalent emissions based on 100% conversion from plastic to paper at 6,175 stores in the County. (We will assume for present purposes that the figure of 183,320 metric tons in Table 2 is correct, without conceding the point. We will also disregard for present purposes our objection to the use of a 100% conversion factor without waiving that objection.) The results of applying the US EPA equivalencies calculator to Table 2 are as follows:

- Annual greenhouse gas emissions from 35,052 passenger vehicles
- CO₂ emissions from 20,620,922 gallons of gasoline consumed
- CO₂ emissions from 426,326 barrels of oil consumed
- CO₂ emissions from 2,448 tanker trucks' worth of gasoline
- CO₂ emissions from the electricity use of 22,248 homes for one year
- CO₂ emissions from the energy use of 15,602 homes for one year

Let us take as another example the figure of 368,000 added CO₂ equivalent metric tons, which is based on the County's 6 billion plastic carryout bags figure and assumes a 100% conversion to 4 billion paper bags. (Again, we will also disregard for present purposes our objection to the use of a 100% conversion factor without waiving that objection.) The results of applying the US EPA equivalencies calculator are as follows:

- Annual greenhouse gas emissions from 70,363 passenger vehicles
- CO₂ emissions from 41,394,826 gallons of gasoline consumed
- CO₂ emissions from 855,814 barrels of oil consumed
- CO₂ emissions from 4,914 tanker trucks' worth of gasoline
- CO₂ emissions from the electricity use of 44,660 homes for one year
- CO₂ emissions from the energy use of 31,319 homes for one year

The equivalencies figures must be based on the cumulative impacts analysis, taking into account all other past projects, current projects, and probable future projects. None of the tables in the DEIR are based on such cumulative impacts. The EPA equivalencies in the EIR would be higher than those above.

12. <u>STPB OBJECTS TO THE FAILURE TO INCLUDE A CUMULATIVE</u> <u>IMPACT ANALYSIS</u>

The DEIR states (at page 3.3-37):

!

"On this basis, and specific to this project only, and because the County is attempting to evaluate the impacts of the proposed ordinances from a conservative worst-case scenario, it can be conservatively determined that the life cycle impacts resulting from an 85- and 100-percent conversion from plastic to paper carryout bags may be cumulatively significant when considered in conjunction with all other related past, present, or reasonably foreseeable, probable future projects or activities."

While acknowledging in the above quoted statement that a cumulative impact analysis is required, there is no cumulative analysis in the DEIR. STPB objects to the lack of a cumulative impact analysis.

CEQA Guidelines §15130(a) states that an EIR "shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in section 15065(a)(3). CEQA Guidelines §15065(3) states that an EIR must be prepared if "the project has possible environmental effects that are individually limited but cumulatively considerable." CEQA Guidelines §15065(3) states that "cumulatively considerable" means that the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." CEQA Guidelines §15355 defines "cumulative impacts" as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA Guidelines §15355(b) states that "[c]umulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

In Communities for a Better Environment v. California Resources Agency (2002) 103 Cal.App.4th 98, the court stated:

11 cont.
<u>At 114:</u> "Cumulative impact analysis is necessary because the full environmental impact of a proposed project cannot be gauged in a vacuum. [Footnote] One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact.

<u>At 118:</u> From *Kings County* and *Los Angeles Unified*, the guiding criterion on the subject of cumulative impact is whether *any* additional effect caused by the proposed project should be considered significant given the existing cumulative effect. (Emphasis added.)

<u>At 119</u>: However, under CEQA section 21083, under the Guidelines section 15355 definition of cumulative impacts, and under the *Kings County/Los Angeles Unified* approach, the need for an EIR turns on the impacts of *both* the project under review and the relevant past, present and future projects. [Emphasis by court.]"

In San Franciscans for Reasonable Growth v. City and County of San Francisco, (1984) 151 Cal.App.3d 61, 75, the court stated:

[W]e must reject the argument that, because some of the projects under review might never be built, it was reasonable for the Commission not to consider any of them in its cumulative analyses. Such argument is without merit. The fact that the EIR's subject project itself might be built, rather than the fact that it might not be built, creates the need for an EIR. Similarly, the fact that other projects being reviewed are as close to being built as the subject project makes it reasonable to consider them in the cumulative analyses.

Based on the foregoing, the EIR must consider the impact of the proposed County ordinance together with the following projects:

- The City of Berkeley proposed plastic bag ban.
- The City of Los Angeles resolution passed in 2008 to ban plastic bags in 2010 if no plastic bag fee bill is enacted by the Legislature by that time. (No bill has been enacted.)
- The City of Malibu plastic bag ban ordinance adopted in 2008.
- The City of Manhattan Beach plastic bag ban ordinance adopted in 2008 (if it is not invalidated in the case of *Save The Plastic Bag Coalition v. City of Manhattan Beach* which is pending in the California Supreme Court).

12 cont.

- The City of Palo Alto plastic bag ban ordinance adopted in 2009.
- The City and County of San Francisco plastic bag ban ordinance adopted in 2007.
- The City of San Jose proposed plastic bag ban and paper bag fee (for which a draft EIR has been issued).
- The City of Santa Monica proposed plastic bag ban and paper bag fee (for which a draft EIR has been issued).
- All other plastic bag ban ordinances and reduction projects that are being considered or may be or have been implemented in California and outside California.

13. <u>STPB OBJECTS TO THE SWEEPING, MISLEADING, AND BASELESS</u> <u>ASSERTIONS REGARDING IMPACTS OF PLASTIC BAGS ON MARINE</u> <u>LIFE</u>

The DEIR states (at page 2-17):

"The County has identified five goals of the proposed ordinances, listed in order of importance: (1) litter reduction, (2) blight prevention, (3) *coastal waterways and animal and wildlife protection*, (4) sustainability (as it relates to the County's energy and environmental goals), and (5) landfill disposal reduction." (Emphasis added.)

The DEIR further states (at page 2-12):

"Plastic carryout bags have been found to contribute substantially to the litter stream and to have adverse effects on marine wildlife."

The DEIR further states (at page 3.2-1):

"CIWMB states, "plastic film, especially grocery bags, constitutes a high percentage of litter, which is unsightly, costly to clean up, especially when it enters marine environments, and causes serious negative impacts to shore birds and sea life." (Footnote 4: "California Integrated Waste Management Board. Accessed on: 1 March 2010. Plastic Film Cooperative Recycling Initiative. Problem Statement. Available at:

http://www.calrecycle.ca.gov/Plastics/Film/#Problem.)"

The DEIR further states (at page 3.2-2):

"Based on the evidence that plastic carryout bags pose a significant threat to marine wildlife...."

"\$!

12 cont.

13

!

The DEIR further states (at page 3.2-3):

"Volunteers participating in the 2008 International Coastal Cleanup discovered 47 animals and birds entangled or trapped by plastic bags, including 1 amphibian, 9 birds, 24 fish, 11 invertebrates, and 2 reptiles. [Footnote 14: Ocean Conservancy. A Rising Tide of Ocean Debris and What We Can Do About It. International Coastal Cleanup 2009 Report.] Therefore, plastic bag usage has the potential to jeopardize federally endangered and threatened species by harming, wounding, killing, and trapping them. In banning the issuance of plastic carryout bags while encouraging the use of reusable bags, the proposed ordinances would help advance the goal of the federal ESA to protect wildlife."

The DEIR further states (at page 3.2-19):

!

"Seabirds, sea turtles, and marine mammals that feed on or near the ocean surface are especially prone to ingesting plastic debris that floats. [Footnotes 55-57.] The impacts include fatalities as a result of ingestion, starvation, suffocation, infection, drowning, and entanglement. [Footnotes 58 & 59.] The recovery plan for the endangered leatherback turtle (Dermochelys coriacea) lists ingestion of marine debris, including plastic bags, as one of the factors threatening this species. The recovery plan says that leatherback turtles consume floating plastic, including plastic bags, because they appear to mistake the floating plastic for jellyfish. [Footnote 60.] The recovery plans for the threatened green turtle (Chelonia mydas), loggerhead turtle (Caretta caretta), and olive ridley turtle (Lepidochelys olivacea) also note plastic bag ingestion as a threat to those species. [Footnotes 61-63.] Ingestion of plastics is also noted as a threat in the recovery plan for the federally endangered short-tailed albatross (Phoebastria albatrus). [Footnote 64.] Preventing trash from entering water bodies, such as the Los Angeles River, has the potential to improve habitats and aquatic life. [Footnote 65.] The proposed ordinances would be anticipated to reduce the amount of trash entering water bodies in the County. [Footnote 66.]"

⁵⁵ California Ocean Protection Council. 20 November 2008. An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter. Available at:

http://www.opc.ca.gov/webmaster/ftp/pdf/opc_ocean_litter_final_s trategy.pdf

⁵⁶ National Research Council. 2008. "Tackling Marine Debris in the 21st Century." Committee on the Effectiveness of National and International Measures to Prevent and Reduce Marine Debris and Its Impacts.

⁵⁷ U.S. Environmental Protection Agency. August 2002. Assessing and Monitoring Floatable Debris. Washington, DC.

⁵⁸ California Ocean Protection Council. 20 November 2008. An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter. Available at:

http://www.opc.ca.gov/webmaster/ftp/pdf/opc_ocean_litter_final_s trategy.pdf

⁵⁹ Gregory, Murray R. 2009. "Environmental Implications of Plastic debris in Marine Settings -- Entanglement, Ingestion, Smothering, Hangers-on, Hitch-hiking and Alien Invasions." In Philosophical Transactions of the Royal Society B: Biological Sciences, 364: 2013–2025.

⁶⁰ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. Recovery Plan for U.S. Pacific Populations of the Leatherback Turtle. Available at:

http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_leatherback_pac ific.pdf

⁶¹ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. Recovery Plan for U.S. Pacific Populations of the East Pacific Green Turtle. Available at:

http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_green_eastpacif ic.pdf

⁶² National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. Recovery Plan for U.S. Pacific Populations of the Loggerhead Turtle. Available at [link]

⁶³ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. Recovery Plan for U.S. Pacific Populations of the Olive Ridley Turtle. Available at [link]

⁶⁴ U.S. Fish and Wildlife Service. September 2008. Short-tailed Albatross Recovery Plan. Available at [link]

⁶⁵ Regional Water Quality Control Board, Los Angeles Region. Revised 27 July 2007. "Trash Total Maximum Daily Loads for the

!&"

13 cont.

Los Angeles River Watershed." Los Angeles, CA.

⁶⁶ California Ocean Protection Council. 20 November 2008. An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter. Available at (link)"

The DEIR further states (at page 4-3):

"Certain types of degradable plastic carryout bags are able to float and pose a risk of ingestion by fish and marine mammals. [Footnote 3: ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. The Impacts of Degradable Plastic Bags in Australia. Moorabbin VIC, AU.]"

STPB objects to the foregoing quoted statements, and all other statements in the DEIR regarding marine wildlife, on the ground that there is no cited substantial evidence that plastic bags cause the deaths of marine mammals, marine animals, or seabirds, except for the following:

1. The results of the 2008 International Coastal Cleanup that discovered 47 animals and birds entangled or trapped by plastic bags, including 1 amphibian, 9 birds, 24 fish, 11 invertebrates, and 2 reptiles. (Ocean Conservancy. A Rising Tide of Ocean Debris and What We Can Do About It. International Coastal Cleanup 2009 Report.)

13 cont.

2. The UNEP study (link below). At page 199 of the study, it is stated that 71.9% of total entanglements were accounted for by fishing line, ropes and nets. In the table on the same page, the *global* results for marine entanglements by plastic bags were as follows:

Invertebrates	2 plastic bags
Fishes	3 plastic bags
Reptiles	0 plastic bags
Birds	12 plastic bags
Mammals	5 plastic bags
Amphibian	0 plastic bags

www.unep.org/regionalseas/marinelitter/publications/docs/Marine Litter A Global Challenge.pdf

The DEIR does not discuss, disclose, or address how many (if any) plastic bags from Los Angeles County reach the Pacific Ocean. There is no discussion in the DEIR of the North Pacific gyre, including how much of the gyre consists of plastic bags or plastic bag debris. The DEIR ignores all of the questions and points in section 4 of STPB's January 4, 2010 letter (pages 19 to 26) regarding marine mammals, including the need for quantification, except for the aforementioned Ocean Conservancy and UNEP figures.

This omission is particularly important, because protection of marine wildlife is one of the stated objectives of the proposed ordinances. Decision-makers and the public need to know if the marine mammal and seabird issue is a major problem or not (especially if the impact of plastic bags on the marine environment are part of the County's environmental awareness message"). They need to know the approximate quantity of marine wildlife that is killed, in other words the *scale of the problem*. If the only quantification data available are the Ocean Conservancy and UNEP reports, then the EIR must state this clearly and delete all vague, sweeping and misleading statements that imply or suggest that there is other quantification data, including all of the statements in the DEIR quoted above.

The DEIR uses terms such as "serious negative impacts" (page 3.2-1) and "significant threat to marine wildlife...." (page 3.2-2). STPB objects to these and similar vague and ambiguous terms as applied to the impacts on marine life without any description or disclosure of those impacts or threats. Further, a "significant threat" is not an environmental impact at all; it falls short of an actual environmental impact.

Regarding turtles, there is no substantial evidence that plastic bags or plastic bag debris cause fatalities. In a paper entitled "The Occurrence, Effects and Fate of Small Plastic Debris in the Oceans" (copy provided herewith -- PDF document #32), US National Oceanic and Atmospheric Administration Marine Debris Program staff stated as follows:

"More recently, Tomas et al. (2002) documented plastic debris ingested by juvenile loggerhead sea turtles illegally caught for consumption in the western Mediterranean. Plastics accounted for the highest percentage of anthropogenic debris recovered from the digestive tracts of 41 of 54 turtles surveyed. Mascarenhas et al. (2004) documented plastic ingestion in two sea turtles in Brazil, one female C. mydas that defecated 10 small pieces of hard plastic and plastic bags, and one adult male L. olivacea with 9 small pieces of hard plastic. Tomas et al. (2002) are in agreement with Bjorndal et al. (1994) that sea turtles are resistant to mortality from ingesting small foreign debris, though with the increasing number of turtles containing plastics, small plastics can be a major concern if they occlude the digestive tract. Barreiros and Barcelos (2001) observed several pieces of soft plastic and a hard plastic cap in one leatherback sea turtle (D. coriacea) intestine. This particular turtle was by-caught in a long-line fishery near the Azores; the plastic did not cause the turtle apparent harm. Bugoni et al. (2001) identified marine debris and human impacts to green sea turtles in Brazil. Plastics were the most frequently encountered form of debris in the digestive tract, though hard plastics were present in only four turtles and plastic bags and ropes were the most prevalent forms of plastic debris, at 50% and 39.5%, respectively (Bugoni et al. 2001). There are very few, if any, published records of small plastics as the direct cause of mortality in sea turtles." (Emphasis added.)

13 cont.

!

Accordingly, STPB objects to all statements in the DEIR that imply or suggest that turtles are actually being killed by plastic bags.

Note that David Laist, a senior policy and program analyst with the federal Marine Mammal Commission, has recently stated: 13 cont.

"In their eagerness to make their case, some of the environmental groups make up claims that are really not supportable."

See: http://www.npr.org/templates/story/story.php?storyId=127600685

14. <u>STPB OBJECTS TO THE USE OF OUTDATED AND INAPPLICABLE</u> <u>PLASTIC BAG RECYCLING DATA</u>

The DEIR states (at page 3.2-1):

!

"Currently, CIWMB estimates that less than 5 percent of plastic film in California is recycled. (Footnote 5: California Integrated Waste Management Board. Accessed on: 1 March 2010. Plastic Film Cooperative Recycling Initiative. Problem Statement. Available at:

http://www.calrecycle.ca.gov/Plastics/Film/ - Problem."

The California Integrated Waste Management ("CIWMB") information at the referenced URL is outdated. It is based on data gathered by the CIWMB before AB 2449 took effect in July 2007. (Pub. Res. Code §§42250-57.) AB 2449 requires stores that provide plastic carryout bags to customers to install plastic bag recycling bins in stores. AB 2449 requires that the plastic bags in those bins be recycled. Recycling data gathered before AB 2449 took effect are irrelevant, invalid and misleading.

Moreover, there is no reason why the California rate would be lower than the national rate, especially as very few states have store plastic bag recycling bins or any form of plastic bag recycling. According to the DEIR (at page 20-14), the national plastic bag recycling rate in 2007 was 11.9%.

STPB objects to the use of an outdated, irrelevant, invalid and misleading California plastic bag recycling rate. This is critically important and decision-makers and the public need to know how well AB 2449 is working before a decision is made to ban plastic bags. The County has obtained data from the CIWMB (now the Department of Resources Recycling and Recovery (CalRecycle)) and more data may be available. The County has also been gathering its own data from individual stores in the County. STPB objects to the failure to include such updated recycling data in the DEIR.

15. <u>STPB OBJECTS TO THE FAILURE TO DISCLOSE THAT THE NON-BIODEGRADIBILITY OF PLASTIC BAGS IN LANDFILLS IS</u> <u>ENVIRONMENTALLY BENEFICIAL</u>

The fact that plastic bags do not degrade in landfills and therefore do not emit methane is an environmental *benefit*. The carbon is trapped in the bags. The U.S. Government is trying to find ways to trap carbon. Plastic does it automatically. When paper decomposes in a landfill, it emits methane which is a greenhouse gas with 23 times the global warming power of CO₂. STPB objects to the failure to disclose this information in the DEIR.

16. <u>STPB OBJECTS TO THE FAILURE TO DISCLOSE THE IMPACTS OF</u> <u>REUSABLE BAGS IN LANDFILLS</u>

The DEIR does not address the impact of reusable bags in landfills. According to AB 2449, stores that do not provide plastic carryout bags to their customers are not required to maintain plastic bag collection bins in their stores. If those bins are removed, there will no infrastructure to recycle any bags except paper bags. *Cloth, jute, nonwoven polypropylene, polyethylene terephthalate (PET), and other non-polyethylene reusable bags are all non-recyclable.* There are no recycling options for any of those bags. *They must be disposed of in landfills.* The environmental impacts of such disposal must be addressed and disclosed in the EIR. See:

http://www.theage.com.au/national/bag-the-bag-a-new-green-monster-is-on-the-rise-20100123-mrqo.html

17. <u>STPB OBJECTS TO THE FAILURE TO DISCLOSE REUSABLE BAG</u> <u>HYGEINE IMPACTS</u>

The DEIR states (at page ES-2):

"However, as is the case for any reusable household item that comes into contact with food items, such as chopping boards, tableware, or table linens, reusable bags do not pose a serious public health risk if consumers care for the bags accordingly and/or clean the bags regularly."

The fact that reusable bags are cleanable does not mean that they will always be cleaned. STPB objects to the failure to address and disclose what may happen or what is likely to happen if they are not cleaned by consumers.

There is a new University of Arizona study issued in June 2010 (link below) that indicates that 97% of people who use reusable bags do not wash them. If people become concerned about the hygiene issues associated with reusable bags, many or most people will stop using them and will use paper bags instead if plastic bags are banned. Unfortunately, it only takes one publicized incident to create panic. There would need to be a comprehensive education campaign to make sure people properly and frequently wash their bags. In fact, a reusable bag should be wiped clean or washed after *every* use.

#+!

16

http://www.prweb.com/releases/2010/06/prweb4185254.htm

http://uanews.org/pdfs/GerbaWilliamsSinclair BagContamination.pdf

18. <u>STPB OBJECTS TO THE DESCRIPTION OF PAPER BAGS AS REUSABLE</u>

The DEIR (at page 2-5) defines reusable bags as follows:

Definition. "Recyclable paper bag(s): a paper bag that (a) contains no old growth fiber, (b) is 100-percent recyclable overall and contains a minimum of 40-percent postconsumer recycled content, (c) is compostable, and (d) displays the words "reusable" and "recyclable" in a highly visible manner on the outside of the bag."

Paper bags may not lawfully be described as "reusable." The term "reusable bag" is defined in Public Resources Code §42250(d) as follows:

"Reusable bag" means either of the following:

(1) A bag made of cloth or other machine washable fabric that has handles.

(2) A durable plastic bag with handles that is at least 2.25 mils thick and is specifically designed and manufactured for multiple reuse.

STPB objects to the description of a paper bag as reusable. STPB further objects to any and all data in the EIR that is based on the assumption that a paper bag can qualify as a "reusable" bag.

19. <u>STPB OBJECTS TO STATEMENTS REGARDING THE SAN FRANCISCO</u> <u>PLASTIC BAG BAN ORDINANCE</u>

The DEIR states (at pages 2-5):

"Since adoption of the [San Francisco] ordinance, initial feedback from the public has been positive and the use of reusable bags has increased. [Footnote.] There has been no reported negative public health issues (salmonella, e. coli, food poisoning, etc.) related to the increased use of reusable bags. [Footnote.] As a result of the ordinance, San Francisco has not noted an increase in the number of waste discharge permits or air quality permits required for paper bag manufacturing in the district, nor has there been a noticeable increase in traffic congestion in proximity to major supermarkets due to increased paper bag delivery trucks. [Footnote.] San Francisco has also not noticed any increase in eutrophication in waterways due to increased use of paper bags. [Footnote.]"

19

17 cont.

The above-quoted statement is disingenuous. There are no paper bag factories in San Francisco. Paper bags used in San Francisco are brought in from outside the city. Obviously there would be no "waste discharge permits or air quality permits required for paper bag manufacturing in the district" or "increase in eutrophication in waterways" in the city, because those impacts are caused by manufacturing, not usage. STPB objects to the statement as it is disingenuous and grossly misleading to decision-makers and consumers.

There is substantial evidence of a major increase in paper bag usage in San Francisco. To determine the impact of the San Francisco plastic bag ban ordinance, Robert Lilenfeld, President of The Cygnus Group and Editor of the ULS Report, traveled to San Francisco to observe store and customer bag usage and activity. A total of 25 retail stores were visited from September 14 to 17, 2008. Stores were walked through, store personnel were questioned, checkout activities were observed, and customers' bagging preferences were reviewed. Lilenfeld found that all food chains affected by the ordinance had switched to paper bags only. He also found that "very few people" brought reusable bags to the store -- no more than in other cities. Lillenfeld concluded as follows:

"If reducing environmental impact is the objective of the Ordinance, results to date do not indicate it will be successful. First, little use of reusable bags was observed. Second, the replacement of plastic by paper and the return to double bagging may actually increase environmental impact, as many peer reviewed lifecycle studies indicate that paper bags use more energy, produce more waste, and generate more greenhouse gas emissions than do plastic bags."

The URL for the ULS San Francisco survey is as follows:

http://www.use-less-stuff.com/Field-Report-on-San-Francisco-Plastic-Bag-Ban.pdf

STPB objects to the failure to including the findings of the ULS San Francisco survey. STPB mentioned the survey in its scoping comments. This is a critical omission, because the County is proposing to adopt an ordinance substantially similar to the one in San Francisco; plastic bags would be banned and free paper bags would be permitted.

20. <u>STPB OBJECTS TO THE FAILURE TO CONSIDER THE REASONABLY</u> <u>FEASIBLE ALTERNATIVE OF REQUIRING AN OXO-BIODEGRADABLE</u> ADDITIVE IN PLASTIC BAGS

The DEIR (Appendix B) defines "biodegradable plastic" as follows:

20

19 cont.

<u>Biodegradable Plastic</u> a degradable plastic in which the degradation results from the action of naturally occurring microorganisms such as bacteria, fungi and algae.

As stated in STPB's January 4, 2010 letter (at pages 37 to 38), there are two types of biodegradable additives. The above definition describes the type produced by ECM. That kind is

not oxo-biodegradable.

The other type is *oxo*-biodegradable for which the additive is produced by Symphony and other companies. Oxo-biodegradation is degradation resulting from oxidative and cell-mediated phenomena, either simultaneously or successively. Symphony's oxo-biodegradation additive breaks the molecular chains within the polymer and makes it degrade and then biodegrade in the presence of air, on land or at sea, in the light or the dark, in heat or cold, leaving no methane, no toxic dust, and no other harmful residues. Oxo-biodegradation can be tested according to ASTM 6954. Plastics with Symphony's additive can be recycled and made from recyclate, and there is little or no additional cost. Plastic bags containing the additive are fully recyclable. See: www.biodeg.org/position-papers/recycling/?domain=biodeg.org.

The DEIR mentions oxo-biodegradable bags, but confuses them with the ECM kind.

20 cont.

21

Symphony's d2w additive has been independently tested to prove degradation, biodegradation and non eco-toxicity and is certified safe for food-contact. Symphony's additive is fully available today and is being used in plastic bags around the world.

The County must consider the reasonably feasible alternative of requiring plastic bags to contain an oxo-biodegradable additive. If such an additive is required, there will be a major reduction in any marine debris from such plastic bags as they will biodegrade in the ocean.

Michael Stephen of Symphony requested a meeting with County officials when he was in California in May 2010, to explain oxo-biodegradable additives. County officials refused to meet with him. The County still has the opportunity to discuss oxo-biodegradable additives with him before the EIR is prepared.

21. <u>STPB OBJECTS TO THE REFERENCE TO BIODEGRADALE PRODUCT</u> <u>INSTITUTE AS A RECOGNIZED VERIFICATION ENTITY</u>

The DEIR contains the following definition (at page 2-4):

Definition. "Compostable plastic carryout bag(s): a plastic carryout bag that (a) conforms to California labeling law (Public Resources Code Section 42355 et seq.), which requires meeting the current American Society for Testing and Materials (ASTM) standard specifications for compostability; (b) is certified and labeled as meeting the ASTM standard by a recognized verification entity, such as the Biodegradable Product Institute; and (c) displays the word "compostable" in a highly visible manner on the outside of the bag (Appendix B)."

STPB objects to the assertion that he Biodegradable Product Institute ("BPI") is a "recognized verification entity." There is no substantial evidence for the assertion. BPI is a trade association representing compostable bag manufacturers. It does not verify compliance with ASTM standards and is not recognized by anyone except as a trade association. It is not even an institute of any kind.

!

22. <u>STPB OBJECTS TO ALL REFERENCES TO JUNE 18, 2004 CITY OF LOS</u> <u>ANGELES SURVEY</u>

The DEIR states (at page 2-1):

"As an example of the prevalence of plastic bag litter found in catch basins, during the Great Los Angeles River Clean Up, which collected trash from 30 catch basins in the Los Angeles River, it was observed that 25 percent weight and 19 percent by volume of the trash collected consisted of plastic bags. (Footnote 4: City of Los Angeles. 18 June 2004. Characterization of Urban Litter. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.)"

There are other references to the survey in the DEIR. STPB objects to all such references.

The survey determined that 19% of trash by weight and 25% by volume in 30 catch basins along a one-mile stretch of North Figueroa Street between Cypress Avenue and Avenue 43 was "plastic bags."

The term "plastic bags" is not defined in the survey, so it could include produce bags, food packaging in the form of bags, restaurant take out bags, dry cleaning bags, merchandise and retail bags, newspaper bags, trash bags, and other plastic bags. The County has advised STPB that it does not have Attachments A and B to the survey. Attachment B include photographs of the survey including the litter material collected.

The inability to determine what kind of plastic bags were in the storm drains in the survey is a serious problem and STPB objects to the use of or any reference to the survey without the attachments. This is important because the 25% figure it totally inconsistent with the Keep America Beautiful figure of 0.9% at storm drains. (See STPB's January 4, 2010 letter at page 16.)

STPB further objects on the ground that said study is not representative of conditions across the county. The survey apparently determined that 19% of trash by weight and 25% by volume in 30 catch basins along a one-mile stretch of North Figueroa Street between Cypress Avenue and Avenue 43 was "plastic bags." According to another study by the City of Los Angeles, the geographical area covered in the June 2004 survey is part of the central part of the city which

"contributes disproportionately more trash per unit area. The central part of the City is characterized with higher population density, has more commercial and industrial areas, and has more pedestrian traffic than other areas of the City."

Watershed Quality Compliance Master Plan For Urban Runoff, Watershed Protection Division, Bureau of Sanitation, Department of Public Works, City of Los Angeles, May 2009 at page 4-2. The link to the document is as follows:

www.lacitysan.org/wpd/Siteorg/download/pdfs/tech_docs/WQCMPURChapters.pdf

STPB advised the County of this document in its January 4, 2010 letter (at page 12), but it is not mentioned in the DEIR. STPB objects to the fact that it is not mentioned because the City of Los Angeles June 2004 survey is effectively represented as being typical of conditions across the county, which is misleading and untrue.

23. <u>STPB OBJECTS TO THE FAILURE TO DISCLOSE THAT PURPOSE OF</u> CATCH BASINS IS TO CATCH PLASTIC BAGS AND OTHER LITTER

The DEIR states (at page 3.4-19):

!

"There are more than 80,000 catch basins that collect runoff throughout the six major watersheds within the RWQCB Los Angeles Region of the County: Dominguez Channel watershed, Ballona Creek watershed. San Gabriel River watershed. Los Angeles River watershed, Santa Clara Watershed, and Malibu Creek watershed (Figure 3.4.2-1, Northern Portion of the County Storm Drain System, and Figure 3.4.2-2, Southern Portion of the County Storm Drain System). [Footnote.] During the Great Los Angeles River Clean Up, which collected trash from 30 catch basins in the Los Angeles River, it was observed that 25 percent by weight and 19 percent by volume of the trash collected was plastic bags. [Footnote.] Results of a Caltrans study of catch basins alongside freeways in Los Angeles indicated that plastic film was 7 percent by mass and 12 percent by volume of the total trash collected. [Footnote.]The LACDPW contracts out the cleaning of all the catch basins in the County for a total cost of slightly over \$1 million per year, billed to 42 municipalities. Each catch basin is cleaned once a year before the rainy season, except for 1,700 priority catch basins that fill faster and have to be cleaned out more frequently. [Footnote.] Installation of catch basin inserts to improve the catch basins' ability to prevent trash from entering the waterways, incompliance with adopted trash TMDLs, is about \$800 per insert. [Footnote.]"

There are also similar statements in the DEIR regarding Los Angeles River catch basins, including at pages 3.4-12 and 3.5-5 and 3.5-11.

Without waiving the objection to all references to the City of Los Angeles June 2004 study, STPB further objects on the ground that the DEIR fails to mention that the purpose of a catch basin is to "catch" litter such as plastic bags. Obviously, the catch basins are *successful* at catching plastic bags, which is the proper conclusion to be drawn from the City of Los Angeles June 2004 study and this should be disclosed in the EIR. Without stating this point the DEIR is grossly misleading to decision-makers and the public.

24. <u>STPB OBJECTS TO THE ASSERTION THAT BANNING PLASTIC BAGS</u> <u>WILL RESULT IN REDUCED LITTER CLEANUP COSTS</u>

The DEIR states (at page 2-12):

"Furthermore, plastic bag litter leads to increased clean-up costs for the County, Caltrans, and other public agencies."

The DEIR further states (at page 2-18):

Objective: "Reduce the County's, Cities', and Flood Control District's costs for prevention, clean-up, and enforcement efforts to reduce litter in the County by \$4 million."

STPB objects to these assertions on three grounds.

First, the basis for the \$4 million figure is not explained. There is no substantial evidence 24 cited to support the figure.

Second, litter crews will still have to clean the same areas even if plastic carryout bags are removed from the litter stream. That means that plastic bag litter dopes not result in increased clean-up costs. Further, no money will be saved from litter cleanup costs if plastic bags are banned.

Third, as there would be an increased number of paper bags, there would be more paper bag litter and more bag bags going into landfills. Paper bags produce more solid waste, according to the Scottish/Ecobilan and Boustead reports, because they are heavier and use much more space in landfills. This is true even though paper bags have a higher recycling rate than plastic bags because 1,000 paper bags produce 33.9 kilograms of solid waste compared to 7.0 kilograms for plastic bags with the carrying capacity of 1,000 paper bags.

Landfill tipping fees are based on weight. STPB objects to the failure to factor in the cost of tipping fees in cleanup costs. Tipping fees will increase if there is an increase in the number of paper bags, because paper bags are bulkier and heavier.

25. <u>STPB OBJECTS TO THE REFERENCE TO THE CIT EKOLOGIC STUDY</u>

The DEIR states (at page 3.1-14):

"This contrasts with a more recent study in 2000, the CIT Ekologik Study, which found that the production of paper carryout bags contributes significantly less air emissions than does the production of plastic carryout bags. (Footnote 32: CIT Ekologik, Chalmers Industriteknik. 2000. Distribution in Paper Sacks. Goteborg, Sweden.)"

STPB objects to any reference to the CIT Ekologic study. In its January 4, 2010 letter (at page 35), STPB notified the County of the fact that CIT Ekologik report issued in 2000 on behalf

of the European paper bag producers Eurosac and CEPI Eurokraft studied 55 *lb capacity animal feed distribution sacks*. It is not substantial evidence for the proposition that paper *carryout* bags are better for the environment in any way than plastic *carryout* bags and its inclusion in the EIR would be grossly misleading to the County Board of Supervisors, other decision-makers, and the public.

25 cont.

26

27

<u>Note</u>: The study is apparently not available on the Internet and is not attached to the DEIR. STPB is submitting herewith the relevant pages of the South African FRIDGE report showing that the CIT Ekologic study analyzed 25 kg (55 lb) capacity animal feed distribution bags. The County has the burden of producing the entire CIT Ekologic document if it wishes to rely on it and demand it hereby made that it be produced.

26. <u>STPB OBJECTS TO THE ASSERTION THAT NO PROJECT</u> <u>ALTERNATIVE MAY RESULT IN SIGNIFICANT IMPACT</u>

The DEIR states (at page 4-6):

"However, like the proposed ordinances, the No Project Alternative may have the potential to result in a cumulatively considerable significant impact due to indirect GHG emissions resulting from the production, distribution, transport, and disposal of plastic carryout bags."

STPB objects to this statement as the status quo does not in itself create a significant impact that does not already exist. The status quo is the baseline from which impacts are measured. Moreover, according to the tables in the DEIR including Tables 1, 2 and 3 above, the status quo results in less GHG and other negative environment impacts than banning plastic bags and STPB also objects for that reason.

27. <u>OBJECTION TO FAILURE TO EXPLAIN HOW THE PROPOSED</u> <u>ORDINANCES WOULD ADVANCE THE COUNTY'S FOURTH AND FIFTH</u> <u>STATED GOALS</u>

The DEIR states (at page 2-17):

"The County has identified five goals of the proposed ordinances, listed in order of importance: (1) litter reduction, (2) blight prevention, (3) coastal waterways and animal and wildlife protection, (4) sustainability (as it relates to the County's energy and environmental goals), and (5) landfill disposal reduction."

As the DEIR and the Ecobilan and Boustead reports and Tables 1, 2 and 3 above show, including in the three tables at the beginning of this paper, paper bags are far worse for sustainability (as it relates to the County's energy and environmental goals) and landfills than plastic bags. Paper bags use more nonrenewable energy and create more GHG emissions than plastic bags.

!

The DEIR does not disclose the fact that the fourth and fifth stated goals would not be achieved and would be set back by the proposed ordinances. Therefore, STPB objects.

28. <u>STPB OBJECTS TO THE FAILURE TO CONSIDER A PAPER BAG BAN OR FEE</u>

An EIR must discuss reasonably feasible ways to mitigate environmental impacts or discuss reasonably feasible alternative proposals to achieve the stated objectives with less environmental impacts. The DEIR does not address and evaluate the possibility of imposing a fee on paper bags to reduce the environmental impacts of a plastic bag ban. STPB objects to this omission and major deficiency in the EIR. A 25 cent fee on paper bags, for example, would dramatically reduce the usage of paper bags and promote a switch to reusable bags. The City of Santa Monica is proposing a 25-cent paper bag fee.

29. <u>OBJECTION TO FAILURE TO INCLUDE SEPARATE DISCRETE</u> <u>FINDINGS</u>

29

30

28

There are no separate and discrete findings in the report on each of the points required to be considered in the EIR. Therefore, STPB objects.

30. <u>OBJECTION TO MISREPRESENTATION REGARDING DISPOSITION OF</u> <u>LITIGATION</u>

The DEIR states at page 2-10 that the Superior Court dismissed the CEQA petition in *Save The Plastic Bag v. County of Los Angeles, Los Angeles Superior Court,* Case No. BS115845, The assertion is incorrect and therefore STPB objects. The petition claim (Count I) was settled, not dismissed. The County stipulated as follows as part of the settlement:

The County hereby stipulates and agrees that the Board of Supervisors' resolution of January 22, 2008 does not commit the County to adopt an ordinance banning plastic bags if the program goals are not met.

STPB objects to the failure to state the wording of the stipulation in the discussion of the lawsuit.

ADMINISTRATIVE RECORD

All of the documents cited herein and in STPB's January 4, 2010 letter for which hyperlinks are provided constitute evidence supporting the objections herein and are part of the administrative record.

STPB is submitting contemporaneously herewith, by e-mail, downloaded copies in PDF format of all documents, web pages and photographs hyperlinked or cited in this letter and in STPB's January 4, 2010 letter.

!

REQUEST FOR NOTICES

I request that you send me by e-mail and regular mail any future public notices regarding the DEIR, EIR and proposed ordinance.

CONTACT PERSON

Stephen Joseph is the designated contact person for the Save The Plastic Bag Coalition regarding the DEIR, EIR and proposed ordinance.

PROPOSAL FOR GOOD FAITH DISCUSSIONS

STPB invites and strongly urges County officials (and Sappho's Environmental) to meet with STPB to discuss and attempt to resolve each objection.

STPB wants the whole environmental truth to be disclosed to the Board of Supervisors and the public in a clear and informative EIR based on substantial evidence and a cumulative analysis, without baseless assertions, misleading statements, or other objectionable material. The primary goal of the STPB campaign is to ensure that decision-makers and the public know the environmental truth.

CONCLUSION

All rights are reserved, including but not limited to the right to challenge the validity of a plastic bag ban based on the preemptive effect of Pub. Res. Code §42250-57.

The fact that particular parts of the DEIR are not mentioned herein does not mean that STPB accepts their accuracy or validity.

No rights or duties are waived by any statement or omission herein. Strict compliance with all the applicable provisions of CEQA is hereby demanded.

Dated: July 16, 2010



STEPHEN L. JOSEPH Counsel, Save The Plastic Bag Coalition Save the Plastic Bag Coalition Stephen L. Joseph, Counsel 350 Bay Street, Suite 100-328 San Francisco, California 94133

Response to Introductory Comment

The County of Los Angeles appreciates that the Save the Plastic Bag Coalition (STPB) took the time to review and provide comments on the Draft EIR for the proposed ordinances. The commenter asserts that its comment letter, dated January 4, 2010, in response to the Notice of Preparation (NOP) for the Draft EIR was incorporated by reference. However, the comment letter was written before the Draft EIR was prepared, and in many respects is not directly pertinent to the Draft EIR. For example, the letter states that the County of Los Angeles must consider various reports, but ultimately, preparation of the Draft EIR considered information from a number of sources, including the Boustead Study, endorsed by the STPB in its January 4, 2010, comment letter.

The commenter's introductory comment regarding the NOP restates one of the key objectives of the proposed ordinances, which is to "substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the population) with an environmental awareness message." The introductory comment on the NOP asserts that the information contained within a recent Los Angeles Times editorial makes incorrect statements and that the Great Pacific Garbage Patch discussed in this same editorial does not exist. The introductory comment states that evidentiary photographs would be available if an area "larger than Texas and thick with floating plastic debris" did indeed exist. In response to this comment, the County of Los Angeles notes that a large amount of available scientific literature documents the existence of a concentration of plastic within the North Pacific Gyre,^{32,33,34,35,36,37} which is often referred to as the Great Pacific Garbage Patch. The patch has been acknowledged and studied by many reputed agencies and organizations, including the U.S. National Oceanic and Atmospheric Administration, Algalita Marine Research Foundation, the Ocean Conservancy, and the USEPA. The USEPA's regional administrator for the Pacific Southwest (Mr. Jared Blumenfeld) recently said that the ban on plastic carryout bags in American Samoa will help "prevent plastic shopping bags from ending up in the Great Pacific Garbage Patch - an enormous area of floating plastic waste."³⁸ Although the North Pacific Gyre does not have a visible patch or "island" of plastic debris, it is a location that contains a large concentration of

³² Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin*, 42: 1297–1300.

³³ Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, *108* (2): 131139.

³⁴ Ryan, Peter G. et al. 2009. "Monitoring the Abundance of Plastic Debris in the Marine Environment." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1999–2012.

³⁵ Crain, Caitlin M. et al. 2009. "Understanding and Managing Human Threats to the Coastal Marine Environment." In Annals of the New York Academy of Sciences: The Year in Ecology and Conservation Biology, 1162 (1).

³⁶ McDermid, K. and McMullen, T. 2004. "Quantitative Analysis of Small-plastic Debris on Beaches in the Hawaiian Archipelago." *Marine Pollution Bulletin, 48*: 790–794.

³⁷ Ebbesmeyer C. C., et al. 2007. "Tub toys orbit the Pacific Subarctic gyre." In EOS, Transactions of the American Geophysical Union, 88 (1).

³⁸ U.S. Environmental Protection Agency. 30 September 2010. "U.S. EPA applauds American Samoa's decision to ban plastic shopping bags." Available at:

http://yosemite.epa.gov/opa/admpress.nsf/0/921A87D72D9AAFC1852577AE007394F1

plastic debris, much of which is present as small plastic fragments.³⁹ The patch is not visible from satellite imagery because the area consists primarily of debris particles suspended below the surface of the ocean. The 2008 article by Charles James Moore referenced in Section 3.2.4, Impact Analysis, of the EIR presents a photograph of plastic fragments collected during a trawl of the North Pacific Gyre.⁴⁰ The EIR for the proposed ordinances does not make any misleading claims that the North Pacific Gyre has a visible patch or "island" of plastic debris.

The introductory comment also states that paper carryout bags are worse for the environment than plastic carryout bags. The County of Los Angeles has made a good faith effort to disclose the environmental impacts of paper carryout bags throughout the various subsections of Section 3.0 of the EIR, which contain detailed and comprehensive analyses of these impacts. Furthermore, the introductory comment states that the County of Los Angeles is not proposing a fee on the issuance of paper carryout bags; however, Alternative 2 in Section 4.2.3 discusses and analyzes impacts resulting from implementation of a fee on the issuance of paper carryout bags. The County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4, and has evaluated the impacts resulting from the implementation of a fee on the issuance of paper carryout bags at a greater number of stores. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. The analysis of Alternative 5 has been added to Section 4.2.6 (see Section 12.2).

In addition, as disclosed in Section 3.1.4, for the purposes of this EIR and to conservatively evaluate impacts resulting from a worst case scenario, the County of Los Angeles assumed a larger number of plastic carryout bags used by affected stores in its impact analysis than the California Department of Resources Recycling and Recovery (CalRecycle) reported in 2008 were used by stores affected by Assembly Bill (AB) 2449.⁴¹ Thereafter, the County of Los Angeles used this conservative number and evaluated the potentially resulting impacts again assuming a conservative worst case scenario of 85- and 100-percent conversion from plastic to paper carryout bags.

The introductory statement also states that a editorials in the *Daily Breeze* and the *Long Beach Press Telegram* assert a misleading and inaccurate statement that plastic bags "kill an estimated 1 million seabirds and 100,000 other animals every year." The EIR for the proposed ordinances does not make this statement, and the County of Los Angeles did not reference these editorials in the EIR.

The introductory comment states that the Draft EIR has avoided addressing the marine wildlife issue directly, although the commenter requested in its January 4, 2010, letter that this issue be addressed. However, sections of the EIR, including, but not limited to, Section 3.2, discuss the impacts of plastic bags on marine wildlife:

³⁹ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin, 42*: 1297–1300.

⁴⁰ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin*, *42*: 1297–1300.

⁴¹ Dona Sturgess, California Department of Resources Recycling and Recovery, Sacramento, CA. 29 April 2010. E-mail to Luke Mitchell, County of Los Angeles, Department of Public Works, Alhambra, CA.

According to the Regional Water Quality Control Board (RWOCB) for the Los Angeles Region, trash has potentially harmful impacts to species, and plastic bags are one of the most common items of trash observed by RWQCB staff.⁴² Seabirds, sea turtles, and marine mammals that feed on or near the ocean surface are especially prone to ingesting plastic debris that floats.^{43,44,45} The impacts include fatalities as a result of ingestion, starvation, suffocation, infection, drowning, and entanglement.^{46,47} The recovery plan for the endangered leatherback turtle (Dermochelys coriacea) lists ingestion of marine debris, including plastic bags, as one of the factors threatening this species.⁴⁸ The recovery plan says that leatherback turtles consume floating plastic, including plastic bags, because they appear to mistake the floating plastic for jellyfish.⁴⁹ The recovery plans for the threatened green turtle (Chelonia mydas), loggerhead turtle (Caretta caretta), and olive ridley turtle (Lepidochelys olivacea) also note plastic bag ingestion as a threat to those species.^{50,51,52} Ingestion of plastics is also noted as a threat in the recovery plan for the federally endangered short-tailed albatross (*Phoebastria albatrus*).⁵³ Preventing trash from entering water bodies, such as the Los Angeles River, has the potential to improve habitats and aquatic life.^{54,55}

⁴⁵U.S. Environmental Protection Agency. August 2002. Assessing and Monitoring Floatable Debris. Washington, DC.

⁴⁶ California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc ocean litter final strategy.pdf

⁴⁷ Gregory, Murray R. 2009. "Environmental Implications of Plastic debris in Marine Settings –Entanglement, Ingestion, Smothering, Hangers-on, Hitch-hiking and Alien Invasions." In *Philosophical Transactions of the Royal Society B: Biological Sciences,* 364: 2013–2025.

⁴⁸ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Leatherback Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_leatherback_pacific.pdf

⁴⁹ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Leatherback Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_leatherback_pacific.pdf

⁵⁰ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the East Pacific Green Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_green_eastpacific.pdf

⁵¹ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Loggerhead Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_loggerhead_pacific.pdf

⁵² National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Olive Ridley Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_oliveridley.pdf

⁵³ U.S. Fish and Wildlife Service. September 2008. *Short-tailed Albatross Recovery Plan*. Available at: http://alaska.fws.gov/fisheries/endangered/pdf/stal_recovery_plan.pdf

⁵⁴ Regional Water Quality Control Board, Los Angeles Region. Revised 27 July 2007. "Trash Total Maximum Daily Loads for the Los Angeles River Watershed." Los Angeles, CA.

⁵⁵ County of Los Angeles, Department of Public Works. 2 June 2010. Ordinances to Ban Plastic Carryout Bags in Los Angeles County Draft Environmental Impact Report. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

⁴² Regional Water Quality Control Board, Los Angeles Region. Revised 27 July 2007. "Trash Total Maximum Daily Loads for the Los Angeles River Watershed." Los Angeles, CA.

⁴³ California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc ocean litter final strategy.pdf

⁴⁴ National Research Council. 2008. *Tackling Marine Debris in the 21st Century*. Committee on the Effectiveness of National and International Measures to Prevent and Reduce Marine Debris and Its Impacts.

Response to Comment No. 1

Comment No. 1 states that the EIR did not discuss and address issues and points contained in STPB's January 4, 2010 comment letter. The County of Los Angeles has considered all comments from STPB's January 4, 2010, letter during preparation of the Draft EIR for the proposed ordinances. The letter included several CEQA–related comments with regard to litter impacts, biological resources, and paper bag usage; these issues are addressed throughout the various subsections of Section 3.0 of the Draft EIR. Section 15151 of the State CEQA Guidelines states, "an evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." CEQA requires adequacy, completeness, and a good faith effort at full disclosure. Furthermore, Section 15145 of the State CEQA Guidelines states that "if, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact." All comments from STPB have been noted for the record and have been considered by the County of Los Angeles for the proposed ordinances.

Below, the County of Los Angeles responds to each issue and point contained in Comment No. 1 of the commenter's letter.

Section 1, Page 11, Paragraph B

In Section 1, page 11, paragraph B, of the comment letter, the commenter requests that the County of Los Angeles describe in detail the method by which the proposed ordinances would achieve a \$4 million expense reduction that is proposed in the Initial Study. As described in Section 2.4.2, the County of Los Angeles has complied with CEQA Guideline §15124 by providing a clearly written statement of the objectives of the proposed ordinances, one of which is to decrease the County of Los Angeles's litter reduction costs by \$4 million. The proposed ordinances would help reduce the amount of litter in the County of Los Angeles attributable to plastic carryout bags, along with the associated costs to government for litter prevention, cleanup, and enforcement efforts. Section 2.2.1 of the EIR also notes that public agencies in California spend more than \$375 million each year for litter prevention, cleanup, and disposal.⁵⁶ In the County of Los Angeles, specifically, the County Flood Control District alone exhausted \$24 million of these public funds in 2008-2009 (the most recent data available), while LACDPW expended additional resources separate from and in addition to state funds to address litter.^{57,58} By banning the issuance of plastic carryout bags, a significant number of plastic carryout bags would be removed from the waste stream, along with the associated litter attributable to those plastic carryout bags. An ordinance that could result in a substantial reduction in litter would be reasonably expected to reduce the costs of litter cleanup in the County of Los Angeles. Although CEQA does not require analysis of economic impacts in the EIR, during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR, the County of Los Angeles will consider information related to opportunities for reducing the amount of litter attributable to plastic carryout bags that enters the storm drain system.

⁵⁶ California Department of Transportation. Accessed on: September 2009. "Facts at a Glance." *Don't Trash California*. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

⁵⁷ California Department of Transportation. Accessed on: September 2009. "Facts at a Glance." *Don't Trash California*. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

⁵⁸ County of Los Angeles. October 2009. Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

The commenter states that paper bags also become litter. However, as discussed in Sections 3.1 and 3.17 of the Initial Study and Section 4.0 of the EIR, paper carryout bags are less likely than plastic carryout bags to be littered and to end up in storm water runoff because they are heavier (paper bags have been noted to be anywhere between 6 to 10 times heavier than plastic bags),⁵⁹ and therefore are less likely to become airborne and scattered. Unlike regular plastic, paper is biodegradable and compostable.⁶⁰ The paper used to make standard paper carryout bags is originally derived from wood pulp, which is a naturally biodegradable and compostable material. Due to the biodegradable properties of paper, paper bags do not persist in the marine environment for as long as plastic bags.⁶¹

Section 1, Page 11, Paragraph D

Section 1, page 11, paragraph D of the STPB's comment letter requests that the County of Los Angeles evaluate alternative ways to achieve the program goals and Countywide objectives without adopting the proposed ordinance. Section 15126.6 of the State CEQA Guidelines stipulates that the EIR must examine in detail only the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the proposed project; the County of Los Angeles has complied with this requirement. In Section 4.0 of the EIR, the County of Los Angeles analyzes the impacts of four alternatives to the proposed ordinances that would achieve the program goals and Countywide objectives. These alternatives include banning the issuance of both plastic and paper carryout bags; banning the issuance of plastic carryout bags and imposing a fee on the issuance of paper carryout bags; banning the issuance of plastic carryout bags at all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores; and banning the issuance of plastic carryout bags and paper carryout bags at all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores. To maximize to the greatest extent feasible the potential environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2).

Section 3, Page 18, Paragraph B

The commenter requests that the EIR address the amount of paper carryout bag litter there has been in and near the County of Los Angeles. Many studies have noted the prevalence of plastic carryout bag litter in the marine environment, but these studies have not noted paper carryout bags as a serious litter contributor.^{62,63} During the Great Los Angeles River Clean Up, which collected trash

⁵⁹ Cadman, J., S. Evans, M. Holland, and R. Boyd. 2005. *Proposed Plastic Bag Levy – Extended Impact Assessment Final Report*. Prepared for: Scottish Executive.

⁶⁰ County of Los Angeles, Department of Public Works. Accessed on: 28 April 2010. *Backyard Composting*. Web site. Available at: http://dpw.lacounty.gov/epd/sg/bc.cfm

⁶¹ Andrady, Anthony L. and Mike A. Neal. 2009. "Applications and Societal Benefits of Plastics." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1977–1984.

⁶²Ocean Conservancy. A Rising Tide of Ocean Debris and What We Can Do About It. International Coastal Cleanup 2009 Report. Available at: http://www.oceanconservancy.org/pdf/A_Rising_Tide_full_lowres.pdf

from 30 catch basins in the Los Angeles River, it was observed that 20 percent by weight and 17 percent by volume of the trash collected consisted of paper; however, these results are not limited to paper carryout bags and include all types of paper litter.⁶⁴ Out of the litter collected during the City of San Francisco Litter Audit in 2008, retail paper bags were not listed as one of the top 25 litter subcategories.⁶⁵ The City of San Francisco reported that paper retail bags constituted 0.4 percent of all large litter items collected in 2007, and 0.35 percent of all litter items collected in 2008.⁶⁶ The City of San Francisco Litter Audit concluded that 57.9 percent of all bag litter in 2008 was composed of unbranded plastic bags and 10.9 percent was composed of plastic retail bags, but only 6 percent of bag litter was composed of paper retail bags. As noted in Section 3.2 of the EIR, a study performed in Washington, DC, showed that paper products were not found in the streams except in localized areas, and were not present downstream.⁶⁷

Furthermore, recycling rates of paper carryout bags are known to be higher than the recycling rates of plastic carryout bags. The County of Los Angeles is aware that if more paper carryout bags are used within its boundaries, an increase in litter attributable to paper carryout bags is possible; however, the proposed ordinances would also encourage a transition to the use of reusable bags. In addition, in Section 4.0 of the EIR, the County of Los Angeles has evaluated five alternatives to the proposed ordinances that would either ban or place a fee or charge on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. In addition, the County of Los Angeles has proposed mitigation measure GHG-1 to minimize the potential increase in use of paper carryout bags (see Section 12.2). As part of mitigation measure GHG-1, the County is proposing to implement and/or expand public outreach through a public education program that would aim to increase the percentage of paper carryout bags that are recycled in the County of Los Angeles, thereby reducing the number of paper carryout bags that can be potentially littered. The County of Los Angeles already has a public education program in place that encourages curbside recycling of a number of items, including paper carryout bags.^{68,69} Curbside recycling is a convenient, free service for County of Los Angeles residents, and paper carryout bags are universally accepted for recycling throughout the County of Los Angeles.

As discussed in Section 3.17 of the Initial Study and Section 4.0 of the EIR, paper carryout bag litter in waterways does not present the same environmental hazards that are associated with plastic

⁶³ Sheavly, S.B. 2007. National Marine Debris Monitoring Program: Final Program Report, Data Analysis and Summary. Prepared for US Environmental Protection Agency by Ocean Conservancy, Grant Number X83053401-02. p. 76.

⁶⁴ City of Los Angeles. 18 June 2004. *Characterization of Urban Litter*. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.

⁶⁵ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf

⁶⁶ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf

⁶⁷ Anacostia Watershed Society. December 2008. *Anacostia Watershed Trash Reduction Plan*. Prepared for: District of Columbia Department of the Environment.

⁶⁸ County of Los Angeles Department of Public Works. Accessed on: 12 October 2010. *Outreach Programs*. Web site. Available at: http://dpw.lacounty.gov/epd/recycling/outreach.cfm and

⁶⁹ County of Los Angeles, Department of Public Works. Accessed on: 12 October 2010. Commonly Recycled Materials. Web site. Available at: http://dpw.lacounty.gov/epd/recycling/crm.cfm

carryout bags. Unlike regular plastic, paper is biodegradable and compostable.⁷⁰ The paper used to make standard paper carryout bags is originally derived from wood pulp, which is a naturally biodegradable and compostable material. Due to the biodegradable properties of paper, paper bags do not persist in the marine environment for as long as plastic bags.⁷¹ As a result of a review of the available data regarding litter, the County of Los Angeles has reasonably concluded that plastic carryout bags pose a more serious litter problem than do paper carryout bags.

Section 3, Page 18, Paragraph C

The commenter conveys that the EIR should identify the exact locations of the highest concentrations of plastic bag and paper bag "hotspots" in and near the County of Los Angeles. Litter "hotspot" areas are estimated based on the frequency with which storm drain catch basins are cleaned. Figure 3.4.2-1, *Northern Portion of the County Storm Drain System*, and Figure 3.4.2-2, *Southern Portion of the County Storm Drain System*, of the EIR show the frequency of catch basin cleanout throughout the County of Los Angeles. The County of Los Angeles has compiled a database listing the locations of the catch basins shown in these figures.⁷²

Section 3, Page 18, Paragraph D

The commenter conveys that the EIR should address other locations besides "hotspots" that tend to accumulate concentrations of plastic bag litter. During the Great Los Angeles River Clean Up, which collected trash from 30 catch basins in the Los Angeles River, it was observed that 25 percent by weight and 19 percent by volume of the trash collected consisted of plastic bags.⁷³ The County of Los Angeles storm drain system connects directly to the Pacific Ocean; therefore, it is reasonable to assume that plastic carryout bag litter that enters the storm drain system and is not captured by catch basins could end up in the Pacific Ocean. As described in Section 3.2 of the EIR, plastics are chemically resistant and do not biodegrade, so they persist in the marine environment longer.⁷⁴ Plastics degrade into smaller pieces over time, eventually becoming tiny particles of plastics that are often called microplastics.⁷⁵ A 2002 study of the coastal ocean near Long Beach, California, showed that the average plastic density during the study was eight pieces per cubic meter. The average mass of plastic was two and a half times greater than that of plankton, and was even greater after a storm.⁷⁶ There is substantial evidence to suggest that plastic fragments tend to accumulate in oceans.^{77,78,79,80,81}

⁷⁰ County of Los Angeles, Department of Public Works. Accessed on: 28 April 2010. *Backyard Composting*. Web site. Available at: http://dpw.lacounty.gov/epd/sg/bc.cfm

⁷¹ Andrady, Anthony L. and Mike A. Neal. 2009. "Applications and Societal Benefits of Plastics." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1977–1984.

⁷² County of Los Angeles, Department of Public Works. 30 September 2010. Catch Basin Map Database. On file at Sapphos Environmental, Inc., Pasadena, CA.

⁷³ City of Los Angeles. 18 June 2004. *Characterization of Urban Litter*. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.

⁷⁴ Andrady, Anthony L. and Mike A. Neal. 2009. "Applications and Societal Benefits of Plastics." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1977–1984.

⁷⁵ Thompson, R. C. 7 May 2004. "Lost at Sea: Where Is All the Plastic?" In *Science*, 304 (5672): 843.

⁷⁶ Moore, C.J., S.L. Moore, S.B. Weisberg, G.L. Lattin, and A.F. Zellers. October 2002. "A Comparison of Neustonic Plastic and Zooplankton Abundance in Southern California's Coastal Waters." In *Marine Pollution Bulletin*, 44 (10): 1035–1038.

⁷⁷ Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, *108* (2): 131–139.

Section 3, Page 19, Paragraph E

The commenter states that the Draft EIR should have addressed the extent to which plastic and paper bag litter is caused by such bags flying out of the back of trucks, including, but not limited to, trucks hauling garbage and materials for recycling. Sections 3.1 and 3.17 of the Initial Study and Section 4.0 of the EIR discuss that the lightweight nature of plastic carryout bags make them more susceptible to becoming airborne. Paper carryout bags, which are heavier than their plastic counterparts, are not as susceptible as plastic bags to becoming airborne. Results of a Caltrans study of catch basins alongside freeways in Los Angeles indicated that plastic film composed 7 percent by mass and 12 percent by volume of the total trash collected.⁸² One of the objectives of the proposed ordinances is to reduce the amount of plastic carryout bag litter that blights public spaces, which includes plastic carryout bag litter that has flown out of the back of a truck.

Section 3, Page 19, Paragraph F

The commenter states that the EIR should address the extent to which plastic and paper carryout bags are carried by the wind as a result of refuse collection and transportation practices. Sections 3.1 and 3.17 of the Initial Study and Section 4.0 of the EIR state that the lightweight nature of plastic carryout bags makes them more susceptible to becoming airborne. Paper carryout bags, which are heavier than their plastic counterparts, are not as susceptible as plastic carryout bags to being carried by the wind. A Caltrans study of catch basins alongside freeways in Los Angeles also indicated that plastic film composed 7 percent by mass and 12 percent by volume of the total trash collected.⁸³ One of the objectives of the proposed ordinances is to reduce Countywide disposal of plastic carryout bags as a result of the proposed ordinances could reasonably be expected to cause a potential reduction the amount of litter in the County of Los Angeles that has been carried by the wind as a result of refuse collection and transportation practices.

⁷⁸ McDermid, K. and McMullen, T. 2004. "Quantitative Analysis of Small-plastic Debris on Beaches in the Hawaiian Archipelago." *Marine Pollution Bulletin, 48*: 790–794.

⁷⁹ David, K., A. Barnes, Francois Galgani, Richard C. Thompson and Morton Barlaz. 2009. "Accumulation and Fragmentation of Plastic Debris in Global Environments." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1985–1998.

⁸⁰ Algalita Marine Research Foundation. 2005. *Density of Plastic Particles Found in Zooplankton Trawls from Coastal Waters of California to the North Pacific Central Gyre*. Available at: http://alguita.com/pdf/Density-of-Particles.pdf

⁸¹ Crain, Caitlin M. et al. 2009. "Understanding and Managing Human Threats to the Coastal Marine Environment." In Annals of the New York Academy of Sciences: The Year in Ecology and Conservation Biology, 1162 (1).

⁸² Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 2001. *Results of the Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation. Available at: http://www.owp.csus.edu/research/papers/papers/PP020.pdf

⁸³ Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 2001. *Results of the Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation. Available at: http://www.owp.csus.edu/research/papers/papers/PP020.pdf

Section 3, Page 19, Paragraph G

The commenter states that the EIR should address what other sources and causes of plastic and paper carryout bag litter exist in the County of Los Angeles. The County of Los Angeles considered numerous litter audits and studies during preparation of the EIR.^{84,85,86,87,88,89}

Section 3, Page 19, Paragraph H

The commenter states that the EIR should evaluate the extent to which plastic and paper carryout bags block or enter storm drains in the County of Los Angeles. As discussed in the EIR, including in Section 2.2.1, during the Great Los Angeles River Clean Up, which collected trash from 30 catch basins in the Los Angeles River, it was observed that 25 percent by weight and 19 percent by volume of the trash collected consisted of plastic bags.⁹⁰ Figure 3.4.2-1 and Figure 3.4.2-2 of the EIR show the frequency of catch basin cleanout throughout the County of Los Angeles. The Los Angeles County Flood Control District has photographed carryout bags in the catch basins and storm drains.⁹¹ Results of a study conducted by the Caltrans of catch basins alongside freeways in Los Angeles indicated that plastic film composed 7 percent by mass and 12 percent by volume of the total trash collected,⁹² and it is important to note that the County of Los Angeles storm drain system drains directly to the Pacific Ocean.

Section 3, Page 19, Paragraph I

The commenter states that the EIR should address the regulatory requirements with which the County of Los Angels must comply regarding plastic and paper carryout bags that are provided to consumers in the County of Los Angeles. A regulatory framework for each environmental issue area is provided throughout the various subsections of Section 3.0 of the EIR. The only adopted regulation that is directly relevant to the issuance and recycling of plastic and paper carryout bags

⁸⁴ California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at:

http://www.opc.ca.gov/webmaster/ftp/pdf/opc_ocean_litter_final_strategy.pdf

⁸⁵ City of Los Angeles. 18 June 2004. *Characterization of Urban Litter*. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.

⁸⁶ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf

⁸⁷ Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 2001. *Results of the Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation. Available at: http://www.owp.csus.edu/research/papers/papers/PP020.pdf

⁸⁸ Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 1998–2000. *Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation.

⁸⁹ United Nations Environment Programme. April 2009. *Marine Litter: A Global Challenge*. Nairobi, Kenya. Available at: http://www.unep.org/regionalseas/marinelitter/publications/docs/Marine_Litter_A_Global_Challenge.pdf

⁹⁰ City of Los Angeles. 18 June 2004. *Characterization of Urban Litter*. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.

⁹¹ County of Los Angeles. 2010. Photographs of Catch Basins in Los Angeles County provided to Sapphos Environmental, Inc. by the County of Los Angeles Flood Control District. Available for review at Sapphos Environmental, Inc., 430 North Halstead Street, Pasadena, CA 91107.

⁹² Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 2001. *Results of the Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation. Available at: http://www.owp.csus.edu/research/papers/PP020.pdf

is AB 2449, codified as California Public Resources Code §42250, et seq., which is discussed in Section 3.5.1 of the EIR.

Section 3, Page 19, Paragraph J

The commenter states that the EIR should identify the locations of the "hotspots" for plastic bag litter in and near the County of Los Angeles. As noted in the response to the comment in Section 2, page 18, paragraph C, litter "hotspot" areas are estimated based on the frequency with which storm drain catch basins are cleaned out. Figure 3.4.2-1 and Figure 3.4.2-2 of the EIR show the frequency of catch basin cleanout throughout the County of Los Angeles; the County of Los Angeles has compiled a database listing the locations of the catch basins shown in these figures.⁹³

Section 3, Page 19, Paragraph K

The commenter states that the EIR should address which alternative solutions to the plastic and paper carryout bag litter issue are available other than the proposed County of Los Angeles ordinance. Section 15126.6 of the State CEQA Guidelines requires only that the EIR examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the proposed project. In Section 4.0 of the EIR, the County of Los Angeles analyzes the potential impacts of four different alternatives to the proposed ordinances that would achieve the program goals and Countywide objectives. To maximize to the greatest extent feasible the potential environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2).

Section 4, Page 20, Paragraph A

The commenter states that the EIR should address whether there is a concentration or island of plastic debris in the North Pacific Gyre. The purpose of the EIR is to evaluate the environmental impacts of the proposed ordinances rather than to discuss the existence of plastic debris in the North Pacific Gyre. In response to this comment, the County of Los Angeles notes that there is a large amount of available scientific literature that documents the existence of a concentration of plastic within the North Pacific Gyre, which is also commonly referred to as the Great Pacific Garbage Patch.^{94,95,96,97,98,99} The USEPA's regional administrator for the Pacific Southwest (Mr. Jared

⁹³ County of Los Angeles, Department of Public Works. September 30, 2010. Catch Basin Map Database. On file at Sapphos Environmental, Inc., Pasadena, CA.

⁹⁴ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." In *Marine Pollution Bulletin*, 42: 1297–1300.

⁹⁵ Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, *108* (2): 131–139.

⁹⁶ Ryan, Peter G. et al. 2009. "Monitoring the Abundance of Plastic Debris in the Marine Environment." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1999–2012.

Blumenfeld) recently said that the ban on plastic carryout bags in American Samoa will help "prevent plastic shopping bags from ending up in the Great Pacific Garbage Patch – an enormous area of floating plastic waste."¹⁰⁰ Although the North Pacific Gyre is not a visible patch or "island" of plastic debris when viewed from the air, it is a location that contains a large concentration of plastic debris, and much of this plastic is present as small plastic fragments.¹⁰¹ The patch is not visible from satellite photography because it consists primarily of particles that are suspended below the ocean's surface. The 2008 article by Charles James Moore, which is referenced in Section 3.2.4 of the EIR, contains a photograph of plastic fragments collected during a trawl of the North Pacific Gyre.¹⁰² Accumulation rates of plastics in the oceans "vary widely with many factors such as proximity of urban settlements, shore use, prevailing wind and ocean currents and region."¹⁰³ The EIR for the proposed ordinances does not make misleading claims that the North Pacific Gyre is a visible patch or "island" of plastic debris.

Section 4, Page 20, Paragraph B

The commenter states that the EIR should quantify the concentration of plastic "confetti" in the North Pacific Gyre. An analysis of plastic concentration in the North Pacific Gyre is beyond the scope of the analysis required for the EIR. The EIR analysis focuses on the direct, indirect, and cumulative effects on the environment as a result of banning the issuance of plastic carryout bags and the possible conversion to reusable bags and/or paper carryout bags. One of the key objectives of the proposed ordinances is to reduce the Countywide contribution of plastic carryout bags to litter, but the EIR does not set forth an objective to reduce the amount of litter in the North Pacific Gyre by a specific amount. In reducing the amount of plastic carryout bag litter, the proposed ordinances have the potential to reduce the amount of plastic carryout bag litter that enters the County of Los Angeles storm drain system, which drains to the Pacific Ocean. As discussed throughout the EIR, including but not limited to, Section 3.2 of the EIR, a reduction in plastic carryout bag litter in the Pacific Ocean would potentially have beneficial impacts on birds, marine mammals, and fish that feed in the Pacific Ocean. The USEPA's regional administrator for the Pacific Southwest (Mr. Jared Blumenfeld) recently said that the ban on plastic carryout bags in American Samoa will help "prevent plastic shopping bags from ending up in the Great Pacific Garbage Patch – an enormous area of floating plastic waste."¹⁰⁴ The County of Los Angeles notes

¹⁰⁰ U.S. Environmental Protection Agency. 30 September 2010. "U.S. EPA applauds American Samoa's decision to ban plastic shopping bags." Washington, D.C. Available at:

http://yosemite.epa.gov/opa/admpress.nsf/0/921A87D72D9AAFC1852577AE007394F1

¹⁰¹ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." In *Marine Pollution Bulletin*, *42*: 1297–1300.

¹⁰² Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, *108* (2): 131–139.

¹⁰³ David, K., A. Barnes, Francois Galgani, Richard C. Thompson and Morton Barlaz. 2009. "Accumulation and Fragmentation of Plastic Debris in Global Environments." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364:* 1985–1998.

¹⁰⁴ U.S. Environmental Protection Agency. 30 September 2010. "U.S. EPA applauds American Samoa's decision to ban plastic shopping bags." Washington, D.C. Available at: http://yosemite.epa.gov/opa/admpress.nsf/0/921A87D72D9AAFC1852577AE007394F1

⁹⁷ Crain, Caitlin M. et al. 2009. "Understanding and Managing Human Threats to the Coastal Marine Environment." In Annals of the New York Academy of Sciences: The Year in Ecology and Conservation Biology, 1162 (1).

⁹⁸ McDermid, K. and McMullen, T. 2004. "Quantitative Analysis of Small-plastic Debris on Beaches in the Hawaiian Archipelago." *Marine Pollution Bulletin, 48*: 790-794.

⁹⁹ Ebbesmeyer C. C., et al. 2007. "Tub toys orbit the Pacific Subarctic gyre." In EOS, Transactions of the American Geophysical Union, 88 (1).

that additional information can be found in a large amount of available scientific literature that documents the existence of a concentration of plastic, much of which is present as small plastic fragments, within the North Pacific Gyre,^{105,106,107,108,109,110,111} Accumulation rates of plastics in the oceans "vary widely with many factors such as proximity of urban settlements, shore use, prevailing wind and ocean currents and region."¹¹²

Section 4, Page 20, Paragraph C

The commenter states that the EIR should quantify the sizes of the plastic "confetti" pieces in the North Pacific Gyre. An analysis of sizes of the plastic "confetti" pieces in the North Pacific Gyre is beyond the scope of the analysis required for the EIR. The EIR analysis focuses on the direct, indirect, and cumulative effects on the environment as a result of banning the issuance of plastic carryout bags and the possible conversion to reusable bags and/or paper carryout bags. One of the key objectives of the proposed ordinances is to reduce the Countywide contribution of plastic carryout bags to litter, but the EIR does not set forth an objective to reduce the amount of litter in the North Pacific Gyre by a specific amount. In reducing the amount of plastic carryout bag litter, the proposed ordinances have the potential to reduce the amount of plastic carryout bag litter that enters the County of Los Angeles storm drain system, which drains to the Pacific Ocean. As discussed throughout the EIR, including Section 3.2, a reduction in plastic carryout bag litter in the Pacific Ocean would potentially have beneficial impacts on birds, marine mammals, and fish that feed in the Pacific Ocean. The County of Los Angeles notes that additional information can be found in a large amount of available scientific literature that documents the existence of a concentration of plastic, much of which exists as small plastic fragments, within the North Pacific Gvre.^{113,114,115,116,117,118,119}

¹¹⁰ Ebbesmeyer C. C., et al. 2007. "Tub toys orbit the Pacific Subarctic gyre." In EOS, Transactions of the American Geophysical Union 88, No. 1.

¹¹¹ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin*, *42*: 1297–1300.

¹¹² David, K., A. Barnes, Francois Galgani, Richard C. Thompson and Morton Barlaz. 2009. "Accumulation and Fragmentation of Plastic Debris in Global Environments." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1985–1998.

¹¹³ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." In *Marine Pollution Bulletin*, 42: 1297–1300.

¹¹⁴ Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, *108* (2): 131–139.

¹⁰⁵ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." In *Marine Pollution Bulletin, 42*: 1297–1300.Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. A comparison of plastic and plankton in the North Pacific central gyre. Mar. Pollut. Bull. 42, 1297–1300.

¹⁰⁶ Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, 108 (2): 131–139.

¹⁰⁷ Ryan, Peter G. et al. 2009. "Monitoring the Abundance of Plastic Debris in the Marine Environment." In *Philosophical Transactions of the Royal Society B: Biological Sciences,* 364: 1999-2012.

¹⁰⁸ Crain, Caitlin M. et al. 2009. "Understanding and Managing Human Threats to the Coastal Marine Environment." In Annals of the New York Academy of Sciences: The Year in Ecology and Conservation Biology, 1162 (1).

¹⁰⁹ McDermid, K. and McMullen, T. 2004. "Quantitative Analysis of Small-plastic Debris on Beaches in the Hawaiian Archipelago." In *Marine Pollution Bulletin*, 48: 790-794.

¹¹⁵ Ryan, Peter G. et al. 2009. "Monitoring the Abundance of Plastic Debris in the Marine Environment." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1999-2012.

¹¹⁶ Crain, Caitlin M. et al. 2009. "Understanding and Managing Human Threats to the Coastal Marine Environment." In Annals of the New York Academy of Sciences: The Year in Ecology and Conservation Biology, 1162 (1).

Section 4, Page 21, Paragraph D

The commenter states that the EIR should note whether there is any substantial evidence that the plastic "confetti" pieces in the North Pacific Gyre consist of plastic bag fragments. The County of Los Angeles notes that additional information can be found in a large amount of available scientific literature that documents the existence of a concentration of plastic, much of which exists as small plastic fragments, within the North Pacific Gyre,^{120,121,122} One reference in the EIR that discusses the accumulation of plastic fragments states, "up to 80 per cent or sometimes more of the waste that accumulates on land, shorelines, the ocean surface or seabed is plastic. The most common items are plastic films, such as carrier bags, which are easily wind blown, as well as discarded fishing equipment and food and beverage packaging."¹²³ The EIR analysis focuses on the direct, indirect, and cumulative effects on the environment as a result of banning the issuance of plastic carryout bags and the possible conversion to reusable bags and/or paper carryout bags. One of the key objectives of the proposed ordinances is to reduce the Countywide contribution of plastic carryout bags to litter, but the EIR does not set forth an objective to reduce the amount of litter in the North Pacific Gyre by a specific amount. In reducing the amount of plastic carryout bag litter, the proposed ordinances have the potential to reduce the amount of plastic carryout bag litter that enters the County of Los Angeles storm drain system, which drains to the Pacific Ocean. As discussed in the EIR, including Section 3.2, a reduction in plastic carryout bag litter in the Pacific Ocean would potentially have beneficial impacts on birds, marine mammals, and fish that feed in the Pacific Ocean.

Section 4, Page 21, Paragraph E

The commenter states that the EIR should note whether plastic debris exists below the water surface in the North Pacific Gyre and in what quantities and concentrations. In response to this comment, the County of Los Angeles notes that there is a large amount of available scientific literature that documents the existence of a concentration of plastic within the North Pacific Gyre, which is commonly referred to as the Great Pacific Garbage Patch.^{124,125,126,127,128,129} Although the North Pacific Gyre is not a visible patch or "island" of plastic

¹²⁵ Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, *108* (2): 131–139.

¹¹⁷ McDermid, K. and McMullen, T. 2004. "Quantitative Analysis of Small-plastic Debris on Beaches in the Hawaiian Archipelago." *Marine Pollution Bulletin, 48*: 790–794.

¹¹⁸ Ebbesmeyer C. C., et al. 2007. "Tub toys orbit the Pacific Subarctic gyre." In EOS, Transactions of the American Geophysical Union, 88 (1).

¹¹⁹ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." In *Marine Pollution Bulletin*, 42: 1297–1300.

¹²⁰ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." In *Marine Pollution Bulletin*, 42: 1297–1300.

¹²¹ Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, *108* (2): 131–139.

¹²² Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin*, *42*: 1297–1300.

¹²³ David, K., A. Barnes, Francois Galgani, Richard C. Thompson and Morton Barlaz. 2009. "Accumulation and Fragmentation of Plastic Debris in Global Environments." In *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364: 1985–1998.

¹²⁴ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. A comparison of plastic and plankton in the North Pacific central gyre. Mar. Pollut. Bull. 42, 1297–1300.

debris, a bird's-eye view shows that it as a location that contains a large concentration of plastic debris, and much of this plastic is present as small plastic fragments.¹³⁰ The 2008 article by Charles James Moore, which is referenced in Section 3.2.4 of the EIR, contains a photograph of plastic fragments collected during a trawl of the North Pacific Gyre.¹³¹ An analysis of the quantities and concentration of plastic in the North Pacific Gyre is beyond the scope of the analysis required by CEQA for the EIR. The EIR analysis focuses on the direct, indirect, and cumulative effects on the environment as a result of banning the issuance of plastic carryout bags and the possible conversion to reusable bags and/or paper carryout bags. One of the key objectives of the proposed ordinances is to reduce the Countywide contribution of plastic carryout bags to litter, but the EIR does not set forth an objective to reduce the amount of litter in the North Pacific Gyre by a specific amount. In reducing the amount of plastic carryout bag litter, the proposed ordinances have the potential to reduce the amount of plastic carryout bag litter that enters the County of Los Angeles storm drain system, which drains to the Pacific Ocean. As discussed in the EIR, including Section 3.2, a reduction in plastic carryout bag litter in the Pacific Ocean.

Section 4, Page 21, Paragraph F

The commenter states that the EIR should quantify the number of intact plastic carryout bags present in the North Pacific Gyre. In response to this comment, the County of Los Angeles notes that there is a large amount of available scientific literature that documents the existence of a concentration of plastic, much of which is present as small plastic fragments, within the North Pacific Gyre,^{132,133,134,135,136,137,138} Analysis of the types of plastics present in the North Pacific Gyre is beyond the scope of the analysis required by CEQA for the EIR, but much of the plastic in the

¹²⁹ Ebbesmeyer C. C., et al. 2007. "Tub toys orbit the Pacific Subarctic gyre." In EOS, Transactions of the American Geophysical Union, 88 (1).

¹³⁰ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin*, *42*: 1297–1300.

¹³¹ Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, *108* (2): 131–139.

¹³² Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." In *Marine Pollution Bulletin*, *42*: 1297–1300.

¹³³ Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, *108* (2): 131–139.

¹³⁴ Ryan, Peter G. et al. 2009. "Monitoring the Abundance of Plastic Debris in the Marine Environment." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1999-2012.

¹³⁵ Crain, Caitlin M. et al. 2009. "Understanding and Managing Human Threats to the Coastal Marine Environment." In Annals of the New York Academy of Sciences: The Year in Ecology and Conservation Biology, 1162 (1).

¹³⁶ McDermid, K. and McMullen, T. 2004. "Quantitative Analysis of Small-plastic Debris on Beaches in the Hawaiian Archipelago." *Marine Pollution Bulletin, 48*: 790-794.

¹³⁷ Ebbesmeyer C. C., et al. 2007. "Tub toys orbit the Pacific Subarctic gyre." In EOS, Transactions of the American Geophysical Union, 88 (1).

¹³⁸ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin*, *42*: 1297–1300.

¹²⁶ Ryan, Peter G. et al. 2009. "Monitoring the Abundance of Plastic Debris in the Marine Environment." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1999-2012.

¹²⁷ Crain, Caitlin M. et al. 2009. "Understanding and Managing Human Threats to the Coastal Marine Environment." In Annals of the New York Academy of Sciences: The Year in Ecology and Conservation Biology, 1162 (1).

¹²⁸ McDermid, K. and McMullen, T. 2004. "Quantitative Analysis of Small-plastic Debris on Beaches in the Hawaiian Archipelago." *Marine Pollution Bulletin, 48*: 790-794.

North Pacific Gyre is known to be present as small plastic fragments.¹³⁹ The EIR analysis focuses on the direct, indirect, and cumulative effects on the environment as a result of banning the issuance of plastic carryout bags and the possible conversion to reusable bags and/or paper carryout bags. One of the key objectives of the proposed ordinances is to reduce the Countywide contribution of plastic carryout bags to litter, but the EIR does not set forth an objective to reduce the amount of plastic carryout bag litter, the proposed ordinances have the potential to reduce the amount of plastic carryout bag litter that enters the County of Los Angeles storm drain system, which drains to the Pacific Ocean. As discussed throughout the EIR, including Section 3.2, a reduction in plastic carryout bag litter in the Pacific Ocean.

Section 4, Page 21, Paragraph G

The commenter states that the EIR should quantify the percentages of the different types of debris in the North Pacific Gyre. In response to this comment, the County of Los Angeles notes that there is a large amount of available scientific literature that documents the existence of a concentration of plastic within the North Pacific Gyre,^{140,141,142,143,144,145} much of which is present as small plastic fragments.¹⁴⁶ An analysis of the percentages of different types of debris in the North Pacific Gyre is beyond the scope of the analysis required by CEQA for the EIR. The EIR analysis focuses on the direct, indirect, and cumulative effects on the environment as a result of banning the issuance of plastic carryout bags and the possible conversion to reusable bags and/or paper carryout bags. One of the key objectives of the proposed ordinances is to reduce the Countywide contribution of plastic carryout bags to litter, but the EIR does not set forth an objective to reduce the amount of litter in the North Pacific Gyre by a specific amount. In reducing the amount of plastic carryout bag litter, the proposed ordinances have the potential to reduce the amount of plastic carryout bag litter that enters the County of Los Angeles storm drain system, which drains to the Pacific Ocean. As discussed throughout the EIR, including in Section 3.2, a reduction in plastic carryout bag litter in the Pacific Ocean would potentially have beneficial impacts on birds, marine mammals, and fish that feed in the Pacific Ocean.

¹³⁹ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin*, 42: 1297–1300.

¹⁴⁰ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin*, *42*: 1297–1300.

¹⁴¹ Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, *108* (2): 131–139.

¹⁴² Ryan, Peter G. et al. 2009. "Monitoring the Abundance of Plastic Debris in the Marine Environment." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1999-2012.

¹⁴³ Crain, Caitlin M. et al. 2009. "Understanding and Managing Human Threats to the Coastal Marine Environment." In Annals of the New York Academy of Sciences: The Year in Ecology and Conservation Biology, 1162 (1).

¹⁴⁴ McDermid, K. and McMullen, T. 2004. "Quantitative Analysis of Small-plastic Debris on Beaches in the Hawaiian Archipelago." *Marine Pollution Bulletin, 48*: 790-794.

¹⁴⁵ Ebbesmeyer C. C., et al. 2007. "Tub toys orbit the Pacific Subarctic gyre." In EOS, Transactions of the American Geophysical Union 88, No. 1.

¹⁴⁶ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin*, *42*: 1297–1300.

Section 4, Page 22, Paragraph H

The commenter states that the EIR should discuss whether and how, and how quickly, plastic bags break down in the North Pacific Gyre. As described in the EIR, including in Section 3.2, plastics are chemically resistant and do not biodegrade, so they persist in the marine environment.¹⁴⁷ Plastics degrade into smaller pieces over time, eventually becoming tiny particles of plastics that are often called microplastics.¹⁴⁸ There is a large amount of available scientific literature that documents the existence of a concentration of plastic, much of which is present as small plastic fragments, within the North Pacific Gyre,^{149,150,151,152,153,154,155} A full evaluation of the degradation process of plastic bags in the North Pacific Gyre is beyond the scope of the analysis required by CEQA for the EIR.

Section 4, Page 22, Paragraph I

The commenter states that the EIR should provide substantial evidence to document whether any of the plastic debris in the North Pacific Gyre originated from plastic bags from the County of Los Angeles. The EIR makes no claims regarding the origin of the plastic debris in the North Pacific Gyre. The EIR associates the amount of plastic carryout bags issued by stores in the County of Los Angeles with plastic carryout bag litter present in the storm drain system within the County of Los Angeles, which drains out to the Pacific Ocean. The analysis in the EIR focuses on the direct, indirect, and cumulative effects on the environment as a result of banning the issuance of plastic carryout bags and the possible conversion to reusable bags and/or paper carryout bags. One of the key objectives of the proposed ordinances is to reduce the Countywide contribution of plastic carryout bags to litter, but the EIR does not set forth an objective to reduce the amount of litter in the North Pacific Gyre by a specific amount. In reducing the amount of plastic carryout bag litter, the proposed ordinances have the potential to reduce the amount of plastic carryout bag litter that enters the County of Los Angeles storm drain system, which drains to the Pacific Ocean. As discussed in the EIR, including Section 3.2, a reduction in plastic carryout bag litter in the Pacific Ocean would potentially have beneficial impacts on birds, marine mammals, and fish that feed in the Pacific Ocean.

¹⁴⁷ Andrady, Anthony L. and Mike A. Neal. 2009. "Applications and Societal Benefits of Plastics." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1977–1984.

¹⁴⁸ Thompson, R. C. 7 May 2004. "Lost at Sea: Where Is All the Plastic?" In Science, 304 (5672): 843.

¹⁴⁹ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin*, *42*: 1297–1300.

¹⁵⁰ Moore, Charles James. October 2008. "Synthetic Polymers in the Marine Environment: A Rapidly Increasing, Long-term Threat." In *Environmental Research*, *108* (2): 131–139.

¹⁵¹ Ryan, Peter G. et al. 2009. "Monitoring the Abundance of Plastic Debris in the Marine Environment." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1999-2012.

¹⁵² Crain, Caitlin M. et al. 2009. "Understanding and Managing Human Threats to the Coastal Marine Environment." In Annals of the New York Academy of Sciences: The Year in Ecology and Conservation Biology, 1162 (1).

¹⁵³ McDermid, K. and McMullen, T. 2004. "Quantitative Analysis of Small-plastic Debris on Beaches in the Hawaiian Archipelago." *Marine Pollution Bulletin, 48*: 790-794.

¹⁵⁴ Ebbesmeyer C. C., et al. 2007. "Tub toys orbit the Pacific Subarctic gyre." In EOS, Transactions of the American Geophysical Union 88, No. 1.

¹⁵⁵ Moore, C.J., Moore, S.L., Leecaster, M.K., Weisberg, S.B. 2001. "A comparison of plastic and plankton in the North Pacific central gyre." *Marine Pollution Bulletin*, *42*: 1297–1300.

Section 4, Page 23, Paragraph J

The commenter states that the EIR should quantify the percentage of any plastic bag debris in the North Pacific Gyre that originates from Asia or other Pacific Rim countries, such as China, Australia and New Zealand. The County of Los Angeles notes that China has banned plastic carryout bags¹⁵⁶ and Australia implements the use of a voluntary "Retailers Code." It is not feasible to determine the origin of all of the plastic fragments in the North Pacific Gyre, and this requested data analysis is beyond the scope of the analysis required by CEQA for the EIR. The EIR analysis focuses on the direct, indirect, and cumulative effects on the environment as a result of banning the issuance of plastic carryout bags and the possible conversion to reusable bags and/or paper carryout bags. One of the key objectives of the proposed ordinances is to reduce the Countywide contribution of plastic carryout bags to litter, but the EIR does not set forth an objective to reduce the amount of litter in the North Pacific Gyre by a specific amount. In reducing the amount of plastic carryout bag litter, the proposed ordinances have the potential to reduce the amount of plastic carryout bag litter that enters the County of Los Angeles storm drain system, which drains to the Pacific Ocean. As discussed in Section 3.2 of the EIR, a reduction in plastic carryout bag litter in the Pacific Ocean would potentially have beneficial impacts on birds, marine mammals, and fish that feed in the Pacific Ocean.

Section 4, Page 23, Paragraph K

The commenter states that the EIR should quantify the percentage of plastic bag debris in the North Pacific Gyre that can be attributed to inadequate litter cleanup practices in the other Pacific Rim countries. This requested data analysis is beyond the scope of the analysis required by CEQA for the EIR. The EIR analysis focuses on the direct, indirect, and cumulative effects on the environment as a result of banning the issuance of plastic carryout bags and the possible conversion to reusable bags and/or paper carryout bags. One of the key objectives of the proposed ordinances is to reduce the Countywide contribution of plastic carryout bags to litter, but the EIR does not set forth an objective to reduce the amount of litter in the North Pacific Gyre by a specific amount. In reducing the amount of plastic carryout bag litter, the proposed ordinances have the potential to reduce the amount of plastic carryout bag litter that enters the County of Los Angeles storm drain system, which drains to the Pacific Ocean. As discussed in Section 3.2 of the EIR, a reduction in plastic carryout bag litter in the Pacific Ocean.

Section 4, Page 23, Paragraph L

The commenter states that the EIR should quantify the percentage of plastic bag debris in the North Pacific Gyre that originates from ship vessels. This requested data analysis is beyond the scope of the analysis required by CEQA for the EIR. The EIR analysis focuses on the direct, indirect, and cumulative effects on the environment as a result of banning the issuance of plastic carryout bags and the possible conversion to reusable bags and/or paper carryout bags. One of the key objectives of the proposed ordinances is to reduce the Countywide contribution of plastic carryout bags to litter, but the EIR does not set forth an objective to reduce the amount of litter in the North Pacific Gyre by a specific amount. In reducing the amount of plastic carryout bag litter, the proposed ordinances have the potential to reduce the amount of plastic carryout bag litter that enters the County of Los Angeles storm drain system, which drains to the Pacific Ocean. As

¹⁵⁶ Environmental News Network. 30 June 2010. "China Watch: Plastic Bag Ban Trumps Market and Consumer Efforts." Available at: http://www.enn.com/pollution/article/37512

discussed in Section 3.2 of the EIR, a reduction in plastic carryout bag litter in the Pacific Ocean would potentially have beneficial impacts on birds, marine mammals, and fish that feed in the Pacific Ocean.

Section 4, Page 23, Paragraph M

The commenter states that the EIR should quantify the number of wildlife deaths caused by plastic bag ingestion or entanglement. As discussed in Section 3.2.4 of the EIR, trash has potentially harmful impacts to species, and plastic bags are one of the most common items of trash observed by RWQCB staff.¹⁵⁷ Seabirds, sea turtles, and marine mammals that feed on or near the ocean surface are especially prone to ingesting plastic debris that floats.^{158,159,160} The impacts include fatalities as a result of ingestion, starvation, suffocation, infection, drowning, and entanglement.^{161,162} The recovery plan for the endangered leatherback turtle lists ingestion of marine debris, including plastic bags, as one of the factors threatening this species. The recovery plan says that leatherback turtles consume floating plastic, including plastic bags, because they appear to mistake the floating plastic for jellyfish.¹⁶³ The recovery plans for the threatened green turtle, loggerhead turtle, and olive ridley turtle also note plastic bag ingestion as a threat to those species.^{164,165,166} Ingestion of plastics is also noted as a threat in the recovery plan for the federally endangered short-tailed albatross.¹⁶⁷ Ingestion of plastic debris, of which plastic bags are a subcategory, is known to cause wildlife deaths.^{168,169}

¹⁶⁴ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the East Pacific Green Turtle*. Available at:

http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_green_eastpacific.pdf

¹⁶⁵ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Loggerhead Turtle*. Available at:

http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_loggerhead_pacific.pdf

¹⁶⁶ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Olive Ridley Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_oliveridley.pdf

¹⁶⁷ U.S. Fish and Wildlife Service. September 2008. *Short-tailed Albatross Recovery Plan*. Available at: http://alaska.fws.gov/fisheries/endangered/pdf/stal recovery plan.pdf

¹⁵⁷ Regional Water Quality Control Board, Los Angeles Region. Revised 27 July 2007. "Trash Total Maximum Daily Loads for the Los Angeles River Watershed." Los Angeles, CA.

¹⁵⁸ California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc ocean litter final strategy.pdf

¹⁵⁹ National Research Council. 2008. "Tackling Marine Debris in the 21st Century." Committee on the Effectiveness of National and International Measures to Prevent and Reduce Marine Debris and Its Impacts.

¹⁶⁰ U.S. Environmental Protection Agency. August 2002. Assessing and Monitoring Floatable Debris. Washington, DC.

¹⁶¹ California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc ocean litter final strategy.pdf

¹⁶² Gregory, Murray R. 2009. "Environmental Implications of Plastic debris in Marine Settings –Entanglement, Ingestion, Smothering, Hangers-on, Hitch-hiking and Alien Invasions." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 2013–2025.

¹⁶³ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. Recovery Plan for U.S. Pacific Populations of the Leatherback Turtle. Available at:

http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_leatherback_pacific.pdf

¹⁶⁸ California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc_ocean_litter_final_strategy.pdf

The commenter references a United Nations Environment Programme (UNEP) study that discusses global marine litter.¹⁷⁰ The comment letter states that this study did not survey the North Pacific Gyre and does not indicate where each entanglement occurred. The comment letter notes the following number of entanglements caused by plastic bags globally, as reported in the UNEP study (Table 13-1, *Entanglements Due to Plastic Bags*):

TABLE 13-1ENTANGLEMENTS DUE TO PLASTIC BAGS

Wildlife	Number of Entanglements
Invertebrates	2
Fishes	3
Reptiles	0
Birds	12
Mammals	15
Amphibians	0

The number of wildlife found entangled in plastic bags as reported in the UNEP study constitutes 9.4 percent of 235 total wildlife entanglements recorded by volunteers in 2007.¹⁷¹ Fifteen percent of the birds found entangled in marine litter were entangled in plastic carryout bags.¹⁷² Although the UNEP study notes that only 235 global wildlife entanglements in marine litter were recorded in 2007, the study is not exhaustive and does not provide data for the total number of species killed by marine litter throughout the globe, but the UNEP results do provide an example of how wildlife can and do become entangled in plastic bags.

Section 4, Page 26, Paragraph N

The commenter states that the EIR should disclose the environmental impacts of plastic bags in the Pacific Ocean. In summary, as discussed in the EIR, seabirds, sea s, and marine mammals that feed on or near the ocean surface are especially prone to ingesting plastic debris that floats.^{173,174,175} The impacts include fatalities as a result of ingestion, starvation, suffocation, infection, drowning, and

¹⁶⁹ Gregory, Murray R. 2009. "Environmental Implications of Plastic debris in Marine Settings –Entanglement, Ingestion, Smothering, Hangers-on, Hitch-hiking and Alien Invasions." In *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364: 2013–2025.

¹⁷⁰ United Nations Environment Programme. April 2009. *Marine Litter: A Global Challenge*. Nairobi, Kenya. Available at: http://www.unep.org/regionalseas/marinelitter/publications/docs/Marine_Litter_A_Global_Challenge.pdf

¹⁷¹ United Nations Environment Programme. April 2009. *Marine Litter: A Global Challenge*. Nairobi, Kenya. Available at: http://www.unep.org/regionalseas/marinelitter/publications/docs/Marine_Litter_A_Global_Challenge.pdf

¹⁷² United Nations Environment Programme. April 2009. *Marine Litter: A Global Challenge*. Nairobi, Kenya. Available at: http://www.unep.org/regionalseas/marinelitter/publications/docs/Marine_Litter_A_Global_Challenge.pdf

¹⁷³ California Ocean Protection Council. 20 November 2008. An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc ocean litter final strategy.pdf

¹⁷⁴ National Research Council. 2008. "Tackling Marine Debris in the 21st Century." Committee on the Effectiveness of National and International Measures to Prevent and Reduce Marine Debris and Its Impacts.

¹⁷⁵ U.S. Environmental Protection Agency. August 2002. Assessing and Monitoring Floatable Debris. Washington, DC.
entanglement.^{176,177} As described throughout the EIR, including Section 3.2 and Appendix B, plastics are chemically resistant and do not biodegrade, so they persist in the marine environment.¹⁷⁸ Plastics break down into smaller pieces over time, eventually forming tiny particles of plastics called microplastics.¹⁷⁹ Microplastics can spread throughout the marine environment and be ingested by marine wildlife.¹⁸⁰ Ingestion of plastic fragments can lead to internal blockages and toxic poisoning (see also response to comment for Section 4, Page 23, Paragraph M).¹⁸¹

Section 5, Page 26, Paragraph A

The commenter states that the EIR should quantify the annual cost to the County of Los Angeles of cleaning up plastic bag litter, and what annual cost would be incurred if the County of Los Angeles maximized efforts to clean up plastic bag litter. As discussed in the EIR, including, but not limited to, Section 2.2.1, public agencies in California spend more than \$375 million each year for litter prevention, cleanup, and disposal.¹⁸² In 2008–2009 (the most recent data available) the County of Los Angeles Flood Control District spent over \$24 million on these activities (\$1.9 million on maintenance of structural and treatment control BMPs, \$9.3 million on municipal street cleaning, \$1.9 million on capital costs).¹⁸³ Although CEQA does not require analysis of economic impacts in the EIR, during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR, the County of Los Angeles will consider information related to opportunities to substantially reduce the amount of litter attributed to plastic carryout bags from entering the storm drain system.

Section 5, Page 26, Paragraph B

The commenter indicates that the County Staff Report referenced in the EIR states that the LACDPW and the County of Los Angeles Flood Control District spend approximately \$18 million per year in litter cleanup. The statement in Section 2.2.1 of the EIR regarding the County of Los Angeles Flood Control District's annual expenditure of more than \$18 million for litter reduction efforts is correct, and is a clarification of the information in the staff report. In 2008–2009 (the most recent data available) the County of Los Angeles Flood Control District spent over \$24 million

¹⁷⁶ California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc_ocean_litter_final_strategy.pdf

¹⁷⁷ Gregory, Murray R. 2009. "Environmental Implications of Plastic debris in Marine Settings –Entanglement, Ingestion, Smothering, Hangers-on, Hitch-hiking and Alien Invasions." In *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364: 2013–2025.

¹⁷⁸ Andrady, Anthony L. and Mike A. Neal. 2009. "Applications and Societal Benefits of Plastics." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1977–1984.

¹⁷⁹ Thompson, R. C. 7 May 2004. "Lost at Sea: Where Is All the Plastic?" In Science, 304 (5672): 843.

¹⁸⁰ Eriksson, Cecilia and Burton, Harry. 2003. "Origins and Biological Accumulation of Small Plastic Particles in Fur-seal Scats from Macquarie Island." In *Ambio*, *36* (6).

¹⁸¹ Todd, Peter, A. et al. 2010. "Impacts of Pollution on marine life in Southeast Asia." In *Biodiversity and Conservation*, *19*: 1063–1082.

¹⁸² California Department of Transportation. Accessed in: September 2009. "Facts at a Glance." Don't Trash California. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

¹⁸³ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

on these activities (\$1.9 million on maintenance of structural and treatment control BMPs, \$9.3 million on municipal street cleaning, \$1.9 million on catch basin cleaning, \$9.6 million on trash collection and recycling, and \$1.3 million on capital costs).¹⁸⁴ The LACDPW expends additional resources addressing litter, separate from these funds. This information, including a more detailed breakdown of the expenditures of the County of Los Angeles Flood Control District, has been included in Section 2.2.1 of the EIR (see Section 12.2).

Section 5, Page 27, Paragraph C

The commenter states that the EIR should itemize in detail how the County of Los Angeles Flood Control District allocates the \$18 million to litter reduction efforts. In 2008–2009 (the most recent data available) the County of Los Angeles Flood Control District spent over \$24 million on these activities (\$1.9 million on maintenance of structural and treatment control BMPs, \$9.3 million on municipal street cleaning, \$1.9 million on catch basin cleaning, \$9.6 million on trash collection and recycling, and \$1.3 million on capital costs).¹⁸⁵ The LACDPW expends additional resources addressing litter, separate from these funds. This information, including a more detailed breakdown of the expenditures of the County of Los Angeles Flood Control District, has been included in Section 2.2.1 of the EIR (see Section 12.2). Although CEQA does not require analysis of economic impacts in the EIR, the County of Los Angeles, during the decision-making process for the proposed ordinance, will consider the information related to opportunities to substantially reduce the amount of litter attributed to plastic carryout bags from entering the storm drain system.

Section 5, Page 27, Paragraph D

The commenter states that the EIR should quantify the portion of the \$18 million annual expenditure for litter reduction efforts that would be saved as a result of implementation of the proposed ordinances. In the County of Los Angeles, specifically, the County of Los Angeles Flood Control District alone exhausted \$24 million of these public funds in 2008–2009 (the most recent data available), while LACDPW expended additional resources separate from and in addition to state funds to address litter.^{186,187} By banning the issuance of plastic carryout bags, a significant number of plastic carryout bags would be removed from the waste stream, along with the associated litter attributable to those plastic carryout bags. Although CEQA does not require the analysis of economic impacts in the EIR, the County of Los Angeles will consider the information related to opportunities to substantially reduce the amount of litter attributed to plastic carryout bags from entering the storm drain system during the decision-making process for the County of Los Angeles ordinance and Final EIR.

The EIR, including Section 2.3.1 and Section 4.0, discusses the fact that litter from plastic carryout bags is prevalent in the urban environment, compromises the efficiency of systems designed to

¹⁸⁴ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

¹⁸⁵ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

¹⁸⁶ California Department of Transportation. Accessed in: September 2009. "Facts at a Glance." *Don't Trash California*. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

¹⁸⁷ County of Los Angeles. October 2009. Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

channel storm water runoff, is prevalent in the storm water system and coastal waterways, and hampers the ability of, and exacerbates the cost to, local agencies to comply with the National Pollution Discharge Elimination System and total maximum daily loads limits for trash pursuant to the federal Clean Water Act. A reduction in the amount of plastic carryout bags that may enter the litter stream could be reasonably expected to reduce litter reduction costs currently expended by the County of Los Angeles. For example, less plastic carryout bag litter clogging or blocking catch basins would mean that catch basins must be cleaned less frequently, thereby reducing catch-basin cleanup costs.

Section 5, Page 27, Paragraph E

The commenter states that the EIR should quantify the annual cost to the County of Los Angeles from the environmental problems caused by plastic bags. As discussed in Section 2.2.1 of the EIR. plastic carryout bags contribute significantly to litter. During the Great Los Angeles River Clean Up, which collected trash from 30 catch basins in the Los Angeles River, plastic bags constituted 25 percent by weight and 19 percent by volume of the trash.¹⁸⁸ The EIR, including in the project description and Section 2.2, notes that the County of Los Angeles Flood Control District alone spends more than \$18 million annually for prevention, cleanup, and enforcement efforts to reduce litter.^{189,190,191} In 2008–2009 (the most recent data available) the County of Los Angeles Flood Control District spent over \$24 million on these activities (\$1.9 million on maintenance of structural and treatment control BMPs, \$9.3 million on municipal street cleaning, \$1.9 million on catch basin cleaning, \$9.6 million on trash collection and recycling, and \$1.3 million on capital costs).¹⁹² Public agencies in California also spend more than \$375 million each year for litter prevention, cleanup, and disposal.¹⁹³ Although CEQA does not require analysis of economic impacts in the EIR, the County of Los Angeles, during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR, will consider the information related to opportunities to substantially reduce the amount of litter attributed to plastic carryout bags from entering the storm drain system (also see response to comment in Section 5, Page 27, Paragraph D above).

¹⁸⁸ City of Los Angeles. 18 June 2004. *Characterization of Urban Litter*. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.

¹⁸⁹ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

^{%20}Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

¹⁹⁰ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2008. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2008/Appendix%20D%20-

^{%20}Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20&%20County%20Annual%20Report%20FY07-08.pdf

¹⁹¹ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2007. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2007/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Annual%20Rpt%2006-07.pdf

¹⁹² Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

¹⁹³ California Department of Transportation. Accessed in: September 2009. "Facts at a Glance." Don't Trash California, available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

Section 5, Page 27, Paragraph F

The commenter states that the EIR should assess an alternative to the proposed ordinances that would require manufacturers or suppliers to pay money to the County of Los Angeles each year to address the environmental problems caused by plastic bags. Imposing a fee or charge on the manufacturers or suppliers of plastic carryout bags would not effectively or significantly impact the behavior of consumers who use plastic carryout bags. Herrera et al., in the report prepared for Seattle Public Utilities that was reviewed during preparation of the EIR, states, "most research indicates that fees places on suppliers or manufacturers are administratively simpler but less likely to reduce plastic bag consumption since most fees do not affect habits unless passed onto consumers."¹⁹⁴ The County of Los Angeles has sought to evaluate efforts that prevent plastic carryout bags from becoming litter in the first place; a fee program imposed on suppliers or manufacturers of plastic carryout bags would address the litter problem only after the littering has already occurred, at which time the litter could already have entered the urban environment, storm drain system, and/or coastal waterways. Further, development of an alternative program to impose a fee on manufacturers and suppliers to manage plastic carryout bag litter would not meet most of the basic objectives of the proposed ordinances, because it would not reduce the Countywide consumption of plastic carryout bags, the contribution of plastic carryout bags to litter, or the disposal of plastic carryout bags in landfills. Therefore, this suggested alternative was not carried forward for detailed analysis in the EIR. Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the proposed project.

Section 5, Page 27, Paragraph G

The commenter states that the EIR should assess an alternative to the proposed ordinances that would require manufacturers or suppliers to pay money to a Statewide fund each year to address the environmental problems caused by plastic bags. Imposing a fee or charge on the manufacturers or suppliers of plastic carryout bags would not effectively or significantly impact the behavior of consumers who use plastic carryout bags. The report by Herrera et al. referenced in the EIR states, "most research indicates that fees placed on suppliers or manufacturers are administratively simpler but less likely to reduce plastic bag consumption since most fees do not affect habits unless passed onto consumers."¹⁹⁵ The County of Los Angeles has sought to evaluate efforts that prevent plastic carryout bags from becoming litter in the first place; a fee program imposed on suppliers or manufacturers of plastic carryout bags would address the litter problem only after the littering has already occurred, at which time the litter could already have entered the urban environment, storm drain system, and/or coastal waterways. Also, the historical failure of bills to ban plastic bags proposed in the last 3 years, including AB 1998, indicates that a statewide solution may never be realized. Further, Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the proposed project. Development of an alternative Statewide fee program to manage plastic carryout bag litter would not meet most of the basic objectives of the proposed ordinances, because it would not reduce the Countywide consumption of plastic carryout bags, the contribution of plastic carryout bags to litter, or the disposal of plastic

¹⁹⁴ Herrera et al. January 2008. Alternatives to Disposable Shopping Bags and Food Service Items Volume I and II. Prepared for: Seattle Public Utilities.

¹⁹⁵ Herrera et al. January 2008. Alternatives to Disposable Shopping Bags and Food Service Items Volume I and II. Prepared for: Seattle Public Utilities.

carryout bags in landfills. Therefore, this suggested alternative was not carried forward for detailed analysis in the EIR.

Section 5, Page 27, Paragraph H

The commenter states that the EIR should quantify the annual amount of money the County of Los Angeles would be expected to save as a result of the proposed ordinances. As discussed in section 2.2.1 of the EIR, public agencies in California spend more than \$375 million each year for litter prevention, cleanup, and disposal.¹⁹⁶ In 2008–2009 (the most recent data available) the County of Los Angeles Flood Control District spent over \$24 million on these activities.¹⁹⁷ A reduction in the amount of plastic carryout bags that may enter the litter stream could be reasonably expected to reduce litter-reduction costs currently incurred by the County of Los Angeles; one of the objectives of the proposed ordinances is to reduce the County of Los Angeles's, cities', and the County of Los Angeles Flood Control District's costs for prevention, cleanup, and enforcement efforts to reduce litter in the County of Los Angeles by \$4 million. Although CEQA does not require the analysis of economic impacts in the EIR, the County of Los Angeles, during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR, will consider the information related to opportunities to substantially reduce the amount of litter attributed to plastic carryout bags from entering the storm drain system.

Section 5, Page 28, Paragraph I

The commenter states that the EIR should discuss the methods by which the County of Los Angeles could implement changes or improvements, including using storm drain screens or "gross pollutant traps" to prevent plastic from blocking or entering storm drains in the County of Los Angeles, and that it should evaluate the costs of such changes or improvements. The Nolan-ITU Pty Ltd., et al. report that was reviewed and referenced in the EIR indicates that policies such as implementation by local authorities of enhanced litter control measures may be effective in addressing litter, but are typically more costly than a bag fee and they do not effectively change consumer behavior regarding the use of carryout bags.¹⁹⁸ The changes or improvements suggested by the commenter would address the problem of plastic carryout bag litter only after the littering has already occurred and entered the urban environment, but it would not adequately address the prevention of plastic bags litter. Further, Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the proposed project. An alternative that would solely implement these devices in the storm drain system to manage plastic carryout bag litter would not meet most of the basic objectives of the proposed ordinances because it would not reduce the use of plastic carryout bags Countywide, the disposal of plastic carryout bags in landfills, or the amount of plastic carryout bag litter that blights public spaces. Therefore, this suggested alternative was not carried forward for detailed analysis in the EIR.

¹⁹⁶ California Department of Transportation. Accessed in: September 2009. "Facts at a Glance." *Don't Trash California*. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

¹⁹⁷ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

¹⁹⁸ Nolan-ITU Pty Ltd., et al. December 2002. Environment Australia: Department of the Environment and Heritage: Plastic Shopping Bags – Analysis of Levies and Environmental Impacts: Final Report. Sydney, Australia.

Section 5, Page 29, Paragraph J

The commenter states that the EIR should disclose whether the County of Los Angeles is receiving or has requested funding for storm drain improvements. The vast majority of the County of Los Angeles Flood Control District's fund (over 85 percent) comes from an ad valorem property tax and a benefit assessment.¹⁹⁹ The majority of the remaining funds originates from sources such as interest/leases, licenses and permits, work for cities, and other miscellaneous sources. The County of Los Angeles Flood Control District may receive some money from the federal and State governments, but the funds are generally related to reimbursement for disasters. The County of Los Angeles Flood Control District sometimes receives federal or State grants, which occasionally could be used for a project related to water quality. The most recent grant received by the County of Los Angeles Flood Control District was from the State of California in the amount of \$147,000 for installation of screens on catch basins,²⁰⁰ which the County of Los Angeles Flood Control District supplemented with \$360,000 to finish the project. Although CEQA does not require analysis of economic impacts in the EIR, the information related to opportunities to substantially reduce the amount of litter attributed to plastic carryout bags from entering the storm drain system will be considered by the County of Los Angeles Board of Supervisors during the decision-making process for the proposed County of Los Angeles ordinance.

Section 6, Page 29, Paragraph A

The commenter states that the EIR should disclose the annual cost incurred by the County of Los Angeles for cleanup of paper carryout bag litter. As discussed in Section 2.2.1 of the EIR, public agencies in California spend more than \$375 million each year for litter prevention, cleanup, and disposal.²⁰¹ In 2008–2009 (the most recent data available) the County of Los Angeles Flood Control District spent over \$24 million on these activities.²⁰² Many studies have noted the prevalence of plastic carryout bag litter in the marine environment, but these studies have not noted paper carryout bags as a serious litter contributor.^{203,204} During the Great Los Angeles River Clean Up, which collected trash from 30 catch basins in the Los Angeles River, it was observed that 20 percent by weight and 17 percent by volume of the trash collected consisted of paper, but the results do not specify what percentage of the paper litter collected consisted of paper carryout bags.²⁰⁵ From the litter collected during the City of San Francisco Litter Audit in 2008, retail paper

¹⁹⁹ Bryden, Russ, Los Angeles County Flood Control District, Los Angeles, CA. 20 October 2010. E-mail correspondence with Los Angeles County Counsel, Los Angeles, CA.

²⁰⁰ County of Los Angeles, Department of Public Works. 9 January 2007. County of Los Angeles Board of Supervisors Letter Re: Installation of Catch Basin Screens in The City of Santa Monica, Los Angeles County Flood Control District-City of Santa Monica Cooperative Agreement. Los Angeles, CA.

²⁰¹ California Department of Transportation. Accessed on: September 2009. "Facts at a Glance." *Don't Trash California*. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

²⁰² Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

²⁰³ Ocean Conservancy. A Rising Tide of Ocean Debris and What We Can Do About It. International Coastal Cleanup 2009 Report. Available at: http://www.oceanconservancy.org/pdf/A Rising Tide full lowres.pdf

²⁰⁴ Sheavly, S.B. 2007. *National Marine Debris Monitoring Program: Final Program Report, Data Analysis and Summary,* p. 76. Prepared by: Ocean Conservancy. Prepared for: U.S. Environmental Protection Agency, Grant Number X83053401-02.

²⁰⁵ City of Los Angeles. 18 June 2004. *Characterization of Urban Litter*. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.

bags were not listed as one of the top 25 litter subcategories.²⁰⁶ The City of San Francisco reported that paper retail bags composed 0.4 percent of all large litter items collected in 2007 and 0.35 percent of all litter items collected in 2008.²⁰⁷ The City of San Francisco Litter Audit concluded that 57.9 percent of all bag litter in 2008 was composed of unbranded plastic bags, 10.9 percent was composed of plastic retail bags, and only 6 percent was composed of paper retail bags. As noted in Section 3.2 of the EIR, a study performed in Washington, DC, indicated that paper products were not found in the streams except in localized areas, and were not present downstream.²⁰⁸ Unlike regular plastic, paper is compostable.²⁰⁹ Furthermore, the recycling rates of paper carryout bags are known to be higher than the recycling rates of plastic carryout bags. The County of Los Angeles is aware an increase in usage of paper carryout bags would possibly translate to an increase in litter attributable to paper carryout bags; however, the proposed ordinances would also encourage a transition to the use of reusable bags. In addition, the County of Los Angeles has evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. To maximize to the greatest extent feasible the potential environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2).

Paper litter in waterways does not present the same environmental hazards that are associated with plastic carryout bags. Unlike regular plastic, paper is biodegradable and compostable.²¹⁰ The paper used to make standard paper carryout bags is originally derived from wood pulp, which is a naturally biodegradable and compostable material. Due to the biodegradable properties of paper, paper bags do not persist in the marine environment for as long as plastic bags.²¹¹ As a result of a review of the available data regarding litter, the County of Los Angeles has reasonably concluded that plastic carryout bags pose a more serious litter problem than do paper carryout bags.

²⁰⁶ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008 litter audit.pdf

²⁰⁷ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf

²⁰⁸ Anacostia Watershed Society. December 2008. *Anacostia Watershed Trash Reduction Plan*. Prepared for: District of Columbia Department of the Environment.

²⁰⁹ County of Los Angeles, Department of Public Works. Accessed on: 28 April 2010. *Backyard Composting*. Web site. Available at: http://dpw.lacounty.gov/epd/sg/bc.cfm

²¹⁰ County of Los Angeles, Department of Public Works. Accessed on: 28 April 2010. *Backyard Composting*. Web site. Available at: http://dpw.lacounty.gov/epd/sg/bc.cfm

²¹¹ Andrady, Anthony L. and Mike A. Neal. 2009. "Applications and Societal Benefits of Plastics." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1977–1984.

Section 6, Page 29, Paragraph B

The commenter states that the EIR should quantify the annual cost incurred by the County of Los Angeles as a result of the environmental problems of paper carryout bags (see response to comment in Section 6, Page 29, Paragraph A above). Although CEQA does not require analysis of economic impacts in the EIR, the information related to opportunities to substantially reduce the amount of litter from entering the storm drain system will be considered by the County of Los Angeles Board of Supervisors during the decision-making process for the proposed County of Los Angeles ordinance. The County of Los Angeles has evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. To maximize to the greatest extent feasible the potential environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2).

Section 6, Page 29, Paragraph C

The commenter states that the EIR should evaluate an alternative to the proposed ordinances that would require manufacturers or suppliers of paper carryout bags to pay money to the County of Los Angeles each year to address the environmental problems caused by paper carryout bags.

Imposing a fee or charge on the manufacturers or suppliers of plastic carryout bags would not effectively or significantly impact the behavior of consumers who use plastic carryout bags. The County of Los Angeles has evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. To maximize to the greatest extent feasible the potential environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2). Development of an alternative fee program to be paid by manufacturers and suppliers to manage littered paper carryout bags would not meet most of the basic objectives of the proposed ordinances. Therefore, this suggested alternative was not carried forward for detailed analysis in the EIR. Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project.

Section 6, Page 29, Paragraph D

The commenter states that the EIR should evaluate an alternative to the proposed ordinances that would require manufacturers or suppliers of paper carryout bag to pay money to a Statewide fund each year to address the environmental problems caused by paper carryout bags. First, the historical failure of bills to ban plastic bags proposed in the last 3 years, including AB 1998, indicates that a statewide solution may never be realized. Furthermore, imposing a fee or charge on the manufacturers or suppliers of plastic carryout bags would not effectively or significantly impact the behavior of consumers who use plastic carryout bags. The County of Los Angeles has evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. To maximize to the greatest extent feasible the potential environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2). Section 15126.6 of the State CEOA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the proposed project. Development of an alternative fee program to be paid by manufacturers and suppliers to manage paper carryout bags would not meet most of the basic objectives of the proposed ordinances. Therefore, this suggested alternative was not carried forward for detailed analysis in the EIR.

Section 10, Page 37

The commenter states that the EIR should consider the effect of carbon dioxide (CO₂) emissions on the oceans as a result of the proposed ordinances. CO₂ emissions are discussed in detail in Section 3.3 and Section 4.0 of the EIR. The four news articles cited in the STPB's January 4, 2010, comment letter do not state that paper carryout bags contribute to global warming, and do not suggest that the use of paper carryout bags would adversely affect the world's oceans. These referenced articles, including two additional articles cited in STPB's July 16, 2010, comment letter, generally discuss global warming effects on the world's oceans and marine wildlife, but do not mention impacts from paper carryout. Section 3.3.1 of the EIR acknowledges that global climate change has the potential for numerous environmental consequences, including snowpack losses, flood hazards, sea-level changes, and fire hazards. Oceanic acidification and impacts to marine wildlife are just two of the many examples of environmental impacts of global climate change. This comment and the referenced articles are noted for the record and will be considered by the County of Los Angeles Board of Supervisors during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

It is also important to note that no significance threshold for the analysis of GHG emissions under CEQA has been adopted by the SCAQMD, AVAQMD, or state or federal agencies. As discussed in Section 3.3.5 of the EIR, the GHG emissions calculated due to the life cycle of paper and plastic carryout bags vary greatly depending on which life cycle assessment (LCA) is used. These seemingly conflicting results emphasize the particularity of each study and the importance of

understanding study boundaries, inputs, and methodologies.²¹² It is also inaccurate to assume that any increases in GHG emissions would not be regulated. The LCA conducted by Ecobilan states that the majority of GHG emissions originate from processes that occur early in the life cycle of paper and plastic carryout bags, such as the product manufacturing stage. Any indirect increase in GHG emissions from paper carryout bag manufacturing facilities that would be affected by the proposed ordinances would be controlled by the owners of the paper carryout bag manufacturing facilities in compliance with applicable local, regional, and national air quality standards. Coordination with the SCAQMD further indicates that evaluation of indirect impacts from the proposed ordinances due to increases in the manufacturing of paper carryout bags would be speculative.²¹³ The AVAQMD similarly suggested that using the results from LCAs would be "very difficult" and "nebulous" due to the large number of assumptions and details contained within the calculations.²¹⁴ Therefore, it would be speculative to use the LCA results to quantify the impacts of CO₂ emissions on the world's oceans. Section 15145 of the State CEQA Guidelines stipulates, "if, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."

The County of Los Angeles has also evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee or charge on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. To maximize to the greatest extent feasible the potential environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2).

Section 11, Page 37, Paragraph A

The commenter states that the EIR should discuss the degradability/biodegradability of plastic bags in certain conditions. As discussed in the EIR, including, but not limited to, Sections 3.2 and 4.1, plastics are chemically resistant and do not biodegrade, so they persist in the marine environment.²¹⁵ Plastics break down into smaller pieces over time, eventually forming tiny particles of plastics that are often called microplastics.²¹⁶ Appendix B to the EIR discusses biodegradable plastics, which can be made from synthetic polymers with an additive that accelerates the degradation of the product.

²¹² Green Cities California. March 2010. *Master Environmental Assessment on Single-Use and Reusable Bags*. Prepared by: ICF International. San Francisco, CA.

²¹³ Garcia, Daniel, Air Quality Specialist, South Coast Air Quality Management District, Diamond Bar, CA. 21 January 2010. Telephone correspondence with Dr. Laura Watson, Sapphos Environmental, Inc., Pasadena, CA.

²¹⁴ Banks, Bret, Operations Manager, Antelope Valley Air Quality Management District, Lancaster, CA. 8 March 2010. Telephone correspondence with Laura Watson, Sapphos Environmental, Inc., Pasadena, CA.

²¹⁵ Andrady, Anthony L. and Mike A. Neal. 2009. "Applications and Societal Benefits of Plastics." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1977–1984.

²¹⁶ Thompson, R. C. 7 May 2004. "Lost at Sea: Where Is All the Plastic?" In Science, 304 (5672): 843.

Section 11, Page 37, Paragraph B

The commenter states that the EIR should discuss the effectiveness of certain additives to plastic bags to enhance the degradability or biodegradability of the plastic. As discussed in Appendix B to the EIR and the County of Los Angeles's response to the July 5, 2010, comment letter from Symphony Environmental Technologies Plc, biodegradable plastics can be made from synthetic polymers with an additive that causes the product to degrade faster. As described in Appendix B to the EIR and the County of Los Angeles's response to the July 5, 2010, comment letter from Symphony Environmental Technologies Plc, the span of time needed and extent to which biodegradable plastic fragments will completely degrade are unclear. Oxo-biodegradable products do not degrade in landfills or commercial composting facilities, so they would only degrade fully if left in the natural environment for an extended period of time. The study prepared by Loughborough University concludes that oxo-biodegradable plastics can potentially remain as litter for 2 to 5 years prior to degradation.²¹⁷

Section 11, Page 37, Paragraph C

The commenter states that the EIR should discuss the ability of such additives to lessen the negative environmental impacts of plastic bags. As discussed in Appendix B of the EIR and the County of Los Angeles's response to the July 5, 2010 comment letter from Symphony Environmental Technologies, the time needed and extent to which oxo-biodegradable synthetic plastic fragments would degrade is unclear. The study by Loughborogh University states that oxo-biodegradable plastics will remain as litter for 2 to 5 years prior to degradation.²¹⁸ Although oxo-biodegradable plastic will degrade after an undetermined period of time, the environmental impacts of oxo-biodegradable plastic prior to complete degradation are uncertain.²¹⁹ The overall conclusion of the study conducted by Loughborough University, which is referenced in Appendix B of the EIR, is that "incorporation of additives into petroleum-based plastics that cause those plastics to undergo accelerated degradation does not improve their environmental impact and potentially gives rise to certain negative effects."²²⁰ There is substantial evidence to support the conclusion that oxo-biodegradable plastic bags are not beneficial for the environment in comparison to standard plastic bags. ^{221,222,223,224}

²¹⁷ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

²¹⁸ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

²¹⁹ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

²²⁰ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

²²¹ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

²²² European Plastic Recyclers. 10 June 2009. "Press Release: Oxo Degradable Additives are Incompatible with Mechanical Recycling." Available at:

http://www.plasticsrecyclers.eu/docs/press%20release/EuPR%20Press%20Release%20-%20OXO%20Degradables%20Incompatibility%20with%20Plastics%20Recycling.pdf

Section 11, Page 37, Paragraph D

The commenter gueries whether certain additives could be required as an alternative to banning plastic carryout bags. The commenter also makes several assertions regarding biodegradable plastic bags and the characterization of the Biodegradable Product Institute in the EIR, which are noted for the record. The commenter instructs the County of Los Angeles to contact ECM Biofilms, Inc. and Symphony Environmental Technologies Plc regarding bag additives. As described in Section 4.1 of the EIR and the County of Los Angeles's response to the July 5, 2010, comment letter from Symphony Environmental Technologies Plc, encouraging a transition to the use of biodegradable bags, including oxo-biodegradable bags, is not a viable alternative to the proposed ordinances. As noted above, the time frame required and the extent to which these synthetic plastic fragments will degrade is unclear.²²⁵ The Loughborogh University study referenced in Appendix B of the EIR states that oxo-biodegradable plastics will remain as litter for 2 to 5 vears prior to degradation.²²⁶ Although oxo-biodegradable plastic will degrade after an undetermined period of time, encouraging a transition to the use of oxo-biodegradable plastic carryout bags would not assist the County of Los Angeles in reducing the number of plastic carryout bags used or the amount of plastic carryout bags disposed of as litter on a daily basis within its boundaries. While oxo-biodegradable bags are touted as a solution after bags are littered, the County of Los Angeles aims to *prevent* the occurrence of litter. Therefore, requiring stores to issue oxo-biodegradable bags, including those made with additives from the two companies selected by STPB, would not assist the County of Los Angeles in attaining the objectives of the proposed ordinances. Section 15126.6 of the State CEOA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the proposed project. Therefore, this suggested alternative was not carried forward for detailed analysis in the EIR.

Section 12, Page 40

The commenter states that the EIR should note whether superfast oxo-biodegradable bags are a viable alternative to the proposed ordinances. The comment letter states that superfast oxo-biodegradable bags "degrade and disappear very quickly" and "vanish in the open air and water." However, the Loughborogh University study states, "the fate of oxo-degradable plastic after it has fragmented to a fine powder is not clear."²²⁷ As discussed in Section 4.1 of the EIR and Appendix B, biodegradable plastic carryout bags are not a viable alternative to the proposed ordinances. Although "superfast" oxo-biodegradable bags are claimed to biodegrade more rapidly in the natural environment, they could also pose potential disadvantages to the consumer, as they

²²⁵ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Prepared for: Department for Environment, Food, and Rural Affairs. London, UK. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf

²²⁶ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Prepared for: Department for Environment, Food, and Rural Affairs. London, UK. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf

²²⁷ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Prepared for: Department for Environment, Food, and Rural Affairs. London, UK. Available at: http://randd.defra.gov.uk/Document.aspx?Document = EV0422_8858_FRP.pdf

²²³ Pearce, Fred. 18 June 2009. "Biodegradable plastic bags carry more ecological harm than good." Available at: http://www.guardian.co.uk/environment/cif-green/2009/jun/18/greenwash-biodegradeable-plastic-bags

²²⁴ California Integrated Waste Management Board. June 2007. *Performance Evaluation of Environmentally Degradable Plastic Packaging and Disposable Food Service Ware - Final Report.* Available at: http://www.calrecycle.ca.gov/Publications/Plastics/43208001.pdf

would require that the distribution, issuance, and use of the plastic occur prior to degradation. The study prepared by Loughborough University states, "the fact that they are degradable limits the reuse of oxo-degradable bags: they are unsuitable for storing items for an extended length of time."²²⁸

In addition, a biodegradable bag that degrades in a shorter time span would still break down into small plastic pieces in the natural environment and would result in adverse impacts similar those of regular plastic fragments prior to full degradation. The degradable bags would also pose litter problems for the County of Los Angeles comparable to the impacts of regular plastic carryout bags until they degrade fully. As stated previously, while oxo-biodegradable bags are touted as a solution after bags are littered, the County of Los Angeles aims to *prevent* the occurrence of litter. Encouraging a transition to the use of oxo-biodegradable bags would not assist the County of Los Angeles in attaining the objectives of the proposed ordinances. Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the proposed project. Therefore, this suggested alternative was not carried forward for detailed analysis in the EIR.

Section 13, Page 40

The commenter states that the EIR should note whether water-soluble bags are a viable alternative to the proposed ordinances. As discussed in Section 4.1 of the EIR, biodegradable and compostable plastic carryout bags are not a viable alternative to the proposed ordinances. If a plastic carryout bag can dissolve in water in 30 seconds as suggested in the STPB comment letter, its function as a carryout bag. Further, it would be impaired upon contact with moisture, calling into question the practicality of such a bag. Further, it would be impractical to require a store to change the type of bags used depending on weather conditions. In addition, the water-soluble bags would persist as litter in the environment until they come into contact with rain or are littered into the marine environment or local watershed. An alternative that would require stores to issue water-soluble bags would not meet the basic objectives of the proposed ordinances because it would not reduce Countywide consumption of plastic bags, or reduction of plastic carryout bag litter that blights public spaces. Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the proposed project. Therefore, this suggested alternative was not carried forward for detailed analysis in the EIR.

Section 14, Page 41, Paragraph A

The commenter states that the EIR should disclose whether paper carryout bags biodegrade in landfills, in open air, or in water. As discussed in Section 3.2.4 of the EIR, paper is compostable.²²⁹ The paper that is used to make standard paper carryout bags is originally derived from wood pulp, which is a naturally biodegradable and compostable material. The EIR does not claim that paper bags would biodegrade rapidly in landfills or in open air, but it is understood that paper bags break down into smaller pieces upon contact with water and would biodegrade completely in certain conditions, including commercial composting facilities. As noted in Section 2.3.2 of the EIR, paper

²²⁸ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Prepared for: Department for Environment, Food, and Rural Affairs. London, UK. Available at: http://randd.defra.gov.uk/Document.aspx?Document = EV0422_8858_FRP.pdf

²²⁹ County of Los Angeles, Department of Public Works. Accessed on: 28 April 2010. *Backyard Composting*. Web site. Available at: http://dpw.lacounty.gov/epd/sg/bc.cfm

bags have the potential to biodegrade if they are sufficiently exposed to oxygen, sunlight, moisture, soil, and microorganisms (such as bacteria).

Section 14, Page 41, Paragraph B

The commenter states that the EIR should specify the time span of the degradation process of paper carryout bags. As noted in Section 2.3.2 of the EIR, paper bags have the potential to biodegrade if they are sufficiently exposed to oxygen, sunlight, moisture, soil, and microorganisms (such as bacteria). It is known that paper is compostable,²³⁰ but the duration of the degradation process depends on the temperature and the amount of oxygen, moisture, soil, and microorganisms (such as bacteria).²³¹

Section 14, Page 41, Paragraph C

The commenter states that the EIR should disclose what chemicals, particles, or residues remain after the full biodegradation of paper carryout bags. Paper is made mostly out of cellulose, which is biodegradable, meaning that paper can degrade and eventually be fully digested by microorganisms such as bacteria. After complete biodegradation, no paper particles remain, because the cellulose is chemically broken down into smaller components such as glucose, which are fully digested by microorganisms like fungi or bacteria.²³²

Section 14, Page 41, Paragraph D

The commenter states that the EIR should discuss whether particles or residues of paper carryout bags can serve as vehicles for polychlorinated biphenyls (PCB), dichlorodiphenyltrichloroethane (DDT), or other toxic substances in the ocean or elsewhere. The County of Los Angeles has reviewed this issue and has not become aware of substantial evidence that paper particles can serve as vehicles for persistent organic pollutants like PCB and DDT in the marine environment; the commenter did not cite any resources that the County of Los Angeles could review in support of this issue. However, there is substantial evidence to suggest that plastic fragments can serve as vehicles for PCB and DDT.^{233,234} These references have been added to Section 3.2 of the EIR (see Section 12.2).

Section 15, Page 41, Paragraph A

The commenter states that the EIR should discuss the methods by which the County of Los Angeles will verify that recyclable paper bags actually contain 40 percent post-consumer recycled content. The County of Los Angeles Board of Supervisors will consider enforcement measures for the

²³⁰ County of Los Angeles, Department of Public Works. Accessed on: 28 April 2010. *Backyard Composting*. Web site. Available at: http://dpw.lacounty.gov/epd/sg/bc.cfm

²³¹ Geisel, Pamela M, and Carolyn L. Unruh. *Compost in a Hurry*. Oakland, CA: University of California, Agriculture and Natural Resources. Available at: http://ucanr.org/freepubs/docs/8037.pdf

²³² Wang, Nam Sun. Accessed on: 12 October 2010. *Experiment No. 4: Cellulose Degradation*. College Park, MD: University of Maryland, Department of Chemical & Biomolecular Engineering. Available at: http://www.eng.umd.edu/~nsw/ench485/lab4.htm

²³³ Rios, L. et al. 2007. "Persistent organic pollutants carried by synthetic polymers in the ocean environment." In *Marine Pollution Bulletin*, 54: 1230–1237.

²³⁴ Teuten, E. L. et al. 2009. "Transport and release of chemicals from plastic to the environment and to wildlife." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 2027–2045.

proposed ordinances during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Section 15, Page 42, Paragraph B

The commenter states that the EIR should discuss the methods by which the County of Los Angeles will verify that recyclable paper bags do not contain old growth fibers. The measures that would be used to enforce the proposed ordinances are not discussed in the EIR, but will be considered by the County of Los Angeles Board of Supervisors in its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Section 15, Page 42, Paragraph C

The commenter states that the EIR should discuss the extent to which the inclusion of post-industrial scrap can reduce the environmental impacts of paper carryout bags. The inclusion of post-industrial paper scrap in paper carryout bags would provide a use for post-industrial scrap that otherwise may be discarded, thereby reducing the generation of solid waste. In addition, the use of a secondary material displaces the use of virgin materials. The USEPA states, "recycling reduces GHG emissions, conserves natural resources, and saves landfill space."²³⁵ Due to the fact that waste paper scraps generated by the paper manufacturing industry are less expensive than virgin materials, virtually all waste paper scraps generated within a paper mill are recycled and used to make new paper.²³⁶

Section 15, Page 42, Paragraph D

The commenter states that the EIR should discuss to the extent to which the inclusion of postconsumer recycled content can reduce the environmental impacts of paper carryout bags. The USEPA states, "recycling reduces greenhouse gas emissions, conserves natural resources, and saves landfill space."²³⁷ The environmental impacts of post-consumer paper in paper carryout bags have been analyzed in various subsections of Section 3.0 of the EIR. The County of Los Angeles has evaluated impacts of paper carryout bags to air quality emissions (Section 3.1), GHG emissions (Section 3.3), eutrophication (Section 3.4), solid waste (Section 3.5), energy consumption (Section 3.5), water consumption (Section 3.5), and wastewater generation (Section 3.5) using the Ecobilan Study, which analyzes the life cycle impacts of paper carryout bags made from 100 percent post-consumer recycled content. The Ecoblilan Study analyzes environmental impacts due to the transport of old paper/paperboard to a recycling facility, as well as the transport of the recycled paper to the paper bag manufacturing facility. The County of Los Angeles also used the Boustead Study to complete analysis in the EIR of impacts from paper carryout bags to air quality emissions, GHG emissions, solid waste, energy consumption, and water consumption. The Boustead Study analyzes the impacts of paper carryout bags that contain 30 percent recycled fiber. In addition to evaluating the life cycle impacts of paper carryout bags, the County of Los Angeles has evaluated

²³⁵ U.S. Environmental Protection Agency. Accessed on: 6 September 2010. "Wastes - Resource Conservation - Common Wastes & Materials - Paper Recycling." Web site. Available at: http://www.epa.gov/epawaste/conserve/materials/paper/index.htm

²³⁶ Conservatree. Accessed on: 12 October 2010. "Part IV: The Paper Manufacturing Process." Environmentally Sound Paper Overview: Essential Issues. San Francisco, CA. Available at:

http://www.conservatree.org/learn/Essential%20Issues/EIPaperMaking.shtml

²³⁷ U.S. Environmental Protection Agency. Accessed on: 6 September 2010. "Wastes - Resource Conservation - Common Wastes & Materials - Paper Recycling." Web site. Available at:

four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee or charge on the issuance of paper carryout bags, which would reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. To maximize to the greatest extent feasible the potential environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the EIR (see Section 12.2).

Section 16, Page 49, Paragraph A

The commenter states that the EIR should discuss the material composition of plastic carryout bags and whether the bags are made of oil. As described in Section 3.3 of the Initial Study, the production of plastic carryout bags is a chemical process that begins with the conversion of crude oil or natural gas into hydrocarbon monomers such as ethylene; further processing leads to the polymerization of ethylene to form polyethylene.²³⁸ The EIR does not assert that oil is imported into the United States to make plastic carryout bags. As noted in Section ES.3 of the EIR, as the proposed ordinances aim to decrease the number of plastic carryout bags used throughout the County of Los Angeles, there would be no expected adverse impacts upon fossil fuel reserves, and no further analysis of this issue is warranted. The commenter also states, "if ethane is not used to make plastic, it will have to be burned off, resulting in greenhouse gas emissions." This statement is speculative, as ethylene is in high demand globally and is used to manufacture a variety of products, including plastic resins and petrochemical intermediates. Should the proposed ordinances result in a decrease in demand for the production of plastic carryout bags, any surplus ethane would likely be converted into ethylene and used for a variety of other purposes.

Section 16, Page 50, Paragraph B

The commenter states that plastic carryout bags do not contain additives such as PCBs, DDT, and nonylphenols. The EIR does not make this claim. However, there is substantial evidence to suggest that plastic fragments can serve as vehicles for PCB and DDT.^{239,240} The *Philosophical Transactions of the Royal Society* journal states that polyethylene accumulates more organic contaminants than other plastics (such as polypropylene and polyvinyl chloride), and that organic contaminants are either added during manufacturing or are adsorbed from the surrounding seawater.²⁴¹ These references have been added to Section 3.2 of the EIR (see Section 12.2).

²³⁸ European Environment Agency. 5 December 2007. "Processes in Organic Chemical Industries (Bulk Production) Ethylene." *EMEP / CORINAIR Emission Inventory Guidebook –* 2007. Copenhagen, Denmark. Available at: http://www.eea.europa.eu/publications/EMEPCORINAIR5/B451vs2.3.pdf

²³⁹ Rios, L. et al. 2007. "Persistent organic pollutants carried by synthetic polymers in the ocean environment." *Marine Pollution Bulletin*, 54: 1230–1237.

²⁴⁰ Teuten, E. L. et al. 2009. "Transport and release of chemicals from plastic to the environment and to wildlife." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 2027–2045.

²⁴¹ Teuten, E. L. et al. 2009. "Transport and release of chemicals from plastic to the environment and to wildlife." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 2027–2045.

Section 17, Page 50

The commenter states that the EIR should discuss the environmental impacts of increased cockroach infestation due to an increase in the use and disposal of paper carryout bags. Paper and paper board are the most prevalent type of material in municipal solid waste.²⁴² The commenter also suggests ways to minimize or eliminate cockroach infestation, as recommended by the USEPA, Orkin, and Terminix. It is speculative to suggest that the proposed ordinances would cause an indirect increase in the number of cockroaches in the County of Los Angeles because households currently can contain large volumes of newspapers, stored paper, and cardboard materials. More importantly, to the extent that cockroach infestation is an issue, the public can be educated on general preventive measures against infestation, including using correct methods of storing paper bags in the home, as suggested by the USEPA, Orkin, and Terminix; using garbage cans with tight lids; and conducting regular household cleaning and vacuuming. The County of Los Angeles has also evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that STPB suggests To mitigate the potential increase in the use of paper may promote cockroach infestations. carryout bags, the County of Los Angeles has proposed mitigation measure GHG-1 (see Section 12.2), which would include implementing and/or expanding public outreach through a public education program that would aim to increase the percentage of paper carryout bags that are recycled in the County of Los Angeles, thereby reducing the number of paper carryout bags stored in homes for an extended period of time. The County of Los Angeles currently has a public education program in place to encourage the curbside recycling of a number of items, including paper carryout bags.^{243, 244} Curbside recycling is a convenient, free service for County of Los Angeles residents; paper carryout bags are universally accepted for recycling in the County of Los Angeles.

Section 18, Page 51

The commenter notes that the proposed ordinances would remove the requirement for stores to provide plastic bag recycling bins. It is noted that the proposed ordinances would not require plastic bag recycling bins to be removed, but the reduction in plastic carryout bag consumption in the County of Los Angeles may lead to a reduction in demand for plastic carryout bag recycling and associated bins. As noted in a study by Loughborough University, there are many challenges associated with plastic carryout bag recycling.²⁴⁵ Comment No. 20 in Heal the Bay's July 16, 2010, comment letter discusses the challenges associated with plastic bag disposal, recycling, and litter management. The same comment also notes the lack of available domestic plastic bag recycling markets, and further notes that over 90 percent of the bags collected in municipalities surveyed in the County of Los Angeles, were transported to a landfill rather than recycled, due to contamination from food or pet waste and their tendency to jam recycling machinery. In addition,

²⁴² U.S. Environmental Protection Agency. November 2008. *Municipal Solid Waste in the United States: 2007 Facts and Figures*. Washington, DC. Available at: http://www.epa.gov/waste/nonhaz/municipal/pubs/msw07-rpt.pdf

²⁴³ County of Los Angeles, Department of Public Works. Accessed on: 12 October 2010. "Outreach Programs." Web site. Available at: http://dpw.lacounty.gov/epd/recycling/outreach.cfm

²⁴⁴ County of Los Angeles, Department of Public Works. Accessed on: 12 October 2010. "Commonly Recycled Materials." Web site. Available at: http://dpw.lacounty.gov/epd/recycling/crm.cfm

²⁴⁵ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf Prepared for the Department for Environment, Food, and Rural Affairs. London, UK.

Comment No. 19 in the July 5, 2010, comment letter from Symphony Environmental Technologies Plc discusses the barriers and difficulties of recycling post-consumer plastic waste like plastic carryout bags, and that vegetable-based bioplastics are also problematic for recyclers. The County of Los Angeles is aware that plastic carryout bags are not recycled as much as paper carryout bags are recycled. As noted in Section 2.3.2 of the EIR, the USEPA reported that the recycling rate for high-density polyethylene plastic bags and sacks was 11.9 percent in 2007, compared to 36.8 percent of paper bags and sacks.

Section 19, Page 52, Paragraph A

The commenter states that the EIR should discuss whether the proposed ordinances would result in a greater volume and weight of paper carryout bags in landfills. The issue of solid waste related to paper carryout bags is discussed in Sections 3.5.4 and 4.0 of the EIR. The County of Los Angeles is aware that the proposed ordinances would have the potential to increase the amount of paper carryout bags used and disposed of in the County. The County of Los Angeles has evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances.

The commenter also inquires whether additional disposal of paper carryout bags would incur more tipping costs for the County of Los Angeles; the County of Los Angeles does not directly incur tipping fees. In order to mitigate the potential increase in use of paper carryout bags, the County of Los Angeles has proposed mitigation measure GHG-1 (see Section 12.2), which would include implementing and/or expanding public outreach through a public education program that would aim to increase the percentage of paper carryout bags that are recycled in the County, thereby reducing the number of bags going to landfills. The County of Los Angeles currently has a public education program in place that encourages the curbside recycling of a number of items, including paper carryout bags.²⁴⁶,²⁴⁷ Curbside recycling is a convenient, free service for County of Los Angeles residents, and paper carryout bags are universally accepted for recycling in the County of Los Angeles. In addition, as noted in Section 2.3.2 of the EIR, the USEPA reported that the recycling rate for paper bags and sacks was 36.8 percent in 2007 as opposed to 11.9 percent of high-density polyethylene plastic bags and sacks. Finally, although CEQA does not require analysis of economic impacts in the EIR, information related to opportunities to substantially reduce litter will be considered by the County of Los Angeles Board of Supervisors during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Section 19, Page 52, Paragraph B

The commenter states that the EIR should disclose the environmental impacts of increasing the number of paper carryout bags in landfills and that methane is produced in landfills. This issue is discussed in the EIR, including in Sections 3.5.4, 3.3.5, and 4.0 for the various alternatives. The County of Los Angeles is aware that the proposed ordinances would have the potential to increase the amount of paper carryout bags used and disposed of within the County of Los Angeles. The County of Los Angeles has evaluated five (including Alternative 5) alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper

²⁴⁶ County of Los Angeles, Department of Public Works. Accessed on: 12 October 2010. "Outreach Programs." Web site. Available at: http://dpw.lacounty.gov/epd/recycling/outreach.cfm

²⁴⁷ County of Los Angeles, Department of Public Works. Accessed on: 12 October 2010. "Commonly Recycled Materials." Web site. Available at: http://dpw.lacounty.gov/epd/recycling/crm.cfm

carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. In order to mitigate the potential increase in use of paper carryout bags, the County of Los Angeles has proposed mitigation measure GHG-1 (see Section 12.2), which would include implementing and/or expanding public outreach through a public education program that would aim to increase the percentage of paper carryout bags that are recycled in the County, thereby reducing the number of bags going to landfills. The County of Los Angeles currently has a public education program in place that encourages the curbside recycling of a number of items, including paper carryout bags.^{248,249} Curbside recycling is a convenient, free service for County of Los Angeles residents, and paper carryout bags are universally accepted for recycling in the County of Los Angeles.

Section 20, Page 53

The commenter states that the EIR should disclose the environmental impacts of an increased number of reusable bags. The environmental impacts of reusable bags are discussed throughout Section 3.0 of the EIR, including the consumption of nonrenewable energy (Section 3.5.4), emissions of GHGs (Section 3.3.5), consumption of water (Section 3.5.4), generation of acidic atmospheric pollutants (Section 3.1.4), air quality (Section 3.1.4), water pollution (Section 3.4.4), and solid waste (Section 3.5.4).

The Hyder Study, which was used as a reference throughout the EIR, evaluates the life cycle impacts of several different types of bags and concludes that a polypropylene reusable bag that is used 104 times results in environmental impacts that are significantly lower than the impacts resulting from paper and plastic carryout bags (Table 13-2, *Relative Environmental Impacts of Various Types of Bags*).²⁵⁰ Although the Hyder Study reports that water use due to the life cycle impacts of a calico (cotton) reusable bag would be greater than water use due to the life cycle impacts of other types of bags, the calico reusable bag outperforms carryout bags in all other environmental categories: material consumption, global warming, energy consumption, litter marine biodiversity, and litter aesthetics (Table 13-2). Therefore, overall environmental impacts due to the life cycle of a reusable bag would be expected to be significantly lower than the overall environmental impacts of a plastic carryout bags to reusable bags would be reasonably expected to result in an environmental benefit.

²⁴⁸ County of Los Angeles, Department of Public Works. Accessed on: 12 October 2010. "Outreach Programs." Web site. Available at: http://dpw.lacounty.gov/epd/recycling/outreach.cfm

²⁴⁹ County of Los Angeles, Department of Public Works. Accessed on: 12 October 2010. "Commonly Recycled Materials." Web site. Available at: http://dpw.lacounty.gov/epd/recycling/crm.cfm

²⁵⁰ Hyder Consulting. 18 April 2007. *Comparison of existing life cycle analyses of plastic bag alternatives*. Prepared for: Sustainability Victoria, Victoria, Australia.

			Rela	tive Impacts on a	Scale from	1 to 5	
	Number	Material	Global	Energy	Water	Litter Marine	Litter
Bag Type	of Trips	Consumption	Warming	Consumption	Use	Biodiversity	Aesthetics
Reusable non-woven plastic (polypropylene) "Green Bag"	104	¥	¥	-		¥	•
Reusable calico (cotton) bag	104	÷	÷	•		Ť	•
100-percent recycled content paper carryout	2	****	***	ţ	¢	¢	•
Oxo-biodegradable carryout bag	-	***	**	ŤŤŤ		***	4
100-percent recycled content plastic (HDPE)	-						
Paper carryout bag	2	****	****	**	•	*****	****
Compostable (starch-polyester) carryout bag	-	****	•	-	****		4
Plastic (HDPE) carryout bag	-	***	44	****	*	*****	****
100-percent recycled content paper carryout	-						
bag	-	****	****	~~~~	4	Ŧ	44
Paper carryout bag	1	マママママ	****	****	\$¥	Ť	÷\$
Plastic (LDPE) "boutique" carryout bag	-	ややややや	ややややや	ややややや	4	ややややや	****
SOURCE: Hyder Consulting. 18 April 2007. Comp	oarison of exis	sting life cycle an	alyses of plast	tic bag alternatives	. Prepared fo	r: Sustainability V	ictoria, Victoria,

RELATIVE ENVIRONMENTAL IMPACTS OF VARIOUS TYPES OF BAGS TABLE 13-2

Australia. **NOTES:**

Section 21, Page 55, Paragraph A

The commenter states that the EIR should discuss the extent to which lead and heavy metals are present in reusable bags. The presence of lead and heavy metals in reusable bags is not environmental issue area for which CEQA requires analysis in the EIR. The County of Los Angeles has revised its purchasing standards to ensure that any reusable bags purchased by the County of Los Angeles do not contain lead, cadmium, or any other heavy metal in toxic amounts,²⁵¹ and the proposed ordinances would make similar requirements. The definition of a reusable bag described in Section 2.2.3 of the EIR has been modified to include this requirement (see Section 12.2).

Section 21, Page 55, Paragraph B

The commenter states that the EIR should discuss the environmental impacts of the presence of lead and heavy metals in reusable bags. The amount of lead and heavy metals present in reusable bags is not environmental issue area for which CEQA requires analysis in the EIR. The County of Los Angeles has revised its purchasing standards to ensure that any reusable bags purchased by the County of Los Angeles do not contain lead, cadmium, or any other heavy metal in toxic amounts,²⁵² and the proposed ordinances would make similar requirements. The definition of a reusable bag described in Section 2.2.3 of the EIR has been modified to include this requirement (see Section 12.2).

Section 21, Page 55, Paragraph C

The commenter inquires whether the County of Los Angeles has determined whether any of the reusable bags provided to the public by the County of Los Angeles contain lead or heavy metals. The presence of lead and heavy metals in reusable bags is not environmental issue area for which CEQA requires analysis in the EIR. However, the County of Los Angeles tested the Earthwise brand reusable bags that were distributed during the Brag about Your Bag Campaign, and detected no levels of lead or heavy metals.²⁵³ Furthermore, the County of Los Angeles reviewed the test results provided by the commenter and evaluated the commenter's assertion that the bags distributed during the Brag about Your Bag Campaign contained high levels of lead and mercury. It is important to note that the federal Consumer Product Safety Improvement Act of 2008 stipulates that the lead content of accessible surface coatings must not exceed 90 parts per million (ppm), and the total lead content in substrate materials must not exceed 300 ppm. The test results provided by the commenter demonstrate that the lead content of the reusable bag distributed during the Brag About Your Bag campaign is less than 5 ppm, which is far below the legal limit of 90 ppm. The black board at the bottom of the bag classifies as a substrate material, and was shown by the commenter's test results to have lead content of less than 100 ppm, which is one-third of the legal limit for substrate materials. The test results provided by the commenter would also demonstrate compliance with the legal limit of 300 ppm of lead in products designed or intended primarily for use by children 12 years old and younger.²⁵⁴ The commenter also presented test results for

²⁵¹ County of Los Angeles, Department of Public Works. Undated. *Specifications for Single Use Bag Reduction and Recycling Program*. Alhambra, CA.

²⁵² County of Los Angeles, Department of Public Works. Undated. *Specifications for Single Use Bag Reduction and Recycling Program*. Alhambra, CA.

²⁵³ SGS-CSTC Chemical Laboratory. 16 October 2007. Test Report No. SH7120885/CHEM.

²⁵⁴ U.S. Consumer Product Safety Commission. Consumer Product Safety Improvement Act, Section 1010, Children's Products Containing Lead; Lead Paint Rule. Available at: http://www.cpsc.gov/about/cpsia/sect101.html

mercury content in the reusable fabric bag, which indicate that mercury levels were negligible (less than 0.1 ppm) in the bags and the substrate-material board at the bottom of the bag.

The County of Los Angeles has recently revised its purchasing standards to ensure that any reusable bags purchased by the County of Los Angeles do not contain lead, cadmium, or any other heavy metal in toxic amounts; the proposed ordinances would also contain similar requirements.²⁵⁵ The definition of a reusable bag has been modified to include this requirement in Section 2.2.3 of the EIR (see Section 12.2).

Section 21, Page 55, Paragraph D

The commenter states that the EIR should disclose the steps that the County of Los Angeles has taken to ensure that all retailers affected by the proposed ordinances would comply with Health and Safety Code Sections 25214.11 to 25214.26, which regulate the levels of lead, mercury, cadmium, and hexavalent chromium in packaging. However, Section 25214.12 states that a reusable bag, as defined in subdivision (d) of Section 42250 of the Public Resources Code, is not considered to be a package, and therefore would not be subject to the requirements of this code. The Health and Safety Code is enforced and administered by the California Department of Health Services.

Section 22, Page 55, Paragraph A

The commenter states that the EIR should discuss whether reusable bags are actual or potential carriers of dangerous or unhealthy bacteria. Although CEQA does not require analysis of health impacts, Section ES.3 addresses potential health concerns related to reusable bags. As discussed in Section ES.3, as is the case for any reusable household item that comes in contact with food items, such as chopping boards, countertops, tableware, or table linens, reusable bags do not pose a serious public health risk if consumers care for the bags accordingly and/or clean the bags regularly. Reusable bags made of cloth or fabric can be machine washable, and reusable bags made of durable plastic can be rinsed or wiped clean. Further, to control for any possible public health issues, the County of Los Angeles has clarified the definition for reusable bags established by the proposed ordinance to require that the material used in such bags be machine washable. The definition of a reusable bag has been modified to include this requirement in Section 2.2.3 of the EIR (see Section 12.2).

Health risks, if any, from reusable bags can be minimized if the consumer takes appropriate steps to care for the bags, such as washing and disinfecting the bags, using the bags only for groceries, using separate bags for raw meat products, taking care to store the bags in an appropriate place, and allowing bags to dry before folding and storing them.²⁵⁶ A representative of the County of Los Angeles Department of Public Health, which is charged with protecting and improving the health of residents of the County of Los Angeles, has stated that the public health risks of reusable bags are minimal.²⁵⁷ Furthermore, as discussed in Section 2.2.4 of the EIR, the City and County of San

²⁵⁵ County of Los Angeles, Department of Public Works. Undated. *Specifications for Single Use Bag Reduction and Recycling Program*. Alhambra, CA.

²⁵⁶ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

²⁵⁷ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

Francisco, since enacting their plastic bag ban in 2007, have not reported negative public health issues related to the increased use of reusable bags.²⁵⁸

A study provided by Symphony Environmental Technologies Plc in a comment letter dated July 4, 2010, notes that any health risk associated with reusable bags is minimized if proper care is taken with the bags. The study found that washing the reusable bags either by hand or machine reduced bacterial contamination by nearly 100 percent.²⁵⁹ As with all comments, this comment is noted for the record and will be considered by the County of Los Angeles Board of Supervisors during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Section 22, Page 55, Paragraph B

The commenter states that the EIR should address the fact that some reusable bags are manufactured in grossly unhygienic conditions. The commenter provides an example of unhygienic conditions in a manufacturing facility in India. Any reusable bag manufacturing facilities in a country outside of the United States would be required to comply with all applicable regulations in that particular country. The County of Los Angeles does not have jurisdiction to regulate manufacturing facilities outside of the United States. Reusable bags that are made of cloth or fabric can be washed by machine and made of durable plastic can be rinsed or wiped clean. To control for any possible public health issues, the County of Los Angeles has clarified the definition for reusable bags established by the proposed County of Los Angeles ordinance to require that the material used in such bags be machine washable. The definition of a reusable bag has been modified to include this requirement in Section 2.2.3 of the EIR (see Section 12.2).

Section 22, Page 55, Paragraph C

The commenter states that the EIR should address extent to which reusable bag manufacturers comply with Federal Drug Administration regulations and standards regarding food contact. The Federal Drug Administration states that a food contact substance is "any substance that is intended for use as a component of materials used in manufacturing, packing, packaging, transporting, or holding food". A reusable bag is not designed for direct contact with food, as the majority of consumer food products are pre-packaged. Further, to control for any possible public health issues, the County of Los Angeles has clarified the definition of reusable bags in the proposed ordinance to require that the material used in such bags not contain toxic amounts of lead, cadmium, or any other heavy metal and that the bags be machine washable. The definition of a reusable bag has been modified to include this requirement in Section 2.2.3 of the EIR (see Section 12.2).

Section 23, Page 56, Paragraph A

The commenter opposes referring to plastic carryout bags as "single-use bags." The EIR refers consistently to plastic grocery bags as plastic carryout bags, not as single-use bags. The term "single-use" is used to describe bags, whether plastic or paper, that are intended to be used only one time to carry groceries and other goods from a store. The term "single-use" is not intended to describe other possible uses that a shopper may have for a particular type of bag.

²⁵⁸ Galbreath, Rick, County of San Francisco, CA. 10 May 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, CA.

²⁵⁹ Charles P. Gerba, David Williams, and Ryan G. Sinclair. 8 June 2010. Assessment of the Potential for Cross Contamination of Food Products by Reusable Shopping Bags.

Section 23, Page 56, Paragraph B

The commenter inquires whether consumers would need to purchase plastic bags for bin liners and other uses as a result of implementation of the proposed ordinances, and asserts that this "would reduce any environmental benefits from banning plastic bags." The comment also contains a link to an article in the Irish Examiner citing circumstantial evidence of a correlation between bans on plastic bags and increased purchases of plastic bags for household use in certain stores in Ireland. However, this article concludes that, despite an increase in sales of bin liners, "the plastic bag levy in general had reduced the amount of plastic going to landfill and has had a 'hugely positive impact' in general." The article quotes a local environmental group's observation that "you only have to look at our streets to see the difference the bag levy has made. There's no plastic bags stuck in trees or fences anymore." Further, there is no evidence that consumers in Ireland and consumers in the County of Los Angeles reuse plastic bags in similar ways or to the same extent. Moreover, consumers would be similarly likely to reuse paper bags for lining trash bins and other uses. While consumers could potentially purchase additional plastic bags after implementation of the proposed ordinances for other uses, they would be expected to use far fewer additional bags than the number of plastic carryout bags currently consumed in the County of Los Angeles. Studies have shown that, while levies upon plastic carryout bags may have the potential to result in an increase in purchases of bin liners, the overall effect is to reduce the total amount of plastic bags consumed.²⁶⁰ In addition, plastic bags purchased to be used as bin liners are less likely to be littered than plastic carryout bags because they are heavier, are less likely to become airborne, and are used for the general purpose of containing trash to be sent to a landfill. Although CEOA does not require analysis of economic impacts in the EIR, the County of Los Angeles Board of Supervisors will consider this comment during the decision-making process for the proposed County of Los Angeles ordinance.

Section 24, Page 56, Paragraph A

The commenter states that the EIR should discuss alternatives to the proposed ordinances that could be used to reduce plastic bag litter in the County of Los Angeles. The County of Los Angeles and the State of California have made various attempts to reduce plastic bag litter by increasing recycling and public awareness. As discussed in Section 3.5.1 of the EIR, the State of California passed AB 2449 in 2006 to encourage recycling of plastic carryout bags. As described in Section 2.3.4 of the EIR, the County of Los Angeles Board of Supervisors approved a motion on January 22, 2008, to implement a voluntary Single Use Bag Reduction and Recycling Program. The program aimed to promote the use of reusable bags, increase at-store recycling of plastic bags, reduce consumption of single-use bags, increase the post-consumer recycled material content of paper bags, and promote public awareness of the effects of litter and consumer responsibility in the County of Los Angeles. The voluntary program established benchmarks for measuring the effectiveness of the program, seeking a 30-percent decrease in the disposal rate of carryout plastic bags from the fiscal year 2007-2008 usage levels by July 1, 2010, and a 65-percent decrease by July 1, 2013.²⁶¹ The County of Los Angeles Working Group found that the program did not successfully achieve its goals. Over a 2-year period and despite the mandates of State law, stores in the unincorporated area did not provide data that would enable County of Los Angeles staff to determine if the voluntary program benchmark of 30-percent disposal reduction of plastic bags had

²⁶⁰ Cadman, J., S. Evans, M. Holland, and R. Boyd. 2005. *Proposed Plastic Bag Levy – Extended Impact Assessment Final Report*. Prepared for: Scottish Executive.

²⁶¹ County of Los Angeles Board of Supervisors. 22 January 2008. *Single Use Bag Reduction and Recycling Program* (*Resolution and Alternative 5*). Los Angeles, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/Resources.cfm

been met. Furthermore, although the public education and outreach aspects of the program, including the successful Brag About Your Bag Campaign, were effective in raising awareness of the environmental impacts of carryout bags and the benefits of reusable bags, the efforts did not change consumer behavior enough to achieve the major objectives of the County of Los Angeles.²⁶² Therefore, general increases in recycling and public outreach alone would not meet the basic objectives of the proposed ordinances. Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project. Therefore, these alternatives were not carried forward for detailed analysis in the EIR. In Section 4.0 of the EIR, the County of Los Angeles analyzes the impacts of four different alternatives to the proposed ordinances that would achieve the program goals and Countywide objectives. The County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4, to maximize to the greatest extent feasible the potential environmental benefit from a fee or charge on the issuance of paper carryout bags and to mitigate impacts related to GHGs from a shift to paper carryout bag use. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2).

Section 24, Page 56, Paragraph B

The commenter states that the EIR should discuss how the County of Los Angeles could improve cleanup of plastic bag litter, as an alternative to the proposed ordinances. The County of Los Angeles has sought to evaluate efforts that *prevent* the occurrence of plastic bag litter and to prevent the entrance of this litter into the urban environment, storm water system, and/or coastal waterways, rather than expend resources for cleanup efforts after plastic bags have already become litter. As discussed in Section 2.2.1 of the EIR, public agencies in California spend more than \$375 million each year for litter prevention, cleanup, and disposal.²⁶³ In 2008–2009 (the most recent data available) the County of Los Angeles Flood Control District spent over \$24 million on these activities.²⁶⁴ One of the references reviewed during preparation of the EIR states that policies such as enhanced litter control measures by local authorities may be effective in addressing litter but are typically more costly than a bag fee and do not change consumer behavior away from consuming bags.²⁶⁵ Improving cleanup of plastic bag litter could be cost prohibitive and would not meet the basic objectives of the proposed ordinances, including reducing Countywide consumption of plastic carryout bags; reducing the Countywide contribution of plastic carryout bags to litter; reducing the County of Los Angeles's, cities', and the County of Los Angeles Flood Control District's costs for prevention, cleanup, and enforcement efforts to reduce litter in the County of Los Angeles; and reducing the disposal of plastic carryout bags in landfills. Section

²⁶² County of Los Angeles Chief Executive Office. 5 August 2010. *Single Use Bag Reduction and Recycling Program and Expanded Polystyrene Food Containers – Final Quarterly Progress Report*. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/BoardLetters/bdls 080510 bagrpt10.pdf

²⁶³ California Department of Transportation. Accessed on: September 2009. "Facts at a Glance." *Don't Trash California*. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

²⁶⁴ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

²⁶⁵ Nolan-ITU Pty Ltd., et al. December 2002. Environment Australia: Department of the Environment and Heritage: Plastic Shopping Bags –Analysis of Levies and Environmental Impacts: Final Report. Sydney, Australia.

15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project. Therefore, this suggested alternative was not carried forward for detailed analysis in the EIR.

Section 24, Page 56, Paragraph C

The commenter states that the EIR should discuss how the County of Los Angeles could improve cleanup of plastic bag litter at litter hotspots, as an alternative to the proposed ordinances. The County of Los Angeles has sought to evaluate efforts that prevent the occurrence of plastic bag litter and to prevent the entrance of this litter into the urban environment, storm water system, and/or coastal waterways, rather than expend resources for cleanup efforts after plastic bags have already become litter. As discussed in Section 2.2.1 of the EIR, public agencies in California spend more than \$375 million each year for litter prevention, cleanup, and disposal.²⁶⁶ In 2008–2009 (the most recent data available) the County of Los Angeles Flood Control District spent over \$24 million on these activities.²⁶⁷ Increasing the current litter cleanup efforts in the County of Los Angeles could be cost prohibitive, and improving plastic bag litter cleanup would not meet the basic objectives of the proposed ordinances, including reducing Countywide consumption of plastic carryout bags, reducing the Countywide contribution of plastic carryout bags to litter, reducing litter cleanup costs, or reducing the disposal of plastic carryout bags in landfills. Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project. Therefore, this suggested alternative was not carried forward for detailed analysis in the EIR.

Section 26, Page 59 to 60

The commenter states that the EIR should evaluate a legislative alternative to the proposed ordinances that would not ban the issuance of plastic carryout bags, but would make other efforts legally required, as described by the commenter. The comment has been understood to suggest a Statewide legislative solution; however, the State legislature has been unsuccessful in passing a number of bills proposed in the last 3 years addressing plastic carryout bags, including AB 87 and, most recently, AB 1998, which received overwhelming support from many stakeholders. The lack of success of bills proposed in the last 3 years to ban plastic carryout bags, including AB 1998, indicates that a Statewide solution may not be realized in the near future.

Some efforts suggested by the commenter would not be expected to significantly, if at all, reduce the number of plastic carryout bags that are provided to consumers, and therefore do not meet the basic objectives of the proposed ordinances, including reducing Countywide consumption of plastic carryout bags. Further, some of the efforts described by the commenter were part of the educational campaign encompassed in the voluntary Single Use Bag Reduction and Recycling Program, including educating stores not to double bag and to fill carryout bags to maximum capacity. As described in Section 2.3.4 of the EIR, the County of Los Angeles Board of Supervisors approved a motion January 22, 2008, to implement a voluntary Single Use Bag Reduction and Recycling Program. The program aimed to promote the use of reusable bags, increase at-store

²⁶⁶ California Department of Transportation. Accessed on: September 2009. "Facts at a Glance." *Don't Trash California*. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

 ²⁶⁷ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009.
Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20 %20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

recycling of plastic bags, reduce consumption of single-use bags, increase the post-consumer recycled material content of paper bags, and promote public awareness of the effects of litter and consumer responsibility in the County of Los Angeles. The voluntary program also established benchmarks for measuring the effectiveness of the program, seeking a 30-percent decrease in the disposal rate of carryout plastic bags from the fiscal year 2007-2008 usage levels by July 1, 2010, and a 65-percent decrease by July 1, 2013.²⁶⁸ The County of Los Angeles Working Group found that the program did not successfully achieve its goals. Over a 2-year period and despite the mandates of State law, stores in the unincorporated area did not provide data that would enable County of Los Angeles staff to determine if the voluntary program benchmark of 30-percent disposal reduction of plastic bags had been met. Furthermore, although the public education and outreach aspects of the program, including the successful Brag About Your Bag Campaign, were effective in raising awareness of the environmental impacts of carryout bags and the benefits of reusable bags, the efforts did not change consumer behavior enough to achieve the major objectives established by the County of Los Angeles.²⁶⁹ Therefore, further increases in recycling and public outreach alone are not likely to achieve the degree of reduction in plastic bag litter that the County of Los Angeles has set out to achieve as one of the objectives of the proposed ordinances. The Herrera et al. publication reviewed during preparation of the EIR states that "some changes to consumer behavior should be expected by education alone, but the changes in consumption of disposable bags are likely to be modest if not combined with a ban or an advanced recovery fee, and the environmental benefits would be minimal."270 Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the proposed project.

Section 27, Page 60

The commenter states that the EIR should evaluate the environmental benefits of legislating mandatory percentage reductions in the number of plastic and paper carryout bags provided by stores. The comment has been understood to suggest a Statewide legislative solution; however, the State legislature has been unsuccessful in passing a number of bills proposed in the last 3 years addressing plastic carryout bags, including AB 87 and, most recently, AB 1998, which received overwhelming support from many stakeholders. The lack of success of bills proposed in the last 3 years to ban plastic carryout bags, including AB 1998, indicates that a Statewide solution may not be realized in the near future. Any mandatory percentage reduction other than 100 percent would not achieve the same degree of reductions in plastic carryout bag use and disposal that would be expected to result from implementation of the proposed ordinances. Further, compliance would be with any mandatory reduction level other than 100 percent would be difficult to track, given that the recycling data available under AB 2449 is for plastic film commingled with plastic bags, and CalRecycle does not currently have an accurate ratio by which to estimate the percentage of plastic bags contained in the commingled plastic film.²⁷¹

²⁶⁸ County of Los Angeles Board of Supervisors. 22 January 2008. *Single Use Bag Reduction and Recycling Program* (*Resolution and Alternative 5*). Los Angeles, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/Resources.cfm

²⁶⁹ County of Los Angeles Chief Executive Office. 5 August 2010. *Single Use Bag Reduction and Recycling Program and Expanded Polystyrene Food Containers – Final Quarterly Progress Report.* Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/BoardLetters/bdls 080510 bagrpt10.pdf

²⁷⁰ Herrera et al. January 2008. Alternatives to Disposable Shopping Bags and Food Service Items Volume I and II. Prepared for: Seattle Public Utilities. Seattle, WA.

²⁷¹ County of Los Angeles Chief Executive Office. 5 August 2010. *Single Use Bag Reduction and Recycling Program and Expanded Polystyrene Food Containers – Final Quarterly Progress Report*. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/BoardLetters/bdls_080510_bagrpt10.pdf

Section 28, Page 60

The commenter states that the EIR should cumulatively evaluate impacts of the proposed County of Los Angeles ordinance together with similar ordinances, proposed, adopted, or pending in the City of Berkeley, City of Los Angeles, City of Malibu, City of Manhattan Beach, City of Palo Alto, City and County of San Francisco, City of San Jose, City of Santa Monica, and others (see response to Comment No. 12 from the STPB's July 16, 2010, comment letter on the Draft EIR for information responsive to this comment).

Each of subsection of Section 3.0 of the EIR provides a detailed and extensive discussion regarding likely environmental impacts and feasible mitigation measures, if any. Section 3.1 discusses the potential impacts of the proposed ordinances to air quality by evaluating a number of issues, including indirect emissions based on LCAs. It also addresses criteria pollutant emissions resulting from disposal of paper carryout bags in landfills, and emissions resulting from increased delivery trips. Section 3.2 addresses the potential impacts of the proposed ordinances on biological resources, including evaluating impacts on state-designated sensitive habitats; rare, threatened, and endangered species; sensitive species; locally important species; federally protected wetlands; and migratory corridors and/or nursery sites. Section 3.3 addresses the potential impacts of the proposed ordinances to GHG emissions, including indirect emissions based on LCAs, GHG emissions resulting from disposal of paper carryout bags in landfills, and GHG emissions resulting from increased delivery trips. Section 3.4 addresses potential impacts to water quality and hydrology, and evaluates a number of impacts, including drainage, surface water quality, and groundwater. Section 3.5 addresses potential impacts on utilities and service systems, including impacts to wastewater treatment, the storm drain system, water supply, solid waste, and non-renewable energy consumption. The analysis of environmental impacts in the EIR is adequate Section 15151 of the State CEQA Guidelines states, "an evaluation of the and extensive. environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." CEQA requires adequacy, completeness, and a good faith effort at full disclosure. Furthermore, Section 15145 of the State CEQA Guidelines states, "if, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact." All comments from STPB have been noted for the record and will be considered by the County of Los Angeles during the decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

In addition, Section 4.0 of the EIR provides a reasonable range of alternatives that the County of Los Angeles has analyzed. In Section 4.0 of the EIR, the County of Los Angeles analyzes the impacts of five alternatives to the proposed ordinances that would achieve the program goals and Countywide objectives. These alternatives include banning the issuance of both plastic and paper carryout bags; banning the issuance of plastic carryout bags and imposing a fee on the issuance of paper carryout bags; banning the issuance of plastic carryout bags at all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores; and banning the issuance of plastic and paper carryout bags at all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores. Hybrid Alternative 5, which evaluates the impacts resulting from the imposition of a fee on the issuance of paper carryout bags at broad range of stores, was also evaluated. A number of these alternatives would eliminate or reduce the potential increase in use of paper carryout bags if plastic carryout bags were banned. The analysis of the alternatives also considers impacts from incorporated cities as well.

The commenter also states that the EIR must study "all reasonably feasible alternatives." However, Section 15126.6 of the State CEQA Guidelines specifies that the EIR need only examine alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project, in this case the proposed County of Los Angeles ordinance. The County of Los Angeles has made a good faith effort to ensure that adequate and extensive analysis of alternatives in the EIR. Section 15126.6 of the State CEQA Guidelines further states, "[a]n EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation." The EIR, including Section ES.3, Section 4.1, Section 13, and Appendix B, details reasons for which certain alternatives were eliminated from consideration. Past court cases have upheld the sufficiency of EIRs that analyzed four alternatives, finding that this number of alternatives represents enough of a variation to allow informed decisions. Other courts have found that one alternative, in addition to the No Project Alternative, was sufficient for an EIR. A "rule of reason" governs the nature and scope of the discussion of alternatives within an EIR (State CEQA Guidelines 15126.6).²⁷²

Response to Comment No. 2

Comment No. 2 states that the GHG analysis in the EIR is inconsistent with the County of Los Angeles's statistic that 6 billion plastic carryout bags are consumed in the County of Los Angeles on an annual basis.

The 6 billion number was prorated based on the population of the County of Los Angeles using the 19 billion Statewide number provided by the California Integrated Waste Management Board. However, to ascertain a better understanding of the actual number of bags distributed by AB 2449affected stores in the County of Los Angeles, coordination between the County of Los Angeles Department of Public Works and several large supermarket chains in the County of Los Angeles determined that approximately 10,000 plastic carryout bags are used per store per day on average. Due to confidential and proprietary concerns, and at the request of the large supermarket chains providing this data, the names of these large supermarket chains will remain confidential. Reported data from 12 stores reflected a combined total plastic carryout bag usage of 122,984 bags per day. A daily per-store average was then calculated at 10,249 plastic carryout bags and rounded to approximately 10,000 bags per day. It is important to note that this number is likely very high, as it is more than twice the bag average reported by the California Department of Resources Recycling and Recovery (CalRecycle) in 2008 for stores affected by AB 2449. In 2008, 4,700 stores Statewide affected by AB 2449 reported an average of 4,695 bags used per store per day.²⁷³ The EIR analysis is therefore based on the conservative assumption that 10,000 plastic carryout bags are distributed in each of the stores that would be affected by the proposed County of Los Angeles ordinance. While 10,000 plastic carryout bags per store per day may not accurately reflect the actual number of bags consumed per day on average for stores greater than 10,000 square feet in the unincorporated and incorporated areas of the County of Los Angeles, for the purposes of this EIR, this number was used to conservatively evaluate impacts resulting from a worst-case scenario.

Section 3.0 of the EIR assumes that of the AB 2449–affected stores, there are 67 stores in the unincorporated territory of the County of Los Angeles and 462 stores in the incorporated cities of

²⁷² California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15126.6.

²⁷³ Dona Sturgess, California Department of Resources Recycling and Recovery, Sacramento, CA. 29 April 2010. E-mail to Luke Mitchell, County of Los Angeles, Department of Public Works, Alhambra, CA.

the County of Los Angeles that would be affected by the proposed ordinances.^{274,275} Therefore, conservatively the total number of bags assumed to be banned by the proposed ordinances per year would be as follows:

10,000 bags per day x (67 + 462) x 365 days = 1,930,850,000 plastic carryout bags per year

Therefore, the total number of bags analyzed in the EIR is close to 2 billion bags per year, which is a subset of the 6 billion bags per year statistic provided by the County of Los Angeles. The proposed ordinances account only for a subset of the 6 billion plastic carryout bags per year, since the proposed ordinances would only apply to certain retail stores covered by the definition in AB 2449 in the County of Los Angeles. As defined in Section 2.5 of the EIR, the proposed ordinances would apply only to retail establishments that (1) meet the definition of a "supermarket" as stated in the California Public Resources Code, Section 14526.5; or (2) are buildings with over 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and have a pharmacy licensed pursuant to Chapter 9 of Division 2 of the Business and Professions Code.

In Sections 4.2.4 and 4.2.5 of the EIR, the County of Los Angeles evaluates Alternative 3 and Alternative 4 that would extend the scope of the proposed ordinances to apply to all supermarkets and other grocery stores, convenience stores, pharmacies and drug stores, regardless of square footage or sales volume. For the analysis of Alternatives 3 and 4, it was assumed that 1,091 stores could be affected in the unincorporated territories of the County of Los Angeles.²⁷⁶ and 5,084 stores could be affected in the incorporated cities of the County of Los Angeles.²⁷⁷ It was assumed that each store larger than 10,000 square feet currently uses approximately 10,000 plastic carryout bags per day.²⁷⁸ and each store smaller than 10,000 square feet currently uses approximately 5,000 plastic carryout bags per day.²⁷⁹ Therefore, the total number of bags assumed to be banned per year as a result of Alternatives 3 or 4 would be as follows:

²⁷⁴ As a result of the voluntary Single Use Bag Reduction and Recycling Program, the County of Los Angeles has determined that 67 stores in unincorporated territories would be affected by the proposed County of Los Angeles ordinance.

²⁷⁵ Number of stores in the 88 incorporated cities of the County of Los Angeles was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110 and 446110 with a gross annual sales volume of \$2 million or higher and a square footage of 10,000 square feet or higher. Accessed on: 29 April 2010.

²⁷⁶ Number of stores in the unincorporated territories of the County of Los Angeles was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110, 445120, and 446110 with no filters for gross annual sales volume or square footage. Accessed on: 29 April 2010.

²⁷⁷ Number of stores in the 88 incorporated cities of the County was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110, 445120, and 446110 with no filters for gross annual sales volume or square footage. Accessed on: 29 April 2010.

²⁷⁸ Based on coordination between the County of Los Angeles Department of Public Works and several large supermarket chains in the County, it was determined that approximately 10,000 plastic carryout bags are used per store per day. Due to confidential and proprietary concerns, and at the request of the large supermarket chains providing this data, the names of these large supermarket chains will remain confidential. Reported data from only 12 stores reflected a total plastic carryout bags and rounded to approximately 10,000 bags per day.

²⁷⁹Data from the infoUSA indicates that approximately 40 percent of the stores greater than 10,000 square feet in the unincorporated territories of the County of Los Angeles are larger than 40,000 square feet. Therefore, the average size of the stores to be affected by the proposed County of Los Angeles ordinance would be greater than 20,000 square feet. Accordingly, it would be reasonable to estimate that the stores smaller than 10,000 square feet that would be affected by

 $([(5,000 \text{ bags per day x } (1,024 + 4,622)] + [10,000 \text{ bags per day x } (67 + 462)]) \times 365 \text{ days} = 12,234,800,000 \text{ plastic carryout bags per year}$

Therefore, the total number of plastic carryout bags assumed to be affected by Alternatives 3 and 4 is approximately 12 billion bags a year, which is actually twice as large as the County of Los Angeles's estimate that 6 billion plastic carryout bags are used in the County of Los Angeles every year. This reflects the determination that the estimate of 10,000 plastic bags per store is indeed a very conservative estimate that is much higher than the actual usage in stores, and reflects the County of Los Angeles's good faith in trying to evaluate the environmental impacts using the most conservative approach.

The commenter also states that the 85-percent conversion does not take into account life cycle GHG impacts from reusable bags. However, Section 3.3.5 and Table 3.3.5-4 analyze the estimated daily emissions changes due to reusable bags used three times based on Ecobilan data. These results show that a 100-percent conversion from the use of plastic carryout bags to the use of reusable bags would result in a reduction in GHG emissions, which is a conclusion that is supported by numerous life cycle assessments.^{280,281,282} Therefore, in the scenario analyzed in the EIR where 85 percent of consumers are assumed to switch to using paper carryout bags, the GHG emissions due to the 15 percent of consumers who switch to using reusable bags is assumed to be negligible.

Response to Comment No. 3

Comment No. 3 notes a possible error in the GHG emissions calculations in Tables 4.2.4.3-5 and 4.2.4.3-6 of the EIR, by pointing out that 124,720 is not 85 percent of 183,320.

The County of Los Angeles has made a good faith effort to ensure the accuracy of all calculations in the EIR, and has attached Appendix C to the EIR, which shows the spreadsheet that was used for all calculations in the EIR. Any member of the public can review this spreadsheet to understand and verify how the calculations were done. The numbers for an 85-percent conversion from plastic to paper carryout bags do not equal 85 percent of the numbers for a 100-percent conversion from plastic to paper carryout bags because the numbers reported for paper carryout bags are reported as an **increase** from the existing conditions. Under CEQA, impacts are analyzed against existing physical conditions. Below is an explanation of the calculations for an 85-percent conversion to paper carryout bags.

Existing Conditions (100 Percent Plastic Bags)

CO₂ emissions for the current number of plastic carryout bags used per day in the County of Los Angeles were calculated based on the results of a life cycle assessment.

Alternative 3 would be at less than half the size of the stores to be affected by the proposed ordinances and would use less than half the number of bags.

²⁸⁰ Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France.

²⁸¹ Hyder Consulting. 18 April 2007. *Comparison of Existing Life Cycle Analyses of Plastic Bag Alternatives*. Prepared for: Sustainability Victoria.

²⁸² ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. *The Impacts of Degradable Plastic Bags in Australia*. Moorabbin VIC, AU.

Hypothetical Scenario 1 (100 Percent Paper Bags)

CO₂ emissions were calculated based on a hypothetical situation, assuming every plastic carryout bag that is currently used per day in the County of Los Angeles is replaced by a paper carryout bag, at a ratio of approximately 1.5 plastic carryout bags to 1 paper carryout bag due to the difference in carrying capacity.

Hypothetical Scenario 2 (85 Percent Paper Bags)

 CO_2 emissions calculated under scenario 1 were multiplied by 85 percent to evaluate a scenario where 15 percent of consumers switch to using reusable bags, which are assumed to have negligible CO_2 emissions in comparison to plastic carryout bags (as discussed in Section 3.3.5 and Table 3.3.5-4 and supported by numerous LCAs^{283,284,285}). These emissions are 85 percent of the emissions calculated under Hypothetical Scenario 1.

Emissions Due to a 100-percent Conversion from Plastic to Paper Carryout Bags

The existing conditions were subtracted from the emissions calculated under Hypothetical Scenario 1 to calculate the emissions due to a 100-percent conversion from plastic to paper carryout bags. This result is a calculation of the increase (or decrease) in emissions compared to the existing conditions.

Emissions Due to an 85-percent Conversion from Plastic to Paper Carryout Bags

The existing conditions were subtracted from the emissions calculated under Hypothetical Scenario 2 to calculate the emissions due to an 85-percent conversion from plastic to paper carryout bags. This result does not equal 85 percent of the emissions calculated under the 100-percent conversion scenario because it is a calculation of the increase (or decrease) in emissions compared to the existing conditions.

The tables below show in further detail how the 183,320 and 124,720 values were calculated in Tables 4.2.4.3-5 and 4.2.4.3-6 of the EIR, as further detailed in Appendix C to the EIR (Table 13-3, Increase in GHG Emissions Due to 100-percent Conversion from Plastic to Paper Carryout Bags Based on Ecobilan Data, and Table 13-4, Increase in GHG Emissions Due to 85-percent Conversion from Plastic to Paper Carryout Bags Based on Ecobilan Data):

²⁸³ Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France.

²⁸⁴ Hyder Consulting. 18 April 2007. *Comparison of Existing Life Cycle Analyses of Plastic Bag Alternatives*. Prepared for: Sustainability Victoria.

²⁸⁵ ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. *The Impacts of Degradable Plastic Bags in Australia*. Moorabbin VIC, AU.

TABLE 13-3 INCREASE IN GHG EMISSIONS DUE TO 100-PERCENT CONVERSION FROM PLASTIC TO PAPER CARRYOUT BAGS BASED ON ECOBILAN DATA

	CO _{2e} Emissions (Metric Tons)				
Ecobilan GHG Emissions	Daily Emissions due to Plastic Carryout Bags ¹	Daily Emissions due to Paper Carryout Bags ²	Daily Emission Increase Caused by 100 Percent Conversion from Plastic to Paper ³	Annual Emission Increase⁴	
Total Emissions in the County of Los	0		•		
Angeles due to stores larger than 10,000					
square feet	89.65	168.92	79.26	28,931	
Total Emissions in the County due to					
stores smaller than 10,000 square feet	478.43	901.41	422.98	154,389	
Total Emissions in the County	568.08	1070.33	502.25	183,320	

NOTES:

1. Exiting conditions based on 10,000 plastic carryout bags per store per day

2. Based on a 100-percent conversion from plastic to paper carryout bags and a carrying capacity ratio of 1 paper carryout bags : 1.46 plastic carryout bags

3. Calculated by subtracting the daily paper carryout bag emissions from the daily plastic carryout bag emissions

4. Daily emissions multiplied by 365. Numbers may vary slightly due to rounding.

TABLE 13-4

INCREASE IN GHG EMISSIONS DUE TO 85-PERCENT CONVERSION FROM PLASTIC TO PAPER CARRYOUT BAGS BASED ON ECOBILAN DATA

	CO _{2e} Emissions (Metric Tons)				
Ecobilan GHG Emissions	Daily Emissions due to Plastic Carryout Bags ¹	Daily Emissions due to Paper Carryout Bags ²	Daily Emission Increase Caused by 85 Percent Conversion from Plastic to Paper ³	Annual Emission Increase ⁴	
Total emissions in the County of Los					
Angeles due to stores larger than 10,000					
square feet	89.65	143.58	53.93	19,683	
Total Emissions in the County due to					
stores smaller than 10,000 square feet	478.43	766.20	287.77	105,037	
Total Emissions in the County	568.08	909.78	341.70	124,720	

NOTES:

1. Exiting conditions based on 10,000 plastic carryout bags per store per day

2. Based on a 85-percent conversion from plastic to paper carryout bags and a carrying capacity ratio of 1 paper carryout bags : 1.46 plastic carryout bags

3. Calculated by subtracting the daily paper carryout bag emissions from the daily plastic carryout bag emissions

4. Daily emissions multiplied by 365. Numbers may vary slightly due to rounding.

Response to Comment No. 4

Comment No. 4 objects to the assumption used in the EIR that the proposed ordinances would be expected to result in an increase in the use of reusable bags. Throughout Section 3.0 of the EIR, environmental impacts are analyzed based on a worst-case scenario where all plastic carryout bags currently used in the County of Los Angeles would be replaced by a 100-percent conversion to paper carryout bags and that there would be no increase in use of reusable bags. Therefore, the potential outcome of the proposed ordinances that Comment No. 4 asserts will occur has already been analyzed in the EIR. However, the County of Los Angeles does anticipate that the proposed ordinances would result in an increase in the use of reusable bags, and therefore has also evaluated the proposed ordinances based on an alternative outcome that would result in at least a 15-percent conversion to reusable bags and an 85-percent conversion to paper bags. This 15-percent conversion to reusable bags is based on a survey conducted by Sapphos Environmental, Inc. (Appendix A to the EIR). This survey observed that reusable bags made up approximately 18 percent of the total number of carryout bags used in stores that did not make plastic carryout bags readily available to customers; however, reusable bags made up only approximately 2 percent of the total number of bags used in stores that did make plastic carryout bags readily available (Appendix A to the EIR). Therefore, it is reasonable to estimate that a ban on the issuance of plastic carryout bags would increase the number of reusable bags used by customers by approximately 15 percent.

Response to Comment No. 5

Comment No. 5 notes the commenter's objection to the use of an 85-percent and 100-percent conversion to paper carryout bags in the analysis that was conducted throughout the EIR. Comment No. 5 notes an objection to the 100-percent conversion scenario because "it assumes that no consumers whatsoever would switch to reusable bags." This objection contradicts Comment No. 4, which states that there is "no basis for 'expecting' that reusable bag usage will increase if plastic bags are banned." The 100-percent conversion to paper carryout bags was analyzed as a worst-case scenario, and the County of Los Angeles recognizes that the proposed ordinances would likely result in an increase in the use of reusable bags.

Comment No. 5 states an objection to analyzing a scenario where there would be a potential 85percent conversion to paper carryout bags because this scenario does not consider the environmental impacts of reusable bags. Under this scenario, the environmental impacts of reusable bags are considered negligible because, as described throughout the EIR, including in Sections 3.1.4, 3.3.5, 3.4.4, and 3.5.4, although the production, manufacture, distribution, and eventual disposal of reusable bags causes environmental impacts, as is the case with any manufactured product, these impacts are significantly reduced when calculated on a per-use basis. The County of Los Angeles recognizes that the 85-percent conversion scenario analyzed in the EIR assumes that the impacts of switching from the use of plastic carryout bags to the use of reusable bags are negligible, which is a reasonable assumption given that certain types of reusable bags can be used hundreds of times. The EIR concludes that life cycle impacts due to reusable bags are less than impacts due to plastic carryout bags, which is supported by numerous studies referenced in the EIR;^{286,287,288,289,290,291,292} therefore, a switch from the use of plastic carryout bags to the use of

²⁸⁶ Nolan-Itu Pty. Ltd. 2002. *Plastic Shopping Bags – Analysis of Levies and Environmental Impacts*. Prepared for: Department of the Environment, Water, and Heritage: Canberra, AU.

²⁸⁷ ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. *The Impacts of Degradable Plastic Bags in Australia*. Moorabbin VIC, AU.

reusable bags would result in a decrease in environmental impacts compared to existing conditions, or in other words, a beneficial impact.

For example, Section 3.3.5 and Table 3.3.5-4 in the EIR analyze the estimated daily GHG emissions changes due to reusable bags used three times based on Ecobilan data. These results show that a 100-percent conversion from the use of plastic carryout bags to the use of reusable bags would result in a reduction in GHG emissions, which is a conclusion that is supported by the Hyder Study²⁹³ and the ExcelPlas Study,²⁹⁴ among others. Therefore, in the scenario analyzed in the EIR where 85 percent of consumers are assumed to switch to using paper carryout bags, the GHG emissions increases due to the 15 percent of consumers who switch from using plastic carryout bags to using reusable bags are assumed to be negligible. However, if it were to be assumed, under a worst-case scenario, that the environmental impacts of reusable bags were equivalent to the impacts of paper carryout bags, the environmental impacts would equal those analyzed in the scenarios in the EIR that evaluate a 100-percent conversion from plastic to paper carryout bags.

Response to Comment No. 6

Comment No. 6 asserts that analysis in the Draft EIR assumes that life cycle impacts associated with reusable bags would be zero. Comment No. 6 also asserts that the EIR should provide life cycle analyses of cloth, jute, nonwoven polypropylene, polyethylene terephthalate (PET), or other non-LDPE reusable bags.

Analysis in the EIR did not assume that life cycle impacts associated with reusable bags would be zero; rather, it evaluated the increased use of reusable bags in comparison with existing conditions. For example, page 3.5-15 discusses how conversion from plastic carryout bags to reusable bags would be anticipated to have reduced impacts upon water supply, and page 3.3-27 discusses GHG emissions resulting from 104 uses of a reusable bag compared with emissions from plastic carry out bags.

Many studies that evaluate the environmental impacts of different types of reusable bags were considered during preparation of the EIR. The overall conclusion of these studies is that reusable bags can be expected to have fewer environmental impacts than plastic bags because they can be used multiple times.^{295,296,297,298,299,300,301} These studies evaluated reusable bags made from a variety

²⁸⁸ Marlet, C., EuroCommerce. September 2004. *The Use of LCAs on Plastic Bags in an IPP Context*. Brussels, Belgium.

²⁸⁹ The ULS Report. 1 June 2007. Review of Life Cycle Data Relating to Disposable Compostable Biodegradable, and Reusable Grocery Bags. Rochester, MI.

²⁹⁰ Hyder Consulting. 18 April 2007. *Comparison of existing life cycle analyses of plastic bag alternatives*. Prepared for: Sustainability Victoria, Victoria, Australia.

²⁹¹ Herrera et al. January 2008. Alternatives to Disposable Shopping Bags and Food Service Items Volume I and II. Prepared for: Seattle Public Utilities.

²⁹² Marlet, C., EuroCommerce. September 2004. The Use of LCAs on Plastic Bags in an IPP Context. Brussels, Belgium.

²⁹³ Hyder Consulting. 18 April 2007. *Comparison of Existing Life Cycle Analyses of Plastic Bag Alternatives*. Prepared for: Sustainability Victoria.

²⁹⁴ ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. *The Impacts of Degradable Plastic Bags in Australia*. Moorabbin VIC, AU.

²⁹⁵ Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France. of the Environment, Water, and Heritage: Canberra, Australia.

of materials including low density polyethylene, woven high density polyethylene, cotton, and non-woven polypropylene. The conclusion that the life cycle impacts of reusable bags are less than the life cycle impacts of carryout bags is consistent with the Master Environmental Assessment on Single-Use and Reusable Bags that was prepared to assist counties and cities evaluate environmental impacts of plastic carryout bag bans.³⁰²

The Hyder Study, which was used as a reference throughout the EIR, evaluated the life cycle impacts of several different types of bags and concludes that a polypropylene reusable bag that is used 104 times results in significantly lower overall environmental impacts than the impacts resulting from paper and plastic carryout bags (Table 13-2).³⁰³ The Hyder Study also evaluated reusable calico (cotton) bags, and determined that although life cycle water use impacts would be greater than for other types of bags, the calico reusable bag outperforms carryout bags in all other environmental categories: material consumption, global warming, energy consumption, litter marine biodiversity, and litter aesthetics (Table 13-2).

Therefore, overall environmental impacts due to the life cycle of a reusable bag would be expected to be significantly lower than the overall environmental impacts of a plastic or paper carryout bag when considered on a per-use basis, and any conversion from the use of plastic carryout bags to reusable bags would be reasonably expected to result in an environmental benefit.

The Draft EIR considered and appropriately evaluated information from multiple sources. According to the International Organization for Standardization (ISO) 14044, if data from two or more life cycle assessments are used for comparative assertions, the systems compared must be functionally equivalent, with any differences between systems being identified and reported.³⁰⁴ If the comparison is intended to be disclosed to the public, ISO 14044 requires that interested parties conduct an additional peer review.³⁰⁵ Therefore, it was not possible or appropriate to combine the results from the Ecobilan study for plastic and paper carryout bags with results from other life cycle assessments evaluating different types of reusable bags. However, the EIR reasonably concludes that overall life cycle impacts attributable to reusable bags, whether made of plastics such as polypropylene or polyethylene, or other materials such as cotton, are less than overall impacts due to plastic carryout bags, so a switch from the use of plastic carryout bags to the use of reusable bags.

²⁹⁶ Nolan-Itu Pty. Ltd. 2002. *Plastic Shopping Bags – Analysis of Levies and Environmental Impacts*. Prepared for: Department

²⁹⁷ Marlet, C., EuroCommerce. September 2004. *The Use of LCAs on Plastic Bags in an IPP Context*. Brussels, Belgium.

²⁹⁸ The ULS Report. 1 June 2007. Review of Life Cycle Data Relating to Disposable Compostable Biodegradable, and Reusable Grocery Bags. Rochester, MI.

²⁹⁹ ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. *The Impacts of Degradable Plastic Bags in Australia*. Moorabbin VIC, AU.

³⁰⁰ Hyder Consulting. 18 April 2007. *Comparison of existing life cycle analyses of plastic bag alternatives*. Prepared for: Sustainability Victoria, Victoria, Australia.

³⁰¹ Herrera et al. January 2008. Alternatives to Disposable Shopping Bags and Food Service Items Volume I and II. Prepared for: Seattle Public Utilities.

³⁰² Green Cities California. March 2010. *Master Environmental Assessment on Single-Use and Reusable Bags*. Prepared by ICF International. San Francisco, CA.

³⁰³ Hyder Consulting. 18 April 2007. *Comparison of Existing Life Cycle Analyses of Plastic Bag Alternatives*. Prepared for: Sustainability Victoria, Victoria, Australia.

³⁰⁴ Franklin Associates, Ltd., 1990. *Resource and Environmental Profile Analysis of Polyethylene and Unbleached Paper Grocery Sacks*. Prairie Village, KS.

³⁰⁵ Franklin Associates, Ltd., 1990. *Resource and Environmental Profile Analysis of Polyethylene and Unbleached Paper Grocery Sacks*. Prairie Village, KS.
would generally result in a decrease in environmental impacts compared to existing conditions, or in other words, a beneficial impact.

Response to Comment No. 7

Comment No. 7 objects to the statement in the EIR, "Reusable bag manufacturers are also expected to enforce industry standards and recommendations to avoid adverse environmental impacts, including the use of recycled materials." This statement refers to reusable bag manufacturers located within the United States, which has been clarified in the Clarifications and Revisions to the EIR (Section 12.2). The statement correctly indicates that reusable bag manufacturing (in the United States) is regulated. For example, air emissions from reusable bag manufacturing are regulated by the federal Clean Air Act, water pollution is regulated by the federal Clean Water Act, and GHG emissions in California are regulated by AB 32. A detailed discussion of applicable regulatory framework is included in each of the various subsections of Section 3.0 of the EIR. It would be incorrect to assume that environmental impacts resulting from the production and manufacture of reusable bags in the United States would be left unchecked and unregulated. The County of Los Angeles recognizes that manufacturing regulations overseas may not be as strict as regulations in the United States, and this point is noted for the record.

Comment No. 7 notes that the environmental impacts from the life cycle of reusable bags, including manufacturing overseas, must be disclosed. The life cycle impacts of reusable bags are discussed throughout Section 3.0 of the EIR, including the consumption of nonrenewable energy (Section 3.5.4), emissions of greenhouse gases (Section 3.3.5), consumption of water (Section 3.5.4), air quality (Section 3.1.4), water pollution (Section 3.4.4), and solid waste (Section 3.5.4). The life cycle analyses include impacts related to transportation.

Comment No. 7 also states that there is no substantial evidence that recycling reduces environmental impacts, except the use of virgin source materials, solid waste disposal, and litter. The USEPA states that "recycling reduces greenhouse gas emissions, conserves natural resources, and saves landfill space."³⁰⁶ The environmental impacts of including recycled content in paper carryout bags have been included throughout the various subsections of Section 3.0 of the EIR. The County of Los Angeles has evaluated impacts of paper carryout bags using the Ecobilan Study, which analyzes the life cycle impacts of paper carryout bags that are made from 100-percent recycled content. The Ecoblian Study includes environmental impacts due to the transportation of old paper/paperboard to a recycling facility, as well as the transportation of the recycled paper to the paper bag manufacturing facility. The County of Los Angeles also used the Boustead Study to evaluate impacts of paper carryout bags in the EIR that contain 30 percent recycled fiber. In addition, the Hyder Study, which is referenced throughout the EIR, concludes that the environmental impacts, aside from impacts related to littering, of a HDPE plastic carryout bag are substantially reduced when the bag is made from 100-percent recycled content (Table 13-2).³⁰⁷

Comment No. 7 also states that recycled materials cannot be used to make cloth, jute, or nonwoven polypropylene and PET reusable bags. This statement is incorrect, as there are many reusable bags available in the marketplace that are made from recycled materials. For example,

³⁰⁶ U.S. Environmental Protection Agency. Accessed on: 6 September 2010. "Wastes - Resource Conservation - Common Wastes & Materials - Paper Recycling." Web site. Available at:

http://www.epa.gov/epawaste/conserve/materials/paper/index.htm

³⁰⁷ Hyder Consulting. 18 April 2007. *Comparison of existing life cycle analyses of plastic bag alternatives*. Prepared for: Sustainability Victoria, Victoria, Australia.

plastic bottles that are made of PET can be cleaned, crushed, chopped into flakes, and then spun into threads that can be used to make polyester fabrics,³⁰⁸ including polyester reusable bags. The County of Los Angeles has purchased such bags as part of its efforts to promote the use of reusable bags and to promote beverage container recycling. Even the statement that the commenter cites from the Web site of "1 Bag at a Time" refutes the commenter's assertion that recycled materials cannot be used to make certain types of reusable bags. The statement cited in this comment also indicates awareness of the existence of 30-percent recycled content bags, and refers to nonwoven polypropylene bags made of 10-percent recycled content.

Response to Comment No. 8

Comment No. 8 states that (1) the Draft EIR should have quantified life cycle GHG and other impacts wherever they occur, such as Canada, not only in the County of Los Angeles or Southern California, and (2) local thresholds of significance are inapplicable and legally unsupportable.

The CEQA Guidelines state that the degree of specificity in an EIR will correspond to the degree of specificity involved in the underlying activity addressed in the EIR (see State CEQA Guidelines §§ 15146, 15151, and 15204). The Draft EIR acknowledges that the impact analysis is programmatic in nature as the proposed ordinances would encompass 2,649 square miles of the unincorporated portions of the County of Los Angeles, and 1,435 square miles of the incorporated cities (see pages 1-1 and 2-1). The Draft EIR discusses the speculative nature of life cycle analysis starting on pages 3.1-11 through 3.1-25. As discussed in this section, life cycle analysis is largely speculative. Both SCAQMD and AVAQMD have reached similar conclusions. This conclusion is further supported by recent revisions in the State CEQA Guidelines:

<u>'Lifecycle'</u> The amendment to Appendix F removes the term 'lifecycle.' No existing regulatory definition of 'lifecycle' exists. In fact, comments received during OPR's public workshop process indicate a wide variety of interpretations of that term.³⁰⁹ Thus retention of the term 'lifecyle' in Appendix F could create confusion among lead agencies regarding what Appendix F requires.

Moreover, even if a standard definition of the term 'lifecycle' existed, requiring such an analysis may not be consistent with CEQA. As a general matter, the term could refer to emissions beyond those that could be considered 'indirect effects' of a project as that term is defined in section 15358 of the State CEQA Guidelines. Depending on the circumstances of a particular project, an example of such emissions could be those resulting from the manufacture of building materials.³¹⁰ CEQA only requires analysis of impacts that are directly or indirectly attributable to the project under consideration. (State CEQA Guidelines § 15064(d).) In some instances, materials may be manufactured for many different projects as a result of general market demand, regardless of whether one particular project proceeds. Thus, such emissions may not be 'caused by' the project under

³⁰⁸ Bright Hub. 21 January 2010. "Polyester Fiber from Recycled Bottles Providing Cost Efficiency in Textile Manufacture." Available at: http://www.brighthub.com/environment/green-living/articles/62032.aspx

³⁰⁹ California Natural Resources Agency. December 2009. *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*. Available at: http://ceres.ca.gov/ceqa/docs/Final Statement of Reasons.pdf

³¹⁰ California Air Pollution Control Officers Association. January 2008. CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. Sacramento, CA.

consideration. Similarly, in this scenario, a lead agency may not be able to require mitigation for emissions that result from the manufacturing process. Mitigation can only be required for emissions that are actually caused by the project (State CEQA Guidelines, § 15126.4(a)(4)). Conversely, other projects may spur the manufacture of certain materials, and in such cases, consideration of the indirect effects of a project resulting from the manufacture of its components may be appropriate. A lead agency must determine whether certain effects are indirect effects of a project, and where substantial evidence supports a fair argument that such effects are attributable to a project, that evidence must be considered. However, to avoid potential confusion regarding the scope of indirect effects that must be analyzed, the term "lifecycle" has been removed from Appendix F.³¹¹

As noted in the Draft EIR and acknowledged by the commenter, there is no one specific source for the manufacture and production of paper bags that can be traced to the proposed ordinances. This however, does not necessitate essentially unbounded and potentially global analysis of the project's impacts. As discussed under CEQA Guidelines Section 15204(a), "reviewers should be aware that the adequacy of an EIR *is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project..."* (italics added). This reasoning is further supported by CEQA case law [see *Rio Vista Farm Bureau Center et al. v. County of Solano* (1992) 5 Cal.App45th 351, 373 (holding that while development may be foreseeable, specific development at a particular location is speculative]).

Furthermore, while site-specific locations for the manufacture of bags were too speculative to analyze, the Draft EIR did provide non-site-specific project emissions analysis of bag manufacturing (see response to STPB Comment No. 27). For the reasons discussed above and in the EIR, analysis of air quality and GHG impacts was appropriate and did not need to address speculative locations, such as Canada.

Similarly, the significance thresholds used in the Draft EIR were appropriate and provide for a conservative analysis. As described in Section 2.0 of the EIR, the proposed "project" being evaluated under CEQA is the proposed ordinances to ban the issuance of plastic carryout bags within the County of Los Angeles. Therefore, the EIR evaluates the proposed ordinances in accordance with applicable regulations and thresholds for the County of Los Angeles. As discussed in Draft EIR Section 3.1, the project falls into the SCAQMD portion of the South Coast Air Basin (SCAB) and the AVAQMD portion of the Mojave Desert Air Basin (MDAB). As further discussed on page 3.1-3, these areas are in severe-17 non-attainment and non-attainment for several criteria pollutants. These levels of non-attainment have resulted in more stringent air quality regulations and significance thresholds. Therefore, the use of the SCAQMD thresholds is considered to result in a conservative analysis in comparison to other locations (or Canada as suggested in the comment).

Furthermore, the County of Los Angeles is the lead agency, and has used its discretion, consistent with CEQA, in selecting its significance thresholds. The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data. An iron clad definition of significant effect is not always possible [CEQA Guidelines § 15064(b)]. Therefore, a lead agency

³¹¹ California Natural Resources Agency. December 2009. *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*. Available at: http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf

has the discretion to determine whether to classify an impact described in an EIR as "significant." [*Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, relying upon National Parks & Conservation Ass'n v. County of Riverside (1999) 71 Cal.App.4th 1341, 1357].

Furthermore, the use of the GHG thresholds of significance in Section 3.3.4 was appropriate, as the impacts are assumed to contribute to global GHGs regardless of where they are generated. There are no worldwide adopted thresholds for GHG emissions.

In terms of GHG emissions, as described in Section 3.3.4 of the EIR, the State has not determined significance thresholds for evaluating potential impacts on GHG emissions under CEQA, beyond the general, qualitative questions contained in Appendix G of the State CEQA Guidelines. The County of Los Angeles and the cities within the County of Los Angeles fall within one of two air districts: the SCAQMD and AVAQMD. Neither the SCAQMD nor the AVAQMD has adopted GHG significance thresholds under CEQA. Therefore, the County of Los Angeles has analyzed the potential of the proposed ordinances to result in significant impacts related to GHG emissions based on the review of regulatory and professional publications, the guidance on analyzing GHG emissions under CEQA provided by the California Office of the Attorney General,³¹² OPR,³¹³ and CARB,³¹⁴ and Appendix G of the State CEQA Guidelines. Based on this review, the County of Los Angeles evaluated the significance of GHG emission impacts related to whether the proposed ordinances would be consistent with laws and regulations managing GHG emissions, and specifically whether the proposed ordinances would be consistent with laws and regulations managing GHG emissions, and Statewide GHG emission goals.

As discussed in Section 3.1.3 of the EIR, the County of Los Angeles relied on significance thresholds recommended by the SCAQMD in the *CEQA Air Quality Handbook*, as revised in November 1993 and approved by the SCAQMD Board of Directors, to determine whether the proposed ordinances would have significant impacts to air quality due to mobile source emissions.³¹⁵ The SCAQMD's emission thresholds apply to all federally regulated air pollutants except lead, which is not exceeded in the SCAB. The County of Los Angeles also relied on significance thresholds provided by the AVAQMD to evaluate the significance of mobile source emissions that may be expected to occur in the portion of the County of Los Angeles that lies within the jurisdiction of the AVAQMD.³¹⁶ As noted in Section 3.1.4 of the EIR, and discussed above, life cycle assessment results for air quality cannot be reasonably evaluated in relation to the MDAB because the operational thresholds are intended for specific projects located in the SCAB and MDAB, whereas LCA data cover all stages of production, distribution, and end-of-life procedures related to a particular product. The manufacture and production of paper carryout bags does not appear to occur in the SCAB or the MDAB, with manufacturing facilities located in other

³¹² California Department of Justice Office of the Attorney General. 21 May 2008. *The California Environmental Quality Act Addressing Global Warming Impacts at the Local Agency Level*. Sacramento, CA.

³¹³ California Governor's Office of Planning and Research. 19 June 2008. CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review. Technical Advisory. Sacramento, CA.

³¹⁴ California Air Resources Board. 24 October 2008. *Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act.* Available at: http://www.opr.ca.gov/ceqa/pdfs/Prelim_Draft_Staff_Proposal_10-24-08.pdf

³¹⁵ South Coast Air Quality Management District. 1993. CEQA Air Quality Handbook. Diamond Bar, CA.

³¹⁶ Antelope Valley Air Quality Management District. May 2005. *Antelope Valley AQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*. Available at: http://www.mdagmd.ca.gov/Modules/ShowDocument.aspx?documentid = 916

air basins in the United States and in other countries that may have different emission thresholds and regulations. Indeed, it would be speculative to determine exactly how much plastic and paper carryout bag manufacturing would be indirectly affected by the proposed ordinances in each different region or country in order to prepare an environmental analysis using distinct thresholds of significance for each region or country.

Response to Comment No. 9

Comment No. 9 objects to using global and Statewide GHG emissions as thresholds for evaluating the significance of GHGs from the proposed ordinances. Because GHGs are considered to be a global issue, it is reasonable for the County of Los Angeles to look at cumulative emissions. As noted in Section 3.3 of the EIR, significance thresholds for GHG emissions have not yet been adopted by the SCAQMD or AVAQMD, nor any federal or State agency responsible for managing GHG emissions in the County of Los Angeles or the South Coast Air Basin. On the local level, the County of Los Angeles has not adopted a GHG emission significance threshold. Neither CEQA Statutes nor CEQA Guidelines establish thresholds of significance. A lead agency has the discretion to determine whether to classify an impact described in an EIR as "significant" [*Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, relying upon National Parks & Conservation Ass'n v. County of Riverside (1999) 71 Cal.App.4th 1341, 1357].

As set forth in Section 3.3.5, the quantitative analysis of GHG impacts was viewed (1) in context with GHG emission reduction goals of both California and the County of Los Angeles, and (2) in a cumulative context. California's GHG emissions target for 2020 is 427 million metric tons per year (Table 3.3.2-1 and Table 3.3.5-9) and the County of Los Angeles's GHG emissions target for 2020 is 108 million metric tons per year (Table 3.3.3-1 and Table 3.3.5-9). The LCA data was analyzed and applied to these target 2020 emission levels. In addition, the County of Los Angeles acknowledged that the proposed ordinances could affect the entire County of Los Angeles, and that the resultant indirect GHG emissions would not occur at any one particular facility. Assuming this, it was reasonable to also consider the indirect GHG emissions on a per-person, or per-capita basis. The commenter also objects to the County of Los Angeles disclosing that paper bags are not one of the top 10 contributors to GHG emissions. It is reasonable for the County of Los Angeles to put into context GHG impacts from paper carryout bags against the major sources of GHG emissions in California, as discussed in Section 3.3.1 and as shown in Figures 3.3.1-1 and 3.3.1-2, to highlight that paper carryout bags are not the main driving force behind GHG emissions.

The commenter states that the thresholds are inapplicable and inadequate. The thresholds utilized in the chapter to analyze the cumulative impacts are legally adequate and consistent with CEQA Guidelines Section 15064.7 and Appendix G. Section 3.3.4 provides thresholds upon which the cumulative significance conclusions are based, namely, "would the proposed ordinance have any of the following effects:

- Generate greenhouse gas emissions, either directly or indirectly that may have a significant effect on the environment
- Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases"

The second threshold is further explained by two additional significance criteria:

• Inconsistency with laws and regulations in managing GHG emissions

• Inconsistency with the goal to reduce GHG emissions to 1990 levels (approximately 427 metric tons or 9.6 metric tons of CO_{2e} per capita) as required by AB 32"

Section 3.3 analyzes life cycle impacts of conversion from the use of plastic to the use of paper carryout bags (Table 3.3.5-9), end of life emissions (Table 3.3.5-10), increased vehicle trips (Table 3.3.5-13), and cumulative impacts (pages 3.3-36 to 3.3-37). The significance conclusions are based on the thresholds identified in Section 3.3.4.

The per capita analysis was utilized to evaluate consistency of the project with the goals of AB 32 and its implementation document, the CARB's *Climate Change Scoping Plan*, and no significant impacts were found.

Applying the threshold "Generate greenhouse gas emissions, either directly or indirectly that may have a significant effect on the environment," Section 3.3.5 conservatively concluded that the end of life impacts resulting from an 85- and 100-percent conversion from plastic to paper carryout bags, would be significant. This impact conclusion is also provided in Section 3.3.7. As discussed in the chapter, the GHG impacts of the proposed project were analyzed on a cumulative basis. The threshold "Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases" was applied for conversion from plastic to paper carryout bags and truck trip analyses and the summary of projections approach was used to determine cumulative impact. This is consistent with CEQA Guidelines §15130(b)(1)(B) which provides that cumulative analysis may be based on a "summary of projections in an adopted local, regional or Statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions" (emphasis added). The GHG cumulative analysis was based on consistency with the GHG projections in California's plan to implement AB 32: California Air Resources Board's Climate Change Scoping Plan and the County of Los Angeles's Energy and Environmental Policy No. 3-045. Based on this analysis, no significant cumulative impacts were found.

The threshold "Generate greenhouse gas emissions, either directly or indirectly that may have a significant effect on the environment" was applied to the end of life emissions. The overall conclusion from this analysis, based on a conservative worst-case scenario, is that there would be the potential for a cumulatively considerable impact.

The commenter also states that the baselines are "inapplicable and inadequate." The baseline for analysis was 2009, which was the date of the Notice of Preparation. This is consistent with CEQA Guidelines §15125(a), which provides that an EIR must include a description of the physical environmental conditions in the vicinity of the project as they exist at the time of the notice of preparation is published"

Response to Comment No. 10

Comment No. 10 states that the County of Los Angeles proposes to reach at least 50,000 residents with a message that their choice of bag *significantly* impacts the environment. Section 2.4.2 of the EIR notes that one of the objectives of the proposed ordinances is to substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags; however, this statement does not imply that each consumer's bag choice would constitute a significant impact under CEQA. Comment No. 10 asserts that "Significance in the context of this

project is determined by the comparative environmental impacts of different bag choices: which is better for the environment—plastic, paper or reusable." Impacts were determined by evaluating scenarios where consumers would switch from using plastic carryout bags to using paper carryout bags and reusable bags as a result of the proposed ordinances. Several scenarios and five alternatives were evaluated in order to provide a thorough exploration of potential environmental impacts due to adoption of the ordinances. For each environmental issue area, significance was determined in the context of the significance thresholds established under CEQA. The EIR does not claim that the bag choice of each individual consumer is significant in the context of CEQA.

Response to Comment No. 11

Comment No. 11 objects to the fact that the EIR analysis did not evaluate the GHG emission impacts of the proposed ordinances using the USEPA's GHG equivalency calculator. Use of the USEPA's GHG equivalency calculator is not a requirement for GHG analysis under CEQA. The County of Los Angeles has calculated GHG emissions for the proposed ordinances in Section 3.3 of the EIR. The County of Los Angeles has also evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use and potential indirect cumulative increase in GHG emissions that may be caused To maximize to the greatest extent feasible the potential by the proposed ordinances. environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2).

The commenter did attempt to extrapolate the County of Los Angeles's emissions by using the USEPA's GHG equivalency calculator as set forth in its comment letter, and those equivalency numbers, like all comments, are part of the record and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

The commenter also notes that the "equivalency figures must be based on the cumulative impacts analysis, taking into account all other past projects, current projects, and probable future projects." As noted before, use of the USEPA's GHG equivalency calculator is not a requirement for GHG analysis under CEQA. However, the commenter did attempt to extrapolate the County of Los Angeles's total emissions using the 6 billion plastic carryout bag figure, by using the USEPA's GHG equivalency calculator as set forth in it's comment letter, and those claimed equivalency numbers, like all comments, are part of the record and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

The commenter also asserts that "none of the tables in the DEIR are based on such cumulative impacts." Please see response to Comment No. 12.

Response to Comment No. 12

Comment No. 12 states that the EIR should evaluate cumulative impacts of the proposed County of Los Angeles ordinances, together with similar ordinances, proposed, adopted, or pending in the City of Berkeley, the City of Los Angeles, the City of Malibu, the City of Manhattan Beach, the City of Palo Alto, the City and County of San Francisco, the City of San Jose, the City of Santa Monica and others. Throughout each subsection in Section 3.0 of the EIR, each environmental issue has been evaluated by implementation of the proposed County of Los Angeles ordinance in the unincorporated territories of the County of Los Angeles, and implementation of similar proposed ordinances in the 88 cities of the County of Los Angeles. Therefore, the analysis of project impacts already includes the cumulative impacts resulting from all 88 cities in the incorporated areas of the County of Los Angeles if they were to all adopt similar proposed ordinances, including the Cities of Los Angeles, Malibu, Manhattan Beach, and Santa Monica. While it is possible that not all 88 cities would adopt similar proposed ordinances, in the interest of being conservative, the County of Los Angeles assumed that all 88 cities would do so. The County of Los Angeles, again in the interest of being conservative, thereafter assumed that 10,000 plastic carryout bags are distributed in each of the stores that would be affected by similar proposed ordinances, even though this number is more than twice the bag average reported by the California Department of Resources Recycling and Recovery (CalRecycle) in 2008 for stores affected by AB 2449. In 2008, 4,700 stores Statewide affected by AB 2449 reported an average of 4,695 bags used per store per day.³¹⁷ In addition, similar cumulative impact calculations were done in Section 4.0 with the various alternatives, where appropriate.

The County of Los Angeles was not required to include the Cities of Berkeley, Palo Alto, San Francisco, San Jose, and "all other plastic bag ban ordinances and reduction projects that are being considered or may be or have been implemented in California and outside California." The County of Los Angeles undertook a cumulative analysis for all of the past, current, and reasonably foreseeable related ordinances within the physical area that would be affected by the proposed ordinances. Other potential related ordinances outside of the County of Los Angeles that were noted in Comment No. 12 would not share the same physical environment, the same air basin, or the same watershed as the proposed ordinances. Lead agencies under CEQA have discretion to select the appropriate geographic context for environmental impact analysis [Ebbetts Pass Forest Watch v. Dept. of Forestry and Fire Protection (2004) 123 Cal. App. 4th 1331, 1351]. It would be speculative to attempt to quantify all potential related activities throughout California and beyond, and Section 15151 of the State CEQA Guidelines states, "an evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." Further, the discussion of cumulative impacts in an EIR "should be guided by the standards of practicability and reasonableness" [State CEQA Guidelines §15130(b)]. Ordinances outside of the County of Los Angeles would also be subject to different regulations and thresholds of significance. GHG emissions were evaluated in the EIR on a per-capita basis in accordance with the GHG emission reduction goals established by the County of Los Angeles. Per-capita GHG emissions resulting from ordinances in other counties or states would not affect the per-capita emission targets for residents in the County of Los Angeles. Therefore, the EIR provides an adequate analysis of cumulative impacts.

³¹⁷ Dona Sturgess, California Department of Resources Recycling and Recovery, Sacramento, CA. 29 April 2010. E-mail to Luke Mitchell, County of Los Angeles, Department of Public Works, Alhambra, CA.

Response to Comment No. 13

Comment No. 13 indicates that there is little substantial evidence that plastic bags kill marine mammals, marine animals, or seabirds. The County of Los Angeles has reviewed and considered numerous studies during preparation of the EIR, and describes the biological impacts of plastic carryout bags in Section 3.2 of the EIR. As discussed in Section 3.2.4 of the EIR, trash has potentially harmful impacts to species, and plastic bags are one of the most common items of trash observed by Regional Water Quality Control Board staff.³¹⁸ Seabirds, sea turtles, and marine mammals that feed on or near the ocean surface are especially prone to ingesting plastic debris that floats.^{319,320,321} The impacts include fatalities as a result of ingestion, starvation, suffocation, infection, drowning, and entanglement.^{322,323} The recovery plan for the endangered leatherback turtle (Dermochelys coriacea) lists ingestion of marine debris, specifically including plastic bags, as one of the factors threatening this species. The recovery plan says that leatherback turtles consume floating plastic, including plastic bags, because they appear to mistake the floating plastic for jellyfish.³²⁴ The recovery plans for the threatened green turtle, loggerhead turtle, and olive ridley turtle also note plastic bag ingestion as a threat to those species.^{325,326,327} Ingestion of plastics is also noted as a threat in the recovery plan for the federally endangered short-tailed albatross.³²⁸ Ingestion of plastic debris by wildlife is known to cause wildlife deaths, and plastic carryout bags are a subcategory of plastic debris.^{329,330,331} Since preparation of the EIR, the County of Los Angeles

³²⁵ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the East Pacific Green Turtle*. Available at:

http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_green_eastpacific.pdf

³²⁶ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Loggerhead Turtle*. Available at:

http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_loggerhead_pacific.pdf

³²⁷ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Olive Ridley Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_oliveridley.pdf

³²⁸ U.S. Fish and Wildlife Service. September 2008. *Short-tailed Albatross Recovery Plan*. Available at: http://alaska.fws.gov/fisheries/endangered/pdf/stal recovery plan.pdf

³¹⁸ Regional Water Quality Control Board, Los Angeles Region. Revised 27 July 2007. "Trash Total Maximum Daily Loads for the Los Angeles River Watershed." Los Angeles, CA.

³¹⁹ California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc_ocean_litter_final_strategy.pdf

³²⁰ National Research Council. 2008. "Tackling Marine Debris in the 21st Century." Committee on the Effectiveness of National and International Measures to Prevent and Reduce Marine Debris and Its Impacts.

³²¹ U.S. Environmental Protection Agency. August 2002. Assessing and Monitoring Floatable Debris. Washington, DC.

³²² California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc ocean litter final strategy.pdf

³²³ Gregory, Murray R. 2009. "Environmental Implications of Plastic debris in Marine Settings –Entanglement, Ingestion, Smothering, Hangers-on, Hitch-hiking and Alien Invasions." In *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364: 2013–2025.

³²⁴ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. Recovery Plan for U.S. Pacific Populations of the Leatherback Turtle. Available at:

http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_leatherback_pacific.pdf

³²⁹ California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc_ocean_litter_final_strategy.pdf

has been made aware of an article published in the European Journal of Wildlife Research that attributes the death of a beaked whale to the ingestion of four plastic bags, two of which were plastic shopping bags.³³² This reference has been added to the clarification and revisions to Section 3.2 of the EIR (see Section 12.2).

Comment No. 13 does not object to the number of plastic bag wildlife entanglements reported in the UNEP study, which is referenced in the EIR.³³³ The number of wildlife found entangled in plastic bags (32), as reported in the UNEP study, composes 9.4 percent of the total number (235) of wildlife entanglements recorded by volunteers in 2007.³³⁴ Fifteen percent of the birds found entangled in marine litter were tangled in plastic carryout bags.³³⁵ Although the UNEP study notes that only 235 global wildlife entanglements in marine litter were recorded in 2007, the study is not exhaustive, and the total number of species killed by marine litter throughout the globe is unknown. Comment No. 13 suggests that the EIR should discuss, disclose, or address the number (if any) of plastic bags from the County of Los Angeles that reach the Pacific Ocean and the number of marine animals and seabirds that are killed by plastic bags. Although the UNEP study results were not obtained specifically off the coast of the County of Los Angeles, they do provide an example of how wildlife can become entangled in plastic bags. In aiming to reduce the amount of plastic carryout bag litter that blights public spaces, the proposed ordinances have the potential to reduce the amount of plastic carryout bag litter that enters the County of Los Angeles storm drain system, which drains to the Pacific Ocean. Section 15151 of the State CEQA Guidelines states, "an evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." The County of Los Angeles has made reasonable efforts to evaluate the biological impacts of the proposed ordinances.

Comment No. 13 indicates that there is no evidence suggesting the plastic bags or plastic bag debris cause fatalities in turtles. There is evidence that shows that turtles ingest plastic bag debris, and an article in the *Marine Pollution Bulletin* concludes that small amounts of marine debris can kill a turtle.³³⁶ This *Marine Pollution Bulletin* study notes that a given piece of debris could be oriented in such a way as to block the gut and cause the death of the animal.³³⁷ In a study conducted in the 1980s of the ingestion of debris by marine animals, 14 sea turtles were noted to

³³² Gomerčić, H. et al. 2006. "Biological aspects of Cuvier's beaked whale (*Ziphius cavirostris*) recorded in the Croation part of the Adriatic Sea." In *European Journal of Wildlife Research*. DOI 10.1007/s10344-006-0032-8.

³³³ United Nations Environment Programme. April 2009. *Marine Litter: A Global Challenge*. Nairobi, Kenya. Available at: http://www.unep.org/regionalseas/marinelitter/publications/docs/Marine_Litter_A_Global_Challenge.pdf

³³⁴ United Nations Environment Programme. April 2009. *Marine Litter: A Global Challenge*. Nairobi, Kenya. Available at: http://www.unep.org/regionalseas/marinelitter/publications/docs/Marine_Litter_A_Global_Challenge.pdf

³³⁵ United Nations Environment Programme. April 2009. *Marine Litter: A Global Challenge*. Nairobi, Kenya. Available at: http://www.unep.org/regionalseas/marinelitter/publications/docs/Marine_Litter_A_Global_Challenge.pdf

³³⁶ Bjorndal, K. et al. 1994. "Ingestion of marine debris by juvenile sea turtles in coastal Florida habitats." *Marine Pollution Bulletin, 28* (3). Available at:

 $http://accstr.ufl.edu/publications/BjorndalEtAl_1994_IngestionOfMarineDebrisByJuvenileSeaTurtlesInCostalFlorida.pdf$

³³⁷ Bjorndal, K. *et al.* 1994. "Ingestion of marine debris by juvenile sea turtles in coastal Florida habitats." In *Marine Pollution Bulletin, 28* (3). Available at:

 $http://accstr.ufl.edu/publications/BjorndalEtAl_1994_IngestionOfMarineDebrisByJuvenileSeaTurtlesInCostalFlorida.pdf$

³³⁰ Gregory, Murray R. 2009. "Environmental Implications of Plastic debris in Marine Settings –Entanglement, Ingestion, Smothering, Hangers-on, Hitch-hiking and Alien Invasions." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 2013–2025.

³³¹ Azzarello, M. and Van Vleet, E. 1987. "Marine Birds and Plastic Pollution." In *Marine Ecology – Progress Series*, 37: 295–303.

have ingested synthetic debris.³³⁸ Of these animals, the death of five leatherback turtles was specifically linked to the presences of a large bolus of plastic occluding their digestive tracts, and one such bolus was made up of 15 quart-sized plastic bags that were blocking the phyloric opening.³³⁹ As noted previously, and as discussed in Section 3.2 of the EIR, the recovery plans for the endangered leatherback turtle, the threatened green turtle, loggerhead turtle, and olive ridley turtle, list ingestion of plastic bags as a threat to the survival of those species.^{340,341,342,343}

Response to Comment No. 14

Comment No. 14 objects to the use of "outdated" recycling data for plastic bags from the CIWMB. The County of Los Angeles has confirmed that as of the date of preparation of the EIR, the numbers reported from CIWMB have not changed. CIWMB still reports on its Web site, which was last updated on February 3, 2010, that "Recycling rates for plastic film are very low. Currently, the CIWMB estimates that less than 5 percent of plastic film in California is recycled."³⁴⁴ Section 2.3.2 of the EIR states that the USEPA reported that the recycling rate for high-density polyethylene plastic bags and sacks was 11.9 percent in 2007, compared to a recycling rate of 36.8 percent of paper bags and sacks.³⁴⁵ However, the USEPA statistics include all types of bags and sacks. Section 3.0 of the EIR uses the most recent recycling data to conservatively evaluate the impacts due to plastic carryout bags, even though the County of Los Angeles conservatively estimates that the percentage of plastic carryout bags that are recycled in the County of Los Angeles is less than 5 percent.

Response to Comment No. 15

Comment No. 15 objects to the fact that the EIR does not state the commenter's assertion that plastic bags do not degrade in landfills is an environmental benefit. Section 3.3.5 of the EIR does analyze life-cycle GHG emission impacts, and concludes from several life cycle assessments, that GHG emissions due to the life cycle of paper carryout bags are greater than life cycle of plastic

³³⁸ Okeanos Ocean Research Foundation. 1989. *Marine Mammal and Sea Turtle Encounters with Marine Debris in the New York Bight and the Northeast Atlantic*. Available at: http://swfsc.noaa.gov/publications/TM/SWFSC/NOAA-TM-NMFS-SWFSC-154_P562.PDF

³³⁹ Okeanos Ocean Research Foundation. 1989. *Marine Mammal and Sea Turtle Encounters with Marine Debris in the New York Bight and the Northeast Atlantic*. Available at: http://swfsc.noaa.gov/publications/TM/SWFSC/NOAA-TM-NMFS-SWFSC-154_P562.PDF

³⁴⁰ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Leatherback Turtle*. Available at:

http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_leatherback_pacific.pdf

³⁴¹ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. Recovery Plan for U.S. Pacific Populations of the East Pacific Green Turtle. Available at:

http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_green_eastpacific.pdf

³⁴² National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Loggerhead Turtle*. Available at:

http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_loggerhead_pacific.pdf

³⁴³ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Olive Ridley Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_oliveridley.pdf

³⁴⁴ California Integrated Waste Management District. Update 3 February 2010. *Plastics Recycling: Plastic Film Cooperative Recycling Initiative*. Web site. Available at: http://www.calrecycle.ca.gov/Plastics/Film/#Problem

³⁴⁵ U.S. Environmental Protection Agency. November 2008. "Table 21: Recovery of Products in Municipal Solid Waste, 1960 to 2007." *Municipal Solid Waste in the United States: 2007 Facts and Figures*. Washington, DC. Available at: http://www.epa.gov/waste/nonhaz/municipal/pubs/msw07-rpt.pdf.

carryout bags. These analyses account for the degradation of paper carryout bags in landfills. However, the fact that plastic carryout bags do not degrade in landfills can also be considered an environmental disadvantage, as it means that the disposal of plastic carryout bags contribute to the generation of municipal solid waste. This comment, like all comments, is part of the record and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

The County of Los Angeles has obtained survey data from employees at solid waste facilities within the County of Los Angeles that conclusively indicate that plastic carryout bags pose serious operational problems for landfills.³⁴⁶ All six survey respondents stated that plastic bags cause serious litter issues due to their lightweight nature and propensity to become airborne.³⁴⁷ Each survey respondent indicated that it was costly and time consuming to provide cleanup crews to address the plastic bag litter problem in neighborhoods adjacent to the landfills.³⁴⁸ The results of this survey have been added to Sections 2.2.1 and 3.5.4 of the EIR (see Section 12.2).

Response to Comment No. 16

Comment No. 16 states that the EIR should address landfill impacts due to reusable bags. The issue of solid waste is addressed in Section 3.5.4 of the EIR. As discussed in that section, the proposed ordinances would be anticipated to increase consumer use and eventual disposal of reusable bags, which are heavier and take up more volume than plastic carryout bags. The manufacturing process of reusable bags would also be expected to generate solid waste. However, due to the fact that reusable bags are designed to be used multiple times, a conversion from plastic carryout bags to reusable bags would decrease the total number of bags that are disposed of in landfills, resulting in a decrease in solid waste disposal in the County of Los Angeles. For example, the Ecobilan Study evaluated the solid waste impacts of a LDPE reusable bag and concluded that this particular reusable bag has a smaller impact on solid waste than a plastic carryout bag, as long as the reusable bag is used a minimum of three times.³⁴⁹ The impacts of the reusable bag are reduced further when the bag is used additional times. The Hyder Study, which was used as a reference throughout the EIR, evaluated the life cycle impacts of several different types of bags and concluded that polypropylene and calico reusable bags that are used 104 times by consumers require significantly less material consumption than paper and plastic carryout bags (Table 13-2).³⁵⁰ Therefore, impacts related to solid waste as a result of converting from plastic carryout bags to reusable bags in the County of Los Angeles would be expected to be below the level of significance.

³⁴⁶ County of Los Angeles Department of Public Works. 2007. Survey – All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles.

³⁴⁷ County of Los Angeles Department of Public Works. 2007. Survey: "All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles."

³⁴⁸ County of Los Angeles Department of Public Works. 2007. Survey: "All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles."

³⁴⁹ Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France.

³⁵⁰ Hyder Consulting. 18 April 2007. *Comparison of existing life cycle analyses of plastic bag alternatives*. Prepared for: Sustainability Victoria, Victoria, Australia.

Response to Comment No. 17

Comment No. 17 states that the EIR should discuss the hygiene impacts of reusable bags that have not been cleaned. Although CEQA does not require analysis of health impacts, Section ES.3 of the EIR addresses potential health concerns related to reusable bags. As discussed in Section ES.3 and as is the case for any reusable household item that comes in contact with food items, such as chopping boards, countertops, tableware, or table linens, reusable bags do not pose a serious public health risk if consumers care for the bags accordingly and/or clean the bags regularly. If reusable bags are made of cloth or fabric, they can be machine washable. If reusable bags are made of durable plastic, they can be rinsed or wiped clean. Further, to control for any possible public health issues, the County of Los Angeles is proposing that the proposed ordinances require that the material used in such bags be machine washable. The definition of a reusable bag has been modified to include this requirement in Section 2.2.3 of the EIR (see Section 12.2).

Health risks, if any, from reusable bags can be minimized if the consumer takes appropriate steps, such as washing and disinfecting the bags, using them only for groceries and using separate bags for raw meat products, being careful with where they are stored, and allowing bags to dry before folding and storing.³⁵¹ A representative of the County of Los Angeles Department of Public Health, which is charged with protecting and improving the health of County of Los Angeles residents, has stated that the public health risks of reusable bags are minimal.³⁵² Further, as discussed in Section 2.2.4 of the EIR, the City and County of San Francisco, since enacting their plastic bag ban in 2007, have not reported negative public health issues related to the increased use of reusable bags.³⁵³

Comment No. 17 further states that a recent 2010 University of Arizona study indicates that 97 percent of people surveyed for the study did not wash their reusable bags. What this study shows, which is consistent with the County of Los Angeles's discussion in Section ES.3 of the EIR, is that any risk is minimized if proper care is taken. Indeed, the study found that washing the reusable bags, either by hand or machine, cut bacterial contamination by nearly 100 percent.³⁵⁴

Comment No. 17 also states, "if people become concerned about the hygiene issues associated with reusable bags, many or most people will stop using them and will use paper bags instead if plastic bags are banned," which is a speculative assertion. If consumers become concerned about the hygiene associated with reusable bags, it is also possible that consumers will clean the bags more frequently. The comment suggests that a comprehensive education campaign is necessary to ensure that bag users properly and frequently wash their bags, which like all comments, will be considered by the County of Los Angeles Board of Supervisors in the decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

³⁵¹ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

³⁵² Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

³⁵³ Galbreath, Rick, County of San Francisco, CA. 10 May 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, CA.

³⁵⁴ Charles P. Gerba, David Williams, and Ryan G. Sinclair. 8 June 2010. Assessment of the Potential for Cross Contamination of Food Products by Reusable Shopping Bags.

Response to Comment No. 18

Comment No. 18 objects to any data presented in the EIR that assumes that a paper carryout bag is a reusable bag. None of the EIR analysis assumes that a paper carryout bag can qualify as a reusable bag.

Response to Comment No. 19

Comment No. 19 objects to the discussion of the City of San Francisco ordinance on page 2-5 of the EIR. The EIR states that, as a result of the City of San Francisco ordinance, the City of San Francisco has not noted an increase in the number of waste discharge permits or air quality permits required for paper bag manufacturing in the district, nor has any increase been noted in the eutrophication in waterways due to increased use of paper bags. Comment No. 19 states that these negative environmental impacts have not been noted by the City of San Francisco because paper carryout bags are not manufactured in San Francisco. The County of Los Angeles recognizes this fact, and also recognizes that paper bag manufacturing does not occur in the County of Los Therefore, it can be concluded that the environmental impacts of paper bag Angeles. manufacturing, as a possible indirect result of the proposed ordinances, will not result in negative environmental impacts in the County of Los Angeles due to the fact that paper bag manufacturing does not occur in this region. This point is noted, as CEQA is a California law and should only be applied to projects located in California. As described in Section 2.0 of the EIR, the proposed project being evaluated under CEOA is the proposed ordinances to ban the issuance of plastic carryout bags within the County of Los Angeles.

For clarification, a statement has been added to Section 2.2.4 of the EIR that paper bags are not manufactured in the City of San Francisco (see Section 12.2).

Comment No. 19 also states that the use of paper carryout bags has increased in the City of San Francisco since implementation of a ban on plastic carryout bags. Comment No. 19 sites the ULS Report as the substantial evidence to support this claim.³⁵⁵ The ULS report is qualitative in natural and does not provide comprehensive statistics that could be used to determine the percentage increase in the use of paper carryout bags and reusable bags since implementation of the The report fails to establish baseline conditions prior to implementation of the ordinance. ordinance and surveys stores that may have primarily provided paper carryout bags to consumers in the past, and therefore may not have changed their bagging habits since implementation of the ordinance. The City of San Francisco reported that paper retail bags composed 0.4 percent of all large litter items collected in 2007 and 0.35 percent of all large litter items collected in 2008, which does not show an increase in paper carryout bag littering from 2007 to 2008.³⁵⁶ However, the County of Los Angeles does recognize that the proposed ordinances may result in an increase in the use of paper carryout bags and has analyzed environmental impacts accordingly in the EIR based on conservative scenarios where 85 percent or 100 percent of consumers switch from using plastic carryout bags to using paper carryout bags. It is important to note that San Francisco's ordinance did not place any limitation on the issuance of paper carryout bags and did not aim to decrease paper carryout bag consumption. In Section 4.0 of the EIR, the County of Los Angeles has

³⁵⁵ The ULS Report. 2008. A Qualitative Study of Grocery Bag Use in San Francisco. Available at: http://www.use-less-stuff.com/Field-Report-on-San-Francisco-Plastic-Bag-Ban.pdf

³⁵⁶ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf

evaluated four alternatives to the proposed ordinances that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. To maximize to the greatest extent feasible the potential environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of paper carryout bags and place a fee or charge on the issuance of p

Response to Comment No. 20

Comment No. 20 states that the EIR should evaluate an alternative to the proposed ordinances that would require all plastic carryout bags to be made of oxo-biodegradable plastic. Please see the County of Los Angeles's responses to Comment Nos. 4 through 20 from the July 5, 2010, letter from Symphony Environmental Technologies. As described in Section 4.1 of the EIR and Appendix B, encouraging a transition to the use of biodegradable bags is not a viable alternative to the proposed ordinances. As discussed in Appendix B of the EIR, the necessary time span and extent to which oxo-biodegradable synthetic plastic fragments will degrade is unclear. The study by Loughborogh University concluded that oxo-biodegradable plastics will remain as litter for two to five years prior to degradation.³⁵⁷ Although oxo-biodegradable plastic will degrade after an undetermined period of time, the environmental impacts of oxo-biodegradable plastic prior to complete degradation are uncertain.³⁵⁸ The Loughborough University study referenced in Appendix B of the EIR concludes, "incorporation of additives into petroleum-based plastics that cause those plastics to undergo accelerated degradation does not improve their environmental impact and potentially gives rise to certain negative effects."³⁵⁹

Although oxo-biodegradable plastic will degrade after an undetermined period of time, encouraging a transition to the use of oxo-biodegradable plastic carryout bags would not assist the County of Los Angeles in reducing the number of plastic carryout bags used or the amount of plastic carryout bags disposed of as litter on a daily basis. Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project. Requiring stores to issue oxo-biodegradable bags would not assist the County of Los Angeles in attaining the objectives of the proposed ordinances; therefore, this suggested alternative was not carried forward for detailed analysis in the EIR. While oxo-biodegradable bags are touted as a solution after bags are littered, the County of Los Angeles objective is to prevent the litter from occurring in the first place.

³⁵⁷ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Prepared for the Department for Environment, Food, and Rural Affairs. London, UK. Available at: http://randd.defra.gov.uk/Document.aspx?Document=EV0422_8858_FRP.pdf

³⁵⁸ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Prepared for the Department for Environment, Food, and Rural Affairs. London, UK. Available at: http://randd.defra.gov.uk/Document.aspx?Document = EV0422_8858_FRP.pdf

³⁵⁹ Loughborough University. January 2010. Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle. Prepared for the Department for Environment, Food, and Rural Affairs. London, UK. Available at: http://randd.defra.gov.uk/Document.aspx?Document = EV0422_8858_FRP.pdf

The commenter also asserts that County of Los Angeles staff did not meet with a representative from Symphony Environmental Technologies when he was in town in May 2010. County of Los Angeles staff were unavailable to meet with the representative, but did initiate correspondence by inviting Symphony Environmental Technologies to provide information about its product.³⁶⁰

Response to Comment No. 21

Comment No. 21 objects to the assertion that the Biodegradable Product Institute is a trade association rather than a recognized entity for verification of compostable plastic carryout bags. This comment does not affect the environmental analysis in the EIR, which assumes that the issuance of compostable carryout bags will be banned in the County of Los Angeles. The definition of compostable bags, including the reference to the Biodegradable Product Institute, has been removed from Section 2.2.3 of the EIR, because the proposed ordinances would ban all types of plastic carryout bags, regardless of whether they are verified to be compostable or not (see Section 12.2).

Response to Comment No. 22

Comment No. 22 objects to the use of the City of Los Angeles survey as a reference in the EIR. The County of Los Angeles recognizes that the City of Los Angeles survey is specific to a particular incorporated part of the County of Los Angeles. The County of Los Angeles is also aware that this study does not differentiate between the types of plastic bags encountered in storm drains. However, this study is a useful example of how serious the plastic litter problem can be in parts of the County of Los Angeles. In addition, results of a California Department of Transportation (Caltrans) study of catch basins alongside freeways in Los Angeles indicated that plastic film composed 7 percent by mass and 12 percent by volume of the total trash collected.³⁶¹

Comment No. 22 states that the EIR should have used the Watershed Quality Compliance Master Plan for Urban Runoff as a reference to explain how the City of Los Angeles survey is not typical of all conditions in the County of Los Angeles. The commenter's comments about this Master Plan are noted for the record. The Watershed Quality Compliance Master Plan includes a figure (Figure 4.1) depicting the areas of high trash generation in the City of Los Angeles.³⁶² The areas depicted in that figure that generate the most trash are not limited only to the 1-mile stretch of North Figueroa Street between Cypress Avenue and Avenue 43 that was analyzed in the City of Los Angeles survey, but extend throughout the south central portion of the City of Los Angeles. Figure 3.4.2-1 and Figure 3.4.2-2 of the EIR show the frequency of catch basin cleanout throughout the County of Los Angeles. Litter "hotspot" areas, which are estimated based on the frequency of storm drain catch basin cleanout, are located throughout the County of Los Angeles. It is reasonable to assume that these hotspot areas may experience higher levels of plastic carryout bag litter than other areas, and may experience similar levels of plastic carryout bag litter to those documented in the City of Los Angeles survey.

³⁶⁰ Skye, Coby, County of Los Angeles Department of Public Works. 28 April 2010. E-mail to Michael Stephen, Symphony Environmental Technologies.

³⁶¹ Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 2001. *Results of the Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation. Available at: http://www.owp.csus.edu/research/papers/PP020.pdf

³⁶² City of Los Angeles Department of Public Works. May 2009. *Water Quality Compliance Master Plan for Urban Runoff.* Available at: http://www.lacitysan.org/wpd/Siteorg/download/pdfs/tech_docs/WQCMPURChapters.pdf

Response to Comment No. 23

Comment No. 23 states that the EIR should have noted that the purpose of catch basins is to prevent litter, such as plastic carryout bags, from entering waterways. This statement is correct, but catch basins do not prevent 100 percent of litter from entering waterways, and not all storm drains have catch basins. Plastic carryout bags may also clog or block catch basins from working correctly. Clogged catch basins can cause unnecessary flooding during storms.³⁶³ County of Los Angeles Flood Control District staff have photographed carryout bags in the catch basins and storm drains (Figure 13-1, *Catch Basin Photographs*).³⁶⁴ The County of Los Angeles storm drain system connects directly to the Pacific Ocean; therefore, it is reasonable to assume that any plastic carryout bag litter that enters the storm drain system and is not captured by catch basins could end up in the Pacific Ocean.

Response to Comment No. 24

Comment No. 24 objects to the lack of disclosure in EIR of how and to what extent the proposed ordinances would reduce the litter cleanup costs incurred by the County of Los Angeles. The \$4 million reduction in litter and cleanup costs is a goal of the County of Los Angeles, and is appropriately stated as an objective for the proposed ordinances. For 2008–2009, the most recent vear available, the County of Los Angeles Flood Control District spent over \$24 million on these activities (\$1.9 million on maintenance of structural and treatment control BMPs, \$9.3 million on municipal street cleaning, \$1.9 million on catch basin cleaning, \$9.6 million on trash collection and recycling, and \$1.3 million on capital costs).³⁶⁵ Section 2.2.1 of the Draft EIR also notes that public agencies in California spend more than \$375 million each year for litter prevention, cleanup, and disposal.³⁶⁶ An ordinance that could result in a substantial reduction in litter would be reasonably expected to reduce the costs of litter cleanup in the County of Los Angeles. For example, if there is less plastic carryout bag litter clogging or blocking catch basins, it can be reasonably assumed that the frequency with which catch basins have to be cleaned out can be reduced, resulting in savings in catch-basin cleanup costs. Although CEOA does not require analysis of economic impacts, the information related to opportunities to substantially reduce the amount of litter attributable to plastic carryout bags from entering the storm drain system will be considered during the decision-making process for the County of Los Angeles ordinances and Final EIR.

³⁶³ County of Los Angeles Department of Public Works. 24 December 2008. "Public Works: Protecting the Public During Storm Season." Web site. Available at:

http://dpw.lacounty.gov/prg/pressroom/printview.aspx?ID = 206&newstype = PRESS.

³⁶⁴ County of Los Angeles. 2010. Photographs of Catch Basins in the County of Los Angeles provided to Sapphos Environmental, Inc. by the County of Los Angeles Flood Control District. Available for review at Sapphos Environmental, Inc. headquarters, 430 North Halstead Street, Pasadena, CA.

³⁶⁵ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

³⁶⁶ California Department of Transportation. Accessed on: September 2009. "Facts at a Glance." *Don't Trash California*. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf



PHOTO 1





FIGURE 13-1 Catch Basin Photographs





РНОТО 3





FIGURE 13-1 Catch Basin Photographs



The County of Los Angeles has obtained survey data from employees at solid waste facilities within the County of Los Angeles that conclusively indicate that plastic carryout bags pose serious operational problems for landfills.³⁶⁷ All six survey respondents stated that plastic bags cause serious litter issues due to their lightweight nature and propensity to become airborne.³⁶⁸ Each survey respondent indicated that it was costly and time consuming to provide cleanup crews to address the plastic bag litter problem in neighborhoods adjacent to the landfills.³⁶⁹ The results of this survey have been added to Sections 2.2.1 and 3.5.4 of the EIR (see Section 12.2).

The commenter asserts that there would also be more paper bag litter, and more bags going into landfills affecting tipping fees. With respect to the former, paper carryout bags, which are heavier than their plastic counterparts, are not as susceptible to being carried by the wind and becoming litter. During the Great Los Angeles River Clean Up, which collected trash from 30 catch basins in the Los Angeles River, it was observed that 20 percent by weight and 17 percent by volume of the trash collected consisted of paper; however, these results are not limited to paper carryout bags and include all types of paper litter.³⁷⁰ Out of the litter collected during the City of San Francisco Litter Audit in 2008, retail paper bags were not listed as one of the top 25 litter subcategories.³⁷¹ The City of San Francisco reported that paper retail bags constituted 0.4 percent of all large litter items collected in 2007, and 0.35 percent of all litter items collected in 2008.³⁷² The City of San Francisco Litter Audit concluded that 57.9 percent of all bag litter in 2008 was composed of unbranded plastic bags and 10.9 percent was composed of plastic retail bags, but only 6 percent of bag litter was composed of paper retail bags. As noted in Section 3.2 of the EIR, a study performed in Washington, DC, showed that paper products were not found in the streams except in localized areas, and were not present downstream.³⁷³

With respect to the comment that more paper bags are going into landfills, the County of Los Angeles has studied the impacts resulting from greater use of paper carryout bags as a result of the proposed ordinances and a number of reasonable alternatives, in Section 3.5.4 of the EIR, and Section 4.0. These alternatives include banning or placing a fee or charge on paper carryout bags. In addition, the County of Los Angeles is proposing Mitigation Measure GHG-1 (see Section 12.2), which includes implementing and/or expanding public outreach through a public education program that would aim to increase the percentage of paper carryout bags that are recycled in the County of Los Angeles, therefore reducing the amount potentially going to the landfills. The County of Los Angeles already has a public education program in place that encourages the

³⁶⁷ County of Los Angeles Department of Public Works. 2007. Survey: "All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles."

³⁶⁸ County of Los Angeles Department of Public Works. 2007. Survey: "All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles."

³⁶⁹ County of Los Angeles Department of Public Works. 2007. Survey: "All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles."

³⁷⁰ City of Los Angeles. 18 June 2004. *Characterization of Urban Litter*. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.

³⁷¹ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf

³⁷² City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008 litter audit.pdf

³⁷³ Anacostia Watershed Society. December 2008. *Anacostia Watershed Trash Reduction Plan*. Prepared for: District of Columbia Department of the Environment.

curbside recycling of a number of items, including paper carryout bags.³⁷⁴ Curbside recycling is a convenient free service to County of Los Angeles residents, and paper carryout bags are universally accepted for recycling in the County of Los Angeles. As noted in Section 2.3.2 of the EIR, the USEPA reported that the recycling rate for paper bags and sacks was 36.8 percent.

Response to Comment No. 25

Comment No. 25 objects to the use of the CIT Ekologik Study as a reference in the EIR. The EIR did not rely upon this study for the environmental analysis nor was the study used to guide the conclusions of the document. This study was referenced in the EIR to emphasize the widely varying results of LCAs and other studies that depend on the study boundaries, inputs, and methodologies used. As the CIT Ekologik study is not of key importance in the analysis in the EIR, the reference has been removed by way of the Clarifications and Revisions to the EIR.

Response to Comment No. 26

Comment No. 26 objects to the EIR indicating potentially significant environmental impacts from the No Project Alternative, since this alternative is the existing condition. The No Project Alternative was evaluated in comparison with the proposed ordinances rather than in comparison to the existing conditions. Section 15126.6 of the State CEQA Guidelines states that "The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." In the case of this EIR, the No Project Alternative is the current situation in the County of Los Angeles where plastic carryout bags are readily distributed to customers at the point of sale. As Section 4.2.1 of the EIR correctly analyzes, the manufacture, transportation, use, and disposal of these plastic carryout bags results in environmental impacts, which would be reduced or eliminated upon implementation of the proposed ordinances. The analysis of the No Project Alternative also takes into account the fact that the No Project Alternative would avoid any potential environmental impacts (both beneficial and adverse) resulting from the increase in use of paper carryout bags and reusable bags that would be anticipated as a result of the proposed ordinances. The sentence quoted in Comment No. 26 has been amended in the EIR to clarify that the No Project Alternative was evaluated in comparison to the proposed ordinances (see Section 12.2).

Response to Comment No. 27

Comment No. 27 indicates that the proposed ordinances would not achieve the objectives set forth by the County of Los Angeles for the sustainability and reduction of disposal at landfills. The County of Los Angeles acknowledges that goals listed in Section 2.4.2 of the EIR are listed in order of importance. However, the County of Los Angeles intends the proposed ordinances to increase consumer use of reusable bags, which would be expected to increase public awareness of environmental issues and promote source reduction and reuse in general by promoting the use of reusable bags, thereby enhancing sustainability. In addition, banning plastic carryout bags, coupled with the increase in environmental awareness of using reusable bags, would be expected to reduce disposal of plastic carryout bags at landfills. The County of Los Angeles has obtained survey data from employees at solid waste facilities within the County of Los Angeles that indicate

³⁷⁴ County of Los Angeles Department of Public Works. Accessed 12 October 2010. "Outreach Programs." Web site. Available at: http://dpw.lacounty.gov/epd/recycling/outreach.cfm and http://dpw.lacounty.gov/epd/recycling/crm.cfm

that plastic carryout bags pose serious operational problems for landfills.³⁷⁵ All six survey respondents stated that plastic bags cause serious litter issues due to their lightweight nature and propensity to become airborne.³⁷⁶ Each survey respondent indicated that it was costly and time-consuming to provide cleanup crews to address the plastic bag litter problem in neighborhoods in County of Los Angeles unincorporated and incorporated areas adjacent to the landfills.³⁷⁷ The landfill survey information has been added to Section 3.5 of the EIR (see Section 12.2).

In addition, in Section 4.0 of the EIR, the County of Los Angeles evaluated four alternatives to the proposed ordinances that would ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. To maximize to the greatest extent feasible the potential environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2). The alternatives analyzed that would place a limitation on the issuance of paper carryout bags would further assist the County of Los Angeles in achieving the objectives that relate to sustainability and reduction of trash disposal at landfills.

Response to Comment No. 28

Comment No. 28 states that the EIR did not evaluate the environmental impacts of a ban or a fee on the issuance of paper carryout bags. The County of Los Angeles has evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. To maximize to the greatest extent feasible the potential environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County of Los Angeles has also developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County of Los Angeles, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2).

³⁷⁵ County of Los Angeles Department of Public Works. 2007. Survey: "All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles."

³⁷⁶ County of Los Angeles Department of Public Works. 2007. Survey: "All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles."

³⁷⁷ County of Los Angeles Department of Public Works. 2007. Survey: "All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles."

Response to Comment No. 29

Comment No. 29 states that there are no separate and discrete findings in the EIR that address each of the points required to be considered in the EIR. Consistent with State of California and County of Los Angeles CEQA procedures, the County of Los Angeles prepared an Initial Study, a scoping process, and an EIR. This process considered each checklist question listed in Appendix G, Environmental Checklist Form, of the State CEQA Guidelines, and is documented throughout the Initial Study, scoping process, and in the EIR. In accordance with CEQA, written Findings of Fact will be prepared by the County of Los Angeles in conjunction with the Final EIR.

Response to Comment No. 30

Comment No. 30 objects to the fact that the EIR states that the State of California Superior Court dismissed the CEQA petition in *Save The Plastic Bag v. County of Los Angeles, Los Angeles Superior Court.* The Court dismissed the petition on May 3, 2010, after the Petitioner submitted its Request for Dismissal on that same date. The stipulation confirms that the County of Los Angeles Board of Supervisors directed an ordinance banning plastic bags be drafted subject to certain contingencies, including completion of any necessary environmental review under CEQA. Had Petitioner not reached out to the County of Los Angeles to settle the CEQA petition, the Court's May 3, 2010, ruling indicates that it would have lost on its CEQA challenge. The levels of participation and whether the goals of the voluntary Single Use Bag Reduction and Recycling Program were met are factors that will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.



July 16, 2010

Mr. Coby Skye County of Los Angeles Department of Public Works Environmental Programs Division 900 South Fremont Avenue, 3rd Floor Alhambra, California 91803

Via email: <u>CSkye@dpw.lacounty.gov</u>

Re: Comments of the Progressive Bag Affiliates of the American Chemistry Council on Draft Environmental Impact Review on Ordinances to Ban Plastic Carryout Bags in Los Angeles County

Dear Mr. Skye:

I write on behalf of the American Chemistry Council ("ACC")'s Progressive Bag Affiliates (PBA) to provide the attached comments on the Draft Environmental Impact Report ("DEIR") of Ordinances to Ban Plastic Carryout Bags in Los Angeles County prepared by Sapphos Environmental and dated June 2, 2010.

Our comments demonstrate that the DEIR, like the Initial Study, is inadequate and incomplete because it continues to miscalculate and misrepresent the adverse environmental impacts that would result from a shift from plastic to paper bags. A shift from plastic bags to paper bags would have the effect of significantly increasing the use of natural resources, fossil fuels, and water; and will have other significant adverse impacts, including increased greenhouse gas ("GHG") emissions and further burdening the County's landfills. The DEIR also fails to propose adequate mitigation measures.

1

California is fighting a serious and concerted battle with respect to GHGs, and the proposed ordinances are headed in the wrong direction. The citizens and policymakers of Los Angeles deserve a thorough and well-documented EIR so they can fully understand the environmental consequences of forcing a shift from plastic to paper, and the potential public health consequences of a shift from plastic to reusable bags. The California Environmental Quality Act requires nothing less.

Please feel free to contact me if I can assist you further with respect to these comments.

Very truly yours,

Than Jussion

Shari M. Jackson Director, Progressive Bag Affiliates, American Chemistry Council

Attachments:

- ACC Comments on DEIR 7/16/2010
- ACC Comments on Initial Study 1/4/2010
- Gerber, et al., 6/9/2010

COMMENTS OF THE PROGRESSIVE BAG AFFILIATES OF THE AMERICAN CHEMISTRY COUNCIL ON DRAFT ENVIRONMENTAL IMPACT REPORT -- ORDINANCES TO BAN PLASTIC CARRYOUT BAGS IN LOS ANGELES COUNTY

Introduction

Sound public policy and the California Environmental Quality Act (CEQA) require that Los Angeles carefully, and thoroughly, understand and evaluate the public the environmental consequences of the various proposals to ban or tax plastic bags. Indeed, this is a key purpose of this important environmental statute: to identify, evaluate, and understand environmental impacts, both salutary and adverse, before a government action is taken, in order to help the public and policymakers evaluate and weigh the consequences of an action. This exercise requires a well-prepared, carefully researched, accurate and sufficient Environmental Impact Report (EIR).

2

3

The Draft Environmental Impact Report (DEIR) fails to meet statutory requirements. It is not sufficiently complete or accurate on several counts to support completion as an EIR, as our comments will note.

Our comments on the DEIR incorporate by reference our previously submitted comments with respect to the Initial Study and are attached for the record.

Comments

1. The DEIR Fails to Adequately Determine the Significance of Impacts from Greenhouse Gas Emissions from a Shift to Paper Bags.

The DEIR fails to complete an adequate and comprehensive analysis of whether there would be a significant added volume of greenhouse gas (GHG) emissions from increased use of paper bags. A number of key contributions to GHGs were either omitted from consideration or inadequately considered. In addition to GHGs created by the manufacture of the paper bags themselves, the total life cycle contribution of GHGs must be calculated. This includes the energy and resources needed to harvest trees; to ship trees to a pulp mill; trucking paper bags to their use destination; trucking used paper bags to landfill; and generation of GHGs in the landfill as the bags degrade. Simple displacement calculations of moving away from 6 billion plastic bags used in the County annually to a fractional number of paper bags yields a significant increase in the number of paper bags used.

The California Environmental Quality Act ("CEQA") Guidelines §15064.4(a) requires the lead agency to make "a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from a project." The guidelines set out that the lead agency will decide whether to use either (1) a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use (and the lead agency should explain the limitations of the particular model or methodology selected for use); and/or (2) rely on a qualitative analysis or performance based standards.¹ Even if only qualitative analysis is used, and the selection of this method does not constitute an abuse of discretion by the lead agency, the analysis must still be "based to the extent possible on scientific and factual data" and must describe, calculate, or estimate the total amount of GHG emissions resulting from the project.² Here, the County has conducted at best a partial estimate, and has failed to estimate all emissions from all sources.

 2 Id.

¹ California Code of Regulations, Title 14, Section 15064.4(a).

Another critical shortcoming of the DEIR, relevant with respect to calculation of GHG emissions but also generally, is its reliance on the Ekologik study with respect to evaluating paper versus plastic bags.³ This study, however, does not evaluate carryout plastic bags, which are a very specific product. Carryout plastic bags have been specifically designed and engineered for tremendous efficiency, using a minimal amount of plastic and resources to create a strong but lightweight product. This design feature yields many of the environmental benefits easily visible in a well-conducted LCA. The Ekologik study, however, acknowledges that it does not evaluate check out carrier bags at all; the plastic bags it evaluates are "fundamentally different products" and "bigger bags" than carryout bags.⁴ Use of this study, therefore, cannot be made unless the study results are further adjusted to address the fact that they evaluate the wrong plastic products.

2. The DEIR Fails to Propose Mitigation Measures for Greenhouse Gas Emissions.

Notwithstanding its insufficient and incomplete conclusions with respect to GHG emissions from the project, the DEIR nevertheless concludes that the environmental impact from a shift to paper bags may be cumulatively significant.⁵ Specifically, life cycle and end of life analysis reports included in the EIR demonstrate that the proposed ban on plastic bags may be cumulatively significant, representing 0.0095-0.144 percent of County target emissions for the year 2020.⁶

CEQA therefore requires that the final EIR include detailed findings on the feasibility of mitigation measures upon finding cumulatively considerable significant effects.⁷ These findings, and proposed mitigation measures, should be presented in the DEIR for public comment. They are not.

4

5

The DEIR attempts to rationalize the omission of mitigation measures with the claim that all paper bag manufacturing facilities are located outside its regulatory reach. That approach is wrong on two counts. First, this is a narrow view of the meaning of reduction or mitigation, apparently tied to the concept of mitigation at a particular geographical site. CEQA analysis, however, does not limit a project to a physical site location. If "site" mitigation is not feasible due to the nature of the project, then "off-site" mitigation measures must be considered. As the Attorney General's GHG guidance for CEQA notes, "[i]f, after analyzing and requiring all reasonable and feasible on-site mitigation measures for avoiding or reducing GHG-related impacts, the lead agency determines that additional mitigation is required, the agency may consider additional off-site mitigation."⁸ Second, the GHG concerns themselves are not limited to paper bag manufacturing. As we noted above, and in our earlier comments to the initial study, significant GHG impacts occur from transportation (trucking) of raw materials to make paper bags, from trucking the bags to their use destination and to landfill, and also from degradation of paper bags in landfills, which emits methane gas.⁹ All these lifecycle "locations" present mitigation opportunities.

³ County of Los Angeles Department of Public Works, "Ordinances to Ban Plastic Carryout Bags in Los Angeles County Draft Environmental Impact Report", SCH# 2009111104, p. 3.1-14.

⁴ CIT Ekologik, "Distribution in Paper Sacks", Chalmers Industriteknik, 2000.

⁵ County of Los Angeles Department of Public Works, "Ordinances to Ban Plastic Carryout Bags in Los Angeles County Draft Environmental Impact Report", SCH# 2009111104, p. 3.3-38.

⁶ *Id.* at 3.3-28, 3.3-32.

⁷ California Code of Regulations, Title 14, Section 15126.4(a)(1).

⁸ California Attorney General's Office, "AGO, Project Level Mitigation Measures", Rev. 1/6/2010, p. 17. http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf

⁹ American Chemistry Council, "Comments of the Progressive Bag Affiliates of the American Chemistry Council on Initial Study on Ordinances to Ban Plastic Carryout Bags in Los Angeles County", p. 2. *Vide infra.*

To the extent that the environmental damage to be addressed stems from a consumer shift to paper bags, obvious mitigation measures could include imposition of a full ban on paper bags to avoid the shift altogether, or a consumer fee to discourage the shift outright. The Attorney General's Guidance also notes the propriety of 6 imposing mitigation fees: "[a]s appropriate, the measures can be included as design features of a project, required as changes to the project, or imposed as mitigation (whether undertaken directly by the project proponent or funded by mitigation fees)."¹⁰ To the extent that the damage to be addressed stems from a consumer shift to reusable bags, two tracks must be considered. The first track is that some reusable bags may not be adequately 7 laundered, and could present a health risk with respect to providing a growth medium for bacteria that may come into contact with foods. An obvious mitigation measure would be to adopt a public health campaign to educate consumers about the health risk and the need to wash bags regularly. The second track is that some reusable bags may be adequately laundered to address the health risk, but this introduces an additional environmental burden 8 due to the increased environmental costs associated with washing bags, including water use, energy use, and detergent use. An obvious mitigation measure would be to impose a fee upon reusable bags to address these increased environmental costs.

Other appropriate mitigation methods are available that are well within the County's jurisdiction. For example, carbon offsets have been utilized in a number of projects in an effort to reduce the impact of industrially generated GHGs, and a similar approach may be applicable here. Additionally, the EIR reports paper bag GHG emissions 9 from landfills from are under the control of local landfill ordinances and are outside the County's control. Again, there are methods to offset increased GHGs emanating from landfills that do not involve regulation of entities outside the County's jurisdiction.

The failure to define mitigation measures for GHG emissions was recently addressed in <u>Communities for a Better</u> <u>Environment v City of Richmond</u>.¹¹ The Court held that the mitigation plan for GHGs presented was legally deficient because "[t]he final EIR merely proposes a generalized goal of no net increase in GHG emissions, and then sets out a handful of cursorily described mitigation measures for future consideration that might serve to mitigate the 898,000 tons of emissions resulting from the project."¹² The City was also chastised by the court for making no effort "to calculate what, if any, reductions in the Project's anticipated GHG emissions would result from each of these vaguely described future mitigation measures."¹³ Here, the DEIR is making the same mistakes. The County should revise the DEIR to include detailed findings on mitigation proposals for the following:

10

- Greenhouse gas impacts of increased paper bag production
- Greenhouse gas impacts of additional transportation impacts from paper bags
- Greenhouse gas impacts of paper bag decomposition in landfill

3. The DEIR's Conclusion of No Significant Risk from Reusable Bags for Public Health Concerns is Unsupported and Inadequate.

In our comments on the Initial Study, we cited two studies indicating that bacterial contamination is a potential downside to widespread use of reusable bags.^{14,15} In the DEIR, the County acknowledges the potential for

¹² *Id.* at 23.

¹³ *Id*.

¹⁴ Health Canada, "Food Safety Tips for Reusable Grocery Bags and Bins", 6/14/2010, http://www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/reusable-bags-sacs-reutilisable-eng.php

¹⁵ Environment and Plastics Industry Council, "Grocery Bag Sanitation, A Microbiological Study of Reusable Bags and `First or single-use' Plastic Bags", 5/20/2009.

¹⁰ California Attorney General's Office, "AGO, Project Level Mitigation Measures", Rev. 1/6/2010, p. 1.

¹¹ Super Ct. No. MSN08-1429 (Ca. App. 4th, April 26, 2010).

bacterial contamination from reusable bags, but dismisses the possibility of public health risk two ways. First, it claims that this is a risk inherent to any item in contact with food, and a risk easily mitigated by proper care and washing. Second, it introduces as "evidence" that health concerns have not actually materialized from reusable bags by citing a telephone conversation with a member of the San Francisco County Board of Health who noted an absence of health reports stemming from increased reusable bag use following the city's ban on plastic grocery bags.¹⁶

We note that as matter of behavior and actual risk, whether consumers can mitigate a risk (e.g., by washing bags) has little bearing on whether they in fact are mitigating a risk (e.g., by in fact, washing their bags). The behavioral data that does exist is shocking: a new study by researchers at the University of Arizona and Loma Linda University indicates that some 97% of study participants reported having <u>never</u> washed or bleached their reusable bags.¹⁷ The available data supports the conclusion that these bags are not being washed, and this could present, as the Arizona study concluded, a serious risk to public health.¹⁸ This risk must be properly and thoroughly evaluated, and mitigation measures presented, in the EIR.

The notion that it is somehow sufficient to respond to data showing presence and growth of bacteria in potential contact with foods by relying on such a conversation is disturbing. It is well documented that foodborne illnesses often go unreported, and likewise, that victims often fail to identify the source of the exposure. This is even more likely to be the case when very few consumers can be expected to know that reusable bags can present a health risk in the first place – consumers cannot report a potential association of which they are unaware. And of course, the fact that a serious foodborne illness has not occurred does not obviate the fact that a serious risk may nonetheless be presented. No food safety health official would seriously accept that argument, for example, that a contaminated food contact surface is somehow acceptable simply because no one has reported getting sick yet, and yet this train of flawed logic is presented as the basis for the conclusion that no significant risk is presented.

Similarly, the common sense approach to food safety stores use to keep shelves, carts, and conveyor belts clean may not be applicable to consumers who are apt to store reusable bags in vehicles or in closets and avoid proper cleaning procedures. A bag contaminated by food contents and then placed in a vehicle can experience temperatures warm enough to foster bacterial growth. The propensity for reusable bags to sustain bacteria could increase the potential for health risks, especially if the food is contaminated with salmonella, E. coli, or other food borne pathogens. Cloth bags have a tendency to soak in moisture contaminated by bacteria and can then cross contaminate other food items during subsequent uses. Carryout plastic bags do not absorb moisture and their ability to transfer bacteria is correspondingly diminished.

At a minimum, a reasoned response to these concerns that satisfies statutory requirements should involve some examples, data, or studies and not simply self-proclaimed common sense rationale, an email, or phone call to a public official. We also note that because the County itself is proposing the ban, it may not rely on an unsubstantiated statement by a County employee as proof of support for a finding of no significant health risks.

4. The DEIR fails to adequately study the potential impacts from increased use of reusable bags.

To mitigate the health risks associated with reusable bags, consumers will have to wash and dry the bags regularly. Washing and drying reusable bags would raise their environmental impact due to increased energy, cleaning agent, and water use. The additive effects of increased washing may be significant when added to the projected increases in GHG emissions. Despite these potential impacts, no study has adequately assessed the

¹⁸ Id.

14

15

16

¹⁶ County of Los Angeles Department of Public Works, "Ordinances to Ban Plastic Carryout Bags in Los Angeles County Draft Environmental Impact Report", SCH# 2009111104, p. 2-5.

¹⁷ Occupational Health & Safety, "No Paper, No Plastic? Potential Problem", 6/27/2010, citing Gerba, C,P; Williams, D; Sinclair, R.G., "Assessment of the Potential for Cross Contamination of Food Products by Reusable Shopping Bags", http://uanews.org/pdfs/GerbaWilliamsSinclair_BagContamination.pdf

consequences of expanding the use of reusable bags, and the DEIR does not include projected increases in reusable bag use. The report has provided anecdotal evidence from nontraditional grocery stores that reusable bags will become more prevalent, although what correlations one can draw between traditional and nontraditional grocers is not apparent. Therefore, it cannot be determined if an expansion of reusable bag use will be beneficial or detrimental to the environment, and subsequently an informed decision cannot be made as is required under CEQA. An accurate LCA must include an analysis of increased machine washing, detergents, and drying before a conclusion of no significant impact can be determined.

5. The DEIR improperly relies on inaccurate calculations for energy demand for paper bag manufacturing.

The air emissions data from the Ecobilan study were generated based on estimated electricity required to make the required number of plastic bags. These data are based not on the electrical infrastructure in Los Angeles County, or even in the United States, but on the electrical infrastructure located in France, where electricity generation is dominated by nuclear power (the French grid is approximately 80% derived from nuclear power and only 10% from fossil fuels).¹⁹ In comparison, the generation of electricity in the United States is primarily derived by burning fossil fuels (about 72% from fossil fuels, with 50% derived from coal alone). Subsequently, the air emissions emanating from the production of plastic bags in each will have different impacts on the air quality in the respective country. It is reasonable to believe burning fossil fuels will have a more significant impact on air quality than using nuclear reactors to produce energy. This difference may explain the variation of criteria pollutants between the Ecobilan and Boustead LCA reports. Pollutants emitted during energy production need to be accounted for in the LCA analyses to provide an accurate forecast of the environmental effects of the proposed bag ban.

6. The DEIR does not address studies showing psychological, sociological, or behavioral effects on litter.

As presented in ACC's comments on the Initial Study, behavioral research from Keep Los Angeles Beautiful suggests litter may become more prevalent when it is thought to be biodegradable or organic.²⁰ Banning plastic bags may therefore have the effect of <u>increasing</u> the amount of paper bag trash within the County. Furthermore, additional studies have shown that removing a source of litter will not diminish littering behavior.²¹ The DEIR does not provide specific reasons explaining why these comments were not taken into consideration as CEQA requires.

Although the proposed ban on plastic grocery bags is predicted to reduce litter, several studies cast doubt on this conclusion, including a study mentioned within the DEIR. A survey of catch basins within the County revealed that plastic film debris was only seven percent by mass (7th overall), and only twelve percent by volume (4th overall) of the total trash present.²² Paper composed a larger portion of the trash collected in both volume and mass than plastic film. Yet another study from San Francisco found retail plastic bags composed only 0.6 percent of large litter items collected, representing an increase in plastic bag litter after the ban had become law.²³ 21

18

¹⁹ Spero News, "France: Energy Profile", 6/8/2007,

http://www.speroforum.com/site/article.asp?idarticle=9839&t=France:+Energy+profile

²⁰ Keep Los Angeles Beautiful, "Littering and the iGeneration", 2009.

²¹ Keep America Beautiful, "Literature Review – Litter. A Review of Litter Studies, Attitude Surveys and Other Litterrelated Literature", 2007.

²² County of Los Angeles Department of Public Works, "Ordinances to Ban Plastic Carryout Bags in Los Angeles County Draft Environmental Impact Report", SCH# 2009111104, p. 3.5-11.

²³ The City of San Francisco, San Francisco Environment Department, "Streets Litter Re-Audit" 2008 and , "Streets Litter Audit", 2007.

Banning plastic fails to address consumer behavior towards littering. The psychological behaviors that lead to littering have been well studied. A number of influences have been noted, such as:

- An already clean environment. One study from California State University, Sacramento, concludes that littering is less likely to occur in an environmental area that is already clean or maintained clean. This principle is sometimes called the "litter begets litter" principle. See, Reiter, S.M., and Samuel, W., Littering as a Function of Prior Litter and the Presence or Absence of Prohibitive Signs, Journal of Applied Social Psychology, 1980 (concluding that the littering rate was lowest in an already clean environment); Curnow, R.; Strecker, P.; Williams, E.; Understanding Littering Behaviour; a Review of the Literature. Beverage Industry Environmental Council, Pyrmont, Australia, 1997 (p. 31).
- The ready availability, design and convenience of trash receptacles. Curnow, R.; Strecker, P.; Williams, E.; Understanding Littering Behaviour; a Review of the Literature. Beverage Industry Environmental Council, Pyrmont, Australia, 1997.
- Effective communication and education. Stern, P.C.; Oskamp, S.; Managing Scarce Environmental Resources, In: Stokols, D.; Altman, I. Handbook of Environmental Psychology, Vol. 2. Krieger Publishing Company, Malabar, Florida, 1991 (pp. 1055-1057); see also Hansmann, R.; Scholz, R.W. Environment and Behavior, 2003, Vol. 35 No. 6, 752-762 (literature review of research concerning the effective design of explicit anti-littering messages noting evidence that prompts phrased as requests are more effective than those phrased as orders; and prompts are more effective if they contain a more specific description of the desired behavior).

7. The DEIR Fails to Adequately Address Potential Impacts on Forest Use and Depletion.

The DEIR summarily makes a determination not to pursue further review of the potential impacts of a shift to increased paper bag use on forest resources. The basis for this decision is apparently an earlier conclusion made in the Initial Study; nevertheless, the records present clear evidence of potential significant impacts that should be fully examined in the final EIR.

Paper bags require the use of wood fiber that comes from a variety of sources including forests. An increase in paper bag use in California will put a significant additional demand on the natural resources needed to manufacture paper bags, even if a significant proportion of paper bags are recycled. Currently, only about 25% of the private-owned forests (these represent 91% of wood harvested in the US) are certified as sustainable, which would at minimum provide some protection for the resource base needed to produce fiber for paper.

The Technical Association of the Pulp and Paper Industry (TAPPI) provided a discussion in their "Earth Answers: How Much Paper Can Be Made From a Tree."²⁴ TAPPI estimates about 17 trees are needed to manufacture a ton of paper.²⁵ Assuming, then, that about 6 billion plastic bags in LA county are converted annually to the use of paper bags, and assuming the use of 100% virgin wood pulp, about 4 million more trees will be cut each year to support this shift in use. Although some recycled paper content would reduce the total number of trees cut and consumed, the volume of trees needed to support a plastic to paper transition is nevertheless a large number. The review fails to address what that number – and impact – would be.

A well-constructed presentation in the final EIR will explore the origin of the fiber resources used in paper bags purchased and used in California; the increase in demand on these fiber resources; and potential impacts to the ecology from increased demand for paper bags.

²⁵ Id.

22

²⁴ TAPPI, "How Much Paper Can Be Made From a Tree", 2001,

http://www.tappi.org/paperu/all_about_paper/earth_answers/Howmuch1.htm

8. The DEIR Fails to Adequately Compare Local Environmental Impacts with Global Impacts.

The DEIR declines to compare local environmental impacts with global impacts, claiming that LCA data cannot be used in connection with local air quality evaluation criteria. The DEIR's justification is:

These results cannot reasonably be evaluated in relation to the operational thresholds of significance set by SCAQMD for the SCAB or by AVAQMD for the MDAB because the operational thresholds are intended for specific projects located in the SCAB and MDAB, whereas LCA data cover all stages of production, distribution, and end-of-life procedures related to a particular product. The manufacture and production of paper carryout bags appears not to occur in the SCAB or the MDAB, with manufacturing facilities located in other air basins in the United States and in other countries that may have different emission thresholds and regulations.²⁶

27

28

While we agree that using aggregated data from an LCA would incorrectly represent the nature of local emissions compliance, LCA data can and should be used to evaluate regional and global impacts. NOx, SOx, CO2, N2O, methane, and other gases all have impacts that reach beyond the point of origin and affect either larger regional areas or cause global impacts. Therefore, the emissions that result in regional and global impacts can be compared. This comparison would not be reliant on operational thresholds of significance set by local regulatory authorities because regional and global impacts need not be evaluated based on local regulatory criteria.

9. The DEIR's Failure to Use a Consistent Approach to Calculate Current and Anticipated Bag Consumption Rates Yields Inaccurate Conclusions

The DEIR must use consistent methodology with respect to how it calculates both current plastic and paper bag consumption and anticipated plastic and paper bag consumption under various scenarios. The use of inconsistent approaches can have the effect of over representing or under representing environmental impacts. A key illustration of this problem in the DEIR is that the draft uses an estimate of current county-wide consumption of 6 billion plastic bags annually for purposes of drawing conclusions about adverse environmental impacts with respect to plastic bag consumption and litter, but with respect to calculating GHG emissions, the DEIR changes approach and uses estimated consumption figures of plastic bags of 1.3 - 2.9 billion bags per year.²⁷ The County can't have it both ways: either the DEIR is significantly overestimating plastic bag consumption and litter impacts, or it is significantly underestimating the GHG impacts that would result from the proposed ordinance(s). The DEIR must be redrafted throughout to correct this fundamental methodological flaw.

²⁶ County of Los Angeles Department of Public Works, "Ordinances to Ban Plastic Carryout Bags in Los Angeles County Draft Environmental Impact Report", SCH# 2009111104, p. 3.1-17.

²⁷ *Id.* at 3.3-20, 2-2.

ATTACHMENTS

Assessment of the Potential for Cross Contamination of Food Products by Reusable Shopping Bags Charles P. Gerba, David Williams and Ryan G. Sinclair, Department of Soil, Water and Environmental Science, University of Arizona, Tucson, AZ School of Public Health, Loma Linda University, Loma Linda, CA (June 9, 2010), <u>http://uanews.org/pdfs/GerbaWilliamsSinclair_BagContamination.pdf</u>

Comments of the Progressive Bag Affiliates of the American Chemistry Council on Initial Study on Ordinances to Ban Plastic Carryout Bags in Los Angeles County (January 4, 2010)



January 4, 2010

Mr. Coby Skye County of Los Angeles Department of Public Works Environmental Programs Division 900 South Fremont Avenue, 3rd Floor Alhambra, California 91803

Via email: <u>CSkye@dpw.lacounty.gov</u>

Re: <u>Comments of the Progressive Bag Affiliates of the American Chemistry Council on Initial Study on Ordinances to Ban</u> <u>Plastic Carryout Bags in Los Angeles County</u>

Dear Mr. Skye:

I write on behalf of the American Chemistry Council ("ACC")'s Progressive Bag Affiliates (PBA) to provide the attached comments on the Initial Study on Ordinances to Ban Plastic Carryout Bags in Los Angeles County prepared by Sapphos Environmental and dated December 1, 2009 (referred to as "Initial Study").

We are pleased to have the opportunity to submit comments, as we recognize that the correct and complete definition of all reasonably foreseeable elements of a proposed project is the single most important element of the California Environmental Quality Act (CEQA) compliance process. Our comments focus on the adequacy and accuracy of the information contained in the Initial Study under CEQA. While we recognize that the initial study does not need to include the level of detail included in the Environmental Impact Report (EIR) it should nevertheless be supported by "facts, technical studies or other substantial evidence to document its findings," CEQA Guidelines § 15063, and we have conducted our review and submit these comments accordingly. Given that the Initial Study also defines the scope of the EIR to be conducted, we provide further comments on the scope and content of the EIR.

While we are encouraged to see that the study recommends preparation of an EIR, it grossly over-represents the adverse environmental impact of plastic bags and grossly under-represents those of paper bags. This review is at the very heart of the EIR and must be conducted thoroughly and comprehensively. Importantly, the study makes a number of assumptions about consumer behavior that are not substantiated. Contrary to the conclusions set out in the report, there is no data to suggest that a consumer switch from plastic to paper would be temporary. To the contrary, data suggests that most consumers will continue to select free carryout bags at checkout. Selection of paper bags instead of plastic bags would have the effect of significantly increasing the use of natural resources, fossil fuels, and water; and will have other significant adverse impacts, particularly on the emission of more greenhouse gases and further burdening the County's landfills.

We support the preparation of a complete EIR that addresses the broadest range of potential impacts. This is particularly the case given the controversial nature of the proposed ordinances. We also encourage the lead agency to exercise its authority to request the County to collect and submit additional information needed for environmental evaluation of the proposed ordinances.

Please feel free to contact me if I can assist you further with respect to these comments.

Very truly yours,

Than Lucson

Shari M. Jackson Director, Progressive Bag Affiliates

COMMENTS OF THE PROGRESSIVE BAG AFFILIATES OF THE AMERICAN CHEMISTRY COUNCIL ON INITIAL STUDY -- ORDINANCES TO BAN PLASTIC CARRYOUT BAGS IN LOS ANGELES COUNTY

Introduction

Various localities in California have explored the viability of imposing product bans as a mechanism to prevent particular products from being littered. The theory is seemingly elegant, and on first glance, attractive: if there is a perceived litter problem with a product and there appear to be viable alternatives to that product, then just ban it and force consumers to switch to the substitute.

This theory, however, is flawed. Littering behavior has been extensively studied, and much littering is deliberate (intentional). Simply removing one potential source of litter does not solve the underlying behavior; the litterer simply litters with another product.

Litter aside, the forced substitution of one product with another can create significant unintended consequences, and is not necessarily a net advantage for the environment or human health. In the case of plastic bags, data show that widespread adoption of paper – the most likely substitute – would have adverse impacts on the environment, while doing little or nothing to prevent litter.

This is why it is so important that the County accurately and fully characterize the environmental benefits and impacts of plastic bags, and in exploring the environmental consequences of a plastic bag ban, accurately and fully characterize the environmental benefits and impacts of the replacement product, paper bags. It is also important to understand that a policy that results in a slight shift to reusable bags but a significant shift to paper bags will nevertheless have significant adverse environmental consequences.

We continue to believe that a comprehensive approach based on the three pillars of sustainable consumption (reduce, reuse and recycle) is the best method to reduce bag waste and promote litter prevention. And, our experience has been that working cooperatively in partnership with other organizations is an effective way to leverage scarce resources and achieve results more quickly. We have supported a number of programs using this approach and promoting bag recycling including Keep California Beautiful's new "Got Your Bags" program. This initiative encourages consumers to bring their bags back to the grocery store whether they are reusable bags or recyclable plastic bags. Recycling and reusing plastic bags is one of the simplest things consumers can do to contribute to a better environment. Surveys show that 92 percent of consumers already reuse their plastic shopping bags (*Source: National Plastic Shopping Bag Recycling Signage Testing March 2007, see attached*).

GENERAL COMMENTS

General Comment #1: The Key Findings of the Initial Study Fail to Thoroughly and Properly Evaluate the Potential Environmental Impacts of the Proposed Ordinances.

The statutory responsibility of the lead agency in preparing the Initial Study includes evaluating the significance of the environmental effect of the ordinances. The CEQA Guidelines 15064 require consideration of both "direct physical changes in the environment which may be caused by the project" and (2) "reasonably foreseeable indirect physical changes in the environment which may be caused by the project." An indirect physical change in the environment which may be caused by the project." An indirect physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project." The stated example in the Guidelines is an increase in air pollution caused by increased population growth resulting from the construction of a new sewage plant.

The key findings are deficient on their face, because while the Initial Study devotes significant effort to examining the purported environmental "benefits" of the ordinances, it devotes virtually no effort to evaluating indirect effects. Without adequately examining the indirect effects of the ordinances, the review severely under-represents the significance of adverse environmental effects from the ordinances (e.g., a consumer switch to paper bags).

There are two areas of local concern that are particularly glaring in their deficiencies. The first is the anticipated additional burden to already overtaxed landfills in the County as consumers shift from plastic bags to paper bags. This shift will result in additional greenhouse gas generation from trucks moving solid waste, and additional greenhouse gas generation as methane is generated in the landfill by paper bags. The shift will also accelerate landfill capacity and closure. The second area is again related to greenhouse gas generation, as additional trucks carrying additional paper bags generates additional greenhouse gases over those needed to transport plastic bags.

<u>Recommendation</u>: The County should devote at least equivalent time and focus to examining the adverse 1 cont. environmental impacts of switching from plastic bags to one or more substitute products. Evaluation of the environmental benefits/adverse impacts of various products should use reliable Life Cycle Analysis (LCA) (see Appendix A, Life Cycle Assessments of Paper and Plastic Bags). It should explore the various scenarios that motivate consumer behavior so the consumer shift to substitute products can be reasonably projected and the associated environmental impacts calculated. The evaluation should not be based on speculation about what consumer behavior might be, but should be based on empirical data of consumer behavior following plastic bag bans in other jurisdictions such as San Francisco where an overwhelming switch to paper bags has been observed. *A Qualitative Study of Grocery Bag Use in San Francisco*, <u>http://use-less-stuff.com/Field-Report-on-San-Francisco-Plastic-Bag-Ban.pdf</u>.

<u>General Comment #2: The Initial Study Fails To Adequately Address the Additional Litter and Human</u> Health Impacts that May be Introduced by the Use of Biodegradable Bags or Reusable Bags.

While a key finding of the Initial Study is that biodegradable carryout bags are not a practical solution to "this issue" in Los Angeles County, and while we agree with this conclusion, we believe that the Initial Study fails to adequately address the many evidentiary reasons that support this conclusion. First, as noted above, litter behavioral studies suggest that people may litter more if they believe the products they are using are organic or can biodegrade (*Source: Littering in the I-Generation, Keep Los Angeles Beautiful, 2009, see attached*). For example, a study of littering conducted by Keep Los Angeles Beautiful reported that perception of biodegradability is one of the strongest contributors to littering (figure #3 below).

Figure 3. Mean Scores for Barriers and Motivators to Proper Disposal


If a prohibition of plastic carryout bags leads to the use of more "biodegradable" bags including paper the potential impact on a net increase in litter must be considered. Additionally, many such bags in fact are not biodegradable within the layman's understanding at all; rather, the bags degrade very slowly in the natural environment.

To the extent that the proposed ordinances may result in a shift from plastic carryout bags to bags that are used repeatedly without regular washings, the substitute bags may present new health risks that should be evaluated. The Initial Study fails to adequately address this public health risk. The first North American microbiological study on reusable bags, issued earlier this year, found high levels of bacterial, yeast, mold and coliform counts in many reusable bags. Sixty-four (64) percent of the bags tested were contaminated with some level of bacteria.

Dr. Richard Summerbell, research director at Toronto-based Sporometrics and former chief of medical mycology for the Ontario Ministry of Health, reviewed the study and stated that "the main risk is food poisoning … but other significant risks include skin infections such as bacterial boils, allergic reactions, triggering of asthma attacks, and ear infections." The study conclusions included the observation that there is a potential for cross-contamination of food if the same reusable bags are used on successive trips; that check-out staff in stores may be transferring these microbes from reusable bag to reusable bag as the contaminants get on their hands; and that in cases of food poisoning, experts will have to test reusable bags in addition to food products as the possible sources of contamination.

<u>http://www.cpia.ca/files/files/A_Microbiological_Study_of_Reusable_Grocery_Bags_May20_09.pdf</u>. Health Canada issued guidance as a result of this study. See, Health Canada guidance, at <u>http://www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/reusable-bags-sacs-reutilisable-eng.php</u>.

<u>Recommendation</u>: The County should study the potential environmental impacts and public health impacts of reusable bags and include these calculations in the EIR.

<u>General Comment #3: The Initial Study Fails to Adequately Address Potential Adverse Impacts From</u> <u>Reduced Recycling of Plastic Film and Impacts on the Recycling Infrastructure.</u>

Over 830 million pounds of plastic bags and film are recycled every year in the U.S., predominantly through the nationwide grocery and retail system where they are consolidated with stores' stretch film (pallet wrap) and recycled through a well established recycling infrastructure.

A prohibition of plastic carryout bags may result in an overall decrease in the recycling of plastics, or damage the recycling infrastructure for polyethylene bags, wraps, and film. Currently, stores that accept plastic bags for recycling, as mandated by California law, also accept other polyethylene wraps and films, including dry cleaning bags, toilet paper wraps, paper towel wraps, and other wraps and bags. But if commercial retailers and grocers may no longer offer plastic bags under the proposed ordinance, it is reasonable to assume that a significant majority of such businesses will also stop offering to accept plastic bags for recycling at their stores, since they will no longer be required to do so. In fact, empirical evidence bearing this out has already emerged in a study conducted by *Use Less Stuff* following the San Francisco plastic bag ban. See,

3

<u>http://www.use-less-stuff.com/Field-Report-on-San-Francisco-Plastic-Bag-Ban.pdf</u>. The study, following the City's plastic bag ban, reported that several stores had already removed, or had moved to obscured areas, plastic bag recycling bins from their stores within a fairly short period following the ban.

The clear impact is that the proposed ordinances are likely to significantly reduce recycling of other plastic bags, films, and wraps, and perhaps completely eliminate the ability for County residents to recycle any of these items. If recycling facilities are no longer readily available to accept these products, very few if any of these products will be recycled. Existing behavioral evidence is clear that if readily available recycling centers are not available, people will stop recycling. See, e.g., <u>http://www.articlesbase.com/home-improvement-articles/why-is-recycling-important-697194.html</u>. (readily available recycling centers are essential to promote recycling behavior); Sidique et al., *The Effects of Behavior and Attitudes on Drop-off Recycling Activities (2009)*, available at www.sciencedirect.com (recyclers use the drop-off sites more when they feel that recycling is a convenient

activity and when they are more familiar with the sites). This outcome is a potentially serious environmental consequence, and one that could result in a net increase in litter or landfill impacts.

It should also be noted that the reduced availability of plastic grocery bags could have other detrimental effects on recycling programs in the Los Angeles Basin, further reducing recycling and imposing additional burdens on landfills.

4

<u>Recommendation</u>: The County should determine the current recycling rate and volume for non-plastic bag films and the intake origin for such material (e.g., grocery stores currently offering bag and film recycling). The study should examine existing alternate avenues, if any, for collection of plastic films for recycling. The net adverse environmental impact should be calculated, including landfill burden, as this additional avenue for film, bag, and wrap recycling of polyethylene is lost.

<u>General Comment #4: The Initial Study Does Not Present Sufficient Evidence to Support its Key Finding</u> that "accelerating the use of reusable bags will diminish plastic bag litter."

The study here makes several flawed assumptions. The first is that a ban on plastic bags will drive consumers to use reusable bags. Available data suggest that this is not the case; where paper bags are freely available at checkout, consumers will select paper bags. This has been documented by a recent study conducted by *Use Less Stuff* (ULS), which surveyed the effect of the plastic bag ban in San Francisco on paper bag usage. ULS found that paper bag use increased significantly.

http://www.use-less-stuff.com/Field-Report-on-San-Francisco-Plastic-Bag-Ban.pdf.

The second flawed assumption is that removing a source of litter will diminish littering behavior. Substituting one packaging material, or carryout bag for another, does not address littering behavior. The Initial Study assumes that reducing the total number of plastic carryout bags used in the jurisdiction will necessarily reduce the number of plastic bags that are littered. There is, however, no substantiated basis for such an assumption, and significant evidence that without actions that directly address the behavioral issue, litter will continue unabated, or worsen. See generally, A Review of Litter Studies, Attitude Surveys and Other Litter-Related Literature, Keep America Beautiful, July 2007 (<u>http://www.kab.org/site/DocServer/Litter_Literature_Review.pdf?docID=481</u> (referred to as "KAB Report").

The psychological behaviors that lead to littering have been well studied. A number of influences have been noted, such as:

- An already clean environment. One study from California State University, Sacramento, concludes that
 littering is less likely to occur in an environmental area that is already clean or maintained clean. This
 principle is sometimes called the "litter begets litter" principle. See, Reiter, S.M., and Samuel, W.,
 Littering as a Function of Prior Litter and the Presence or Absence of Prohibitive Signs, Journal of
 Applied Social Psychology, 1980 (concluding that the littering rate was lowest in an already clean
 environment); Curnow, R.; Strecker, P.; Williams, E.; Understanding Littering Behaviour; a Review of
 the Literature. Beverage Industry Environmental Council, Pyrmont, Australia, 1997 (p. 31).
- The ready availability, design and convenience of trash receptacles. Curnow, R.; Strecker, P.; Williams, E.; Understanding Littering Behaviour; a Review of the Literature. Beverage Industry Environmental Council, Pyrmont, Australia, 1997.
- Effective communication and education. Stern, P.C.; Oskamp, S.; Managing Scarce Environmental Resources, In: Stokols, D.; Altman, I. *Handbook of Environmental Psychology, Vol. 2.* Krieger Publishing Company, Malabar, Florida, 1991 (pp. 1055-1057); see also Hansmann, R.; Scholz, R.W. *Environment and Behavior*, 2003, Vol. 35 No. 6, 752-762 (literature review of research concerning the effective design of explicit anti-littering messages noting evidence that prompts phrased as requests are more effective than those phrased as orders; and prompts are more effective if they contain a more specific description of the desired behavior).

One of the more significant findings in the literature reviews is that there are certain littering behaviors that may continue, or worsen, if the litterer believes that the litter will biodegrade. See, e.g., KAB Report at 6-3 (an acceptable reason provided for littering is the belief that the waste is organic). In fact, Keep Los Angeles Beautiful has conducted a study of factors that contribute to littering and concluded that the perception of biodegradability is one of the major contributors. *(Source: Littering in the I-Generation, Keep Los Angeles Beautiful, 2009, see attached*). This is particularly relevant here because the Initial Study fails to take into consideration that a shift from plastic carryout bags to paper or fabric may result in a net increase in litter since certain litterers believe the bags will degrade in the environment.

4 cont.

The third flawed assumption is that if there is reduced access to plastic bags, plastic bag litter will necessarily diminish. This assumption is unfounded. To reach such a conclusion, it would be necessary for the County to conduct a targeted litter audit focused on plastic bags, and then to restrict access to the specific plastic bags that are actually in the litter stream.

<u>Recommendation</u>: To inform the EIR, the County should conduct a detailed litter audit focused on sourcing plastic bag litter. The study should also contain an observational behavioral component that seeks to better understand the impact that demographic factors such as age have on littering behavior.

General Comment #5: The Initial Study Fails to Identify Significant Irreversible Environmental Effects of the Proposed Ordinances.

Under CEQA, an EIR must analyze the extent to which a plan's primary and secondary effects would commit resources to uses that future generations will probably be unable to reverse. CEQA Guidelines Section 15126(f). Implementation of the proposed ordinances would result in the irreversible commitment of certain natural resources. The most notable significant irreversible impacts are expenditure of energy resources in the form of natural gas, electricity, and gasoline; increased generation of pollutants; and the short-term commitment of non-renewable and/or slowly renewable natural and energy resources such as lumber and other forest products, landfill capacity, and water resources.

A shift from plastic bags to paper bags will result in substantial additional depletion of natural resources. Fossil fuels will be needed to support lumbering operations. During manufacture, fossil fuels and electricity would be consumed. During transportation – bags to store and also bags from the store to consumers' homes - fossil fuels would be consumed.

General Comment #6: The Initial Study Fails to Identify Cumulative Effects, Including Air Quality, Greenhouse Gas and Global Warming Impacts, of the Proposed Ordinance.

Implementation of the proposed ordinances would result in cumulative impacts related to air quality and greenhouse gases from increased landfill emissions (methane), truck traffic (CO, VOCs, NOx, PM10, and PM2.5), and air pollution impacts from paper bag manufacture and lumbering. Methane gases from landfills are a serious greenhouse gas and global warming concern.

See, e.g., <u>http://cdm.unfccc.int/UserManagement/FileStorage/WT2UQTYRGORYSPUBWL923QLJX31KFQ</u>. At the federal level (under NEPA), greenhouse gas emissions resulting from a proposed project "are either direct or indirect effects, and therefore the resulting global climate change impacts are classic examples of cumulative effects." 40 C.F.R. § 1502.16. Climate change impacts are, by definition, inherently cumulative and significant. See 40 C.F.R. § 1508.27[b] [7], and at the federal level, the U.S. Supreme Court has ruled that such impacts are reasonably foreseeable. <u>Massachusetts et al. v. Environmental Protection Agency</u>, 549 U.S. 497 (2007). The EIR must address these issues fully in its review with respect to the impacts of a consumer shift from plastic to paper bags.

General Comment #7: The Initial Study Fails to Identify Significant Environmental Impacts Outside Los Angeles County that Will Occur If the Proposed Ordinances are Implemented.

6

The California Supreme Court has held that consideration of environmental impacts extends outside the jurisdiction in which the statutory project is located:

[N]o statute (in CEQA or elsewhere) imposes any per se geographical limit on otherwise appropriate CEQA evaluation of a project's environmental impacts. To the contrary, CEQA broadly defines the relevant geographical environment as "the area which will be affected by a proposed project." (Pub. Resources Code, § 21060.5.) Consequently, "the project area does not define the relevant environment for purposes of CEQA when a project's environmental effects will be felt outside the project area." (*County Sanitation Dist. No. 2 of Los Angeles County v. County of Kern* (2005) 127 Cal.App.4th 1544, 1582-1583.) Indeed, "the purpose of CEQA would be undermined if the appropriate governmental agencies went forward without an awareness of the effects a project will have on areas outside of the boundaries of the project area." (*Napa Citizens for Honest Government v. Napa County Bd. of Supervisors* (2001).

Muzzy Ranch Co. v. Solano County Airport Land Use Com'n, 41 Cal.4th 372, 384-385, 389, 60 Cal.Rptr.3d 247, 160 P.3d 116 (2007).

Given the nature of the proposed ordinances, many of the environmental impacts that will occur from a shift from paper to plastic bags will occur within the County, but many others will occur outside the County. The County is therefore obliged under CEQA to consider geographically distant environmental impacts of their activities. This includes environmental impacts of lumbering (fossil fuel use; land degradation, habitat impacts); paper bag manufacturing (water use, fossil fuel use, air and water pollution); landfill burden outside the county; transportation of paper bags into and out of the County. The EIR should address all these issues fully.

Specific Comments

Page 1-3 Study: The study estimates that litter from plastic carryout bags that are designed for single use account for as much as 25 percent of the litter stream. As support for this estimate, the study cites a 2004 study and a more recent 2008 study by the County of Los Angeles Department of Public Works.

Comment: The estimate presented is speculative and does not meet criteria for inclusion in the Initial Study or EIR. The estimate is also inconsistent with hard data drawn from litter audits. Data from the most recent, comprehensive national litter literature study indicates that litter composition from 9 states using IAR methodology for the category "napkins, bags, and tissues" was on average 6.3%. See A Review of Litter Studies. Attitude Surveys and Other Litter Related available Literature, R.W. Beck (July, 2007), at http://www.kab.org/site/DocServer/Litter Literature Review.pdf?docID=481; Table 3.4. Composition of Litter, IAR-Based Surveys (1993-2006) (p.3-7). Notably, the category does not distinguish among the three constituents (napkins, bags, and tissues) nor does it distinguish between paper and plastics, so the actual composition of plastic bags in the litter stream would be expected to be significantly lower. The average is also inflated by a higher number from older data (1993) from the State of Hawaii; notably, the most recent data collected from Tennessee and Georgia from 2006 for this entire category indicates litter stream concentrations at 1.8% and 4.6%, respectively. Again, the plastic bag component of this category would be a subset, and perhaps significantly smaller.

8

The report's estimate is also inconsistent with the City of San Francisco's recent litter audit data. San Francisco's Department of Environment Litter Survey Report (July 2008) (Table 5, p. 30), shows that non-retail plastic bags composed only 3.4% of the large litter portion of the litter stream from 2008 data. <u>http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf</u>.

Actual litter stream audit data therefore suggests that plastic bags in fact represent a very small percentage of the litter stream, and the "estimates" presented in the Initial Study grossly overrepresent plastic bags.

Page 1-3 Study: The study presents data on the number of plastic bags consumed annually in the County as 6 million.

Comment: No evidence is presented to connect the amount of plastic bag litter with the number of 9 bags consumed annually. No evidence is presented on the number of paper bags annually consumed within the County. No evidence is presented with respect to the equivalent number of paper bags that this figure represents, so that the environmental impacts of product substitution can be adequately evaluated.

Page 1-3 Study: The study claims that the County of Los Angeles Flood Control District spent more than \$18 million annually for prevention, clean up, and enforcement efforts to reduce litter, of which "plastic bags are a component."

Comment: The reported figure is for a variety of programs, including litter prevention and education efforts. The study does not report which fraction of monies are spent on which activity, so there is no documentation presented regarding how much money is actually expended annually on cleanup versus outreach and education. In addition, the study does not quantify how much is spent on plastic bag litter, nor the size of the component of the waste stream that plastic bag litter constitutes.

Page 1-5 Study: The study claims a key finding that "Plastic carryout bags have been found to significantly contribute to litter and have other negative impacts on marine wildlife and the environment."

Comment: This "key finding" is actually <u>three</u> "findings": one with respect to litter, and one with respect to impacts on marine wildlife, and one with respect to impacts on the environment. All three "findings" are anecdotal and speculative in nature, and are not supported by "facts, technical studies or other substantial evidence," CEQA Guidelines § 15063.

Litter: It is anecdotally true, and documented through litter audits, that plastic bag litter is a part of the litter stream. Mere presence of a material or product as litter, however, does not mean that its contribution to the litter stream is significant. A proper and complete evaluation of the potential environmental benefits, as well as adverse environmental impacts, of the proposed project (ordinance) demand a careful, up to date, and accurate analysis of the contribution of plastic bags to the litter stream. If this discussion is not based on accurate data and it overstates or overestimates the presence of plastic bags in the litter stream, subsequent environmental study will fail to accurately characterize the environmental benefits of the project, and this will undermine the ability of decision makers and the public to compare anticipated environmental benefits with anticipated adverse environmental impacts. See also, supra, specific comments on page 1-3 with respect to the low contribution of plastic bags to measured litter streams in multi-state litter audits.

Marine wildlife: The study does not present credible or properly developed evidence that plastic bags "have other negative impacts on marine wildlife." CEQA considers impacts to be significant if they occur at the population level. This is well understood in the context of wind farms, where it is accepted that some bird mortality may occur without necessarily constituting a significant impact that would trigger EIR preparation. See also CEQA Guidelines § 15065 (mandatory findings of significance include whether the project "has the potential to …substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten

to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species..."). Speculative evidence has no place in either an Initial Study or an EIR and should be deleted. The presented anecdotal evidence that certain marine mammals have chewed on a plastic bag, however unfortunate, does not provide adequate substantiation of the scope and degree of environmental impact needed to support appropriate analysis under CEQA. It is also important to note that bans have not been demonstrated to reduce litter and thus impacts on animals. In fact, San Francisco's litter audit does not show a significant impact on bag litter despite the ban.

Environment: Like any other consumer product, plastic bags consume resources and have potential environmental impacts. The relevant exercise for the Initial Study is to identify the significant environmental impacts of the project: "If the agency determines that there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the Lead Agency shall [prepare an EIR]." CEQA Guidelines §15063. That said, we are concerned that the claimed environmental impacts from plastic bags are overstated, and that the finding is not based on adequate "facts, technical studies or other substantial evidence," CEQA Guidelines § 15063; likewise, we are concerned that the study lacks an adequate exploration of the many adverse environmental impacts of paper bags.

Page 1-5 Study: The study claims a key finding that "Biodegradable carryout bags are not a practical solution to this issue in Los Angeles because there are no local commercial composting facilities able to process the biodegradable carryout bags at this time."

Comment: While we agree that "biodegradable" carryout bags are not a solution, it is for different reasons than those stated in the study. This finding is completely disconnected with and unsupported by the claimed environmental finding that plastic carryout bags result in litter. Litter is a behavioral problem, and no amount of landfills nor of commercial composting facilities will address a litter behavioral problem.

Page 1-5 Study: The study claims a key finding that "Reusable bags contribute toward environmental sustainability over plastic and paper carryout bags."

Comment: We are puzzled by the use of the term "sustainability" in this context, as it has multiple and potentially complex meanings. However, if the term is meant to mean environmental impacts across all categories that can be measured using appropriate life cycle analysis, this finding is not adequately supported. The report over- represents the alleged environmental detriment of plastic bags, and fails to adequately gauge the adverse environmental impacts of substitute products, including reusable bags and paper bags.

Page 1-5 Study: The study claims a key finding that "Accelerating the widespread use of reusable bags will diminish plastic bag litter and redirect environmental preservation efforts and resources towards "greener" practices."

Comment: This finding is actually several separate compounded findings related to (1) a claim of diminished plastic bag litter, and (2) redirected environmental preservation efforts and resources towards (3) "greener" practices.

Litter: We question whether "accelerating the widespread use of reusable bags" will in fact diminish plastic bag litter. This appears to be an entirely unsupported assumption, rather than a documented finding. Both behavioral and litter audit data suggest that such an action will not itself decrease the overall amount of litter, since such an action does

13

not address littering behavior. Current literature does not suggest that persons toting their weekly groceries from the grocery store – the targets of the proposed ordinances – are those most likely to litter their grocery bags, or even likely to litter at all; rather, those aged 19 and under are more likely to litter. See generally, Littering Behavior in America, Results of a National Study (2009) (p. 5) http://www.kab.org/site/DocServer/KAB Report Final 2.pdf?docID=4581 (principal

<u>http://www.kab.org/site/DocServer/KAB_Report_Final_2.pdf?docID=4581</u> (principal investigator, Wesley Schultz, Professor of Psychology, California State University).

In addition, we note that the proposed ordinances would not require the use of reusable bags; rather, paper carryout bags would continue to be available at checkout. This key "finding" is actually an assumption that banning plastic bags will, by itself, lead consumers to select and consistently use reusable bags over free paper bags at checkout. No data has been presented nor do we believe exists to support this assumption. Available observations suggest that consumers at checkout will select the most convenient, highest performing, and least expensive checkout bags, and thus if consumers are denied the choice of a free plastic bag at checkout, they will default next to selecting a free paper bag as they appear to have done in San Francisco.

"Redirected environmental preservation efforts and resources": This finding is not sufficiently developed to be articulated in the report. We are unclear as to what this finding is supposed to mean. If it is intended to mean that the County of Los Angeles will be able to redirect litter clean up costs, there is no evidence to suggest such an outcome. Indeed, available behavioral and litter audit data suggest that the proposed ordinances will either have no net effect on the total amount of litter – or will actually increase the total amount of litter. Behavioral data suggests that some of the motivating factors to littering include the belief that the product is biodegradable or not recyclable. See, supra, Littering Behavior in America (2009) at page 4: "Littering was reported more frequently in instances when the person was in a hurry, no trash can was nearby, the item was biodegradable, there was a sense that someone else would pick it up, and when the item was not recyclable."

Page 1-6 Study: The study states that "Plastic carryout bags have been found to contribute substantially to the litter stream and to have other adverse effects on marine wildlife."

Comment: Available litter audit data in fact do not suggest that plastic bags contribute substantially to the litter stream: to the contrary, available data shows their contribution to be in the low single digits. The specific contribution of plastic carryout bags from grocery stores, the subject of the proposed ordinance, is likely to be significantly lower still, since it is a smaller subset of plastic carryout bags. Each of the documents used to support this statement fail to provide sufficient factual basis to support the stated finding. The first document, a 2009 UNEP report on marine debris, does not make any findings nor reach any conclusions about plastic bags having adverse effects on marine wildlife; the executive summary actually concludes at page 9 that "Further research and documentation on the impacts of marine litter is needed to assess this issue effectively." The second cited document is a resolution from a board meeting of the California Integrated Waste Management Board, which is itself not a finding of fact but a political resolution from an agenda. The third document, a staff report to the Los Angeles County Board of Supervisors, cites a number of sources for its claims of harm to marine mammals. Further review of the underlying sources reveals that the sources do not provide evidentiary support for the claimed finding. For example, among the citations is a NOAA report on marine The report is very careful to debunk widespread claims about the severity of debris. environmental impact on marine life from plastic bags:

14cont.

Origin of plastic bag statement: We were able to find no information to support this statement [claims that plastic bags are injuring marine animals]. An erroneous statement attributing these figures to plastic bags was published in a 2002 report published by the Australian Government; it was corrected in 2006. See the 2002 report published by Environment Australia entitled, "Plastic Shopping Bags – Analysis of Levies and Environmental Impacts" or <u>click here</u>.

In 2006, Environment Canada recanted the statement "A figure of 100,000 marine animals killed annually has been widely quoted by environmental groups; this was from a study in Newfoundland which estimated the number of animals entrapped by plastic bags in that area from a four-year period from 1981-1984" and replaced it with "A figure of 100,000 marine animals killed annually has been widely quoted by environmental groups; this was from a study in Newfoundland which estimated the number of animals entrapped by plastic debris in that area from a four-year period from 1981-1984."

See NOAA's Marine Debris webpage, <u>http://marinedebris.noaa.gov/info/plastic.html#2</u>. Another source cited as support is a Seaworld website, which does little more than repackage concern that a sea turtle could eat a plastic bag – merely a speculative exercise and quite a reach from presenting actual evidence that they do ("Pollution, such as plastic bags resembling jellyfish, can also cause sea turtle deaths.").

Page 1-6 Study: The study states that "The prevalence of litter from plastic bags in the urban environment also compromises the efficiency of systems designed to channel storm water runoff."

Comment: No citation or support is provided for this claim. No data is presented to quantify the specific inefficiency claimed to be introduced by plastic bags. No data is presented to review the potential impacts of paper bag litter on storm water systems.

Page 1-7 Study: "Furthermore, plastic bag litter leads to increased clean-up costs for the County, the California Department of Transportation (Caltrans), and other public agencies."

Comment: Clearly, litter cleanup has an inherent cost to the County, and to the extent that plastic bags are a small component of the litter stream, they have an impact on cleanup costs. We have presented data in these comments, however, to show that the Project (plastic bag ban) may result in a net increase to the County in the amount of litter. Increased litter, or a shift in the composition of the litter stream to more paper, may actually increase litter cleanup costs to the County if wet paper litter is more difficult to remove.

Page 1-7 Study: "In particular, the prevalence of plastic bag litter in the storm water system and coastal waterways hampers the ability of and exacerbates the cost to local agencies to comply with the National Pollutant Discharge Elimination System, and total maximum daily loads (TMDL) limits for trash as specified pursuant to the federal Clean Water Act."

Comment: The only cited source for this claim is the Department of Public Works' Report on Plastic Carryout Bags. The cited document provides no support for the specific claim that plastic bag litter hampers compliance or raises costs to local agencies. And to the contrary, a fair argument can be made that replacing plastic bag litter with paper bag litter may in fact increase costs, if the wet paper is more difficult to remove and more likely to clog systems, screens, grinders, or intakes. For that matter, a fair argument can also be made that an increase of paper bag waste in waterways may adversely affect water quality (as the organic matter degrades, it will impact the availability of dissolved oxygen in the water), which itself could impact compliance with TMDLs for water quality. See, e.g., http://web.cecs.pdx.edu/~fishw/FT_L13-BOD25.pdf

16

17

(impact of degrading organic matter on dissolved oxygen levels of water and discussion of depletion levels at which fish suffocate).

Page 1-7 Study: The study claims that "Plastic bag litter is also a major economic operational issue for landfills and other solid waste processing facilities."

Comment: We suspect that this statement was made in error, and that the authors intended to refer to plastic bags in the solid waste stream rather than the litter stream. That said, the County's own reports note that 12 million tons of trash were disposed of in 2006, with about 80% being landfilled in the County. It is further reported that "...approximately 45,000 tons of plastic carryout bags are disposed by residents countywide each year, comprising approximately 0.4 percent of the 12 million tons of solid waste disposed each year." See http://ladpw.org/epd/pdf/PlasticBagReport.pdf.

We find it curious that the study would claim that less than one half of one percent of the solid waste stream presents a "major" economic operational issue for "landfills" and "other solid waste processing facilities." We fail to find any support for this claim in the supporting documentation.

It is well known that landfill operators need to implement best practices to prevent trash from leaving the landfill site and becoming litter. These practices are already in place, not just to address plastic bags, but other film, paper, fibers, and lighter weight wastes of all kinds. There is no basis for the implied claim here that these best management practices are used only due to the presence of plastic bags in solid municipal waste, nor that these best management costs would be reduced or go away with a corresponding reduction in landfilled plastic bag waste. Without such data, the claim is merely speculative.

Page 1-9 Study: The study claims that, "based on the available evidence, paper carryout bags are less likely to become litter than are plastic carryout bags."

Comment: No such evidence has been presented to support such a claim. In these comments, we have presented behavioral evidence that suggests the opposite is likely: that people predisposed to intentionally litter will be more likely to litter paper bags than plastic. This likelihood is borne out by existing litter audit data, which shows a significant amount of the existing litter stream to be paper, including paper bags, paper fast food bags, and napkins. See, <u>http://www.kab.org/site/DocServer/Litter_Literature_Review.pdf?docID=481</u> and Keep Los Angeles Beautiful "Littering in the I-generation" 2009.

Page 1-9 Study: The study claims that, "...life-cycle studies have also indicted that reusable bags are the preferable option to both paper and plastic bags."

Comment: The Project is predicated on the notion that consumers will, when faced with a ban of plastic carryout bags, switch to free paper carryout bags and reusable bags. A careful analysis therefore must occur of the potential adverse environmental impacts of such a switch. This analysis is wholly lacking from the study, and should be conducted. In addition to accurately anticipating product switches so that informed calculations about environmental consequences can be made, additional review of the potential adverse environmental consequences of reusable bags (including potential human health impacts) needs to be conducted.

Page 1-13 Study: The study claims that, "The County anticipates that a measurable percentage of affected consumers would subsequently use reusable bags (this percentage includes consumers currently using reusable bags) once the proposed ordinances take effect."

Comment: Testing this assumption with behavioral and other available information is absolutely essential to this exercise. First, we note that the anticipated environmental benefits, and adverse

20

19

environmental consequences, cannot "count" the existing use of reusable bags, since the ordinances would not impact this pre-existing behavior. Second, given that paper bags will be readily available as free substitutes to plastic bags, it can be fairly argued that a large majority of consumers will continue to request free bags at checkout, and will therefore switch to paper similar to results in San Francisco.

Page 2-2 Study: The study concludes, on the basis of the initial evaluation, that the proposed project may have a significant effect on the environment, and that an Environmental Impact Report is required.

Comment: We agree with this conclusion and support the preparation of an Environmental Impact Report. We urge the preparation of a complete report with the broadest scope possible.

- Page 2-4 Study: For section 2.3, Air Quality, items (b) and (c) are checked as "potentially significant unless mitigation incorporated."
- Page 2-7 Study: For section 2.7, Greenhouse Gas Emissions, (a) and (b) are checked as "potentially significant unless mitigation incorporated."

Comment: Both of these items, in both sections, should be redesignated as "potentially significant impact." As we have noted, reduced availability of plastic carryout bags will increase use of paper carryout bags. This substitution will carry with it significant adverse environmental impacts because the environmental footprint of paper bags, over their lifecycle, is more damaging than plastic.

The proposed CEQA Guidelines, Section 15064.4 (Determining the Significance of Impacts from Greenhouse Gas Emissions) call for "a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The lead agency should use either a model or methodology to quantify greenhouse gas emissions resulting from a project or a qualitative analysis or performance based standards. Importantly, the lead agency has authority "to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions."

Energy consumption during manufacture: Plastic grocery bags require 70 percent less energy to manufacture than paper bags. Boustead Consulting & Associates Ltd. *Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper* (2007) at

<u>http://www.americanchemistry.com/s_plastics/doc.asp?CID=1106&DID=7212</u> The more efficient manufacturing process for plastic bags translates into fewer greenhouse gas emissions.

Transportation (greenhouse gas emissions from trucking): Plastic bags are much lighter than paper bags: 2,000 plastic bags weigh 30 lbs; 2,000 paper bags weigh 280 lbs. This weight differential is extremely important when calculating transportation costs, and in particular, truck emissions for trucks delivering plastic bags. At end of life, these same plastic bags are lighter to transport than paper to the recycling facility, or lighter to transport to landfill. Each time an equivalent number of plastic bags is trucked versus paper bags, it takes only one truck for the plastic and seven trucks for the paper. U.S. Environmental Protection Agency. *Questions about Your Community Shopping Bags: Paper or Plastic* at

http://web.archive.org/web/20060426235724/http://www.epa.gov/region1/communities/shopbags .html

In terms of actual figures, 2 million plastic bags can be carried on one truck, so all 6 million plastic bags the study estimates are used annually in Los Angeles can arrive on only 3 trucks. On the other hand, it takes 7 times as many trucks to haul an equivalent number of paper bags -21 trucks. This multiplier applies every time the products are transported, whether to be transported to recycling or to landfill.

Energy consumption during recycling: It takes 91% less energy to recycle a pound of plastic than it takes to recycle a pound of paper. U.S. Environmental Protection Agency. *Questions about Your Community Shopping Bags: Paper or Plastic* at http://web.archive.org/web/20060426235724/http://www.epa.gov/region1/communities/shopbags .html

Page 2-8 Study: The study indicates that the impact of the proposed ordinances would be "potentially significant unless mitigation incorporated" for subsection (a) of Section 2.9, Hydrology and Water Quality. For subsection (f), "no impact" is noted.

Comment: Subsections (a) and (f) should be recategorized to "potentially significant impact." As noted in these comments, a shift to additional paper litter entering waterways could significantly impact dissolved oxygen in waters, which could have a detrimental impact on fish or other water organisms.

In addition, we note a significant omission from the checklist. Although Section 2.9 does address the potential to adversely impact groundwater supplies, it does not include a category for water usage, or depletion of water resources, and it should, as this is highly relevant to a complete analysis of environmental impacts under CEQA. The production of plastic bags consumes less than 6 percent of the water needed to make paper bags, so any shift from utilization of plastic bags to paper bags will necessitate a significant additional burden on water use. Boustead Consulting & Associates Ltd. *Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper* (2007), <u>http://www.americanchemistry.com/s_plastics/doc.asp?CID=1106&DID=7212</u> Likewise, any shift from plastic bags to reusable bags will need to include calculated water use (washings) and detergent use for the needed care and maintenance of reusable bags.

Page 2-14 Study: The study categories the potential impact for 2.17(f), which relates to landfill capacity impacts, as "potentially significant unless mitigation incorporated."

Comment: The County's own reviews, and indeed this study, insist that landfill capacity is a significant environmental issue for the county. Paper bags are much bulkier and heavier than plastic bags, and substitution of plastic bags with paper bags will generate five times as much waste. U.S. Environmental Protection Agency. *Questions about Your Community Shopping Bags: Paper or Plastic.* See:

http://web.archive.org/web/20060426235724/http://www.epa.gov/region1/communities/shopbags .html.

27

25cont.

The consequences of this additional waste burden on the County's landfills must be evaluated. In addition, as the County is forced to close landfills and truck waste out of the county for landfilling, heavier paper bags in the waste stream will have a significant environmental impact due to the greenhouse gas emissions generated during the transportation process. See, e.g., memo from Carrier Bag Consortium reporting on failure of plastic bag taxes:

In fact one retailer in one country where a plastic bag tax was introduced now has to transport four 40 foot containers of paper sacks (protected from moisture by plastic) where previously it shipped only 3 pallets of plastic carriers to do the same the job. This unpredicted result of a misguided tax is doing far more environmental damage because it results in increased exhaust emissions, more congestion on the roads and much more waste going to landfill. www.carrierbagtax.com/downloads/7035FactorFiction.doc.

Another item completely unaddressed in the study is the substitution dilemma facing consumers who currently reuse the free plastic bags obtained at the grocery store. Nationwide, a large majority of consumers report reusing these bags for trash bags, lunch bags, pet pick up, extra containment of items that might leak in the refrigerator, wet bathing suits or gym clothes, and toting or disposing items that could leak or spill. If free plastic bags are no longer available at checkout, consumers will need to buy plastic bags for these functions. Very few, if any, commercially available plastic bags are designed and made to be as thin as grocery bags, which means that substitution will likely occur with a thicker plastic product, using more energy to manufacture and transport, and more space in a landfill for disposal. The Ireland experiment with a plastic bag tax bears this out. The Ireland tax in fact resulted in more plastic bags being used in Ireland after the tax than before it – the total amount of bags used in Ireland actually rose by 10%. Why? The sales of substitute plastic bags, such as garbage bags, increased by 400%. PIFA, 2004 (also validated by the Scottish Parliament ERDC Committee – Economic and Rural Development Committee) PIFA/Mike Kidwell Associates 2006.

Section 2.18, Mandatory Findings of Significance

Study: The study concludes "no impact" for subsection (a), which addresses "potential to degrade the quality of the environment" and affect habitat. Comment: The categorization should be changed to "potentially significant impact." As discussed in these comments, the proposed ordinances present numerous significant environmental impacts as a result of substituted product usage for plastic bags.

One key area overlooked by the analysis is water consumption. Water conservation is one of the most significant environmental concerns of our time. Almost uniformly, life cycle studies by independent and government groups have shown that paper grocery bags made at least in part from recycled material have far greater impacts in terms of global warming and use of valuable water resources. See Appendix A. Water conservation and consumption are going to become increasingly more important.

The paper industry is the largest single water consumer of any sector in the national economy. American Forest & Paper Association, Biennial Report, December, 2006. About one gallon of water is used to make each paper grocery bag – significantly more water than is needed to make a plastic bag (it takes less than 6% of the water needed to make a plastic bag than a paper bag). Therefore, if 6 billion plastic bags (as estimated by the County) are converted to the use of paper bags, 6 billion gallons of water are consumed.

Pulp and papermaking processes also contribute additional environmental contaminants to waterways and the air. These impacts need to be carefully studied and understood before the ordinances are prepared.

Study: The study concludes "less than significant impact" for cumulative impacts.

Comment: The categorization should be changed to "potentially significant impact." Data has been presented that indicates that the greenhouse gas consequences of moving from plastic bags to paper bags are significant. Greenhouse gas impacts must be analyzed for cumulative impacts, and must be analyzed to understand impacts on other requirements of state law.

Section 3.3, Air Quality

Study: The study concludes that further analysis is not required.

Comment: The study makes a number of unsupported and flawed assumptions that require correction. First, the study correctly notes that the impacts of the ordinances on air quality as a result of decreased

vehicle emissions related to the distribution of bags, transport of bag waste, and litter collection, should be considered. These impacts, however, need to be evaluated with respect to both plastic bags and the anticipated substitute product, paper bags.

The study incorrectly assumes that "any increases would be offset to some extent due to the fact that paper bags can contain a larger volume of groceries than plastic." This statement is not only untrue and unsubstantiated but ignores the fact that most paper and plastic bags are "double bagged" at checkout, and that very few consumers ask for a fully packed paper bag, which is then too heavy for many people to comfortably handle.

Section 3.7, Greenhouse Gas Emissions

Study: The study assumes consumers will select reusable bags and there will be minimal greenhouse gas impacts.

Comment: This entire section is severely flawed. The entire discussion is premised on the notion that consumers will switch from plastic bags to reusable bags, but as we have noted in these comments, there is no data to suggest that this behavioral change will occur as long as free paper bags are offered, and data from a 2008 San Francisco litter audit suggests the opposite – that consumers will in fact select free paper bags. This assumption is absolutely critical, since a shift to paper bags will have significant greenhouse gas impacts.

It is widely noted the single biggest environmental issues of our time is "global warming". A careful discussion of greenhouse gas impacts and global warming is essential for consistency with California's environmental goals. The very purposes of CEQA are undermined if these significant environmental impacts are not assessed and presented to the public. As we noted in our general comments, these important cumulative impacts must be properly identified and fully evaluated. The public deserves to know the consequences of the ordinances under consideration.

<u>Recommendation</u>: Given the importance of this issue, the lead agency should request clarification with respect to the order of importance of program goals, and that the results of the order be understood before ordinances are prepared. There are many scientific techniques available to deal with trade-offs related to environmental goals, therefore the appropriate studies should be conducted first.

30

Almost uniformly, life-cycle studies by independent and government groups have shown that paper grocery bags made at least in part from recycled material have far greater impacts than plastic bags in terms of global warming. See Appendix A. More than 60% of paper grocery bags end up in landfills. American Forest & Paper Association Biennial Report, December 2006. Paper grocery bags in landfill decompose and release methane gas, which contributes significantly to global warming (23 times more than carbon dioxide over a 100 year horizon). Methane emissions from landfills were estimated at 8.0 million metric tons in 2001. In addition, 2.5 million tons were recovered for energy use and 2.4 million tons were recovered and flared. Therefore, more than 60% of the methane is not recovered. Plastic bags in landfills, on the other hand, contribute insignificantly to the global warming problem.

To further appreciate the significance of the impact of a conversion to paper bags, an examination is needed of how many trees would potentially be cut down each year if plastic bags are replaced by paper bags. The Technical Association of the Pulp and Paper Industry (TAPPI) provided a discussion in its "Earth Answers: How Much Paper Can Be Made From a Tree." Although somewhat simplified, some experts suggests 17 trees per ton of paper." The Technical Association of the Pulp and Paper Industry (TAPPI), www.TAPPI.org. Therefore, if 6 million plastic bags (as estimated by the County) are converted to the use of paper bags, *about 4 million <u>more</u> trees will be cut down each year*.

Paper bags are made from a renewable resource and plastic bags are currently made from fossil fuels (i.e., natural gas). However, the fossil fuel energy required to manufacture and transport paper bags is greater than that required for plastic bags. Even paper bags made from 100% recycled fiber use more fossil fuels than plastic bags. Since global warming has become a worldwide concern and global warming emissions are significantly greater with the use of paper bags and compostable plastic bags than using plastic bags, a closer examination of some consequences of global warming is warranted.

For more extensive reviews, one EPA website lists a multitude of climate news releases. The website is: <u>www.epa.gov/climatechange/newsroom.html</u>.

Appendix A: Life Cycle Assessments of Paper and Plastic Bags

What is Life Cycle Assessment?

LCA is a method that provides a systems approach to examining environmental factors. The system is cradle to grave. Which means taking things from the environment such as fuels, water and raw materials; processing them; using them; and then disposing of them. At each of these levels the activities required to complete these steps lead to potential environmental impacts from emissions to the air, water and ground as emissions and solid waste. The purpose of the system studied is the way for consumers to carry their purchases using either paper, plastic or compostable plastic bags.

The concept of LCA has been practiced since the early 1970s, and in the 1990s standardized through several organizations including SETAC (Society of Environmental Toxicology and Chemistry) and ISO (International Standards Organization). Using LCA, one examines all aspects of the system used to produce a product from cradle (the extraction of raw materials necessary for producing a product) all the way through to the grave (final disposal of the product). LCA studies provide results on resource and energy use, and emissions to air, water (effluents), and land (solid wastes) for local, regional, and global effects.

All products are produced using a system, and as such, have environmental characteristics that are multifaceted and result in global, regional, and local environmental impacts. This is important to recognize as it is at the core of understanding how to make choices that actually provide for an overall benefit to the environment rather than simply trade off one environmental consequence for another or simply push environmental impacts to other jurisdictions. All materials, products, and packaging use resources, require energy for manufacturing and transport, and produce wastes either in the form of air emissions, water effluents, or solid wastes. Choosing an environmentally preferable product system requires that one or more environmental characteristics of the product are better than the product it is replacing – where better is defined as reducing impacts across the entire system which does not include decreases in some areas while allowing increases in other areas.

Based on this basic introduction of why LCAs are critical to our environmental understanding, one can see that it is necessary fully understand how one system compares to another system when trying to make a determination between the use of different products such as grocery bags (paper bags, compostable plastic bags and plastic bags). As a result, it is instructive to determine if previous LCAs have been conducted on the products in question, and if so, if the results from previous studies are similar or different, and if different what is the cause of the underlying differences.

Life Cycle Assessments of Paper and Plastic Bags

The following is a brief review of four selected Life Cycle studies conducted in the past twenty years; starting with the most recent study.

1. "Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper" was prepared for the Progressive Bag Alliance by Boustead Consulting & Associates Ltd., Sep 2007.

To ensure that the results of this study are reliable, repeatable, and robust, the findings of this study were peer reviewed by an independent third party - Professor Michael Overcash of North Carolina State University - with significant experience in life cycle assessments. The following are quotes from the review of Professor Overcash.

"This report provides both a sound technical descriptions of the grocery bag products and the processes of life cycle use."

"The conclusions regarding the relative environmental impact when using a life cycle view are consistent with previous studies and need to be reinforced in the policy arena. The policies to discourage plastic bags may have more to do with litter than the overall environment. Whatever the goals of the policy makers, these need to be far more explicit than general environmental improvement, since the life cycle story is consistent in favor of recyclable plastic bags. It is possible that the emphasis of another report might be that the full benefit of plastic bags is even higher when large recycling is in place."

The LCA study conducted by BCAL shows that when compared to 30% recycled fiber paper bags, polyethylene grocery bags use less energy in terms of fuels for manufacturing, less oil, and less potable water. In addition, polyethylene plastic grocery bags emit fewer global warming gases, less acid rain emissions, and less solid wastes.

The same trend exists when comparing the typical polyethylene grocery bag to grocery bags made with compostable plastic resins - traditional plastic grocery bags use less energy in terms of fuels for manufacturing, less oil, and less potable water and emit fewer global warming gases, less acid rain emissions, and less solid wastes.

The results support the conclusion that any decision to ban traditional polyethylene plastic grocery bags in favor of bags made from alternative materials (compostable plastic or recycled paper) will result in an increase in environmental impacts across a number of categories from global warming effects to the use of precious potable water resources. So no matter what benefits consumers and legislators believe may come from banning traditional plastic grocery bags, such as a reduction in litter, the unintended

consequences are real and long lasting. The significance of the increased impacts will depend largely on the level of and type of replacement that may be invoked as a result of any specifically imposed industrial or legislative requirements (this is addressed later in this document).

2. "Evaluation des impacts environnementaux des sacs de caisse Carrefours...Analyse du cycle de vie de sacs de caisse en plastique, papier et materiau biodegradable" prepared for CARREFOUR by Ecobilian a division of PriceWaterhouseCooper, France, 2004.

Carrefour is a very large French retailer that has an extensive presence in many parts of Europe and indeed the world. Carrefours also conducted a life cycle analysis of the carry out sacks utilized by its chain, and the following table summarizes the results of the study.

Consumption of nonrenewable energy	Paper 10% more than plastic
Consumption of water	Paper 4 times as much as plastic
Emissions of greenhouse gases	Paper 3.3 times as much as plastic
Emission of acid rain gases	Paper 1.9 times as much as plastic
Eutrophication*	Paper 14 times as much as plastic

* Eutrophication is the process of introducing excess nutrients such as phosphorous and nitrogen into water bodies thereby promoting the growth of plants and algae which lower the available dissolved oxygen.

The report, conducted by Ecobilan for Carrefours, concludes that plastic bags are more environmentally friendly than paper bags.

3. "Resource and Environmental Profile Analysis of Polyethylene and Unbleached Paper Grocery Sacks" prepared for The Council for Solid Waste Solutions by Franklin Associates, Ltd., 1990.

The following are key quotes from the Franklin Associates report:

Even paper bags made from 100% recycled fiber use more fossil fuels than plastic bags.

The manufacture of paper bags impacts significantly more than plastic bags on the global warming issue and on the acid rain issue.

For all environmental impacts related to air emissions, water emissions and solid waste ---paper bags are significantly greater than plastic bags.

The solid waste from paper bags disposed of in landfills, as compared to plastic bags, is more significant in both weight and volume.

The Franklin Associates report, like the other reports noted above, illustrates that plastic bags in many environmental reporting categories have fewer impacts than paper bags made from either virgin or recycled fibers.

4. "Life Cycle Inventory of Packaging Options For Shipment of Retail Mail-order Soft Goods", Prepared For Oregon Dept. of Environmental Quality (DEQ) and U.S. EPA Environmentally Preferable Purchasing Program, by Franklin Associates, Ltd., 2004.

Although this study is not a grocery bag LCA, this LCA is instructional as it does compare plastic bag packaging with kraft paper bag packaging of packaging configurations that are of similar size to grocery bags. The following are key quotes from the Franklin Associates report:

The most critical factor influencing environmental burdens is the weight of packaging---more weight; more environmental burdens or impacts.

Compared to all types of packaging the unpadded LLDPE plastic bag had the lowest environments impacts--lowest energy used; lowest greenhouse gases; lowest solid waste.

Compared to the unpadded kraft bag, the unpadded LLDPE plastic bag had the lower environments impacts---lower energy used; lower greenhouse gases; lower solid waste.

Again, the study conducted by Franklin Associates illustrates that that plastic bag packaging has fewer environmental impacts across a number of environmental reporting categories than paper bag packaging.

It is clear that if plastic bags are replaced with either plastic bags made from compostable materials or paper bags made from various amounts of recycled fibers, there will be significant increases in environmental impacts on a per bag basis. The use of plastic and paper in the packaging industry has been studied for more than 20 years – and the results are consistent. The scientific data regarding the environmental impacts of paper bags show that paper has significant adverse environmental consequences in a number of impact categories when compared to plastic bags. The following are a few examples of environmental impacts that are worse when using paper instead of plastic in retail bags.

Global warming: Paper bags result in significantly higher greenhouse gas emissions than plastic bags, even though they are recyclable and often contain as much as 40% recycled materials. Compostable plastic bags result in significantly higher greenhouse gas emissions than plastic bags.

Use of fossil fuels: Although paper bags are made from a renewable resource and currently, plastic bags are made from fossil fuels (primarily natural gas), the amount of energy required to manufacture and transport paper bags is great enough to offset the differences based on resource use and cause an overall increase in fossil fuel use associated with paper bags. The energy required to manufacture and transport compostable plastic bags is also greater than that required for single-use recyclable plastic bags.

It should also be noted that the raw feedstock needed to make polyethylene is ethylene, a simple hydrocarbon molecule made up of carbon and hydrogen. Ethylene can be readily obtained by cracking hydrocarbons, but it can also be synthesized, or even obtained from biomass (plant matter). Because ethylene occurs naturally in plants, fruits and vegetables, work is currently underway to develop a commercially viable source for ethylene from plant

products such as sugar cane. See, e.g., <u>http://www.chalmers.se/chem/EN/centres/plus/research6483/ethylene-from-renewable;http://www.dow.com/commitments/studies/sugar.htm;</u> <u>http://www.ethanolproducer.com/article.jsp?article_id=4535</u>.

Use of potable water: Themanufacturing of paper uses significant amounts of water, a critical resource which is fast becoming limited by a number of factors including climate change and population increases. The paper bag and compostable plastic bag consumption of water are significantly greater than that required for plastic bags. Water pollution Paper bag manufacturing releases far more water pollutants than plastic bags and are known to have significant local and regional impacts to waterways. Solid waste Paper bags and compostable plastic bags require more materials than do plastic bags and therefore will increase solid wastes.

Acid rain: The production of acid rain is recognized as a regional problem. It can affect streams, lakes, soils and the growth of trees. Paper bags and compostable bags generate more acid rain emissions than plastic bags. The level of impact associated with these emissions will vary depending on the location of manufacture.

Use of natural resources: Paper bags require the use of wood fiber that comes from a variety of sources including forests. Given the uncertainty of the effects from poor forest management and maintenance practices in different regions of the world, making more paper bags is counter to an objective of reducing the use of natural resources.

This review of a number of life cycle studies have examined the environmental impacts of paper and plastic grocery bags, and these studies all show that paper bags have considerably more environmental impacts than plastic bags. Global warming and water conservation are two of the most significant environmental concerns of our time. Life cycle studies by independent and government groups have shown that paper grocery bags and compostable plastic grocery bags have far greater impacts in terms of global warming and use of valuable water resources than plastic grocery bags.

American Chemistry Council Shari M. Jackson, Director, Progressive Bag Affiliates

Response to Comment No.1

The County of Los Angeles appreciates that the Progressive Bag Affiliates of the American Chemistry Council (ACC) took the time to review and provide comments on the Draft EIR in its July Comment No. 1 states that the EIR miscalculates and misrepresents the 16, 2010, letter. environmental impacts of a transition from plastic to paper carryout bags. Although it is the intention of the proposed ordinances to increase the use of reusable bags, the County of Los Angeles has made a good faith effort to thoroughly analyze and disclose the environmental impacts of the proposed ordinances under a worst-case scenario, both an 85-percent and 100-percent transition from plastic to paper carryout bags, throughout Section 3.0 of the EIR. A complete Initial Study was prepared evaluating all 17 environmental issues in the CEQA checklist. As a result of the Initial Study, as well as public input during the Initial Study and Notice of Preparation review period (scoping period), an EIR was prepared. The detailed and thorough EIR analysis did include evaluation of a number of environmental impacts, including water quality, GHG emissions, solid waste disposal, air quality, biological resources, electricity consumption, wastewater generation, and water consumption. The introductory comment also notes that mitigation measures are not included in the EIR. Potential indirect environmental impacts that may be caused by the proposed ordinances as a result of paper bag manufacturing cannot be mitigated due to the fact that the County of Los Angeles does not have jurisdiction over paper bag manufacturing facilities in other states or countries. Any cumulative GHG emission impacts as a result of an increased decomposition of paper carryout bags in landfills located in the County are controlled in accordance with applicable regional, State, and federal regulations.

In addition, the County is proposing Mitigation Measure GHG-1 (see Section 12.2), which includes implementing or expanding public outreach through a public education program that would aim to increase the percentage of paper carryout bags that are recycled in the County of Los Angeles, therefore reducing the amount of paper carryout bags that can be potentially littered. The County already has a public education program in place that encourages the curbside recycling of a number of items, including paper carryout bags.³⁷⁸ Curbside recycling is a convenient free service to residents in the unincorporated areas of the County of Los Angeles, and paper carryout bags are universally accepted for recycling in the County of Los Angeles.

Additionally, the County of Los Angeles has analyzed four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. So that there may be a maximum environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper bag usage to the greatest extent feasible, the County of Los Angeles developed Alternative 5, which is a hybrid of Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores, with no limits on square footage or sales volumes in the County of Los Angeles. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2).

³⁷⁸ County of Los Angeles Department of Public Works. Accessed 12 October 2010. "Outreach Programs." Web site. Available at: http://dpw.lacounty.gov/epd/recycling/outreach.cfm and http://dpw.lacounty.gov/epd/recycling/crm.cfm

Response to Comment No. 2

Comment No. 2 states that the EIR is not in compliance with the statutory requirements of CEQA. The County of Los Angeles has made a good faith effort to evaluate the environmental impacts of proposed ordinances in accordance with CEQA in light of available data and public input. Section 15151 of the State CEQA Guidelines states that "an evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." Comment No. 2 on the Draft EIR also asserts that its comment letter for the Draft EIR is incorporated by reference. However, ACC's January 4, 2010, letter ("NOP letter") was written before the Draft EIR was prepared, and in many respects is not relevant to the Draft EIR. All comments provided by the ACC during scoping were taken into consideration by the County of Los Angeles for preparation of the Draft EIR. At the end of these responses to comments received from the ACC on the Draft EIR, the County of Los Angeles has included a list of where each of the scoping comments provided by the ACC during the public review period for the Notice of Preparation and Initial Study were addressed in the Draft EIR.

Response to Comment No. 3

Comment No. 3 states that the EIR fails to analyze the GHG emission impacts due to the life cycle of paper carryout bags. The County of Los Angeles has made a good faith effort to evaluate the potential GHG emission impacts due to the life cycle impacts of paper carryout bags, despite the limits of available comprehensive life cycle assessment data that quantifies a broad range of environmental impacts caused by all of the possible types of carryout bags and reusable bags that are used in the County of Los Angeles. Section 3.3.5 of the EIR analyzes in detail the GHG emission impacts based on a review of several life cycle assessments (LCA), including the Boustead Study,³⁷⁹ the ExcelPlas Study,³⁸⁰ and the Ecobilan Study.³⁸¹ An LCA assesses environmental impacts by analyzing the entire life cycle of a product, process, or activity, including extraction and processing of raw materials, manufacturing, transportation and distribution, use/reuse/maintenance, recycling, and final disposal. Each of these studies, in conducting the life cycle assessments for the bags at issue, do consider emissions due to production, manufacturing, transport, and disposal of paper carryout bags. Please see response to STPB's Comment No. 6 for additional discussion regarding LCA studies.

The quantitative numbers from these LCA studies were then used to evaluate the impacts to GHG emissions resulting from the proposed ordinances. As disclosed in the EIR, for the purposes of this EIR and in the interest of being conservative in evaluating impacts resulting from a worst-case scenario, the County of Los Angeles assumed a larger number of plastic carryout bags used by affected stores in its impact analysis than were actually used in reality. It was assumed that each store currently uses approximately 10,000 plastic carryout bags per day. This number is likely very high, as it is more than twice the bag average reported by CalRecycle in 2008 for store affected by AB 2449.³⁸² In 2008, 4,700 stores statewide affected by AB 2449 reported an average of 4,695

³⁷⁹ Boustead Consulting and Associates Ltd. 2007. *Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper.* Prepared for: Progressive Bag Affiliates.

³⁸⁰ ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. *The Impacts of Degradable Plastic Bags in Australia*. Moorabbin VIC, AU.

³⁸¹ Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France.

³⁸² Sturgess, Dona, California Department of Resources Recycling and Recovery, Sacramento, CA. 29 April 2010. E-mail to Luke Mitchell, County of Los Angeles, Department of Public Works, Alhambra, CA.

bags used per store per day. While 10,000 plastic carryout bags per store per day may not accurately reflect the actual number of bags consumed per day on average per store in the County unincorporated and incorporated areas, for the purposes of this EIR, this number was used to conservatively evaluate GHG impacts resulting from a worst-case scenario. The County thereafter used this conservative number and evaluated the impacts that would result in Section 3.3.5 of the EIR, assuming yet again, from a conservative worst case scenario of 85- and 100-percent conversion from plastic to paper carryout bags. As explained in Section 3.3.5 of the EIR, it was conservatively determined that the life cycle impacts resulting from an 85- and 100-percent conversion from plastic to paper carryout bags may be cumulatively significant when considered in conjunction with all other related past, present, or reasonably foreseeable, probable future projects or activities.

The County of Los Angeles has made a good faith effort to ensure the accuracy of all calculations in the EIR, including for GHG impacts, and have attached Appendix C to the EIR, which shows the spreadsheet that was used for all calculations in the EIR. Any member of the public can review this spreadsheet to understand and verify how the calculations were done. Analysis in the Draft EIR utilized up-to-date and approved models to evaluate GHG emissions, including EMFAC 2007 and URBEMIS 2007.

Comment No. 3 also claims that the County of Los Angeles, "has conducted at best a partial estimate, and has failed to estimate all emissions from all sources." The County of Los Angeles has made a good faith effort to thoroughly analyze and disclose the environmental impacts to GHG emission from the proposed ordinances. Section 15151 of the State CEQA Guidelines states that "an evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible." The County of Los Angeles has complied with this requirement by taking the various LCA studies, including the Boustead Study,³⁸³ the ExcelPlas Study,³⁸⁴ and the Ecobilan Study³⁸⁵ to calculate GHG emissions. These studies were provided to the County and a number of other local jurisdictions in California by members of the plastic bag industry. The County of Los Angeles, in good faith used these studies to conduct its analysis, including the Boustead Study that was actually funded and paid for by the commenter. As noted in the EIR, Boustead Consulting & Associates (Boustead) prepared an LCA on behalf of the Progressive Bag Affiliates in 2007. The Progressive Bag Alliance was founded in 2005 and is a group of American plastic carryout bag manufacturers who advocate recycling plastic shopping bags as an alternative to banning the bags. In 2007, they became the Progressive Bag Affiliates of the American Chemistry Council. Please also see response to STPB Comment No. 8 for additional discussion.

Comment No. 3 also objects to the EIR referencing the CIT Ekologik Study. This study was not relied upon for the environmental analysis in the EIR and was not used to guide the conclusions of the document. This study was referenced in the EIR to emphasize the wide variation of results of life cycle assessments and other studies depending on the study boundaries, inputs, and methodologies used. As the CIT Ekologik Study is not of key importance in the analysis in the EIR, it has been removed from the EIR by way of the Section 12.2.

³⁸³ Boustead Consulting and Associates Ltd. 2007. *Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper.* Prepared for: Progressive Bag Affiliates.

³⁸⁴ ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. *The Impacts of Degradable Plastic Bags in Australia*. Moorabbin VIC, AU.

³⁸⁵ Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France.

Response to Comment No. 4

Comment No. 4 states that the EIR should have evaluated the feasibility of mitigation measures that would be expected to reduce or avoid the cumulative GHG emission impacts due to the life cycle of paper carryout bags. Section 3.3.5 of the EIR analyzes the impacts of GHGs based on (1) potential indirect GHG emissions resulting from the life cycle assessments of carryout bags, (2) GHG emissions resulting from disposal of paper carryout bags in landfills, and (3) GHG emissions resulting from increased delivery trips. As discussed in Section 3.3.5, the County of Los Angeles, with respect to (1) and (2), in the interest of being conservative, and specific to this project only, conservatively determined that the life cycle impacts resulting from an 85- and 100-percent conversion from plastic to paper carryout bags may be cumulatively significant. However, with respect to GHG emissions resulting from increased vehicle trips, the County of Los Angeles found a less than significant cumulative impact.

As described in Section 3.3.6 of the EIR, the indirect cumulative impacts to GHG emissions from the proposed ordinances that may result from a potential increase in paper carryout bag manufacturing are subject to the regulatory oversight authority in the location where manufacturing occurs, if any. With respect to paper carryout bag manufacturing, it appears that there are no paper carryout bag manufacturing facilities located within the County of Los Angeles unincorporated and incorporated areas, and the County of Los Angeles does not have the ability to control or regulate GHG emissions from bag manufacturing facilities outside of its jurisdiction. The majority of paper carryout bags supplied to the greater Los Angeles metropolitan area are produced in and delivered from states outside of California,³⁸⁶ or from countries outside of the United States, such as Canada.³⁸⁷ GHG emissions from any paper carryout bag manufacturing facilities affected by the proposed ordinances will be controlled by the owners of the facilities in accordance with any applicable regional, State, and federal regulations pertaining to GHG emissions, if any. CEQA confers no independent grant of authority to impose mitigations measures on a project. When imposing measures to mitigate a project's significant environmental effects, a public agency may exercise only powers provided by legal authority independent of CEQA. Under Public Resources Code §21004 and 14 California Code of Regulations §15040, mitigation measures that are beyond the powers conferred by law on lead and responsible agencies are legally infeasible. The County of Los Angeles is not required to propose or analyze a mitigation measure that cannot legally be imposed.

Similarly, indirect cumulative impacts to GHG emissions from the proposed ordinances may result from carryout bag degradation in Los Angeles area landfills, but emissions from landfills would be subject to local air district permits and other regulations. GHG emissions from landfills located in the County are already heavily controlled in accordance with applicable regional, State, and federal regulations pertaining to GHG emissions. The County does not have the ability to control or regulate GHG emissions from landfills. Any potential increases in GHG emissions due to decomposition of paper carryout bags in landfills in the County will be controlled by AVAQMD Rule 1150.1 or SCAQMD Rule 1150.1, as well as the new state requirements that regulate methane emissions from landfills in accordance with the goals of Assembly Bill 32.³⁸⁸ Again,

³⁸⁶ Watt, Stephanie, Sapphos Environmental, Inc., Santa Monica, CA. 15 July 2009. Telephone communication with Ms. Carol Trout, Customer Service Department, Duro Bag Manufacturing Company, Florence, KY.

³⁸⁷ National Council for Air and Stream Improvement. 5 February 2010. *Life Cycle Assessment of Unbleached Paper Grocery Bags*. Prepared for: American Forest and Paper Association and Forest Product Association of Canada.

³⁸⁸ California Environmental Protection Agency Air Resources Board. 17 June 2010. "Methane Emissions from Municipal Solid Waste Landfills." Available at: http://www.arb.ca.gov/regact/2009/landfills09/landfills09/landfillfinalfro.pdf

CEQA confers no independent grant of authority to impose mitigations measures on a project. When imposing measures to mitigate a project's significant environmental effects, a public agency may exercise only powers provided by legal authority independent of CEQA. Under Public Resources Code §21004 and 14 California Code of Regulations §15040, mitigation measures that are beyond the powers conferred by law on lead and responsible agencies are legally infeasible. The County of Los Angeles is not required to propose or analyze a mitigation measure that cannot legally be imposed. The County of Los Angeles does acknowledge however, that it already has a public education program in place that encourages the curbside recycling of a number of items, including paper carryout bags.³⁸⁹ This current public education program could assist with increasing the percentage of paper carryout bags that are recycled within the County. There is nearly universal access to curbside recycling throughout the County of Los Angeles, where paper bags can be recycled by homeowners conveniently. Continued public education and outreach would increase the number of bags recycled and consequently reduce the number of carryout bags being disposed of in landfills.

The cumulative contribution resulting from conversion from plastic to paper carryout bags has been established as a reasonable worst-case scenario for the purposes of the analysis in the EIR. The County of Los Angeles has consulted with the responsible agencies for air quality and circulated the Draft EIR to them, including SCAQMD, AVAQMD, and the CARB, and has not yet received any recommendations to mitigate the cumulative impacts to GHG emissions from manufacturing or disposal of paper carryout bags. It is also important to note that recent revisions to CEQA and the CEQA Guidelines discuss the speculative nature of life cycle analysis, especially for GHGs, and note generally that

No existing regulatory definition of "lifecycle" exists....Moreover, even if a standard definition of the term "lifecycle" existed, requiring such an analysis may not be consistent with CEQA. As a general matter, the term could refer to emissions beyond those that could be considered "indirect effects" of a project as that term is defined in section 15358 of the State CEQA Guidelines. Depending on the circumstances of a particular project, an example of such emissions could be those resulting from the manufacture of building materials.³⁹⁰ CEQA only requires analysis of impacts that are directly or indirectly attributable to the project under consideration (State CEQA Guidelines, § 15064(d).) In some instances, materials may be manufactured for many different projects as a result of general market demand, regardless of whether one particular project proceeds. Thus, such emissions may not be "caused by" the project under consideration.³⁹¹

The County of Los Angeles did however, evaluate four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. So that there may be a maximum environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related

³⁸⁹ County of Los Angeles Department of Public Works. Accessed 12 October 2010. "Outreach Programs." Web site. Available at: http://dpw.lacounty.gov/epd/recycling/outreach.cfm and http://dpw.lacounty.gov/epd/recycling/crm.cfm

³⁹⁰ California Air Pollution Control Officers Association. January 2008. CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. Sacramento, CA.

³⁹¹ California Natural Resources Agency. December 2009. Final Statement of Reasons for Regulatory Action. Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97. Available at: http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf

impacts from a shift to paper bag usage to the greatest extent feasible, the County developed Alternative 5, which is a hybrid of Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores, with no limits on square footage or sales volumes in the County of Los Angeles. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see the Clarifications and Revisions to the Draft EIR, Section 12.2). The Alternatives include provisions consistent with mitigation suggested by this commenter.

In addition, wherever the EIR identifies a potential significant impact from life cycle emissions, including "end of life" GHG emissions, the Final EIR recommends the adoption of mitigation measure GHG-1 (see Section 12.2). Although the measures contained within mitigation measure GHG-1 will help offset GHG emissions, they may not mitigate them to below the level of significance.

Mitigation Measure MM-GHG-1	Implement and/or expand public outreach and educational
	programs to increase the percentage of paper carryout bags
	that are recycled curbside.

If the adopted ordinance includes a fee or charge on the issuance of paper carryout bags of at least \$0.05, consider increases to the fee or charge to further reduce consumption of paper carryout bags.

Distribute reusable grocery bags, free of charge within the project area to encourage further transitions to reusable bags. Consider public/private partnerships to offset costs of distribution.

Implement an outreach program for affected stores to encourage consumer transition to reusable bags, to reduce double bagging, and to encourage reuse and in-store recycling of paper carryout bags.

Encourage grocery stores to implement energy efficiency technology particularly in relation to storage of cold and frozen foods (assuming a reduction of 0.65 metric ton carbon dioxide equivalent for each megawatt hour saved³⁹²).

Consider converting public vehicles to low-emitting fuels (assuming a reduction of 0.45 metric ton carbon dioxide equivalent for each 1,000 vehicle miles traveled³⁹³). Consider funding conversion of vehicles through participation in South Coast Air Quality Management District's Carl Moyer Program.

³⁹² Emission factors taken from http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results

³⁹³ Emission factors taken from http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results

With respect to GHG emissions resulting from increased vehicle trips, the County of Los Angeles found a less than significant cumulative impact. CEQA does not require mitigation measures for less than significant impacts.

Response to Comment No. 5

Comment No. 5 states that the EIR should include recommended mitigation measures to avoid or reduce GHG emission impacts due to the transportation of raw materials to make paper bags, trucking the bags to their use destination and landfill, and decomposition of paper bags in landfills. Please see response to Comment No. 4. With respect to GHG emission impacts due to transportation of raw materials to make paper bags, it is important to note that recent revisions to CEQA and the CEQA Guidelines discuss the speculative nature of life cycle analysis, especially for GHGs, and note generally that

No existing regulatory definition of "lifecycle" exists....Moreover, even if a standard definition of the term "lifecycle" existed, requiring such an analysis may not be consistent with CEQA. As a general matter, the term could refer to emissions beyond those that could be considered "indirect effects" of a project as that term is defined in section 15358 of the State CEQA Guidelines. Depending on the circumstances of a particular project, an example of such emissions could be those resulting from the manufacture of building materials.³⁹⁴ CEQA only requires analysis of impacts that are directly or indirectly attributable to the project under consideration (State CEQA Guidelines, § 15064(d).) In some instances, materials may be manufactured for many different projects as a result of general market demand, regardless of whether one particular project proceeds. Thus, such emissions may not be "caused by" the project under consideration.³⁹⁵

Section 3.3.5 of the EIR does evaluate GHG emission impacts due to increased transportation of paper carryout bags to stores, and concludes that these impacts are not significant and therefore do not require mitigation. Section 3.3.5 of the EIR also uses life cycle analyses analysis to evaluate GHG emissions due to end-of-life, which includes transportation of paper carryout bags to landfills, and decomposition of paper carryout bags in landfills. Any emissions resulting from truck trips transporting paper carryout bag waste to landfills in the County are currently controlled by regional and State regulations. For example, CARB's Solid Waste Collection Vehicle Rule also requires owners of refuse collection vehicles to use best available control technology that has been verified by CARB to reduce vehicle emissions. In addition, SCAQMD Rule 1193, Clean On-road Residential and Commercial Refuse Collection Vehicles, requires all public and private solid-waste collection fleets within the jurisdiction of the SCAQMD to acquire alternative-fuel refuse collection vehicles when procuring or leasing these vehicles. SCAQMD Rule 1193 applies to governmental agencies and private entities that operate solid-waste collection fleets with 15 or more solid-waste collection vehicles. Finally, the County is also controlling for emissions by requiring in its new refuse agreements that alternative-fuel refuse vehicles be used. 396,397,398,399 GHG emissions from

³⁹⁴ California Air Pollution Control Officers Association. January 2008. CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. Sacramento, CA.

³⁹⁵ California Natural Resources Agency. December 2009. Final Statement of Reasons for Regulatory Action.

Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97. Available at: http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf

³⁹⁶ County of Los Angeles, Department of Public Works. 11 May 2010. Award of Contract for Walnut Park Garbage Disposal District. Available at: http://file.lacounty.gov/bos/supdocs/54560.pdf

landfills located in the County of Los Angeles are already controlled in accordance with applicable regional, State, and federal regulations pertaining to GHG emissions. The County of Los Angeles does not have the ability to control or regulate GHG emissions from landfills that are outside of the County of Los Angeles's jurisdiction. Any potential increases in GHG emissions due to decomposition of paper carryout bags in landfills in the County of Los Angeles will be controlled by AVAQMD Rule 1150.1 or SCAQMD Rule 1150.1. Therefore, the impacts to GHG emissions resulting from decomposition of paper carryout bags in landfills could not be feasibly mitigated and may have the potential to remain cumulatively considerable. The County of Los Angeles has also evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. So that there may be a maximum environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper bag usage to the greatest extent feasible, the County of Los Angeles developed Alternative 5, which is a hybrid of Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores, with no limits on square footage or sales volumes in the County of Los Angeles. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2).

In addition, the County of Los Angeles is proposing Mitigation Measure GHG-1 (see Section 12.2 and response to Comment No. 4 above). Part of mitigation measure GHG-1 includes implementing and/or expanding a public education program that could assist with increasing the percentage of paper carryout bags that are recycled within the County of Los Angeles. The County of Los Angeles acknowledges that it already has a public education program in place that encourages the curbside recycling of a number of items, including paper carryout bags.⁴⁰⁰ There is nearly universal access to curbside recycling throughout the County of Los Angeles, where paper bags can be recycled by homeowners conveniently. Continued public education and outreach would increase the number of bags recycled and consequently reduce the number of carryout bags being manufactured, transported, and disposed of in landfills.

Response to Comment No. 6

Comment No. 6 states that mitigation measures that could be used to reduce the potential impacts of the proposed ordinances could include banning or placing a fee on the issuance of paper carryout bags. Rather than evaluating these options as mitigation measures, the County of Los Angeles has evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected

³⁹⁷ County of Los Angeles, Department of Public Works. 11 May 2010. Award of Contract for Athens/Woodcrest/Olivita Garbage Disposal District. Available at: http://file.lacounty.gov/bos/supdocs/54567.pdf

³⁹⁸ County of Los Angeles, Department of Public Works. 11 May 2010. Award the Contract for Firestone Garbage Disposal District. Available at: http://file.lacounty.gov/bos/supdocs/54559.pdf

³⁹⁹ County of Los Angeles, Department of Public Works. 19 January 2010. Award of Contract for an Exclusive Franchise Agreement to Valley Vista Services, Inc. for the Unincorporated Area of Hacienda Heights. Available at: http://file.lacounty.gov/bos/supdocs/52931.pdf

⁴⁰⁰ County of Los Angeles Department of Public Works. Accessed 12 October 2010. "Outreach Programs." Web site. Available at: http://dpw.lacounty.gov/epd/recycling/outreach.cfm and http://dpw.lacounty.gov/epd/recycling/crm.cfm

to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. So that there may be a maximum environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper bag usage to the greatest extent feasible, the County developed Alternative 5, which is a hybrid of Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores, with no limits on square footage or sales volumes in the County of Los Angeles. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2). In addition, the County is proposing Mitigation Measure GHG-1 (see Section 12.2 and response to Comment No. 4).

Response to Comment No. 7

Comment No. 7 notes that reusable bags may pose a health risk if not adequately laundered. Although CEQA does not require analysis of health impacts, the EIR addresses potential health concerns related to reusable bags. As discussed in Section ES.3 and as is the case for any reusable household item that comes in contact with food items, such as chopping boards, countertops, tableware, or table linens, reusable bags do not pose a serious public health risk if consumers care for the bags accordingly and/or clean the bags regularly. If reusable bags are made of cloth or fabric, they can be machine washable. If reusable bags are made of durable plastic, they can be rinsed or wiped clean. Further, to control for any possible public health issues, the County of Los Angeles is proposing that the proposed ordinances will require that the material used in such bags be machine washable.

Health risks, if any, from reusable bags can be minimized if the consumer takes appropriate steps, such as washing and disinfecting the bags, using them only for groceries and using separate bags for raw meat products, being careful with where they are stored, and allowing bags to dry before folding and storing.⁴⁰¹ A representative of the County of Los Angeles Department of Public Health, the County department charged with protecting and improving the health of Los Angeles County residents, has stated that the public health risks of reusable bags are minimal.⁴⁰² Further, as discussed in Section 2.2.4 of the EIR, the City and County of San Francisco, since enacting a plastic bag ban in 2007, have not reported negative public health issues related to the increased use of reusable bags.⁴⁰³ A recent 2010 University of Arizona study indicates, which is consistent with the County's discussion in Section ES.3 of the EIR, that any risk is minimized if proper care is taken. Indeed, the study found that washing the reusable bags, either by hand or machine, cut bacterial contamination by more than 99.9 percent.⁴⁰⁴

 ⁴⁰¹ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April
 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

 ⁴⁰² Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April
 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

⁴⁰³ Galbreath, Rick, County of San Francisco, California. 10 May 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, California.

⁴⁰⁴ Gerba, Charles P., David Williams, and Ryan G. Sinclair. 8 June 2010. *Assessment of the Potential for Cross Contamination of Food Products by Reusable Shopping Bags*.

Comment No. 7 suggests that a mitigation measure for this potential impact could include a comprehensive education campaign to make sure people properly and frequently wash their reusable bags. Although health impacts from reusable bags were not determined to constitute a significant impact under CEQA, this comment, like all comments, is noted for the record and the County of Los Angeles will consider the suggestion to include a public education program to encourage consumers to wash their reusable bags in the decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 8

Comment No. 8 notes that an increase in laundering of reusable bags would result in environmental impacts due to water use, energy use, and detergent use. There is no substantial evidence to suggest that this impact would constitute a significant environmental impact that would require the consideration of mitigation measures. It is likely that consumers will wash their reusable bags along with the rest of their laundry, and it is unlikely that the need to wash reusable bags will cause the average consumer to have to do additional loads of laundry. Additionally, all wastewater that enters the sewer pipeline in Los Angeles County is treated to a secondary treatment at a minimum, thus reducing any potentially adverse impacts on the natural environment.⁴⁰⁵

Comment No. 8 also suggests that the County of Los Angeles impose a fee on reusable bags as a mitigation measure to reduce environmental impacts of reusable bags. The environmental impacts of reusable bags were determined to be below the level of significance as studied throughout the EIR, and therefore would not require mitigation. The EIR concludes that life cycle impacts due to reusable bags are less than impacts due to plastic carryout bags, which is supported by numerous studies referenced in the EIR;^{406,407,408,409,410,411,412} therefore, a switch from the use of plastic carryout bags to the use of reusable bags would result in a decrease in environmental impacts compared to existing conditions, or in other words, a beneficial impact.

Response to Comment No. 9

Comment No. 9 states that the County of Los Angeles could purchase GHG emission offsets like carbon credits "in an effort to reduce the impact of industrially generated GHGs, and a similar approach may be applicable here." Carbon offsets are considered at this time to be infeasible for this particular proposed project. Payment of an infinite number of carbon offsets for a potentially unlimited amount of time lacks a sufficient legal nexus (i.e., results from a highly attenuated GHG

⁴⁰⁵ Sanitation Districts of Los Angeles County. Accessed 15 October 2010. "Wastewater Treatment and Water Reclamation." Available at: http://www.lacsd.org/about/wastewater_facilities/moresanj/default.asp

⁴⁰⁶ Nolan-Itu Pty. Ltd. 2002. *Plastic Shopping Bags – Analysis of Levies and Environmental Impacts*. Prepared for: Department of the Environment, Water, and Heritage: Canberra, AU.

⁴⁰⁷ ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. *The Impacts of Degradable Plastic Bags in Australia*. Moorabbin VIC, AU.

⁴⁰⁸ Marlet, C., EuroCommerce. September 2004. *The Use of LCAs on Plastic Bags in an IPP Context*. Brussels, Belgium.

⁴⁰⁹ The ULS Report. 1 June 2007. Review of Life Cycle Data Relating to Disposable Compostable Biodegradable, and Reusable Grocery Bags. Rochester, MI.

⁴¹⁰ Hyder Consulting. 18 April 2007. *Comparison of existing life cycle analyses of plastic bag alternatives*. Prepared for: Sustainability Victoria, Victoria, Australia.

⁴¹¹ Herrera et al. January 2008. Alternatives to Disposable Shopping Bags and Food Service Items Volume I and II. Prepared for: Seattle Public Utilities.

⁴¹² Marlet, C., EuroCommerce. September 2004. The Use of LCAs on Plastic Bags in an IPP Context. Brussels, Belgium.

source not directly attributable to the County and the cities), and is more appropriately considered when specific project-level details are known for the manufacturing facilities and disposal facilities. As noted in response to Comment No. 8 to the July 16, 2010, comment letter from STPB, and provided in the Natural Resource Agency's Statement of Reasons for revisions to the CEQA Guidelines,⁴¹³ "In some instances, materials may be manufactured for many different projects as a result of general market demand, regardless of whether one particular project proceeds. Thus, such emissions may not be 'caused by' the project under consideration. Similarly, in this scenario, a lead agency may not be able to require mitigation for emissions that result from the manufacturing process. Mitigation can only be required for emissions that are actually caused by the project (State CEQA Guidelines, § 15126.4(a)(4))." ⁴¹⁴

Furthermore, the County of Los Angeles believes that imposition of carbon offset fees would be infeasible for policy considerations, economic reasons, and would fail to meet the project objectives. There are still outstanding policy concerns regarding carbon offsets and their approach and effectiveness.^{415,416,417,418,419,420,421} As for economic reasons, imposition of carbon offset fees could deter future adoption of the recommended ordinances or alternatives by the incorporated cities within the County of Los Angeles, especially given the tough economic circumstances many cities and the County of Los Angeles are currently facing,^{422,423,424,425,426,427} and would therefore not

⁴¹⁴ California Natural Resources Agency. December 2009. Final Statement of Reasons for Regulatory Action. Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97. Available at: http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf

⁴¹³ California Natural Resources Agency. December 2009. Final Statement of Reasons for Regulatory Action.

Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97. Available at: http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf

⁴¹⁵ Mitchell, Dan. Article in The New York Times. May 5, 2007. How Clean Is Your Carbon Credit? Available at: http://www.nytimes.com/2007/05/05/business/05online.html

⁴¹⁶Revkin, Andrew. Article in The New York Times. April 29, 2007. Carbon-neutral Is Hip, but Is It Green? Available at: http://www.nytimes.com/2007/04/29/weekinreview/29revkin.html?ex = 1335499200&en = d9e2407e4f1a20f0&ei = 5124

⁴¹⁷ Davies, Nick. Article in The Guardian. June 16, 2007. The Inconvenient Truth about the Carbon Offset Industry. Available at: http://www.guardian.co.uk/environment/2007/jun/16/climatechange.climatechange

⁴¹⁸ Kaste, Martin. National Public Radio. November 28, 2006. 'Carbon Offset' Business Takes Root. Available at: http://www.npr.org/templates/story/story.php?storyld=6548098

⁴¹⁹ Monbiot, George. Published in the Guardian. October 18, 2006. Selling Indulgences. Available at: http://www.monbiot.com/archives/2006/10/19/selling-indulgences/

⁴²⁰ David Suzuki Foundation. Accessed October 25, 2010. The problems with carbon offsets from tree-planting. Available at: http://www.davidsuzuki.org/issues/climate-change/science/the-problems-with-carbon-offsets-from-tree-planting/

⁴²¹ Granda, Patricia. Acción Ecológica. 2005. Carbon Sink Plantations in the Ecuadorian Andes. Available at: http://www.wrm.org.uy/countries/Ecuador/face.pdf

⁴²² CBS Evening News. March 26, 2010. City, State Budgets Crippled Nationwide. Available at: http://www.cbsnews.com/stories/2010/03/26/eveningnews/main6336699.shtml

⁴²³ Luhby, Tami. CNN Money. October 6, 2010. City budgets slammed by falling property taxes. Available at: http://money.cnn.com/2010/10/06/news/economy/cities_property_taxes/index.htm

⁴²⁴ Dougherty, Conor. The Wall Street Journal. Cities, May 25, 2010. States, Still Grappling with Budget Woes. Available at: http://online.wsj.com/article/SB10001424052748704792104575264772303847934.html

⁴²⁵ Riccardi, Nicholas. Los Angeles Times. October 7, 2010. Cities' budgets squeezed by housing crunch. Available at: http://articles.latimes.com/2010/oct/07/nation/la-na-league-20101007

⁴²⁶ Semuels, Alana. Los Angeles Times. October 18, 2010. California Cities are Lowering Standards to Raise Revenue. Available at: http://www.latimes.com/business/la-fi-desperate-cities-20101018,0,7536692.story

⁴²⁷ County of Los Angeles Chief Executive Office. August 5, 2010. Sacramento Update. Available at: http://file.lacounty.gov/bc/q3_2010/cms1_150053.pdf#search = "shortfall

meet the project objectives of: (1) conducting outreach to all 88 incorporated cities of the County to encourage adoption of comparable ordinances, (2) reduce the Countywide consumption of plastic carryout bags from the estimated 1,600 plastic carryout bags per household in 2007, to fewer than 800 plastic bags per household in 2013, (3) reduce the Countywide contribution of plastic carryout bags to litter that blights public spaces Countywide by 50 percent by 2013, (4) reduce the County's, Cities', and Flood Control District's costs for prevention, clean-up, and enforcement efforts to reduce litter in the County by \$4 million, (5) substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the population) with an environmental awareness message, (6) reduce Countywide disposal of plastic carryout bags in landfills by 50 percent from 2007 annual amounts.

There is currently no adopted federal GHG emissions trading scheme that would require the County of Los Angeles to purchase carbon credits to offset their emissions. However, the County of Los Angeles will consider this suggestion during the decision-making process for the proposed County of Los Angeles ordinance. As noted previously, the County of Los Angeles has evaluated five alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. In addition, the County is proposing mitigation measure GHG-1 (see Section 12.2, and response to Comment No. 4).

Response to Comment No. 10

Comment No. 10 states that the EIR should consider mitigation measures for GHG emissions in light of the CEQA court case, Communities for a Better Environment vs. City of Richmond, 184 Cal. App. 4th 70 (April 26, 2010). This case is completely distinguishable factually from the proposed ordinances and EIR currently being considered by the County of Los Angeles. The proposed project being considered in Communities for a Better Environment vs. City of Richmond is distinctly different from the proposed ordinances as it involves expansion of an oil refinery, which would have the potential to result in significant direct impacts to GHG emissions. The proposed ordinances would not result in any direct impacts to GHG emissions, as they would not directly result in any construction activities or the expansion of existing facilities. Even in the case of indirect GHG emissions, in the interest of being conservative, and specific to this project only, the County of Los Angeles conservatively determined that the life cycle impacts resulting from an 85- and 100-percent conversion from plastic to paper carryout bags may be cumulatively significant. The County of Los Angeles has also evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. So that there may be a maximum environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper bag usage to the greatest extent feasible, the County also developed Alternative 5, which is a hybrid of Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores, with no limits on square footage or sales volumes in the County of Los Angeles. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2). Provisions in these alternatives are consistent with mitigation suggested by this commenter, including the use of bag fees to reduce life cycle impacts. In addition, the County of Los Angeles is proposing mitigation measure GHG-1 (see the Section 12.2, and response to Comment No. 4).

Response to Comment No. 11

Comment No. 11 objects to the statement in Section ES.3 of the EIR that reusable bags do not pose a serious public health risk if consumers care for the bags accordingly and/or clean the bags regularly. Studies that have documented bacteria in reusable bags, including two of the references provided by this comment letter, have noted that laundering the bags minimizes the risk of crosscontamination of foods.^{428,429} As discussed in Section ES.3 and as is the case for any reusable household item that comes in contact with food items, such as chopping boards, countertops, tableware, or table linens, reusable bags do not pose a serious public health risk if consumers care for the bags accordingly and/or clean the bags regularly. If reusable bags are made of cloth or fabric, they can be machine washable. If reusable bags are made of durable plastic, they can be rinsed or wiped clean. Further, to control for any possible public health issues, the County of Los Angeles is proposing that the proposed ordinances require that the material used in such bags be machine washable.

Health risks, if any, from reusable bags can be minimized if the consumer takes appropriate steps, such as washing and disinfecting the bags, using them only for groceries and using separate bags for raw meat products, being careful with where they are stored, and allowing bags to dry before folding and storing.⁴³⁰ A representative of the County of Los Angeles Department of Public Health, which is charged with protecting and improving the health of Los Angeles County residents, has stated that the public health risks of reusable bags are minimal.⁴³¹ Further, as discussed in Section 2.2.4 of the EIR, the City and County of San Francisco, since enacting a plastic bag ban in 2007, have not reported negative public health issues related to the increased use of reusable bags.⁴³² A recent 2010 University of Arizona study indicates, which is consistent with the County's discussion in Section ES.3 of the EIR, that any risk is minimized if proper care is taken. Indeed, the study found that washing the reusable bags, either by hand or machine, cut bacterial contamination by more than 99.9 percent.⁴³³

Although CEQA does not require analysis of public health impacts, these references have been added to Section ES.3 of the EIR (see Section 12.2).

⁴²⁸ Health Canada. Food Safety Tips for Reusable Grocery Bags and Bins. Accessed September 7, 2010. Available at: http://www.hc-sc.gc.ca/fn-an/securit/kitchen-cuisine/reusable-bags-sacs-reutilisable-eng.php

⁴²⁹ Charles P. Gerba, David Williams, and Ryan G. Sinclair. 8 June 2010. Assessment of the Potential for Cross Contamination of Food Products by Reusable Shopping Bags.

 ⁴³⁰ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April
 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

 ⁴³¹ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April
 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

⁴³² Galbreath, Rick, County of San Francisco, California. 10 May 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, California.

⁴³³ Charles P. Gerba, David Williams, and Ryan G. Sinclair. 8 June 2010. Assessment of the Potential for Cross Contamination of Food Products by Reusable Shopping Bags.

Response to Comment No. 12

Comment No. 12 objects to the fact that the EIR used a telephone conversation with the San Francisco County Board of Health as evidence that reusable bags do not pose a significant health risk. Section 15086 of the State CEQA Guidelines states that during preparation of a Draft EIR, a lead agency may consult directly with "any person who has special expertise with respect to any environmental impact involved."

Response to Comment No. 13

Comment No. 13 asserts that the EIR should discuss the hygiene impacts of reusable bags that have not been cleaned. Although CEQA does not require analysis of health impacts, Section ES.3 of the EIR notes that a representative of the County of Los Angeles Department of Public Health has stated that the public health risks of reusable bags are minimal.⁴³⁴ The EIR addresses potential health concerns related to reusable bags. As discussed in Section ES.3 and as is the case for any reusable household item that comes in contact with food items, such as chopping boards, countertops, tableware, or table linens, reusable bags do not pose a serious public health risk if consumers care for the bags accordingly and/or clean the bags regularly. If reusable bags are made of cloth or fabric, they can be machine washable. If reusable bags are made of durable plastic, they can be rinsed or wiped clean. Further, to control for any possible public health issues, the County of Los Angeles is proposing that the proposed ordinances require that the material used in such bags be machine washable.

Health risks, if any, from reusable bags can be minimized if the consumer takes appropriate steps, such as washing and disinfecting the bags, using them only for groceries and using separate bags for raw meat products, being careful with where they are stored, and allowing bags to dry before folding and storing.⁴³⁵ A representative of the County of Los Angeles Department of Public Health, which is charged with protecting and improving the health of Los Angeles County residents, has stated that the public health risks of reusable bags are minimal.⁴³⁶ Further, as discussed in Section 2.2.4 of the EIR, the City and County of San Francisco, since enacting a plastic bag ban in 2007, have not reported negative public health issues related to the increased use of reusable bags.⁴³⁷ The same study that commenter cites, the 2010 University of Arizona study, is indeed consistent with the County's discussion in Section ES.3 of the EIR that any risk is minimized if proper care is taken. Indeed, the study found that washing the reusable bags, either by hand or machine, cut bacterial contamination by more than 99.9 percent.⁴³⁸ The claim in Comment No. 13 that a majority of consumers do not wash their reusable bags is noted for the record, and the County of

⁴³⁴ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

⁴³⁵ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April
2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

 ⁴³⁶ Dragan, James, County of Los Angeles, Department of Public Health, Los Angeles, CA. 17 March 2010 to 9 April
 2010. E-mail correspondence with Nilda Gemeniano, County of Los Angeles, Department of Public Works, Alhambra, CA.

⁴³⁷ Galbreath, Rick, County of San Francisco, California. 10 May 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, California

⁴³⁸ Charles P. Gerba, David Williams, and Ryan G. Sinclair. 8 June 2010. *Assessment of the Potential for Cross Contamination of Food Products by Reusable Shopping Bags*.

Los Angeles Board of Supervisors will consider food cross-contamination risks during the decisionmaking process for the proposed ordinances.

Response to Comment No. 14

Comment No. 14 states that the propensity for reusable bags to sustain bacteria could increase the potential for health risks, especially if the food is contaminated with salmonella, *E. coli*, or other food borne pathogens. However, the reference provided under Comment No. 11 (the 2010 University of Arizona study), which documents the presence of bacteria in reusable bags, also notes that salmonella and *E. coli* were not found to be present in any of the reusable bags tested.⁴³⁹ Although CEQA does not require analysis of health risks or impacts, the County of Los Angeles Board of Supervisors will consider risks for cross-contamination of foods during the decision-making process for the proposed ordinances. Please also see response to Comment No. 11 and response to Comment No. 13.

Response to Comment No. 15

Comment No. 14 states that a phone call to a County of Los Angeles employee is not a sufficient reference to document that health risks posed by reusable bags are not a significant concern. Section 15086 of the State CEQA Guidelines states that during preparation of a Draft EIR, a lead agency may consult directly with "any person who has special expertise with respect to any environmental impact involved." Although CEQA does not require analysis of health risks, the County of Los Angeles Board of Supervisors will consider food cross-contamination risks during its decision-making process for the proposed ordinances. Please also see response to Comment No. 11 and response to Comment No. 13.

Response to Comment No. 16

Comment No. 16 states that the EIR fails to analyze that an increase in laundering of reusable bags would result in environmental impacts due to water use, energy use, and detergent use. As Comment No. 16 notes, there is no study available that assesses these suggested possible impacts of increased use of reusable bags. There is no substantial evidence to suggest that this impact would constitute a significant environmental impact that would require the consideration of mitigation measures. It is likely that consumers will wash their reusable bags along with the rest of their laundry, and it is unlikely that the need to wash reusable bags will cause the average consumer to have to do additional loads of laundry. Additionally, wastewater that enters the sewer pipeline in Los Angeles County is treated to a secondary treatment at a minimum, thus reducing any potentially adverse impacts on the natural environment.⁴⁴⁰

The commenter also claims that the Draft EIR does not include projected increases in reusable bag use. Throughout Section 3.0 of the EIR, environmental impacts are analyzed based on a worst-case scenario where all plastic carryout bags currently used in the County of Los Angeles would be replaced by a 100-percent conversion to paper carryout bags and that there would be no increase in use of reusable bags. The County of Los Angeles does anticipate, however, that the proposed ordinances would result in an increase in the use of reusable bags, and therefore has also evaluated

⁴³⁹ The Carrier Bag Consortium. 21 April 2009. Grocery Carry Bag Sanitation. A Microbiological Study of Reusable Bags and "First or Single-use" Plastic Bags.

⁴⁴⁰ Sanitation Districts of Los Angeles County. Accessed October 15, 2010. Wastewater Treatment and Water Reclamation. Available at: http://www.lacsd.org/about/wastewater_facilities/moresanj/default.asp

the proposed ordinances based on an alternative outcome that would result in at least a 15-percent use in reusable bags, for an 85 percent conversion to paper bags. This 15-percent conversion to reusable bags is based on a survey conducted by Sapphos Environmental, Inc. (Appendix A tothe EIR). This survey observed that reusable bags made up approximately 18 percent of the total number of carryout bags used in stores that did not make plastic carryout bags readily available to customers (referred to as nontraditional stores for the purposes of the study); however, reusable bags made up only approximately 2 percent of the total number of bags used in stores that did make plastic carryout bags readily available (referred to as traditional stores) (Appendix A to the EIR). The 18 percent of reusable bags used by nontraditional store customers could be indicative of the approximate percentage of consumers that might be expected to shift to the use of reusable bags should the proposed ordinances be implemented in the County, as the proposed ordinances would ban the issuance of plastic carryout bags and would include an environmental awareness campaign to encourage the use of reusable bags. After implementation of the proposed ordinances, all of the affected stores would be in a similar situation to the nontraditional stores evaluated in the study, as they would not be permitted to distribute plastic carryout bags to customers. Therefore, it is reasonable to estimate that a ban on the issuance of plastic carryout bags would increase the number of reusable bags used by customers by approximately 15 percent.

Response to Comment No. 17

Comment No. 17 states that the EIR does not allow for a determination of whether the expansion of reusable bag use will be beneficial or detrimental to the environment. Many studies that evaluate the environmental impacts of different types of reusable bags were taken into consideration during preparation of the EIR. The overall conclusion of these studies is that reusable bags can be expected to have lower environmental impacts than plastic bags because they can be used multiple times.^{441,442,443,444,445,446,447} This conclusion is consistent with the Master Environmental Assessment on single-use and reusable bags that was prepared to assist counties and cities evaluate environmental impacts of plastic carryout bag bans.⁴⁴⁸ The County of Los Angeles also notes that the environmental impacts of reusable bags are discussed throughout Section 3.0 of the EIR, including the consumption of nonrenewable energy (Section 3.5.4), emissions of greenhouse gases (Section 3.3.5), consumption of water (Section 3.5.4), generation of acidic atmospheric pollutants (Section 3.1.4), air quality (Section 3.1.4), water pollution (Section 3.4.4), and solid waste (Section 3.5.4).

⁴⁴¹ Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France. of the Environment, Water, and Heritage: Canberra, Australia.

⁴⁴² Nolan-Itu Pty. Ltd. 2002. *Plastic Shopping Bags – Analysis of Levies and Environmental Impacts*. Prepared for: Department

⁴⁴³ Marlet, C., EuroCommerce. September 2004. *The Use of LCAs on Plastic Bags in an IPP Context*. Brussels, Belgium.

⁴⁴⁴ The ULS Report. 1 June 2007. Review of Life Cycle Data Relating to Disposable Compostable Biodegradable, and Reusable Grocery Bags. Rochester, MI.

⁴⁴⁵ ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. *The Impacts of Degradable Plastic Bags in Australia*. Moorabbin VIC, AU.

⁴⁴⁶ Hyder Consulting. 18 April 2007. *Comparison of existing life cycle analyses of plastic bag alternatives*. Prepared for: Sustainability Victoria, Victoria, Australia.

⁴⁴⁷ Herrera et al. January 2008. Alternatives to Disposable Shopping Bags and Food Service Items Volume I and II. Prepared for: Seattle Public Utilities.

⁴⁴⁸ Green Cities California. March 2010. *Master Environmental Assessment on Single-Use and Reusable Bags*. Prepared by ICF International. San Francisco, CA.

The Hyder Study, which was used as a reference throughout the EIR, evaluated the life cycle impacts of several different types of bags and concludes that a polypropylene reusable bag that is used 104 times results in significantly lower overall environmental impacts than the impacts resulting from paper and plastic carryout bags (Table 13-2).⁴⁴⁹ The Hyder Study also evaluated reusable calico (cotton) bags, and determined that although life cycle water use impacts would be greater than for other types of bags, the calico reusable bag outperforms carryout bags in all other environmental categories: material consumption, global warming, energy consumption, litter marine biodiversity, and litter aesthetics (Table 13-2).

Therefore, overall environmental impacts due to the life cycle of a reusable bag would be expected to be significantly lower than the overall environmental impacts of a plastic or paper carryout bag when considered on a per-use basis, and any conversion from the use of plastic carryout bags to reusable bags would be reasonably expected to result in an environmental benefit.

Further, if it were to be assumed, under a worst-case scenario, that the environmental impacts of reusable bags were equivalent to the impacts of paper carryout bags, the environmental impacts would equal those analyzed in the scenarios that evaluate a 100-percent conversion from plastic to paper carryout bags throughout the EIR.

Response to Comment No. 18

Comment No. 18 states that the air quality impacts of the proposed ordinances were based on the Ecobilan Study, which includes energy assumptions that are particular to France. The County of Los Angeles is aware of this, and acknowledged the limitations of the Ecobilan Study, as well as the limitations of the other life cycle assessments that were analyzed during preparation of the EIR, as discussed in Section 3.1.4 of the EIR. There is no comprehensive available life cycle assessment available that quantifies a broad range of environmental impacts caused by carryout bags and reusable bags that is specific to conditions in California. The County of Los Angeles has made a good faith effort to analyze available data and studies, and noted the limitations of the studies used. The County of Los Angeles, in an effort to be thorough and reflect the studies available, also used the Boustead Study⁴⁵⁰ and the Franklin Study⁴⁵¹ to evaluate air quality impacts, which are studies that are not based on energy consumption assumptions particular to France.

Response to Comment No. 19

Comment No. 19 states that banning the issuance of plastic carryout bags may have the effect of increasing the amount of paper carryout bag litter within the County of Los Angeles. Many studies have noted the prevalence of plastic carryout bag litter in the marine environment, but these studies have not noted paper carryout bags as a serious litter contributor.^{452,453} During the Great

⁴⁴⁹ Hyder Consulting. 18 April 2007. *Comparison of existing life cycle analyses of plastic bag alternatives*. Prepared for: Sustainability Victoria, Victoria, Australia.

⁴⁵⁰ Boustead Consulting and Associates Ltd. 2007. *Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper.* Prepared for: Progressive Bag Affiliates.

⁴⁵¹ Franklin Associates, Ltd. 1990. *Resource and Environmental Profile Analysis of Polyethylene and Unbleached Paper Grocery Sacks*. Prairie Village, KS.

⁴⁵² Ocean Conservancy. A Rising Tide of Ocean Debris and What We Can Do About It. International Coastal Cleanup 2009 Report. Available at: http://www.oceanconservancy.org/pdf/A_Rising_Tide_full_lowres.pdf

⁴⁵³ Sheavly, S.B. 2007. *National Marine Debris Monitoring Program: Final Program Report, Data Analysis and Summary.* Prepared for: US Environmental Protection Agency by Ocean Conservancy, Grant Number X83053401-02. p. 76.

Los Angeles River Clean Up, which collected trash from 30 catch basins in the Los Angeles River, it was observed that 20 percent by weight and 17 percent by volume of the trash collected consisted of paper; however, these results are not limited to paper carryout bags and include all types of paper litter such as paper napkins and paper towels.⁴⁵⁴ The County of Los Angeles understands from the review of numerous studies undertaken in multiple areas that paper carryout bags normally account for less than one percent of litter collected from waterways. Out of the litter collected during the City of San Francisco Litter Audit in 2008, retail paper bags were not listed as one of the top 25 litter subcategories.⁴⁵⁵ The City of San Francisco reported paper retail bags composed 0.4 percent of all large litter items collected in 2007 and 0.35 percent of all litter items collected in 2008.⁴⁵⁶ The City of San Francisco Litter Audit concluded that 57.9 percent of all bag litter in 2008 was composed of unbranded plastic bags and 10.9 percent was composed of plastic retail bags, but only 6 percent of bag litter was composed of paper retail bags. As noted in Section 3.2 of the EIR, a study performed in Washington, DC, showed that paper products were not found in the streams except in localized areas, and were not present downstream.⁴⁵⁷ It is also known that the recycling rates of paper carryout bags are higher than the recycling rates of plastic carryout bags. The County of Los Angeles is aware that if more paper carryout bags are used within its boundaries, an increase in litter attributed to paper carryout bags is plausible; however, the proposed ordinances would also encourage a transition to the use of reusable bags. In addition, the County of Los Angeles has evaluated four alternatives to the proposed ordinances in Section 4.0 of the EIR that would either ban or place a fee on the issuance of paper carryout bags, which would be expected to reduce or avoid the potential increase in paper carryout bag use that may be caused by the proposed ordinances. So that there may be a maximum environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper bag usage to the greatest extent feasible, the County of Los Angeles developed Alternative 5, which is a hybrid of Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores, with no limits on square footage or sales volumes in the County of Los Angeles. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. Alternative 5 would also achieve the program goals and Countywide objectives. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2).

Paper litter in waterways does not present the same environmental hazards associated with plastic carryout bags. Unlike regular plastic, paper is biodegradable and compostable.⁴⁵⁸ The paper used to make standard paper carryout bags is originally derived from wood pulp, which is a naturally biodegradable material. Due to the biodegradable properties of paper, paper bags do not persist in

⁴⁵⁴ City of Los Angeles. 18 June 2004. *Characterization of Urban Litter*. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.

⁴⁵⁵ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008 litter audit.pdf

⁴⁵⁶ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008 litter audit.pdf

⁴⁵⁷ Anacostia Watershed Society. December 2008. *Anacostia Watershed Trash Reduction Plan*. Prepared for: District of Columbia Department of the Environment.

⁴⁵⁸ County of Los Angeles, Department of Public Works. Accessed on: 28 April 2010. *Backyard Composting*. Web site. Available at: http://dpw.lacounty.gov/epd/sg/bc.cfm
the marine environment for as long as plastic bags.⁴⁵⁹ As a result of a review of the available data regarding litter, the County of Los Angeles has concluded that plastic carryout bags pose a more serious litter problem than do paper carryout bags.

Comment No. 19 also states that removing a source of litter will not diminish littering behavior. One of the key objectives of the proposed ordinances is to reduce the amount of litter that is attributable to plastic carryout bags. A ban on the issuance of plastic carryout bags will undoubtedly result in a decrease in the amount of litter that can be attributed to plastic carryout bags, even if it does not diminish littering behavior. In order to reduce litter and encourage the use of reusable bags, another objective of the proposed ordinances is to substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the population) with an environmental awareness message.

Response to Comment No. 20

Comment No. 20 states that the Caltrans catch basin survey referenced in the EIR noted that paper composed a larger potion of trash collected than plastic film. This statement is correct, as the Caltrans study of catch basins alongside freeways in Los Angeles indicated that paper was 9 percent by mass and 14 percent by volume of the total trash collected, whereas plastic film composed 7 percent by mass and 12 percent by volume of the total trash collected.⁴⁶⁰ However, it is important to note that the category of paper trash includes items besides paper carryout bags. The County of Los Angeles understands from the review of numerous studies undertaken in multiple areas that paper carryout bags normally account for less than one percent of litter collected. For example, out of the litter collected during the City of San Francisco Litter Audit in 2008, paper napkins and paper towels were the most prevalent forms of paper litter surveyed, but retail paper bags were not listed as one of the top 25 litter subcategories.⁴⁶¹ The City of San Francisco reported paper retail bags as 0.4 percent of all large litter items collected in 2007 and 0.35 percent of all litter items collected in 2008.⁴⁶² The City of San Francisco Litter Audit concluded that 57.9 percent of all bag litter in 2008 was composed of unbranded plastic bags, 10.9 percent was composed of plastic retail bags, but only 6 percent was composed of paper retail bags.

Response to Comment No. 21

Comment No. 21 indicates that the City of San Francisco litter audit noted an increase in the amount of retail plastic carryout bag litter after implementation of the plastic carryout bag ban. The City of San Francisco reported plastic retail bags as 0.6 percent of all large litter items collected

⁴⁵⁹ Andrady, Anthony L. and Mike A. Neal. 2009. "Applications and Societal Benefits of Plastics." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 1977–1984.

⁴⁶⁰ Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 2001. *Results of the Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation. Available at: http://www.owp.csus.edu/research/papers/PP020.pdf

⁴⁶¹ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf

⁴⁶² City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf

in 2007⁴⁶³ and 0.64 percent of all large litter items collected in 2008.⁴⁶⁴ This does not indicate a significant increase in plastic carryout bag litter from 2007 to 2008. The City of San Francisco reported paper retail bags as 0.4 percent of all large litter items collected in 2007 and 0.35 percent of all large litter items collected in 2008, which does not show an increase in paper carryout bag littering from 2007 to 2008.⁴⁶⁵

Response to Comment No. 22

Comment No. 22 notes a reference that indicates that littering is less likely to occur in an environmental area that is already clean or maintained clean. This reference is noted for the record. However, the County of Los Angeles is interested in evaluating efforts that prevent plastic bag litter from occurring in the first place, instead of spending more money to improve cleanup of plastic bag litter after the littering has already occurred and entered the urban environment, storm water system, and coastal waterways. As discussed in Section 2.2.1 of the EIR, public agencies in California already spend more than \$375 million each year for litter prevention, cleanup, and disposal.⁴⁶⁶ For 2008–2009, the most recent year available, the County of Los Angeles Flood Control District spent over \$24 million on these activities.⁴⁶⁷ One of the references reviewed during preparation of the EIR states that policies such as enhanced litter control measures by local authorities may be effective in addressing litter but are typically more costly than a bag fee and do not change consumer behavior away from consuming bags.⁴⁶⁸ Increasing the current litter cleanup efforts in the County of Los Angeles could be cost prohibitive and would not meet the basic objectives of the proposed ordinances, including reducing Countywide consumption of plastic carryout bags, reducing the Countywide contribution of plastic carryout bags to litter, and reducing the disposal of plastic carryout bags in landfills. Therefore, an alternative to increase litter cleanup was not carried forward for detailed analysis in the EIR. Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project.

Response to Comment No. 23

Comment No. 23 notes a reference that indicates that the ready availability, design, and convenience of trash receptacles affects consumer behavior towards littering. This comment is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances

⁴⁶³ City of San Francisco, San Francisco Environment Department. 2007. *The City of San Francisco Streets Litter Audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA.

⁴⁶⁴ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf

⁴⁶⁵ City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf

⁴⁶⁶ California Department of Transportation. Accessed on: September 2009. "Facts at a Glance." *Don't Trash California*. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

 ⁴⁶⁷ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009.
Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20 %20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

⁴⁶⁸ Nolan-ITU Pty Ltd., et al. December 2002. Environment Australia: Department of the Environment and Heritage: Plastic Shopping Bags – Analysis of Levies and Environmental Impacts: Final Report. Sydney, Australia.

and Final EIR. As discussed in Section 3.5.1 of the EIR, the State of California passed AB 2449 in 2006 to increase recycling of plastic carryout bags and reduce litter. AB 2449 states that affected stores must supply at least one plastic bag collection bin in a publicly accessible spot to collect used bags for recycling. An alternative to provide additional trash receptacles or improve existing trash receptacles in the County of Los Angeles would not meet the basic objectives of the proposed ordinances, including reducing Countywide consumption of plastic carryout bags and reducing the disposal of plastic carryout bags in landfills. Therefore, this suggested alternative was not carried forward for detailed analysis in the EIR. Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project.

Response to Comment No. 24

Comment No. 24 notes a reference that discusses how effective communication and education can be used to reduce littering behavior.

As described in Section 2.3.4 of the EIR, the County of Los Angeles Board of Supervisors approved a motion to implement a voluntary Single Use Bag Reduction and Recycling Program on January 22, 2008. The program aimed to promote the use of reusable bags, increase at-store recycling of plastic bags, reduce consumption of single-use bags, increase the post-consumer recycled material content of paper bags, and promote public awareness of the effects of litter and consumer responsibility in the County of Los Angeles. The voluntary program established benchmarks for measuring the effectiveness of the program, seeking a 30-percent decrease in the disposal rate of carryout plastic bags from the fiscal year 2007–2008 usage levels by July 1, 2010, and a 65-percent decrease by July 1, 2013.469 The Working Group found that the program was not successful in achieving its goals. Over a two-year period and despite State law, stores in the unincorporated area did not provide data that would enable County staff to determine if the voluntary Single Use Bag Reduction and Recycling Program benchmark of 30-percent disposal reduction of plastic bags had been met. Furthermore, although the public education and outreach aspects of the Program, including the successful Brag About Your Bag Campaign[®], were effective in raising awareness of the environmental impacts of carryout bags and the benefits of reusable bags, this awareness did not translate into a shift in consumer behavior that was significant enough to address the major did not achieve the program objectives of the County.⁴⁷⁰ Therefore, general increases in recycling and public outreach alone, are not likely to achieve the degree of reduction in plastic bag litter that the County of Los Angeles has set out to achieve as one of the objectives of the proposed ordinances. One of the references reviewed during preparation of the EIR states that "some changes to consumer behavior should be expected by education alone, but the changes in consumption of disposable bags are likely to be modest if not combined with a ban or an advanced recovery fee, and the environmental benefits would be minimal."471 Section 15126.6 of the State CEQA Guidelines states that the EIR need only examine in detail the alternatives that the lead agency determines could feasibly attain most of the basic objectives of the project.

⁴⁶⁹ County of Los Angeles Board of Supervisors. 22 January 2008. *Single Use Bag Reduction and Recycling Program* (*Resolution and Alternative 5*). Los Angeles, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/Resources.cfm

⁴⁷⁰ County of Los Angeles Chief Executive Office. 5 August 2010. *Single Use Bag Reduction and Recycling Program and Expanded Polystyrene Food Containers – Final Quarterly Progress Report*. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/BoardLetters/bdls 080510 bagrpt10.pdf

⁴⁷¹ Herrera et al. January 2008. Alternatives to Disposable Shopping Bags and Food Service Items Volume I and II. Prepared for: Seattle Public Utilities.

Response to Comment No. 25

Comment No. 25 calls into question the determination in the Initial Study that the project would not have potentially significant impacts on forest resources and the decision to not carry forest resources forward for further analysis in the EIR. The NOP and Initial Study were circulated for public review on December 1, 2009, prior to incorporation of the following questions into Appendix G of CEQA Guidelines in the amendments to the guidelines adopted on March 2010:

- Would the proposed project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?
- Would the proposed project result in the loss of forest land or conversion of forest land to non-forest use?
- Would the proposed project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

However, the County of Los Angeles considered impacts to forest resources in the analysis undertaken before preparation of the EIR and determined there was no potential for significant effects on such resources. Section ES.4 of the EIR states that forest resources are not expected to be significantly impacted by the proposed project based on "the analysis undertaken in support of this EIR." This analysis includes the personal communications cited in Section 3.1 of the Draft EIR (page 3.1-17), which indicated that "the majority of paper carryout bags supplied to the greater Los Angeles metropolitan area are produced in and delivered from states outside of California, or from countries outside of the United States, such as Canada." Based on this, the County determined that analysis of impacts on forest resources is too speculative. Specifically, the location and type of forest (certified sustainable, plantations, reforested, etc.) and the amount of wood fiber procured from trees that could be attributed to the project is unknown. The County of Los Angeles's conclusion is therefore consistent with Section 15151 of the State CEQA Guidelines, which states that "an evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible," and Section 15145, which provides, "If, after a thorough investigation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."

The proposed ordinances would not conflict with existing zoning or cause rezoning of forest land, and would not result in the loss of forest land or the conversion of forest land to non-forest use. Therefore, the proposed project would not be considered to have a significant impact upon forest resources under CEQA.

The analysis of potential indirect impacts of paper bag usage would be speculative, as there may be many locations for paper bag manufacturing and suppliers can change over time. However, State and federal laws exist requiring forest management plans and required best management practices, including regulations governing replanting/reforestation to reduce impacts and allow for re-growth. Major logging projects would be subject to CEQA and/or NEPA (depending upon project location), and any significant impacts would require the consideration of project changes, mitigation measures, and alternatives.

Additionally, Section 4.0 of the EIR, the County of Los Angeles analyzes the impacts of several alternatives to the proposed ordinances that would limit the issuance of paper carryout bags through a ban or a fee. Alternative 1 would ban paper carryout bags in Los Angeles County. Alternative 4 would ban paper carryout bags in all supermarkets, grocery stores, convenience stores, pharmacies, and drug stores in Los Angeles County. Alternative 2 would impose a fee on the issuance of paper carryout bags. So that there may be a maximum environmental benefit realized from a fee on the issuance of paper carryout bags, Alternative 5, which is a hybrid of Alternatives 2, 3, and 4, was added. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores, with no limits on square footage or sales volumes in the County of Los Angeles. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2). In addition, the proposed ordinances would require that any paper carryout bags issued by stores would contain a minimum of 40 percent recycled content, and the County of Los Angeles will encourage customers to transition from paper carryout bag usage to reusable bag usage.

Response to Comment No. 26

Comment No. 26 states that an increase in paper bag use in California would put a significant additional demand on the natural resources needed to manufacture paper bags and that this demand should have been analyzed in the EIR. As discussed above, the County determined that the project would not have a potentially significant effect on forest resources, and no evidence has been submitted demonstrating otherwise. Although Comment No. 26 expresses the opinion that impacts to forest resources would be significant and should be analyzed in the EIR, the comment contains no evidence in support thereof. Further analysis of this impact in the EIR is therefore not required. (Section ES.4 and CEQA Guidelines §§15128, 15143.) The EIR analyzed alternatives that would reduce the number of paper carryout bags used, which would reduce any potential impact on forest resources, as further discussed below.

Comment No. 26 states that 4 million trees would be cut each year as a result of the project. The assumptions used to arrive at this number are incorrect. First, the comment assumes 6 billion plastic carryout bags per year would be converted to paper carryout bags. The maximum number of paper bags that would be used in the County of Los Angeles as a result of the proposed ordinances would be approximately 1.3 billion paper carryout bags per year, not 6 billion per year. There are 67 stores in the unincorporated territory of the County of Los Angeles and 462 stores in the incorporated cities of the County of Los Angeles that would be affected by the proposed ordinance.^{472,473} Assuming 100 percent of plastic carryout bags currently used in the County of Los Angeles are replaced by paper carryout bags at a ratio of approximately 1.5 plastic carryout bags to 1 paper carryout bag (due to the difference in carrying capacity), each store affected by the proposed ordinances would issue a maximum of 6,836 paper carryout bags per day. This is equal to approximately 1.3 billion paper bags annually. Second, the Comment assumes that all of the paper bags would be made from 100 percent virgin wood pulp. This is not a reasonable

⁴⁷² As a result of the voluntary Single Use Bag Reduction and Recycling Program, the County has determined that 67 stores in unincorporated territories would be affected by the proposed *County of Los Angeles* ordinance.

⁴⁷³ Number of stores in the 88 incorporated cities of the *County of Los Angeles* was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110 and 446110 with a gross annual sales volume of \$2 million or higher and a square footage of 10,000 square feet or higher. Accessed on: 29 April 2010.

assumption, and the proposed ordinances would require all paper carryout bags issued by stores to contain a minimum of 40 percent recycled content.

Moreover, even though estimates of the number of paper carryout bags that would be used as a result of the project can be made, an accurate prediction of how many trees would be felled as a result of the project cannot be made. As stated above, the location and type of forest as well as the amount of wood fiber that can be attributed to the project is unknown. Given that these variables are unknown, the number of trees that could potentially be cut down as a result of the project is speculative and need not be evaluated under CEQA (CEQA Guidelines, § 15145).

The EIR analyzes several alternatives to the proposed ordinances that would either ban or place a fee on the issuance of paper carryout bags, which would reduce or avoid potential increases in use of paper carryout bags. Alternative 1 would ban paper carryout bags in Los Angeles County. Alternative 4 would ban paper carryout bags in all supermarkets, grocery stores, convenience stores, pharmacies, and drug stores in Los Angeles County. Alternative 2 would impose a fee on the issuance of paper carryout bags. Alternative 5, which is a hybrid of Alternatives 2, 3, and 4, was added to the Final EIR to maximize the environmental benefit realized from reducing paper bag use through imposition of fees. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores, with no limits on square footage or sales volumes in the County of Los Angeles. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2). In addition, all alternatives would require all paper carryout bags issued by stores to contain a minimum of 40 percent recycled content.

For the reasons described above, the EIR is not required to include an analysis of the project's potential effects on fiber or forest resources.

Response to Comment No. 27

Comment No. 27 agrees with the discussion in the EIR of how LCA data cannot reasonably be evaluated in relation to local thresholds of significance. Comment No. 27 states that the LCA data should have been evaluated on a regional or global scale. CEQA is a law that is specific to California and does not require evaluation of impacts in states outside of California; therefore, the County of Los Angeles has conducted the EIR analysis accordingly. As described in Section 2.0 of the EIR, the proposed "project" being evaluated under CEQA is the proposed ordinances to ban the issuance of plastic carryout bags within the County of Los Angeles. Therefore, the EIR evaluates the proposed ordinances in accordance with applicable regulations and thresholds for the County of Los Angeles. This in no way compromises the results of the GHG analysis, as the impacts are assumed to contribute to global GHGs regardless of where they are generated. There are no worldwide adopted thresholds for GHG emissions.

Comment No. 27 states that the EIR should evaluate regional and global impacts of criteria pollutant emissions associated with the project. The EIR included this analysis in the Air Quality Chapter, Section 3.1.4. Tables 3.1.4-2 and 3.1.4-3 show the air emissions of VOCs, NO_x, CO, SO_x, and PM from plastic carryout bags versus paper carryout bags. These numbers represent the amount of criteria pollutant emissions resulting from the manufacture of plastic and paper carryout bags that can be attributed to the stores affected by the proposed ordinances. Manufacturing of paper carryout bags does not occur within Los Angeles County or the surrounding region. The numbers and analysis represent the project's global contribution to emissions of the above listed

pollutants, not merely the local contribution. (See also response to Comment No. 8 to the July 16, 2010, comment letter from Save the Plastic Bag Coalition.)

As discussed in Section 3.1.3, Air Quality, of the EIR, the County of Los Angeles relied on significance thresholds recommended by the SCAQMD in the CEQA Air Quality Handbook, as revised in November 1993 and approved by the SCAQMD Board of Directors, to determine whether the proposed ordinances would have significant impacts to air quality due to mobile source emissions.⁴⁷⁴ The SCAQMD's emission thresholds apply to all federally regulated air pollutants except lead, which is not exceeded in the South Coast Air Basin (SCAB). The County of Los Angeles also relied on significance thresholds provided by the AVAQMD to evaluate the significance of mobile source emissions that may be expected to occur in the portion of the County of Los Angeles that lies within the jurisdiction of the AVAQMD.⁴⁷⁵ As noted in Section 3.1.4 of the EIR, life cycle assessment results for air quality cannot be reasonably evaluated in relation to the operational thresholds of significance set by the SCAOMD for the SCAB or by AVAOMD for the MDAB because the operational thresholds are intended for specific projects located in the SCAB and MDAB, whereas LCA data cover all stages of production, distribution, and end-of-life procedures related to a particular product. The manufacture and production of paper carryout bags does not appear to occur in the SCAB or the MDAB, with manufacturing facilities located in other air basins in the United States and in other countries that may have different emission thresholds and regulations. Indeed, it would be speculative to determine exactly how much plastic and paper carryout bag manufacturing would be indirectly affected by the proposed ordinances in each different region or country in order to prepare an environmental analysis using distinct thresholds of significance for each region or country.

Response to Comment No. 28:

Comment No. 28 states that the greenhouse gas analysis in the EIR is inconsistent with the County of Los Angeles's statistic that 6 billion plastic carryout bags are consumed in the County of Los Angeles on an annual basis.

The 6 billion number was prorated based on the population of Los Angeles County using the 19 billion statewide number provided by the California Integrated Waste Management Board. However, to ascertain a better understanding of the actual number of bags distributed by AB 2449– affected stores in Los Angeles County, coordination between the County of Los Angeles Department of Public Works and several large supermarket chains in the County of Los Angeles determined that approximately 10,000 plastic carryout bags are used per store per day on average. Due to confidential and proprietary concerns, and at the request of the large supermarket chains providing this data, the names of these large supermarket chains will remain confidential. Reported data from 12 stores reflected a combined total plastic carryout bags and rounded to approximately 10,000 bags per day. It is important to note that this number is likely very high, as it is more than twice the bag average reported by AB 2449 reported an average of 4,695 bags

⁴⁷⁴ South Coast Air Quality Management District. 1993. CEQA Air Quality Handbook. Diamond Bar, CA.

⁴⁷⁵ Antelope Valley Air Quality Management District. May 2005. *Antelope Valley AQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*. Available at: http://www.mdagmd.ca.gov/Modules/ShowDocument.aspx?documentid = 916

used per store per day.⁴⁷⁶ The EIR analysis is therefore based on the conservative assumption that 10,000 plastic carryout bags are distributed in each of the stores that would be affected by the proposed County of Los Angeles ordinances. While 10,000 plastic carryout bags per store per day may not accurately reflect the actual number of bags consumed per day on average for stores greater than 10,000 square feet in the unincorporated and incorporated areas of the County of Los Angeles, for the purposes of this EIR, this number was used to conservatively evaluate impacts resulting from a worst-case scenario.

Section 3.0 of the EIR assumes that of the AB 2449–affected stores, there are 67 stores in the unincorporated territory of the County of Los Angeles and 462 stores in the incorporated cities of the County of Los Angeles that would be affected by the proposed ordinances.^{477,478} Therefore, conservatively the total number of bags assumed to be banned by the proposed ordinances per year would be as follows:

10,000 bags per day x (67 + 462) x 365 days = 1,930,850,000 plastic carryout bags per year

Therefore, the total number of bags analyzed in the EIR is close to 2 billion bags per year, which is a subset of the 6 billion bags per year statistic provided by the County of Los Angeles. The proposed ordinances account only for a subset of the 6 billion plastic carryout bags per year, since the proposed ordinances would only apply to certain retail stores covered by the definition in AB 2449 in the County of Los Angeles. As defined in Section 2.5 of the EIR, the proposed ordinances would apply only to retail establishments that (1) meet the definition of a "supermarket" as stated in the California Public Resources Code, Section 14526.5; or (2) are buildings with over 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and have a pharmacy licensed pursuant to Chapter 9 of Division 2 of the Business and Professions Code.

In Sections 4.2.4 and 4.2.5 of the EIR, the County of Los Angeles evaluates Alternative 3 and Alternative 4 that would extend the scope of the proposed ordinances to apply to all supermarkets and other grocery stores, convenience stores, pharmacies and drug stores, regardless of square footage or sales volume. For the analysis of Alternatives 3 and 4, it was assumed that 1,091 stores could be affected in the unincorporated territories of the County of Los Angeles.⁴⁷⁹ and 5,084 stores could be affected in the incorporated cities of the County of Los Angeles.⁴⁸⁰ It was assumed that each store larger than 10,000 square feet currently uses approximately 10,000 plastic carryout bags

⁴⁷⁶ Dona Sturgess, California Department of Resources Recycling and Recovery, Sacramento, CA. 29 April 2010. E-mail to Luke Mitchell, County of Los Angeles, Department of Public Works, Alhambra, CA.

⁴⁷⁷ As a result of the voluntary Single Use Bag Reduction and Recycling Program, the *County of Los Angeles* has determined that 67 stores in unincorporated territories would be affected by the proposed *County of Los Angeles* ordinance.

⁴⁷⁸ Number of stores in the 88 incorporated cities of the *County of Los Angeles* was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110 and 446110 with a gross annual sales volume of \$2 million or higher and a square footage of 10,000 square feet or higher. Accessed on: 29 April 2010.

⁴⁷⁹ Number of stores in the unincorporated territories of the *County of Los Angeles* was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110, 445120, and 446110 with no filters for gross annual sales volume or square footage. Accessed on: 29 April 2010.

⁴⁸⁰ Number of stores in the 88 incorporated cities of the *County of Los Angeles* was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110, 445120, and 446110 with no filters for gross annual sales volume or square footage. Accessed on: 29 April 2010.

per day,⁴⁸¹ and each store smaller than 10,000 square feet currently uses approximately 5,000 plastic carryout bags per day.⁴⁸² Therefore, the total number of bags assumed to be banned per year as a result of Alternatives 3 or 4 would be as follows:

 $([(5,000 \text{ bags per day x } (1,024 + 4,622)] + [10,000 \text{ bags per day x } (67 + 462)]) \times 365 \text{ days} = 12,234,800,000 \text{ plastic carryout bags per year}$

Therefore, the total number of plastic carryout bags assumed to be affected by Alternatives 3 and 4 is approximately 12 billion bags a year, which is actually twice as large as the County of Los Angeles's estimate that 6 billion plastic carryout bags are used in the County of Los Angeles every year. This reflects the determination that the estimate of 10,000 plastic bags per store is indeed a very conservative estimate that is much higher than the actual usage in stores, and reflects the County's good faith in trying to evaluate the environmental impacts using the most conservative approach.

The commenter also states that the 85-percent conversion does not take into account life cycle GHG impacts from reusable bags. However, Section 3.3.5 and Table 3.3.5-4 analyze the estimated daily emissions changes due to reusable bags used three times based on Ecobilan data. These results show that a 100-percent conversion from the use of plastic carryout bags to the use of reusable bags would result in a reduction in GHG emissions, which is a conclusion that is supported by numerous life cycle assessments.^{483,484,485} Therefore, in the scenario analyzed in the EIR where 85 percent of consumers are assumed to switch to using paper carryout bags, the GHG emissions increase due to the 15 percent of consumers who switch to using reusable bags is assumed to be negligible.

The following lists where each of the scoping comments provided by the American Chemistry Council during the public review period for the Notice of Preparation and Initial Study were addressed in the Draft EIR:

Response to Scoping Comment No. 1

Indirect impacts of the proposed ordinances (e.g., a consumer switch to paper bags) were addressed using LCAs throughout the various subsections of Section 3.0 of the EIR. Section 3.1

⁴⁸¹ Based on coordination between the *County of Los Angeles* Department of Public Works and several large supermarket chains in the *County of Los Angeles*, it was determined that approximately 10,000 plastic carryout bags are used per store per day. Due to confidential and proprietary concerns, and at the request of the large supermarket chains providing this data, the names of these large supermarket chains will remain confidential. Reported data from only 12 stores reflected a total plastic carryout bags and rounded to approximately 10,000 bags per day.

⁴⁸² Data from the infoUSA indicates that approximately 40 percent of the stores greater than 10,000 square feet in the unincorporated territories of the *County of Los Angeles* are larger than 40,000 square feet. Therefore, the average size of the stores to be affected by the proposed *County of Los Angeles* ordinance would be greater than 20,000 square feet. Accordingly, it would be reasonable to estimate that the stores smaller than 10,000 square feet that would be affected by Alternative 3 would be at less than half the size of the stores to be affected by the proposed ordinances and would use less than half the number of bags.

⁴⁸³ Ecobilan. February 2004. Environmental Impact Assessment of Carrefour Bags: An Analysis of the Life Cycle of Shopping Bags of Plastic, Paper, and Biodegradable Material. Prepared for: Carrefour Group. Neuilly-sur-Seine, France.

⁴⁸⁴ Hyder Consulting. 18 April 2007. Comparison of Existing Life Cycle Analyses of Plastic Bag Alternatives. Prepared for: Sustainability Victoria.

⁴⁸⁵ ExcelPlas Australia, Centre for Design at RMIT, and NOLAN-ITU. 2004. *The Impacts of Degradable Plastic Bags in Australia*. Moorabbin VIC, AU.

discusses the potential impacts of the proposed ordinances on air quality by evaluating a number of issues, including indirect emissions based on life cycle assessments. It also addresses criteria pollutant emissions resulting from disposal of paper carryout bags in landfills, and emissions resulting from increased delivery trips. Section 3.2 addresses the potential impacts of the proposed ordinances on biological resources, including evaluating impacts on state-designated sensitive habitats; rare, threatened, and endangered species; sensitive species; locally important species; federally protected wetlands; and migratory corridors and/or nursery sites. Section 3.3 addresses the potential impacts of the proposed ordinances on GHG emissions, including an evaluation of indirect emissions based on life cycle assessments, GHG emissions resulting from disposal of paper carryout bags in landfills, and GHG emissions resulting from increased delivery trips. Section 3.4 addresses potential impacts on water quality and hydrology, and evaluates a number of impacts, including drainage, surface water quality, and groundwater. Section 3.5 evaluates potential impacts on utilities and service systems, including impacts on wastewater treatment, the storm drain system, water supply, solid waste generation, and non-renewable energy consumption. The analysis of environmental impacts in the EIR is adequate and extensive and the EIR evaluates two potential worst-case scenarios where 85 percent and 100 percent of consumers switch from using plastic carryout bags to using paper carryout bags.

Response to Scoping Comment No. 2

Potential environmental impacts of reusable bags are discussed throughout Section 3.0 of the EIR, including the consumption of nonrenewable energy (Section 3.5.4), emissions of greenhouse gases (Section 3.3.5), consumption of water (Section 3.5.4), generation of acidic atmospheric pollutants (Section 3.1.4), air quality (Section 3.1.4), water pollution (Section 3.4.4), and solid waste (Section 3.5.4). Although CEQA does not require analysis of health impacts, Section ES.3 of the EIR addresses potential health concerns related to reusable bags.

Response to Scoping Comment No. 3

The proposed ordinances, as described in Section 2.5 of the EIR, would not encourage a reduction in the current recycling rates of plastic carryout bags. Previous efforts by the County of Los Angeles to encourage plastic carryout bag recycling are described in Section 2.3.4 of the EIR.

Response to Scoping Comment No. 4

Litter issues associated with plastic carryout bags are described in Section 2.2.1 of the EIR.

Response to Scoping Comment No. 5

The EIR addresses consumption of non-renewable energy in Section 3.5.4.

Response to Scoping Comment No. 6

Throughout Section 3.0 of the EIR, each environmental issue has been evaluated under two scenarios: 1) implementation of the proposed County ordinances in isolation, which would only affect stores in the unincorporated territories of the County of Los Angeles, and 2) implementation of similar proposed ordinances in all of the 88 cities of the County of Los Angeles. Please also see response to Comment No. 12 to the July 16, 2010, comment letter from the Save the Plastic Bag Coalition for further information.

Indirect life cycle impacts (including impacts due to bag manufacturing) that may occur outside of the County of Los Angeles were addressed throughout the various subsections of Section 3.0 of the EIR.

Response to Scoping Comment No. 8

Litter issues associated with plastic carryout bags are described in Section 2.2.1 of the EIR. Impacts due to litter are evaluated in each of the various subsections of Section 3.0 of the EIR.

Response to Scoping Comment No.9

For the purposes of analyzing a worst-case scenario, environmental impacts were evaluated throughout the various subsections of 3.0 of the EIR assuming that each store currently uses approximately 10,000 plastic carryout bags per day.⁴⁸⁶ It is important to note that this number is likely very high, as it is more than twice the bag average reported by the California Department of Resources Recycling and Recovery (CalRecycle) in 2008 for AB 2449–affected stores. In 2008, 4,700 stores statewide affected by AB 2449 reported an average of 4,695 bags used per store per day.⁴⁸⁷

Response to Scoping Comment No. 10

Costs of litter prevention, cleanup, and disposal are addressed in Section 2.2.1 of the EIR. For 2008–2009, the most recent year available, the County of Los Angeles Flood Control District spent over \$24 million on these activities (\$1.9 million on maintenance of structural and treatment control BMPs, \$9.3 million on municipal street cleaning, \$1.9 million on catch basin cleaning, \$9.6 million on trash collection and recycling, and \$1.3 million on capital costs).⁴⁸⁸

Response to Scoping Comment No. 11

Impacts of plastic carryout bag litter upon marine wildlife are addressed in detail in Section 3.2 of the EIR.

Response to Scoping Comment No. 12

A discussion of biodegradable bags can be found in Section 4.1 and Appendix B of the EIR.

⁴⁸⁶ Based on coordination between the County Department of Public Works and several large supermarket chains in the County, it was determined that approximately 10,000 plastic carryout bags are used per store per day. Due to confidential and proprietary concerns, and at the request of the large supermarket chains providing this data, the names of these large supermarket chains will remain confidential. Reported data from only 12 stores reflected a total plastic carryout bag usage of 122,984 bags per day. A daily average per store was then calculated at 10,249 plastic carryout bags and rounded to approximately 10,000 bags per day.

⁴⁸⁷ Dona Sturgess, California Department of Resources Recycling and Recovery, Sacramento, CA. 29 April 2010. E-mail to Luke Mitchell, California Department of Public Works, Alhambra, CA.

⁴⁸⁸ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

Potential environmental impacts of reusable bags are discussed throughout Section 3.0 of the EIR, including the consumption of nonrenewable energy (Section 3.5.4), emissions of GHGs (Section 3.3.5), consumption of water (Section 3.5.4), generation of acidic atmospheric pollutants (Section 3.1.4), air quality (Section 3.1.4), water pollution (Section 3.4.4), and solid waste (Section 3.5.4).

Response to Scoping Comment No. 14

Potential environmental impacts of reusable bags are discussed throughout Section 3.0 of the EIR, including the consumption of nonrenewable energy (Section 3.5.4), emissions of GHGs (Section 3.3.5), consumption of water (Section 3.5.4), generation of acidic atmospheric pollutants (Section 3.1.4), air quality (Section 3.1.4), water pollution (Section 3.4.4), and solid waste (Section 3.5.4).

Response to Scoping Comment No. 15

Impacts of plastic carryout bag litter upon marine wildlife are addressed in detail in Section 3.2 of the EIR.

Response to Scoping Comment No. 16

Impacts of plastic carryout bags upon the storm drain system are discussed in Section 3.5.4 of the EIR.

Response to Scoping Comment No. 17

Costs of litter prevention, cleanup, and disposal are addressed in Section 2.2.1 of the EIR.

Response to Scoping Comment No. 18

Water quality impacts of carryout bag litter are addressed in Section 3.4.5 of the EIR.

Response to Scoping Comment No. 19

Solid waste impacts of plastic carryout bags are addressed in Section 3.5 of the EIR.

The County of Los Angeles has obtained survey data from employees at solid waste facilities within the County of Los Angeles that conclusively indicate that plastic carryout bags pose serious operational problems for landfills.⁴⁸⁹ All six survey respondents stated that plastic bags cause serious litter issues due to their lightweight nature and propensity to become airborne.⁴⁹⁰ Each survey respondent indicated that it was costly and time consuming to provide clean-up crews to address the plastic bag litter problem in neighborhoods adjacent to the landfills.⁴⁹¹ The results of this survey have been added to Sections 2.2.1 and 3.5.4 of the EIR (see Section 12.2).

⁴⁸⁹ County of Los Angeles Department of Public Works. 2007. Survey – All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles.

⁴⁹⁰ County of Los Angeles Department of Public Works. 2007. Survey – All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles.

⁴⁹¹ County of Los Angeles Department of Public Works. 2007. Survey – All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles.

The contribution of paper carryout bags to litter is addressed in Section 2.3.2 of the EIR.

Response to Scoping Comment No. 21

The analysis of environmental impacts throughout the various subsections of Section 3.0 of the EIR is adequate and extensive and the EIR evaluates worst-case scenarios where 85 percent and 100 percent of consumers switch from using plastic carryout bags to using paper carryout bags. Potential life cycle impacts of reusable bags are discussed throughout Section 3.0 of the EIR, including the consumption of nonrenewable energy (Section 3.5.4), emissions of greenhouse gases (Section 3.3.5), consumption of water (Section 3.5.4), generation of acidic atmospheric pollutants (Section 3.1.4), air quality (Section 3.1.4), water pollution (Section 3.4.4), and solid waste (Section 3.5.4).

Response to Scoping Comment No. 22

Appendix A contains a survey conducted by Sapphos Environmental, Inc. to evaluate consumer use of plastic, paper, and reusable bags in the County of Los Angeles. This survey observed that reusable bags made up approximately 18 percent of the total number of carryout bags used in stores that did not make plastic carryout bags readily available to customers; however, reusable bags made up only approximately 2 percent of the total number of bags used in stores that did make plastic carryout bags readily available (Appendix A of the Draft EIR). Therefore, it is reasonable to estimate that a ban on the issuance of plastic carryout bags would increase the number of reusable bags used by customers by approximately 15 percent. Nevertheless, the analysis of environmental impacts throughout the various subsections of Section 3.0 of the EIR also evaluates a worst-case scenario where 100 percent of consumers switch from using plastic carryout bags to using paper carryout bags.

Response to Scoping Comment No. 23

An EIR was prepared for the proposed ordinances in accordance with CEQA.

Response to Scoping Comment No. 24

Environmental impacts related to air quality emissions are evaluated in detail in Section 3.1.4 of the EIR.

Response to Scoping Comment No. 25

Environmental impacts related to GHG emissions are evaluated in detail in Section 3.3.5 of the EIR.

Response to Scoping Comment No. 26

Environmental impacts related to hydrology and water quality are evaluated in detail in Section 3.4.4 of the EIR, while impacts related to water supply are evaluated in Section 3.5.4 of the EIR.

Solid waste impacts are addressed in detail in Section 3.5.4 of the EIR.

Response to Scoping Comment No. 28

Impacts related to water supply are evaluated in Section 3.5.4 of the EIR. Cumulative environmental impacts related to GHG emissions are evaluated in detail in Section 3.3.5 of the EIR.

Response to Scoping Comment No. 29

Environmental impacts related to air quality emissions are evaluated in detail in Section 3.1.4 of the EIR.

Response to Scoping Comment No. 30

Environmental impacts related to GHG emissions are evaluated in detail in Section 3.3.5 of the EIR.

13.2.7 Public Meetings

Yvonne B. Burke Senior and Community Center 4750 West 62nd Street (Baldwin Hills / Ladera Heights Area) Los Angeles, California 90056

East Los Angeles College 1700 Avenida Cesar Chavez Monterey Park, California 91754

Jackie Robinson Park 8773 East Avenue R Littlerock, California 93543

Los Angeles County Arboretum and Botanic Garden 301 North Baldwin Avenue Arcadia, California 91007

Agoura Hills / Calabasas Community Center 27040 Malibu Hills Road Calabasas, California 91301

City of Long Beach Employee Development Center 2929 East Willow Street Long Beach, California 90806

Yvonne B. Burke Senior and Community Center 4750 West 62nd Street (Baldwin Hills / Ladera Heights Area) Los Angeles, California 90056

The County of Los Angeles appreciates that a community member took the time to attend the public meeting and provide comments regarding the proposed ordinances.

Response to Comment No. 1:

Comment No. 1 indicates that, upon implementation of the proposed ordinances, pet owners may be concerned about what types of bags to use for collecting pet waste. The proposed ordinance would ban the issuance of plastic carryout bags from certain stores throughout the County of Los Angeles, but would not ban stores from selling other types of plastic bags, such as pet waste bags. The availability of free plastic carryout bags for collecting pet waste is an issue that is outside the scope of CEQA; however, socioeconomic impacts of the proposed ordinances will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 2:

Comment No. 2 suggests that the County of Los Angeles ensure that biodegradable bags for collecting pet waste are available for sale in stores. As described in Section ES.3 of the EIR, the proposed ordinances would ban the issuance of compostable and biodegradable carryout bags due to the lack of commercial composting facilities in the County of Los Angeles that would be needed to process compostable or biodegradable plastic carryout bags. However, the proposed ordinances would not ban the sale of biodegradable bags in stores. The suggestion that the County of Los Angeles enforce the availability of biodegradable bags in stores is acknowledged for the record, and will be considered by the Board of Supervisors during its decision-making process for the County of Los Angeles ordinances and Final EIR.

Response to Comment No. 3:

Comment No. 3 recommends that the County of Los Angeles expand the scope of the proposed ordinances to include a performance standard for reusable bags. The definition of reusable bags has been modified in Section 2.2.3 of the EIR to include a requirement for reusable bags to be designed for a minimum of 125 uses to ensure that potential environmental impacts due to reusable bags are minimized (see the Clarifications and Revisions to the Draft EIR, Section 12.2). Comment No. 3 also recommends that the proposed ordinances should require that reusable bags be made of biodegradable material and not be imported into the United States from overseas. The commenter's recommendation is acknowledged for the record, and will be considered by the Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 4:

Comment No. 4 expresses concern about the impact of the proposed ordinances upon low-income neighborhoods. Socioeconomic impacts of the proposed ordinances will be considered by the Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 5:

Comment No. 5 suggests that the scope of the proposed ordinances include government-funded public institutions that distribute food or pharmaceutical products in carryout bags to low-income residents. The commenter's recommendation is acknowledged for the record, and will be considered by the Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinance and Final EIR.

Response to Comment No. 6:

Comment No. 6 inquires about the nature of relationship between the proposed ordinances and the State legislation (AB 1998). The proposed County of Los Angeles ordinance and Final EIR is a separate effort by the County of Los Angeles; whereas, AB 1998 was a proposed statewide bill. Had AB 1998 been approved by the State legislature and signed by the Governor, it would have superseded the proposed ordinances because it carried an express preemption clause of a local jurisdiction's ability to regulate certain types of bags. A discussion of AB 1998 has been added to Section 2.2.4 of the EIR (see the Clarifications and Revisions to the Draft EIR, Section 12.2).

Response to Comment No. 7:

Comment No. 7 recommends that the proposed ordinances require stores to make reusable bags clearly visible to customers (*i.e.,* by requiring that reusable bags be placed at a standard location in each store). This comment is out of the scope of CEQA regarding to the EIR; however, the recommendation is acknowledged for the record, and will be considered by the Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 8:

Comment No. 8 recommends that the proposed ordinances require stores to offer both paper bags and reusable bags to the public at the point of sale, rather than offer paper bags only. The recommendation is acknowledged for the record, and will be considered by the Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

East Los Angeles College 1700 Avenida Cesar Chavez Monterey Park, California 91754

Response to Comment No. 1:

Comment No. 1 expressed support for the proposed ordinances. The County of Los Angeles appreciates the fact that a member of the public took the time to attend the public meeting, and acknowledges the comment for the record. All comments will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 2:

Comment No. 2 recommends that the County of Los Angeles ban both plastic and paper carryout bags. As described in Section 4.2.2 of the EIR, Alternative No. 1 to the proposed ordinances proposes to ban the issuance of plastic and paper carryout bags for the same stores affected by the proposed ordinances. Alternative No. 4 proposes to ban the issuance of plastic and paper carryout bags at a larger number of stores, including other grocery stores, convenience stores, pharmacies and drug stores. So that there may be a maximum environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper bag usage to the greatest extent feasible, the County of Los Angeles also developed Alternative 5, which is a hybrid of Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores, with no limits on square footage or sales volumes in the County of Los Angeles. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see Section 12.2). The commenter's preference for implementation of a ban on the issuance of both paper and plastic carryout bags is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 1:

Comment No. 1 expresses support for the proposed ordinances. The County of Los Angeles appreciates that a member of the public took the time to attend the public meeting, and acknowledges the comment for the record. All comments will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 2:

Comment No. 2 recommends the County of Los Angeles advertise public meetings in the *Antelope Valley Press* and the local television stations. That suggestion is acknowledged for the record, and will be considered when performing additional public outreach for the proposed ordinances.

Response to Comment No. 3:

Comment No. 3 expresses the commenter's preference for a regulation to incentivize recycling [such as a redemption value like what currently exists with glass bottles (*i.e.*, California Refund Value)]. The commenter's recommendation is acknowledged for the record, and will be considered by the Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 4:

Comment No. 4 states that, currently, plastic bags are often discarded or are allowed to blow away in the wind. As described in Section 2.4.2 of the EIR, reducing the litter impacts of plastic carryout bags is one of the chief objectives of the proposed ordinances.

Los Angeles County Arboretum and Botanic Garden 301 North Baldwin Avenue Arcadia, California 91007

No comments were received at the public meeting held on June 24, 2010, at the Los Angeles County Arboretum and Botanic Garden.

Agoura Hills / Calabasas Community Center 27040 Malibu Hills Road Calabasas, California 91301

Response to Comment No. 1:

Comment No. 1 expressed support for the proposed ordinances and for AB 1998. The County of Los Angeles appreciates that a representative from the City of Los Angeles took the time to attend the public meeting and acknowledges the comment for the record. The City of Los Angeles's comments will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

City of Long Beach Employee Development Center 2929 East Willow Street Long Beach, California 90806

The County of Los Angeles appreciates that a representative from the City of Long Beach, a representative from the Sierra Club, and a resident from the City of Downey took the time to attend the public meeting and provide comments about the proposed ordinances.

Response to Comment No. 1:

Comment No. 1 recommends that the County of Los Angeles ban both plastic and paper carryout bags. As described in Section 4.2.2 of the EIR, Alternative No. 1 proposes to ban the issuance of plastic and paper carryout bags for the same stores affected by the proposed ordinances. Alternative 4 proposes to ban the issuance of plastic and paper carryout bags at a larger number of stores, including other grocery stores, convenience stores, pharmacies, and drug stores. So that there may be a maximum environmental benefit realized from a fee on the issuance of paper carryout bags and to mitigate GHG-related impacts from a shift to paper bag usage to the greatest extent feasible, the County of Los Angeles developed Alternative 5, which is a hybrid of Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 would affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores, with no limits on square footage or sales volumes in the County of Los Angeles. Like Alternative 2, Alternative 5 would ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at such stores. The analysis of Alternative 5 has been added to Section 4.0 of the EIR (see the Clarifications and Revisions to the Draft EIR, Section 12.2). The commenter's preference for implementation of a ban on both paper and plastic and paper carryout bags is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 2:

Comment No. 2 questioned when the County of Los Angeles is going to ban Styrofoam. The comment is out of the scope of CEQA regarding the EIR but is noted for the record.

Response to Comment No. 3:

Comment No. 3 recommends that the County of Los Angeles take a leadership role in banning plastic carryout bags to encourage other municipalities to follow. One of the objectives of the proposed ordinances is to conduct outreach to all 88 incorporated cities of the County to encourage adoption of comparable ordinances.

Response to Comment No. 4:

Comment No. 4 expresses support for a performance standard for reusable bags. The definition of reusable bags has been modified in Section 2.2.3 of the EIR to include a requirement for reusable bags to be designed for a minimum of 125 uses to ensure that potential environmental impacts due to reusable bags are minimized (see the Clarifications and Revisions to the Draft EIR, Section 12.2).

Response to Comment No. 5:

Comment No. 5 questions the County of Los Angeles motive for not considering placing a fee on plastic carryout bags. As described in Section 3.5.1 of the EIR, AB 2449 as set forth in California Public Resources Code Sections 42250, et seq. restricts the ability of a local jurisdiction like the County of Los Angeles from placing a fee on plastic carryout bags. AB 2449 expires under its own terms on January 1, 2013, unless it is extended. The County of Los Angeles does not wish to delay the implementation of an ordinance to restrict the use of plastic carryout bags. The comment regarding the possibility of placing a fee on plastic carryout bags is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during the decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 6:

Comment No. 6 questions whether the cities in Los Angeles County could use this EIR to implement their own ordinances. The EIR analyzes the environmental impacts of the proposed ordinances under the assumption that all 88 incorporated cities would adopt similar ordinances, and was prepared with the goal of allowing the 88 incorporated cities to be able to use or refer to this EIR, as support for implementation of similar ordinances in their own jurisdictions.

Response to Comment No. 7:

Comment No. 7 questions whether the cities of Los Angeles would be able to place a fee on plastic bags. As described in Section 3.5.1 of the EIR, AB 2449 restricts the ability of cities to place a fee on plastic carryout bags. AB 2449 expires under its own terms on January 1, 2013, unless it is extended. The cities of Los Angeles would only be able to implement a fee on plastic bags after expiration of AB 2449. This EIR does not analyze the potential environmental impacts of a fee on plastic carryout bags. Therefore, the cities would need to perform additional analyses and determine whether placement of a fee on plastic carryout bags would require environmental documentation in order to comply with CEQA.

Response to Comment No. 8:

In Comment No. 8, a representative from the City of Long Beach asked if municipalities could require stores to provide an incentive (such as 5 cents cash back) for customers to use reusable bags. This comment is acknowledged for the record, and will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 9:

Comment No. 9 inquires how the County of Los Angeles will regulate the quality of reusable bags. In response to comments received from the public, including Comment No. 9, the definition of reusable bags has been modified in Section 2.2.3 of the EIR to include a requirement for reusable bags to be designed for a minimum of 125 uses (see Section 12.2). The measures that will be used to enforce the proposed ordinances will be considered by the County of Los Angeles Board of Supervisors in its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 10:

Comment No. 10 inquires whether the performance standard is described in the EIR. The definition of reusable bags has been modified in Section 2.2.3 of the EIR to include a requirement for reusable bags to be designed for a minimum of 125 uses to ensure that potential environmental impacts due to reusable bags are minimized (see Section 12.2).

Response to Comment No. 11:

Comment No. 11 inquires whether the County of Los Angeles has a plan for enforcement of the performance standard for reusable bags. The analysis in the EIR assumed that the proposed ordinance would be enforced, as with all ordinances adopted by the County of Los Angeles Board of Supervisors. The methods for enforcing the proposed ordinances will be considered by the County of Los Angeles Board of Supervisors during its decision-making process for the proposed County of Los Angeles ordinances and Final EIR.

Response to Comment No. 12:

Comment No. 12 states that the nearest commercial composting facility to the City of Long Beach is 100 miles away. As described in Section ES.3 of the EIR, due to the lack of commercial composting facilities in the County of Los Angeles that would be needed to process compostable plastic carryout bags, the proposed ordinances are recommended to include a ban on the issuance of compostable bags.

Response to Comment No. 13:

Comment No. 13 inquires whether a city in the County of Los Angeles could pass an ordinance to require that stores use compostable bags instead of plastic or paper carryout bags. As described in Section ES.3 of the EIR, the proposed ordinances include a recommended ban on the issuance of plastic bags, including compostable and biodegradable plastic bags, in the County of Los Angeles. The EIR also evaluated the potential environmental impacts of the adoption of a similar ban in the unincorporated cities within the County of Los Angeles. However the proposed ordinances encourage, but do not require that a ban include compostable bags in the cities within the County of Los Angeles. However, as discussed in Section ES.3 and Appendix B of the EIR, there are a number of problematic issues related to the use of compostable bags that do not make them ideal for use in Los Angeles County. If a city in the County of Los Angeles intends to pass an ordinance to require stores to use compostable bags, the city would need to perform additional analysis and determine whether requiring stores to use compostable bags would require environmental documentation in order to comply with CEQA.

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS ORDINANCES TO BAN PLASTIC CARRYOUT BAGS IN LOS ANGELES COUNTY

(SCH # 2009111104)

PREPARED FOR:

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS ENVIRONMENTAL PROGRAMS DIVISION 900 SOUTH FREMONT AVENUE, 3RD FLOOR ALHAMBRA, CALIFORNIA 9 I 803

PREPARED BY:

SAPPHOS ENVIRONMENTAL, INC. 430 North Halstead Street Pasadena, California 91107

NOVEMBER 3, 2010

TABLE OF CONTENTS

SECT	ION	PAGE			
I.	INTRO	ODUCTIONI-1			
	τ. Α				
	I.A	Certification			
	I.B	Description of Recommended Ordinances / Alternative 5			
	I.C	Statement of Project Objectives			
	I.D	Background			
		I.D.1 Contribution of Plastic Carryout Bags to Litter StreamI-3			
		I.D.2 County MotionI-5 I.D.2.1 The County's Solid Waste Management Function in the			
		Unincorporated County AreaI-6			
		I.D.2.2 The County's Solid Waste Management Function CountywideI-6			
		I.D.3 Carryout Bag Bans and FeesI-7			
	I.E	Existing ConditionsI-11			
		I.E.1 Plastic Carryout BagsI-11			
		I.E.2 Paper BagsI-13			
		I.E.3 Reusable BagsI-14			
		I.E.4 Voluntary Single Use Bag Reduction and Recycling ProgramI-15			
	I.F	EIR ProcessI-16			
	I.G	General FindingsI-17			
II.	POTENTIAL ENVIRONMENTAL EFFECTS THAT ARE NOT SIGNIFICANT				
	II.A	Aestnetics			
	II.B	Agriculture and Forestry Resources			
		Air Quality			
		Diological Resources			
		Collogy and Soils			
	п.г	Geology and Solis			
	II.G	Hazaros and Hazaroous Materials			
		Hydrology and Water Quality			
	11.1	Land Use and Planning			
	II.J	Mineral Resources II-0			
	11.N	NOISE			
		Public Services			
		Pagrantian			
		Traffic and Transportation			
		Italiic and Farvice Systems			
	II.P POTE	NTIAL ENVIRONMENTAL EFFECTS THAT CAN BE MITIGATED			
	TO BI	ELOW THE LEVEL OF SIGNIFICANCE			
IV.	sign Be mi	IFICANT UNAVOIDABLE ADVERSE IMPACTS THAT CANNOT ITIGATED TO BELOW THE LEVEL OF IGNIFICANCEIV-1			
	IV.A	Greenhouse Gas EmissionsIV-1			
Ordina	ances to B	an Plastic Carryout Bags in Los Angeles County FOF/SOC			
Noven	nber 3, 20	10 Sapphos Environmental, Inc.			
W:\PR	OJECTS\1	012\1012-035\Documents\FOF.SOC\Table of Contents.doc Page i			

V.	FINDINGS REGARDING ALTERNATIVES			
	V.A V.B V.C	No Project Alternative Alternative 1: Ban Plastic and Paper Carryout Bags in Los Angeles County Alternative 2: Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout	.V-6 .V-7	
	V.D	Alternative 3: Ban Plastic Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County	.v-8	
	V.E	Alternative4: Ban Plastic and Paper Carryout Bags for all Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County	/-12	
	V.F	Alternative 5: Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County	/-14	
	V.G	Proposed Ordinances (Originally Proposed Project)	/-16	
VI.	FINDINGS REGARDING MITIGATION MONITORING PROGRAM			
	VI.A	Requirements of Mitigation Monitoring Program	VI-1	
VII.	FINDINGS REGARDING LOCATION AND CUSTODIAN OF DOCUMENTSVII-1			
	VII.A	Location and Custodian of Documents	/ -1	
VIII.	CERTIFICATION REGARDING INDEPENDENT JUDGMENTVII			
IX.	STATEMENT OF OVERRIDING CONSIDERATIONSIX-1			
	IX.A IX.B	Adverse Environmental Risks Overriding Considerations	IX-1 IX-3	
Х.	FINDINGS		.X-1	
TABLE	S	P	٩GE	
V-1 V-2	Ability of the Proposed Ordinances and Alternatives to Attain Project ObjectivesV-2 Comparative Analysis of Impacts for the Proposed Ordinances and AlternativesV-2			

An Environmental Impact Report (EIR) was prepared by the County of Los Angeles (County) to evaluate potential environmental effects that would result from the proposed Ordinances to Ban Plastic Carryout Bags in Los Angeles County (proposed ordinances) and a reasonable range of alternatives. The EIR was prepared in accordance with the California Environmental Quality Act (CEQA) of 1970, as amended (California Public Resources Code, Section 21000 *et seq.*) and State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 *et seq.*). Alternative 5, the recommended Ordinance to Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County (recommended ordinances), as evaluated in Section 4.2.6 of the EIR (see Section 12.2, Clarifications and Revisions, of the EIR), was recommended for adoption by the County of Los Angeles Board of Supervisors.

I.A CERTIFICATION

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS REGARDING THE FINAL ENVIRONMENTAL IMPACT REPORT FOR THE ORDINANCES TO BAN PLASTIC CARRYOUT BAGS IN LOS ANGELES COUNTY (STATE CLEARINGHOUSE NUMBER 2009111104)

The County hereby certifies the EIR for the Ordinances to Ban Plastic Carryout Bags in Los Angeles County, County of Los Angeles, California, State Clearinghouse Number 2009111104. The EIR consists of Volume I: Draft EIR, dated June 2010; Volume II: Technical Appendices to the Draft EIR, dated June 2010; and Volume III: Final EIR, dated October 2010. The EIR has been completed in compliance with the CEQA; the State CEQA Guidelines; the County of Los Angeles General Plan; and all applicable federal, state, and local statutes and regulations that govern the management of environmental resources. The County of Los Angeles Board of Supervisors has received, reviewed, and considered the information contained in the Final EIR, all hearings, and submissions of testimony from officials representing the County of Los Angeles, as well as from other agencies, organizations, and private individuals with a particular vested interest in the proposed ordinances.

In accordance with CEQA Guidelines Section 15090, the County of Los Angeles, as lead agency pursuant to CEQA, certifies the following:

- (a) The Final EIR has been completed in compliance with CEQA
- (b) The Final EIR was presented to the Board of Supervisors, and the Board of Supervisors, as the decision-making body for the County of Los Angeles, reviewed and considered the information contained in the Final EIR prior to approving the project
- (c) The Final EIR reflects the County of Los Angeles's independent judgment and analysis

The County has exercised independent judgment in accordance with Public Resources Code Section 21082.1(c) in retaining its own environmental consultant, directing the consultant in preparation of the EIR, and reviewing, analyzing, and revising material prepared by the consultant.

These Findings of Fact (Findings) and Statement of Overriding Considerations have been prepared in accordance with CEQA and the State CEQA Guidelines. The purpose of these Findings is to satisfy the requirements of Public Resources Code Section 21081 and Title 14 California Code of Regulations Sections 15090, 15091, 15092, 15093, and 15097 of the State CEQA Guidelines, in connection with the

approval of an alternative to the proposed ordinance, which is to adopt an ordinance to ban the issuance of plastic carryout bags and impose a fee or charge on the issuance of paper carryout bags for all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores in the County.

Having received, reviewed, and considered the foregoing information, and recommendations of the County staff, including the Chief Executive Office and the Department of Public Works, as well as any and all other information in the record, and Section I herein, the County hereby makes Findings pursuant to and in accordance with Section 21081 of the Public Resources Code as presented in Sections II through X of these Findings of Fact and Statement of Overriding Considerations.

I.B DESCRIPTION OF RECOMMENDED ORDINANCES / ALTERNATIVE 5

The recommended County ordinance, identified and analyzed as Alternative 5 in the EIR, will ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at certain retail establishments in the unincorporated territories of the County. The County will also encourage the County's 88 incorporated cities to adopt similar ordinances. The County provided a detailed analysis of impacts from adoption of the recommended County ordinance in combination with adoption of similar ordinances by the 88 incorporated cities in the County in Section 4.2.6 of the EIR.

The recommended County ordinance aims to significantly reduce the number of carryout bags that are disposed of or that enter the litter stream by ensuring that certain retail establishments located in the County will not distribute or make available to customers any plastic carryout bags, including compostable and biodegradable plastic carryout bags. The recommended County ordinance will ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags by any retail establishment, as defined, that is located in the unincorporated territory of the County. The recommended County ordinance will impose a \$0.10 charge (which satisfies the minimum of \$0.05 that was studied in Alternative 5 in the EIR) on the issuance of paper carryout bags, which will be called "recyclable paper carryout bags," and will require that the bags be 100 percent recyclable overall and contain a minimum of 40 percent post-consumer recycled material, among other criteria. The recommended ordinance will require a store to provide or make available to a customer only reusable bags or recyclable paper carryout bags. The recommended ordinance also will encourage each store to educate its staff to promote reusable bags and to post signs encouraging customers to use reusable bags.

The retail establishments that will be affected by the recommended ordinance are located within the unincorporated area of the County and meet the following criteria:

- (1) A full-line, self-service retail store with gross annual sales of 2 million dollars (\$2,000,000) or more that sells a line of dry grocery, canned goods, or nonfood items and some perishable items;
- (2) A store of at least 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law (Part 1.5 (commencing with Section 7200) of Division 2 of the Revenue and Taxation Code) and that has a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code; or
- (3) A drug store, pharmacy, supermarket, grocery store, convenience food store, foodmart, or other entity engaged in the retail sale of a limited line of goods that includes milk, bread, soda, and snack foods, including those stores with a Type 20 or 21 license issued by the Department of Alcoholic Beverage Control.

The recommended County ordinance will also include a performance standard for reusable bags, which among other things, will require reusable bags to have a minimum lifetime of 125 uses and be machine washable. The recommended County ordinance will also include a phased approach, where the ordinance will apply to large grocery stores and pharmacies before applying to smaller grocery stores, convenience stores, and drug stores. The recommended County ordinance also prescribes procedures so affected retail establishments can report on a quarterly basis the number of recyclable paper carryout bags provided to customers.

I.C STATEMENT OF PROJECT OBJECTIVES

The County is seeking to substantially reduce the operational cost and environmental degradation associated with the use of plastic carryout bags in the County, particularly the component of the litter stream composed of plastic bags, and reduce the associated government funds used for prevention, clean-up, and enforcement efforts.

The County has identified five goals of the recommended ordinances, listed in order of importance: (1) litter reduction, (2) blight prevention, (3) coastal waterways and animal and wildlife protection, (4) sustainability (as it relates to the County's energy and environmental goals), and (5) landfill disposal reduction. The ordinance program has six objectives:

- Conduct outreach to all 88 incorporated cities of the County to encourage adoption of comparable ordinances
- Reduce the Countywide consumption of plastic carryout bags from the estimated 1,600 plastic carryout bags per household in 2007, to fewer than 800 plastic bags per household in 2013
- Reduce the Countywide contribution of plastic carryout bags to litter that blights public spaces Countywide by 50 percent by 2013
- Reduce the County's, cities', and Flood Control District's costs for prevention, cleanup, and enforcement efforts to reduce litter in the County by \$4 million
- Substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the population) with an environmental awareness message
- Reduce Countywide disposal of plastic carryout bags in landfills by 50 percent from 2007 annual amounts

The recommended ordinances meet all of these objectives.

I.D BACKGROUND

I.D.1 Contribution of Plastic Carryout Bags to Litter Stream

The California Integrated Waste Management Board (CIWMB) estimates that plastic grocery and other merchandise bags make up 0.4 percent of California's overall disposed waste stream by weight, but have been shown to make a more significant contribution to litter, particularly within catch basins.¹ The City of San Francisco Litter Audit in 2008 showed that plastic materials were the second most

¹ California Environmental Protection Agency, Integrated Waste Management Board. December 2004. "Table ES-3: Composition of California's Overall Disposed Waste Stream by Material Type, 2003." *Contractor's Report to the Board: Statewide Waste Characterization* Study, p. 6. Produced by: Cascadia Consulting Group, Inc. Berkeley, CA. Available at: http://www.ciwmb.ca.gov/Publications/default.asp?pubid = 1097

prevalent form of litter, with 4.7 percent of all litter collected being unidentified miscellaneous plastic litter, and branded plastic retail bags constituting 0.6 percent of the total number of large litter items collected.² As an example of the prevalence of plastic bag litter found in catch basins, during the Great Los Angeles River Clean Up, which collected trash from 30 catch basins in the Los Angeles River, it was observed that 25 percent by weight and 19 percent by volume of the trash collected consisted of plastic bags.³ Results of a California Department of Transportation (Caltrans) study of catch basins alongside freeways in Los Angeles indicated that plastic film composed 7 percent by mass and 12 percent by volume of the total trash collected.⁴ County Flood Control District staff have photographed carryout bags in the catch basins and storm drains.⁵ According to research conducted by the Los Angeles County Department of Public Works (LACDPW), approximately 6 billion plastic carryout bags are consumed in the County each year, which is equivalent to approximately 1,600 bags per household per year.^{6,7,8} Public agencies in California spend more than \$375 million each year for litter prevention, cleanup, and disposal.⁹ The County of Los Angeles Flood Control District alone spends more than \$18 million annually for prevention, cleanup, and enforcement efforts to reduce litter.^{10,11,12,13} In 2008–2009, the most recent data available, the County Flood Control District spent over \$24 million on these activities.¹⁴

¹⁰ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

² City of San Francisco, San Francisco Environment Department. 2008. *The City of San Francisco Streets Litter Re-audit*. Prepared by: HDR; Brown, Vence & Associates, Inc.; and MGM Management Environmental and Management Service. San Francisco, CA. Available at: http://www.sfenvironment.org/downloads/library/2008_litter_audit.pdf

³ City of Los Angeles. 18 June 2004. *Characterization of Urban Litter*. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.

⁴ Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 2001. *Results of the Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation. Available at: http://www.owp.csus.edu/research/papers/PP020.pdf

⁵ County of Los Angeles. 2010. Photographs of Catch Basins in Los Angeles County provided to Sapphos Environmental, Inc. by the County of Los Angeles Flood Control District. Available for viewing at Sapphos Environmental, Inc. Headquarters, Pasadena, CA.

⁶ California Integrated Waste Management Board. 12 June 2007. Board Meeting Agenda, Resolution: Agenda Item 14. Sacramento, CA.

⁷ U.S. Census Bureau. 2000. "State & County Quick Facts: Los Angeles County, California." Available at: http://quickfacts.census.gov/qfd/states/06/06037.html

⁸ At an average of slightly fewer than three persons per household.

⁹ California Department of Transportation. Accessed on: September 2009. "Facts at a Glance." *Don't Trash California*. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

¹¹ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2008. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2008/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20&%20County%20Annual%20Report%20 FY07-08.pdf

¹² Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2007. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2007/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Annual%20Rpt%2006-07.pdf

¹³ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2006. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2006/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/PrincipalPermittee_AnnualReportFY05-06.pdf

¹⁴ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

In addition, the County has obtained survey data from employees at solid waste facilities within the County that indicate that plastic carryout bags pose serious operational problems for landfills.¹⁵ All survey respondents stated that plastic carryout bags cause serious litter issues due to their lightweight nature and propensity to become airborne.¹⁶ Each survey respondent indicated that it was costly and time consuming to provide cleanup crews to address the plastic bag litter problem in neighborhoods in County unincorporated and incorporated areas that are adjacent to the landfills.¹⁷

I.D.2 County Motion

On April 10, 2007, the County Board of Supervisors instructed the County Chief Administrative Officer to work with the Director of Internal Services and the Director of Public Works to solicit input from outside environmental protection and grocer organizations related to three areas and report their findings and accomplish the following:

- 1. Investigate the issue of polyethylene plastic and paper sack consumption in the County, including the pros and cons of adopting a policy similar to that of San Francisco;
- 2. Inventory and assess the impact of the current campaigns that urge recycling of paper and plastic sacks; and
- 3. Report back to the Board of Supervisors on findings and recommendations to reduce grocery and retail sack waste, any impact an ordinance similar to the one proposed in San Francisco would have on recycling efforts in Los Angeles County, and any unintended consequences of the ordinance.^{18,19}

In response to the directive of the Board of Supervisors, the LACDPW prepared and submitted a staff report, *An Overview of Carryout Bags in Los Angeles County*, (LACDPW Report) in August 2007.²⁰ The LACDPW Report made four key findings:

- 1. Plastic carryout bags have been found to significantly contribute to litter and have other negative impacts on marine wildlife and the environment.
- 2. Biodegradable carryout bags are not a practical solution to this issue in the County because there are no local commercial composting facilities able to process the biodegradable carryout bags at this time.
- 3. Reusable bags contribute toward environmental sustainability over plastic and paper carryout bags.

¹⁵ County of Los Angeles Department of Public Works. 2007. Survey: All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles. Los Angeles, CA.

¹⁶ County of Los Angeles Department of Public Works. 2007. Survey: All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles. Los Angeles, CA.

¹⁷ County of Los Angeles Department of Public Works. 2007. Survey: All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles. Los Angeles, CA.

¹⁸ County of Los Angeles Board of Supervisors. 10 April 2007. Board of Supervisors Motion. Los Angeles, CA.

¹⁹ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

²⁰ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

4. Accelerating the widespread use of reusable bags will diminish plastic bag litter and redirect environmental preservation efforts and resources toward "greener" practices.²¹

I.D.2.1 The County's Solid Waste Management Function in the Unincorporated County Area

The County is responsible for numerous solid waste management functions throughout the County, pursuant to the California Integrated Waste Management Act of 1989 [Assembly Bill (AB) 939].²²

- Implements source reduction and recycling programs in the unincorporated County areas to comply with the State of California's 50-percent waste reduction mandate. In 2004, the County was successful in documenting a 53-percent waste diversion rate for the unincorporated County areas.
- Operates seven Garbage Disposal Districts providing solid waste collection, recycling, and disposal services for over 300,000 residents.
- Implements and administers a franchise solid waste collection system which, once fully implemented, will provide waste collection, recycling, and disposal services to over 700,000 residents, and will fund franchise area outreach programs to enhance recycling and waste reduction operations in unincorporated County areas that formerly operated under an open market system.

I.D.2.2 The County's Solid Waste Management Function Countywide

- Implements a variety of innovative Countywide recycling programs, including: Smart Gardening to teach residents about backyard composting and water wise gardening; Waste Tire Amnesty for convenient waste tire recycling; the convenient Environmental Hotline and Environmental Resources Internet Outreach Program; interactive Youth Education/Awareness Programs; and the renowned Household Hazardous/Electronic Waste Management and Used Oil Collection Programs.
- Prepares and administers the Countywide Siting Element, which is a planning document that provides for the County's long-term solid waste management disposal needs.
- Administers the Countywide Integrated Waste Management Summary Plan which describes how all 89 of the jurisdictions Countywide, acting independently and collaboratively, are complying with the State's waste reduction mandate.
- Provides staff for the Los Angeles County Solid Waste Management Task Force (Task Force). The Task Force is comprised of appointees from the League of California Cities, the County Board of Supervisors, the City of Los Angeles, solid waste industries, environmental groups, governmental agencies, and the private sector. The County performs the following Task Force functions:
 - Reviews all major solid waste planning documents prepared by all 89 jurisdictions prior to their submittal to the California Integrated Waste Management Board;

²¹ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors, p. 1. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

²² California State Assembly. Assembly Bill 939, "Integrated Waste Management Act," Chapter 1095.

- Assists the Task Force in determining the levels of needs for solid waste disposal, transfer and processing facilities; and
- Facilitates the development of multi-jurisdictional marketing strategies for diverted materials.²³

I.D.3 Carryout Bag Bans and Fees

The State of California considered placing a ban on the issuance of plastic carryout bags under AB 1998. There are currently four local governments in California that have imposed bans on plastic carryout bags: City and County of San Francisco, City of Malibu, Town of Fairfax, and City of Palo Alto. In addition, there is a plastic carryout bag fee ordinance in effect in the District of Columbia.

Assembly Bill 1998

AB 1998 was introduced in February 2010 to prohibit convenience food stores, foodmarts, and certain specified stores in California from providing plastic carryout bags to customers. Originally, the bill would have required a store, beginning on July 1, 2011, to provide only reusable bags, as defined, or to make recycled paper bags available for sale at a reasonable cost, but not for less than \$0.25. AB 1998 would have preempted local regulations on the use and sales of reusable bags, plastic carryout bags, and recycled paper bags. AB 1998 underwent revisions throughout the legislative process that changed certain provisions in the bill, including changing the \$0.25 fee to the actual average cost of the recycled paper bag provided to the consumer, rounded to the nearest penny.²⁴ Supporters of the bill included Californians Against Waste, Heal the Bay, California Grocers Association, California League of Conservation Voters, over 20 California cities, Communities for a Better Environment, the County of Los Angeles and five other California counties, Environment California, certain paper and plastic bag manufacturers, and a number of other environmental, business, and commerce groups.²⁵ Opposers of AB 1998 included the American Chemistry Council and two plastic bag manufacturers (Crown Poly, Inc. and Command Packaging) who, as part of the Save the Plastic Bag Coalition, sued the County over its voluntary Single Use Bag Reduction and Recycling Program. In August 2010, the American Chemistry Council, Exxon, and Hilex Poly Co., a South Carolina-based bag manufacturer, made a series of campaign donations to certain California lawmakers.²⁶ AB 1998 failed to achieve the number of votes required to pass the State Senate on August 31, 2010, and is currently not under consideration in California.

City and County of San Francisco

The City and County of San Francisco adopted an ordinance to ban non-compostable plastic carryout bags, which became effective on November 20, 2007.²⁷ This ordinance, known as the Plastic Bag

²³ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors, Preface. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

²⁴ Assembly Bill No. 1998. Amended in Senate August 27, 2010. Available at: http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab_1951-2000/ab_1998_bill_20100827_amended_sen_v94.pdf

²⁵ Californians Against Waste. Accessed on: October 2010. AB 1998 (Brownley): Plastic Bag Ban. Available at: http://www.cawrecycles.org/issues/current_legislation/ab1998_10

²⁶ Ferriss, Susan. 26 August 2010. "Plastic-bag backers donate to California lawmakers ahead of bill's vote." *The Sacramento Bee*. Available at: http://www.sacbee.com/2010/08/26/2983643/plastic-bag-backers-donate-to.html

²⁷ City and County of San Francisco. "Plastic Bag Reduction Ordinance." Web site. Available at: http://www.sfgov.org/site/sf311csc_index.asp?id = 71355

Reduction Ordinance, stipulates that all stores shall provide only the following as checkout bags to customers: recyclable paper bags, compostable plastic carryout bags, and/or reusable bags.²⁸ The ordinance further defines stores as a retail establishment located within the geographical limits of the City and County of San Francisco that meets either of the following requirements:

- (1) A full-line, self-service supermarket with gross annual sales of 2 million dollars (\$2,000,000) or more, which sells a line of dry grocery, canned goods, or nonfood items and some perishable items. For purposes of determining which retail establishments are supermarkets, the City shall use the annual updates of the Progressive Grocer Marketing Guidebook and any computer printouts developed in conjunction with the guidebook.
- (2) A retail pharmacy with at least five locations under the same ownership within the geographical limits of San Francisco.

Since adoption of the ordinance, initial feedback from the public has been positive and the use of reusable bags has increased.²⁹ There have been no reported negative public health issues (salmonella, e. *coli*, food poisoning, *etc.*) related to the increased use of reusable bags.³⁰ As a result of the ordinance, San Francisco has not noted an increase in the number of waste discharge permits or air quality permits required for paper bag manufacturing in the district, nor has there been a noticeable increase in traffic congestion in proximity to major supermarkets due to increased paper bag delivery trucks.³¹ San Francisco has also not noticed any increase in eutrophication in waterways due to increased use of paper bags.³² San Francisco has not noted any adverse environmental impacts due to paper carryout bag manufacturing, because there are no facilities located in San Francisco that manufacture paper carryout bags.

Although no studies have been performed to document the potential impacts of the ordinance upon plastic carryout bag litter in storm drains, field personnel from the San Francisco Public Utilities Commission have noted a reduction in the amount of plastic carryout bags in catch-basins and have noted that fewer bags are now being entangled in equipment, which can often slow or stop work in the field.³³

City of Malibu

On May 27, 2008, the City of Malibu adopted an ordinance banning plastic carryout bags: Chapter 9.28.020, Ban on Shopping Bags, provides that no affected retail establishment, restaurant, vendor or nonprofit vendor shall provide plastic bags or compostable plastic bags to customers.³⁴ Further, this

²⁸ San Francisco Environment Code, Chapter 17, Section 1703.

²⁹ Galbreath, Rick, County of San Francisco, California. 10 May 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, California.

³⁰ Galbreath, Rick, County of San Francisco, California. 10 May 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, California.

³¹ Galbreath, Rick, County of San Francisco, California. 10 May 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, California.

³² Galbreath, Rick, County of San Francisco, California. 10 May 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, California.

³³ Hurst, Karen, San Francisco Public Utilities Commission, California. 18 May 2010. Telephone conversation with Luke Mitchell, County of Los Angeles, Department of Public Works, Alhambra, California.

³⁴ Malibu Municipal Code, Title 9, "Public Peace and Welfare," Chapter 9.28, "Ban on Shopping Bags," Section 9.28.020.

same section of the ordinance prohibits any person from distributing plastic carryout bags or compostable plastic carryout bags at any City facility or any event held on City property.

Since the adoption of this ordinance, the City of Malibu has noted a generally positive reaction from the public and an increase in the use of reusable bags.³⁵

City of Palo Alto

On March 30, 2009, the City of Palo Alto adopted an ordinance banning plastic carryout bags: Chapter 5.35 of Title 5, Health and Sanitation, of the Palo Alto Municipal Code provides that all supermarkets in the City of Palo Alto will only provide reusable bags and/or recyclable paper bags. Retail establishments in the City of Palo Alto are required to provide paper bags either as the only option for customers, or alongside the option of plastic bags.³⁶ If the retail establishment offers a choice between paper and plastic, the ordinance requires that the customer be asked whether he or she requires or prefers paper bags or plastic bags.³⁷ All retail establishments and supermarkets were to comply with the requirements of this ordinance by September 18, 2009.

Since the adoption of this ordinance, the City of Palo Alto has received a mostly positive reaction from the public. Due to the lack of available baseline data and the fact that the ordinance is relatively recent, the City of Palo Alto has not been able to quantify the potential increase in use of reusable bags.³⁸

Town of Fairfax

The Town of Fairfax, pursuant to Ordinance No. 722, requires that all stores, shops, eating places, and retail food vendors, as defined, shall provide only recyclable paper bags, reusable bags, or compostable plastic bags as checkout bags to customers at the point of sale.³⁹ With respect to compostable plastic bags, the ordinance indicates, "because of the ongoing threat that compostable plastic bags pose to marine life, the permitted continued use of compostable plastic bags under Section 4 (a) shall be terminated by operation of law, three years from the date of passage of this ordinance."⁴⁰

District of Columbia

The District of Columbia adopted an ordinance that became effective on September 23, 2009, to implement the provisions of the Anacostia River Clean Up and Protection Act of 2009. The ordinance stipulates that a retail establishment shall charge each customer making a purchase from the establishment a fee of \$0.05 for each disposable carryout bag provided to the customer with the purchase.⁴¹

³⁵ Nelson, Rebecca, City of Malibu Department of Public Works, Malibu, California. 22 April 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, California.

³⁶ Palo Alto Municipal Code, Title 5, "Health and Sanitation," Chapter 5.35, Section 5.35.020.

³⁷ Palo Alto Municipal Code, Title 5, "Health and Sanitation," Chapter 5.35, Section 5.35.020.

³⁸ Bobel, Phil, City of Palo Alto Department of Public Works, Palo Alto, California. 22 April 2010. Telephone conversation with Angelica SantaMaría, County of Los Angeles, Department of Public Works, Alhambra, California.

³⁹ Town of Fairfax. Ordinance No. 722, Section 18.18.080. 1 August 2007. Available at: http://www.stopwaste.org/docs/fairfax_plastic_bag_ordinance.pdf

⁴⁰ Town of Fairfax. Ordinance No. 722. 1 August 2007. Available at: http://www.stopwaste.org/docs/fairfax_plastic_bag_ordinance.pdf

⁴¹ District of Columbia Municipal Regulations, Title 21, Chapter 10, "Retail Establishment Carryout Bags," Section 1001.
The tax, one of the first of its kind in the nation, is designed to change consumer behavior and limit pollution in the Chesapeake Bay watershed.⁴² Under regulations created by the District of Columbia Department of the Environment, bakeries, delicatessens, grocery stores, pharmacies, and convenience stores that sell food, as well as restaurants and street vendors, liquor stores and "any business that sells food items," must charge the tax on paper or plastic carryout bags. The ordinance also regulates disposable carryout bags used by retail establishments.

Since the adoption of this ordinance, the District of Columbia has seen a marked decrease in the number of bags consumed. In its first assessment of the new law, the District of Columbia Office of Tax and Revenue estimates that city food and grocery establishments issued about 3.3 million bags in January, which suggests a significant decrease.⁴³ Prior to the bag tax taking effect on January 1, 2010, the Office of the Chief Financial Officer had estimated that approximately 22.5 million bags were being issued per month in 2009.⁴⁴

Efforts Outside of the United States

American Samoa

American Samoa is the first United States territory to ban plastic shopping bags. The law, signed by Governor Togiola Tulafono, takes effect February 23, 2011. The U.S. Environmental Protection Agency's (USEPA's) regional administrator for the Pacific Southwest (Mr. Jared Blumenfeld) recently stated, "we welcome American Samoa's leadership in the Pacific islands to ban plastic shopping bags. This action will decrease the amount of plastic waste in the territory and directly protect marine and bird life in the Pacific."⁴⁵ The USEPA notes that other countries that have banned free plastic bags include China, Bangladesh, Australia, Italy, South Africa, Ireland, and Taiwan.

Denmark

In 1994, Denmark levied a tax on suppliers of both paper and plastic carryout bags. Denmark experienced an initial reduction of 60 percent in total use of disposable bags, with a slight increase in this rate over time.⁴⁶

Ireland

In 2002, Ireland levied a nationwide tax on plastic shopping bags that is paid directly by consumers. Known as the "PlasTax," the 0.15-euro levy is applied at the point-of-sale to retailers and is required to be passed on directly to the consumer as an itemized line on any invoice. The PlasTax applies to all plastic carryout bags, including biodegradable polymer bags. It does not apply to bags for fresh

⁴² Craig, Tim. 29 March 2010. "Bag tax raises \$150,000, but far fewer bags used." *The Washington Post*. Available at: http://voices.washingtonpost.com/dc/2010/03/bag_tax_raises_150000_but_far.html?wprss = dc

⁴³ Craig, Tim. 29 March 2010. "Bag tax raises \$150,000, but far fewer bags used." *The Washington Post*. Available at: http://voices.washingtonpost.com/dc/2010/03/bag_tax_raises_150000_but_far.html?wprss=dc

⁴⁴ Craig, Tim. 29 March 2010. "Bag tax raises \$150,000, but far fewer bags used." *The Washington Post*. Available at: http://voices.washingtonpost.com/dc/2010/03/bag_tax_raises_150000_but_far.html?wprss=dc

⁴⁵ U.S. Environmental Protection Agency. 30 September 2010. Press Release: "U.S. EPA applauds American Samoa's decision to ban plastic shopping bags." Available at:

http://yosemite.epa.gov/opa/admpress.nsf/0/921A87D72D9AAFC1852577AE007394F1

⁴⁶ GHK Ltd. May 2007. The Benefits and Effects of the Plastic Shopping Bag Charging Scheme. Prepared for: Environmental Protection Department, Hong Kong, China.

produce, reusable bags sold for 0.70 + euro, or to bags holding goods sold on board a ship or plane or in an area of a port or airport exclusive to intended passengers.⁴⁷

After implementation of the PlasTax, plastic carryout bag usage in Ireland initially declined 90 to 95 percent, and subsequently leveled off closer to 75 percent of the original value.^{48,49}

Australia

The Environmental Protection and Heritage Council in Australia has been very active in attempting to reduce plastic carryout bag use. Retailers support carryout bag reductions via a voluntary "Retailers Code." As a result, from 2002 to 2005, plastic carryout bag use fell from 5.95 billion bags to 3.92 billion bags, and then fell again to 3.36 billion bags in 2006, which represents a 44-percent decrease over four years from voluntary activities. However, consumption of plastic carryout bags rose back up to 3.93 billion bags in 2007, a 17-percent increase from 2006.⁵⁰

Taiwan

In 2003, the Taiwanese government set a direct charge to consumers as part of a wider waste-reduction initiative. The charge resulted in a 68-percent reduction in plastic carryout bag use; however, there was also a significant rate of conversion to paper bags and alternative bags. The initial ban on thin plastic carryout bags was withdrawn from application to storefront restaurants following an increase in total plastic use and problems with compliance.⁵¹

I.E EXISTING CONDITIONS

I.E.1 Plastic Carryout Bags

In 1977, supermarkets began offering to customers plastic carryout bags designed for single use, and by 1996, four out of every five grocery stores were using plastic carryout bags.^{52,53,54,55} Since then, plastic carryout bags have been found to contribute substantially to the litter stream and to have

⁴⁷ Nolan-ITU Pty Ltd., et al. December 2002. Environment Australia: Department of the Environment and Heritage: Plastic Shopping Bags –Analysis of Levies and Environmental Impacts: Final Report, p.21. Sydney, Australia.

⁴⁸ Cadman, James, Suzanne Evans, Mike Holland and Richard Boyd. August 2005. *Proposed Plastic Bag Levy – Extended Impact Assessment: Volume 1: Main Report: Final Report*, p.7. Edinburgh, Scotland: Scottish Executive.

⁴⁹ GHK Ltd. May 2007. *The Benefits and Effects of the Plastic Shopping Bag Charging Scheme*. Prepared for: Environmental Protection Department, Hong Kong, China.

⁵⁰ Environment Protection and Heritage Council. April 2008. Decision Regulatory Impact Statement: Investigation of options to reduce the impacts of plastic bags. Adelaide, Australia.

⁵¹ GHK Ltd. May 2007. The Benefits and Effects of the Plastic Shopping Bag Charging Scheme. Prepared for: Environmental Protection Department, Hong Kong, China.

⁵² SPI: The Plastics Industry Trade Association. 2007. Web site. Available at: http://www.plasticsindustry.org/

⁵³ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

⁵⁴ SPI: The Plastics Industry Trade Association. 2007. Web site. Available at: http://www.plasticsindustry.org/

⁵⁵ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

adverse effects on marine wildlife.^{56,57,58,59,60,61} The prevalence of litter from plastic bags in the urban environment also compromises the efficiency of systems designed to channel storm water runoff. Furthermore, plastic bag litter leads to increased cleanup costs for the County, Caltrans, and other public agencies.^{62,63,64} Plastic bag litter also contributes to environmental degradation and degradation of the quality of life for County residents and visitors.⁶⁵ In particular, the prevalence of plastic bag litter in the storm water system and coastal waterways hampers the ability of, and exacerbates the cost to, local agencies to comply with the National Pollution Discharge Elimination System and total maximum daily loads limits (TMDLs) for trash, pursuant to the federal Clean Water Act (CWA).^{66,67}

The CIWMB estimates that approximately 3.9 percent of plastic waste can be attributed to plastic carryout bags used for grocery and other merchandise, which represents approximately 0.4 percent of the total waste stream in California.^{68,69} Several organizations have studied the effects of plastic litter: Caltrans conducted a study on freeway storm water litter;⁷⁰ the Friends of Los Angeles River conducted

 $http://accstr.ufl.edu/publications/BjorndalEtAl_1994_IngestionOfMarineDebrisByJuvenileSeaTurtlesInCostalFlorida.pdf$

⁶⁰ Okeanos Ocean Research Foundation. 1989. *Marine Mammal and Sea Turtle Encounters with Marine Debris in the New York Bight and the Northeast Atlantic*. Available at: http://swfsc.noaa.gov/publications/TM/SWFSC/NOAA-TM-NMFS-SWFSC-154 P562.PDF

⁶⁵ Keep America Beautiful. Accessed on: 19 October 2010. *Litter Prevention*. Available at: http://www.kab.org/site/PageServer?pagename = focus_litter_prevention

⁵⁶ United Nations Environment Programme. April 2009. *Marine Litter: A Global Challenge*. Nairobi, Kenya. Available at : http://www.unep.org/regionalseas/marinelitter/publications/docs/Marine_Litter_A_Global_Challenge.pdf

⁵⁷ California Integrated Waste Management Board. 12 June 2007. Board Meeting Agenda, Resolution: Agenda Item 14. Sacramento, CA.

⁵⁸ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

⁵⁹ Bjorndal, K. et al. 1994. "Ingestion of marine debris by juvenile sea turtles in coastal Florida habitats." In *Marine Pollution Bulletin, 28* (3). Available at:

⁶¹ Gomerčić, H. et al. European Journal of Wildlife Research. 2006. "Biological aspects of Cuvier's beaked whale (*Ziphius cavirostris*) recorded in the Croation part of the Adriatic Sea." DOI 10.1007/s10344-006-0032-8

⁶² California Integrated Waste Management Board. 12 June 2007. Board Meeting Agenda, Resolution: Agenda Item 14. Sacramento, CA.

⁶³ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

⁶⁴ Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 1998–2000. *Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation.

⁶⁶ United States Code, Title 33, Section 1313, "Water Quality Standards and Implementation Plans." Clean Water Act, Section 303(d).

⁶⁷ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

⁶⁸ California Environmental Protection Agency, Integrated Waste Management Board. December 2004. "Table ES-3: Composition of California's Overall Disposed Waste Stream by Material Type, 2003." *Contractor's Report to the Board: Statewide Waste Characterization* Study, p. 6. Produced by: Cascadia Consulting Group, Inc. Berkeley, CA. Available at: http://www.ciwmb.ca.gov/Publications/default.asp?pubid = 1097

⁶⁹ Note: Plastics make up approximately 9.5 percent of California's waste stream by weight, including 0.4 percent for plastic carryout bags related to grocery and other merchandise, 0.7 percent for non-bag commercial and industrial packaging film, and 1 percent for plastic trash bags.

⁷⁰ Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 1998–2000. *Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation.

a waste characterization study of the Los Angeles River;⁷¹ the City of Los Angeles conducted a waste characterization study on 30 storm drain basins;⁷² and LACDPW conducted a trash reduction and a waste characterization study of street sweeping and trash capture systems near and within the Hamilton Bowl, located in Long Beach, California.⁷³ These studies concluded that plastic film (including plastic bag litter) composed between 7 to 30 percent by mass and between 12 to 34 percent by volume of the total litter collected. Despite the implementation of best management practices, installation of litter control devices such as cover fences for trucks, catch basins, and facilities to prevent airborne bags from escaping, and despite the use of roving patrols to pick up littered bags, plastic bag litter remains prevalent throughout the County.⁷⁴ AB 2449 requires all supermarkets (grocery stores with more than \$2 million in annual sales) and retail businesses of at least 10,000 square feet with a licensed pharmacy to establish a plastic carryout bag recycling program at each store. Starting on July 1, 2007, each store must provide a clearly marked bin that is easily available for customers to deposit plastic carryout bags for recycling. The stores' plastic bags must display the words "please return to a participating store for recycling."⁷⁵ In addition, the affected stores must make reusable bags available to their patrons. These bags can be made of cloth, fabric, or plastic with a thickness of 2.25 mils or greater.⁷⁶ The stores are allowed to charge their patrons for reusable bags.⁷⁷ Store operators must maintain program records for a minimum of three years and make the records available to the local jurisdiction.⁷⁸

I.E.2 Paper Bags

The production, distribution, and disposal of paper carryout bags also have known adverse effects on the environment.^{79,80} There is a considerable amount of energy that is used, trees that are felled, and pollution that is generated in the production of paper carryout bags.^{81,82} The CIWMB determined in the 2004 Statewide Waste Characterization Study that approximately 117,000 tons of paper carryout bags are disposed of each year by consumers throughout the County. This amount accounts for

⁷¹ Friends of the Los Angeles River and American Rivers. 2004. *Great Los Angeles River*. Los Angeles and Nevada City, CA.

⁷² City of Los Angeles, Sanitation Department of Public Works. June 2006. *Technical Report: Assessment of Catch Basin Opening Screen Covers*. Los Angeles, CA.

⁷³ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

⁷⁴ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

⁷⁵ Public Resources Code, Section 42250–42257. 2006. Assembly Bill 2449.

⁷⁶ Public Resources Code, Section 42250–42257. 2006. Assembly Bill 2449.

⁷⁷ Public Resources Code, Section 42250–42257. 2006. Assembly Bill 2449.

⁷⁸ California Integrated Waste Management Board. 12 June 2007. Board Meeting Agenda, Resolution: Agenda Item 14. Sacramento, CA.

⁷⁹ County of Los Angeles, Department of Public Works, Environmental Programs Division. October 2008. County of Los Angeles Single Use Bag Reduction and Recycling Program – Program Resource Packet. Alhambra, CA.

⁸⁰ Green Cities California. March 2010. *Master Environmental Assessment on Single-Use and Reusable Bags*. Prepared by ICF International. San Francisco, CA.

⁸¹ County of Los Angeles Board of Supervisors. 22 January 2008. *Single Use Bag Reduction and Recycling Program* (*Resolution and Alternative 5*). Los Angeles, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/Resources.cfm

⁸² County of Los Angeles, Department of Public Works, Environmental Programs Division. October 2008. County of Los Angeles Single Use Bag Reduction and Recycling Program – Program Resource Packet. Alhambra, CA.

approximately 1 percent of the total 12 million tons of solid waste generated each year.⁸³ However, paper bags have the potential to biodegrade if they are sufficiently exposed to oxygen, sunlight, moisture, soil, and microorganisms (such as bacteria); they are denser and less susceptible to becoming airborne; and they generally have a higher recycling rate than do plastic bags. The U.S. Environmental Protection Agency reported that the recycling rate for high-density polyethylene plastic bags and sacks was 11.9 percent in 2007, compared to a recycling rate of 36.8 percent of paper bags and sacks.⁸⁴ The County currently has an education outreach program for curbside recycling, which includes paper carryout bags.⁸⁵ There is nearly universal access to curbside recycling throughout the County, where paper bags can be recycled by homeowners conveniently. The paper used to make standard paper carryout bags is originally derived from wood pulp, which is a naturally biodegradable and compostable material. The brown paper bags currently used by stores in the County are made of at least 40 percent post-consumer recycled content.⁸⁷ Based upon the available evidence, paper carryout bags are less likely to become litter than are plastic carryout bags.

I.E.3 Reusable Bags

Reusable bags offer an alternative to plastic carryout bags, compostable plastic carryout bags, and paper carryout bags. The utility of a reusable bag has been noted in various reports, such as the 2008 report by Green Seal, which estimates the life of a reusable bag as being between two and five years.⁸⁸ In 1994, the Green Seal report encouraged an industry standard of a minimum of 300 reusable bag uses; today, Green Seal recommends a more ambitious standard of a minimum of 500 uses under wet conditions (bag testing under wet conditions is more stringent testing).⁸⁹ Furthermore, life cycle studies for plastic products have documented the adverse impacts related to various types of plastic and paper bags; however, life cycle studies have also indicated that reusable bags are the preferable option to both paper bags and plastic bags.^{90,91,92,93}

⁸³ California Environmental Protection Agency, Integrated Waste Management Board. December 2004. *Contractor's Report to the Board: 2004 Statewide Waste Characterization Study*. Produced by: Cascadia Consulting Group, Inc. Berkeley, CA. Available at: http://www.ciwmb.ca.gov/publications/localasst/34004005.pdf

⁸⁴ U.S. Environmental Protection Agency. November 2008. "Table 21: Recovery of Products in Municipal Solid Waste, 1960 to 2007." *Municipal Solid Waste in the United States: 2007 Facts and Figures*. Washington, DC. Available at: http://www.epa.gov/waste/nonhaz/municipal/pubs/msw07-rpt.pdf. The referenced table included the recovery of post-consumer wastes for the purposes of recycling or composting, it did not include conversion/fabrication scrap. The report includes the recovery of plastic bags, sacks, and wraps (excluding packaging) for a total of 9.1 percent of plastic recovered in this category. The County of Los Angeles conservatively estimates that the percentage of plastic bags in this category for the County of Los Angeles is less than 5 percent.

⁸⁵ County of Los Angeles Department of Public Works. Accessed October 12, 2010. Outreach Programs. Web sites available at: http://dpw.lacounty.gov/epd/recycling/outreach.cfm and http://dpw.lacounty.gov/epd/recycling/crm.cfm

⁸⁶ American Forest and Paper Association. Accessed on: 25 October 2010. "Facts about Paper." Web site. Available at: http://www.afandpa.org/FunFacts.aspx

⁸⁷ Perez, David, County of Los Angeles, Department of Public Works. 30 October 2008. E-mail correspondence; Paper Bag Distribution – Field Survey Summary - on file at Sapphos Environmental, Inc. Pasadena, CA.

⁸⁸ Green Seal, Inc. is an independent non-profit organization that uses science-based standards and the power of the marketplace to provide recommendations regarding sustainable products, standards, and practices.

⁸⁹ Green Seal, Inc. 13 October 2008. Green Seal Proposed Revised Environmental Standard For Reusable Bags (GS-16). Washington, DC. Available at: http://www.greenseal.org/certification/gs-

¹⁶_reusable_bag_proposed_revised_standard_background%20document.pdf

⁹⁰ Reusable bag manufacturers in the United States are expected to enforce industry standards and recommendations, such as using recycled materials, to reduce adverse environmental impacts.

Reusable bags are intended to provide a viable alternative to the use of paper or plastic carryout bags.⁹⁴ Currently, some stores within the County, such as certain Whole Foods divisions, do not offer plastic carryout bags at checkout, but instead offer reusable bags for sale and provide rebates if its patrons bring their own reusable bags. Other stores, such as certain Ralphs divisions, offer reusable bags for purchase at registers and offer various incentives such as store rewards or store credit to customers who use reusable bags.⁹⁵

I.E.4 Voluntary Single Use Bag Reduction and Recycling Program

On January 22, 2008, the County Board of Supervisors approved a motion to implement the voluntary Single Use Bag Reduction and Recycling Program in partnership with large supermarkets and retail stores, the plastic bag industry, environmental organizations, recyclers and other key stakeholders. The program aims to promote the use of reusable bags, increase at-store recycling of plastic bags, reduce consumption of single-use bags, increase the post-consumer recycled material content of paper bags, and promote public awareness of the effects of litter and consumer responsibility in the County. The voluntary program establishes benchmarks for measuring the effectiveness of the program, seeking a 30-percent decrease in the disposal rate of carryout plastic bags from the fiscal year 2007–2008 usage levels by July 1, 2010, and a 65-percent decrease by July 1, 2013.⁹⁶

The County identified three tasks to be undertaken by the County, stores, and manufacturers as part of the voluntary program's key components:

- 1. Large supermarket and retail stores: develop and implement store-specific programs such as employee training, reusable-bag incentives, and efforts related to consumer education
- 2. Manufacturer and trade associations: encourage members to participate in the program, provide technical assistance and marketing recommendations, and coordinate with large supermarkets and stores
- 3. County of Los Angeles Working Group: facilitate program meetings, determine specific definitions for target stores, establish a framework describing participant levels and participation expectations, and develop and coordinate program specifics such as educational material, reduction strategies, establishment of disposal rates and measurement methodology, progress reports, and milestones

⁹⁴ Green Seal, Inc. 13 October 2008. Green Seal Proposed Revised Environmental Standard For Reusable Bags (GS-16). Washington, DC. Available at: http://www.greenseal.org/certification/gs-

⁹¹ Green Seal, Inc. 13 October 2008. Green Seal Proposed Revised Environmental Standard For Reusable Bags (GS-16). Washington, DC. Available at: http://www.greenseal.org/certification/gs-

 $^{16\}_reusable_bag_proposed_revised_standard_background\%20 document.pdf$

⁹² Boustead Consulting & Associates, Ltd. 2007. *Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper.* Available at: http://www.americanchemistry.com/s plastics/doc.asp?CID=1106&DID=7212

⁹³ Green Cities California. March 2010. *Master Environmental Assessment on Single-Use and Reusable Bags*. Prepared by: ICF International. San Francisco, CA.

¹⁶_reusable_bag_proposed_revised_standard_background%20document.pdf

⁹⁵ Ralphs Grocery Company. 2009. "Doing Your Part: Try Reusable Shopping Bags." Web site. Available at: http://www.ralphs.com/healthy_living/green_living/Pages/reusable_bags.aspx

⁹⁶ County of Los Angeles Board of Supervisors. 22 January 2008. *Single Use Bag Reduction and Recycling Program* (*Resolution and Alternative 5*). Los Angeles, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/Resources.cfm

In March 2008, the County provided each of the 88 incorporated cities in the County with a sample "Resolution to Join" letter that extended to the cities an opportunity to join the County in the abovementioned activities related to the Single Use Plastic Bag Reduction and Recycling Program. There are currently 11 cities within the County that have signed resolutions to join the County in its efforts and in adopting similar ordinances for their respective cities: Agoura Hills, Azusa, Bell, Glendale, Hermosa Beach, Lomita, Pico Rivera, Pomona, Redondo Beach, Santa Fe Springs, and Signal Hill. These cities have implemented a variety of public education and outreach efforts to encourage participation within their cities, including developing public education brochures, running public service announcements on their city's cable television channel, establishing committees focused on community outreach, and distributing recycled-content reusable bags at community events.

These endeavors were undertaken in an effort to increase the participation of grocery stores, to shift consumer behavior to the use of recycled plastic bags, and to encourage a considerable transition to the use of reusable bags.

Since that time, the County Working Group found that the program was not successful in achieving its goals. Over a two-year period and despite State law, stores in the unincorporated area did not provide data that would enable County staff to determine if the voluntary Program benchmark of 30 percent disposal reduction of plastic bags had been met. Furthermore, although the public education and outreach aspects of the program, including the successful Brag About Your Bag Campaign, were effective in raising awareness of the environmental impacts of carryout bags and the benefits of reusable bags, it did not translate into changes in consumer behavior significant enough to address the County's major objectives.⁹⁷

I.F EIR PROCESS

The County prepared an EIR for the proposed ordinances in accordance with CEQA. The County has taken steps to encourage the public to participate in preparation of the environmental analysis for the proposed ordinances. On December 1, 2009, the County circulated an NOP for a Draft EIR for the proposed ordinances to the State Clearinghouse and to various federal, state, regional, and local government agencies. A public Notice of Availability (NOA) of the NOP was published in the *Los Angeles Times*. The NOP and Initial Study were mailed (or e-mailed) directly to approximately 480 agencies and interested parties. The NOP advertised six public scoping meetings for interested parties to receive information on the proposed ordinances and the CEQA process, as well as providing an opportunity for the submittal of comments. The scoping meetings facilitated early consultation with interested parties in compliance with Section 15082 of the State CEQA Guidelines. The meetings were held on December 7, 8, 9, 10, 11, and 14, 2009, at the following seven locations:

- East Los Angeles College, 1700 Avenida Cesar Chavez, Monterey Park, California 91754
- Yvonne B. Burke Community and Senior Center, 4750 West 62nd Street (Baldwin Hills / Ladera Heights Area), Los Angeles, California 90056
- County of Los Angeles Department of Public Works (LACDPW) headquarters, Conference Room C, 900 South Fremont Avenue, Alhambra, California 91803
- Calabasas Library, Founder's Hall, 101 Civic Center Way, Calabasas, California 91302
- Steinmetz Senior Center, 1545 South Stimson Avenue, Hacienda Heights, California 91745

⁹⁷ County of Los Angeles Chief Executive Office. 5 August 2010. *Single Use Bag Reduction and Recycling Program and Expanded Polystyrene Food Containers – Final Quarterly Progress Report*. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/BoardLetters/bdls_080510_bagrpt10.pdf

- Castaic Regional Sports Complex, 31230 North Castaic Road, Castaic, California 91384
- Jackie Robinson Park, 8773 East Avenue R, Littlerock, California 93543

A total of 18 individuals attended the scoping meetings. The public review period closed on January 4, 2010. The County requested information from the public related to the range of actions under consideration and alternatives, mitigation measures, and significant effects to be analyzed in depth in the EIR. All verbal and written comments related to environmental issues that were provided during public review of the NOP and at scoping meetings were considered in the preparation of this EIR. This EIR considers alternatives that are capable of avoiding or reducing significant effects of the proposed ordinances. The comment period for the NOP and Initial Study closed on January 4, 2010. A total of seven comment letters were received in response to the NOP and Initial Study. The Final EIR considered the environmental issues identified in the NOP, responses to letters of comments received on the Draft EIR, and clarifications and revisions resulting from public review of the Draft EIR.

The EIR was prepared to inform public agency decision makers and the general public about the proposed ordinances and their potentially significant environmental effects, to suggest possible ways of minimizing those significant effects, and to describe a reasonable range of alternatives that could feasibly attain most of the basic objectives of the proposed ordinances, but would avoid or substantially lessen any of the potentially significant effects of the proposed ordinances. The Draft EIR was completed and forwarded to the Governor's Office of Planning and Research (OPR) State Clearinghouse on June 2, 2010, for a 45-day review period that ended on July 16, 2010.

An electronic copy of the Draft EIR was made available at all public libraries in the County, and a hard copy of the Draft EIR was made available at each of 10 public libraries. An NOA of the Draft was advertised EIR for public review in the *Los Angeles Times*, delivered to all public libraries in the County, and sent via postal mail and/or e-mail to 27 public agency representatives and approximately 460 stakeholders, including private organizations and individuals. Copies of the Draft EIR were available for purchase, at reproduction cost, from the County. A total of 11 letters of comment and a petition with more than 1,800 signatures were received in response to the Draft EIR. In addition, the County hosted six public meetings throughout the County to provide the public with key findings of the Draft EIR and to solicit comments.

The Final EIR was prepared based on the Draft EIR, comments received in response the Draft EIR during circulation of the document for public review, and clarifications and revisions resulting from public review of the Draft EIR. A total of 11 letters of comment and a petition with over 1,800 signatures urging the County to ban plastic carryout bags, were received on the Draft EIR from resource agencies, organized groups, and individuals: County of Los Angeles Fire Department, City of Palmdale, City of Pasadena, American Chemistry Council, Heal the Bay, Renewable Bag Council, Symphony Environmental Technologies, Save the Plastic Bag Coalition, Mr. Lars Clutterham, Ms. Hillary Gordon, and OPR State Clearinghouse. Upon completion of the review period for the Draft EIR, a Final EIR was prepared and provided to the County Board of Supervisors for certification of compliance with CEQA, and for review and consideration as part of the decision-making process for the proposed ordinances.

I.G GENERAL FINDINGS

During the environmental evaluation of the proposed ordinances, the County evaluated all environmental issues recommended by CEQA and the State CEQA Guidelines.

The Initial Study determined that the proposed ordinances would not be expected to result in significant impacts to 12 environmental issue areas: aesthetics, agricultural and forestry resources,

cultural resources, geology and soils, hazards and hazardous materials, land use and planning, mineral resources, noise, population and housing, public services, recreation, and transportation and traffic. The Initial Study, which addressed several arguments raised by certain members of the plastic bag industry, concluded that the proposed ordinances may have the potential to result in significant negative or beneficial impacts related to 5 environmental issue areas: air quality, biological resources, greenhouse gas (GHG) emissions, hydrology and water quality, and utilities and service systems.

The EIR determined that the recommended County ordinance (analyzed as Alternative 5), based on the County's assumption of a conservative number of plastic bags used in its analysis and a conservative scenario of 50 percent conversion to paper carryout bags, when applying the threshold "generate greenhouse gas emissions, either directly or indirectly that may have a significant effect on the environment," that GHG emissions due to the end of life of paper carryout bags in landfills would be cumulatively considerable.

The County has evaluated six alternatives to the proposed ordinances (including the No Project Alternative): ban plastic and paper carryout bags in Los Angeles County; ban plastic carryout bags for all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores in Los Angeles County; or ban plastic and paper carryout bags for all supermarkets and other grocery stores, and drug stores in the County; or ban plastic carryout bags for all supermarkets and other grocery stores, and drug stores in the County; or ban plastic carryout bags for all supermarkets and other grocery stores, pharmacies, and drug stores in the County; or ban plastic carryout bags for all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores in the County. In addition, the EIR also analyzed the No Project Alternative pursuant to CEQA. Alternative 4 was determined to be the environmentally superior alternative because it would result in the greatest reduction in the use of both plastic and paper carryout bags. Alternative 5 will also result in a significant reduction in plastic carryout bags, while retaining an option for consumers to purchase paper carryout bags should they choose to pay a charge for paper carryout bags, forget their reusable bags, or are visiting in the area and do not have reusable bags with them. Alternative 5 was recommended for adoption by the County Board of Supervisors.

Before project approval, an EIR must be certified pursuant to Section 15090 of the State CEQA Guidelines. Prior to approving a project for which an EIR has been certified, and for which the EIR identifies one or more significant environmental impacts, the approving agency must make one or more of the following findings, with a brief explanation of the rationale, pursuant to Public Resources Code Section 21081 and Section 15091 of the State CEQA Guidelines, for each identified significant impact:

- (1) Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the final EIR.
- (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- (3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the EIR.

The County has made one or more of the specific written Findings above regarding each significant impact associated with the project. Those Findings are presented in Chapter X of this document, along with a presentation of facts in support of the Findings.

Section 15092 of the State CEQA Guidelines states that after consideration of an EIR, and in conjunction with the Section 15091 findings identified above, the lead agency may decide whether or how to approve or carry out the project. The lead agency may approve a project with unavoidable adverse environmental effects only when it finds that specific economic legal, social, technological, or other benefits of the project outweigh those effects. Section 15093 requires the lead agency to document and substantiate any such determination in a "statement of overriding considerations" as a part of the record. The Authority's Statement of Overriding Considerations is presented in Chapter IX of this document.

SECTION II POTENTIAL ENVIRONMENTAL EFFECTS THAT ARE NOT SIGNIFICANT

The analysis undertaken in support of the Initial Study for the ordinances that was completed on December 1, 2009, determined that there are 12 environmental issue areas pursuant to the State CEQA Guidelines that will not have significant impacts resulting from implementation of the ordinances: aesthetics, agriculture and forestry resources, cultural resources, geology and soils, hazards and hazardous materials, land use and planning, mineral resources, noise, population and housing, public services, recreation, and transportation and traffic. Therefore, these issue areas were not carried forward for detailed analysis in the EIR for the ordinances.

The EIR analysis also determined that the recommended ordinances (analyzed as Alternative 5 in the EIR) will not result in significant impacts related to air quality, biological resources, hydrology and water quality, and utilities and service systems.

II.A AESTHETICS

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to aesthetics. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis in the EIR and Initial Study for the ordinances, including in, but not limited to, Section 2.0, Environmental Checklist, and Section 3.0, Environmental Analysis, of the Initial Study. The recommended ordinances will not have a substantial adverse effect on a scenic vista, will not substantially damage scenic resources within a state scenic highway, will not substantially degrade existing visual character or quality, and will not create a new source of substantial light or glare.

II.B AGRICULTURE AND FORESTRY RESOURCES

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to agriculture and forest resources. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis in, but not limited to, the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances, as well as additional analysis undertaken to support the EIR, as discussed in response to Comment No. 25 from the American Chemistry Council in Section 13 of the Final EIR. There are no Prime Farmlands, Unique Farmlands, Farmlands of Statewide Importance, forest land, or timberland that would be significantly impacted by the recommended ordinances. No Farmlands will be converted to nonagricultural use, and the recommended ordinances will not conflict with zoning for agriculture, forest land, or any Williamson Act contracts. The majority of paper carryout bags supplied to the greater Los Angeles metropolitan area are produced in and delivered from states outside of California, or from countries outside of the United States, such as Canada (see EIR, page 3.1-17). The State CEQA Guidelines state, "An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible";¹ based on this stipulation, the County finds that a detailed analysis of impacts to forest resources is too speculative and would be unreasonably burdensome. Specifically, the location and type of forest (certified sustainable, plantations, reforested, etc.) and the amount of wood fiber procured from trees that could be attributed to the project is unknown. Section 15145 of the State CEQA Guidelines states, "If, after a thorough investigation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."

II.C AIR QUALITY

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to air quality. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, Sections 2.0 and 3.0 of the Initial Study and Sections 3.1, Air Quality, and 4.0, Alternatives, of the EIR for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not conflict with or obstruct implementation of the applicable air quality plan; will not violate any air quality standard or contribute substantially to an existing or projected air quality violation; will not result in a cumulatively considerable net increase of any criteria pollutant for which the County is in non-attainment under an applicable federal or state ambient air quality standard; will not expose sensitive receptors to substantial pollutant concentrations; and will not create objectionable odors affecting a substantial number of people. The recommended ordinances will ban the issuance of plastic carryout bags and impose a fee or charge on the issuance of paper carryout bags, and therefore will not result in significant criteria pollutant emissions from the manufacture, distribution, and disposal of paper or

¹ California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15151, Appendix G.

plastic carryout bags. The analysis in Section 4.2.6 of the EIR (see Section 12.2 of the EIR), which evaluated a conservative scenario using the Ecobilan life cycle assessment, indicated an overall decrease in indirect emissions of criteria pollutants as a result of 50 percent of customers switching from using plastic carryout bags to using paper carryout bags. Nevertheless, any indirect increase in air pollutant emissions from paper carryout bag manufacturing facilities affected by the recommended ordinances will be controlled by the facility owners in compliance with applicable local, regional, and national air quality standards. Any indirect increase in air pollutant emissions from end of life of paper carryout bags, including from truck trips transporting paper carryout bag waste to landfills in the County, are currently controlled by regional and state regulations, including South Coast Air Quality Management District (SCAQMD) Rule 1150.1, Control of Gaseous Emissions from Landfills; SCAQMD Rule 1193, Clean On-road Residential and Commercial Refuse Collection Vehicles; California Air Resources Board's Solid Waste Collection Vehicle Rule; and by the County controlling for emissions by requiring in its new refuse agreements that alternative-fuel refuse vehicles be used.^{2,3,4,5} Therefore, indirect air quality impacts due to a potential increase in the demand for paper carryout bags will be below the level of significance. Since the recommended ordinances will not cause a significant impact to air quality, will not generate a significant number of vehicle trips, and will not promote employment or population growth, the recommended ordinances will cause a less than significant cumulative air quality impact. Implementation of the recommended ordinances would be consistent with the policies, plans, and regulations for air quality set forth by the County. Any related projects in the County must also comply with the County's air quality regulations. Therefore, implementation of the recommended ordinances will not result in a cumulatively considerable contribution to a significant cumulative impact.

II.D BIOLOGICAL RESOURCES

Significant Impact:

None.

Finding:

The recommended ordinances will result in beneficial impacts to biological resources. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, Section 3.2, Biological Resources, and Section 4.0 of the EIR and Sections 2.0 and 3.0 of the Initial

² County of Los Angeles, Department of Public Works. 11 May 2010. Award of Contract for Walnut Park Garbage Disposal District. Available at: http://file.lacounty.gov/bos/supdocs/54560.pdf

³ County of Los Angeles, Department of Public Works. 11 May 2010. Award of Contract for Athens/Woodcrest/Olivita Garbage Disposal District. Available at: http://file.lacounty.gov/bos/supdocs/54567.pdf

⁴ County of Los Angeles, Department of Public Works. 11 May 2010. Award the Contract for Firestone Garbage Disposal District. Available at: http://file.lacounty.gov/bos/supdocs/54559.pdf

⁵ County of Los Angeles, Department of Public Works. 19 January 2010. Award of Contract for an Exclusive Franchise Agreement to Valley Vista Services, Inc. for the Unincorporated Area of Hacienda Heights. Available at: http://file.lacounty.gov/bos/supdocs/52931.pdf

Study for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not adversely impact State-designated sensitive habitats; rare, threatened, or endangered species; locally important species; or federally protected wetlands; and will not conflict with any habitat conservation plan, natural community plan, or any approved state, local, or regional plans. The recommended ordinances will have the potential to result in beneficial impacts to biological resources, as they will, among other things, reduce the amount of litter attributable to plastic carryout bags throughout the County, and particularly within the storm drain system, which drains directly to the Pacific Ocean. Similarly, implementation of the recommended ordinances will not result in a cumulatively considerable contribution to a significant cumulative impact.

II.E CULTURAL RESOURCES

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to cultural resources. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in Section 2.0 and Section 3.0 of the Initial Study for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not cause a substantial adverse change in the significance of a historical resource, archeological resource or paleontological resource. The recommended ordinances will not disturb any human remains.

II.F GEOLOGY AND SOILS

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to geology and soils. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances. Although potentially active faults are known to exist in the County of Los Angeles, the recommended ordinances will not cause any additional risk of strong seismic ground shaking or ground failure. The recommended ordinances will not cause any substantial risks to life or property due to landslides, soil erosion, or unstable or expansive soil.

II.G HAZARDS AND HAZARDOUS MATERIALS

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to hazards and hazardous materials. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not create a significant hazard to the public or the environment, handle hazardous materials within one-quarter mile of an existing or proposed school, be located on a site which is included on a list of hazardous materials sites, or result in a safety hazard for people residing or working in the County.

II.H HYDROLOGY AND WATER QUALITY

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to hydrology and water quality. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, Section 3.4, Hydrology and Water Quality, and Section 4.0 the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not violate any water guality standards or waste discharge requirements; will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level; will not substantially alter the existing drainage pattern of the area in a manner that will result in substantial erosion or siltation; will not substantially alter the existing drainage pattern of the area or substantially increase the rate or amount of surface runoff in a manner that will result in flooding; will not create or contribute runoff water that will exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; will not otherwise substantially degrade water quality; will not place housing within a 100-year flood hazard area; will not place within a 100-year flood hazard area structures that will impede or redirect flood flows; will not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; and will not cause inundation by seiche, tsunami, or mudflow. The recommended ordinances will result in

positive impacts to drainage by reducing the amount of plastic carryout bag trash that may originate from sources in the County and be transported from rivers to oceans, and may improve surface water quality caused by anticipated reductions in the use of plastic carryout bags. Any indirect impacts related to increased demand for manufacturing of paper carryout bags or reusable bags would be controlled by the USEPA and the Regional Water Quality Control Boards (RWQCBs) under the federal CWA and other applicable federal, state, and/or local regulations. Therefore, implementation of the recommended ordinances will not result in a cumulatively considerable contribution to a significant cumulative impact.

II.I LAND USE AND PLANNING

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to land use and planning. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not cause the physical division of an established community; will not conflict with any applicable land use plan, policy, or regulation; and will not conflict with any applicable habitat conservation plan or natural community conservation plan.

II.J MINERAL RESOURCES

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to mineral resources. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances. Although there are mineral resource areas of value to the region or to the residents of the state within the County, the recommended ordinances will not affect the extraction of these resources. Further, the recommended ordinances will not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

II.K NOISE

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to noise. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not generate noise levels in excess of standards; will not generate excessive groundborne vibration; and will not generate a substantial permanent, temporary, or periodic increase in ambient noise levels.

II.L POPULATION AND HOUSING

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to population and housing. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not result in direct or indirect population growth. The recommended ordinances do not include construction of new homes or businesses and do not extend infrastructure into areas not currently served by roads or other infrastructure. The recommended ordinances do not include the construction of any new housing units and will not alter the need for residential development in the County. Furthermore, the recommended ordinances will also not result in the displacement of a substantial amount of people.

II.M PUBLIC SERVICES

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to public services. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities. The recommended ordinances will not affect acceptable service ratios, response times, and other performance objectives for the public services of fire protection, police protection, schools, parks, and other public facilities.

II.N RECREATION

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to recreation. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not induce substantial growth or concentration of population beyond regional projections. Therefore, no individual park or recreation facility will experience physical deterioration. The recommended ordinances will not result in a significant increase in the number of people, residents, or visitors that will avail themselves of existing park facilities. The recommended ordinances do not include the construction of any recreational facilities, and thus will not require additional or the expansion of existing such facilities.

II.O TRAFFIC AND TRANSPORTATION

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to traffic and transportation. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not conflict with an applicable plan, ordinances or policy establishing measures of effectiveness for the performance of the circulation system; will not conflict with an applicable congestion management program; will not result in a change in air traffic patterns; will not substantially increase hazards due to a design feature; will not result in inadequate emergency access; and will not conflict with adopted plans, policies, or programs regarding public transit.

II.P UTILITIES AND SERVICE SYSTEMS

Significant Impact:

None.

Finding:

The recommended ordinances will not result in significant impacts to utilities and service systems. Therefore, no mitigation is required.

Rationale:

The above finding is made based on the analysis included in, but not limited to, Section 3.5, Utilities and Service Systems, and Section 4.0 the EIR and Sections 2.0 and 3.0 of the Initial Study for the ordinances. The recommended ordinances (analyzed as Alternative 5) will not be expected to exceed wastewater treatment requirements of the applicable regional water quality control board; will not require or result in the construction of new water or wastewater treatment facilities; will not require or result in the construction of new storm water drainage facilities or expansion of existing facilities; will not require new or expanded entitlements for water supply; will not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the ordinances' projected demand in addition to the provider's existing commitments; will not be served by a landfill with insufficient permitted capacity to accommodate the ordinances' solid waste disposal needs; and will comply with federal, state, and local statutes and regulations related to solid waste. The recommended ordinances will lead to reduced operational impacts and costs associated with storm drain system maintenance due to a reduction in plastic carryout bag litter. Based on existing capacities, adoption of the recommended ordinances will not result in adverse impacts to storm drain systems, water supply, solid waste, energy consumption, or wastewater treatment. Therefore, implementation of the recommended ordinances will not result in a cumulatively considerable contribution to a significant cumulative impact.

SECTION III POTENTIAL ENVIRONMENTAL EFFECTS THAT CAN BE MITIGATED TO BELOW THE LEVEL OF SIGNIFICANCE

The analysis undertaken in the EIR for the recommended ordinance to ban the issuance of plastic carryout bags and impose a fee or charge on paper carryout bags at a greater number of stores (analyzed as Alternative 5) determined that the incorporation of mitigation measures is not expected to reduce the potential indirect impact of the recommended ordinances to GHG emissions to below the level of significance. While the incorporation of mitigation measure GHG-1 will be implemented to monitor and reduce the use of paper carryout bags resulting from the recommended ordinances and will indirectly offset end-of-life GHG emissions to the maximum extent feasible, the County has decided that no emission reduction credit will be taken for the measure, and for the purposes of the decision-making process, the County will proceed with the conclusion that indirect impacts to GHG emissions will remain cumulatively considerable.

SECTION IV SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS THAT CANNOT BE MITIGATED TO BELOW THE LEVEL OF SIGNIFICANCE

Based on a conservative analysis, the County has determined that cumulative indirect GHG emissions resulting from implementation of the recommended ordinances will have the potential to result in significant unavoidable impacts even with implementation of mitigation measure GHG-1, which will be expected to reduce significant adverse impacts to GHG emissions to the maximum extent feasible. Consequently, in accordance with Section 15093 of the State CEQA Guidelines, a Statement of Overriding Considerations has been prepared (see Section IX of this document) to substantiate the County's decision to accept this potential unavoidable adverse environmental effect because it is outweighed by the potential benefits afforded by the recommended ordinances.

IV.A GREENHOUSE GAS EMISSIONS

Significant Impact:

Indirect impacts resulting from the decomposition of paper carryout bags in landfills will be potentially cumulatively significant under the County's conservative worst-case analysis.

Finding:

The County Board of Supervisors finds that changes or alterations have been required in, or incorporated into, the recommended County ordinance that avoid or substantially lessen its significant environmental effect as identified in the EIR. Specifically, incorporation of mitigation measure GHG-1, described below, will monitor, reduce use of, and encourage further recycling of paper carryout bags, and will indirectly offset end-of-life GHG emissions to the maximum extent feasible. However, despite mitigation, impacts from the decomposition of paper carryout bags in landfills will remain cumulatively significant under a conservative worst-case analysis. Further, with respect to the impacts that could occur if the County's 88 incorporated cities adopted similar ordinances, the Board of Supervisors finds that incorporation of changes or alterations similar to those set forth in mitigation measure GHG-1 are within the responsibility and jurisdiction of those agencies and not the County. Such changes have been adopted by such other agencies or can and should be adopted by such other agencies. However, the Board of Supervisors acknowledges that the feasibility of such changes or alterations similar to those set forth in mitigation measure GHG-1, including the feasibility of each element of such a mitigation measure, is within the sole discretion of such other agencies. The Board of Supervisors finds that specific economic, legal, social, technological, or other considerations make additional mitigation measures infeasible.

Mitigation Measure:

Mitigation Measure MM-GHG-1 Implement and/or expand public outreach and educational programs to increase the percentage of paper carryout bags that are recycled curbside.

If the adopted ordinance includes a fee or charge on the issuance of paper carryout bags of at least \$0.05, consider increases to the fee or charge to further reduce consumption of paper carryout bags.

Distribute reusable grocery bags, free of charge within the project area to encourage further transitions to reusable bags. Consider public/private partnerships to offset costs of distribution.

Implement an outreach program for affected stores to encourage consumer transition to reusable bags, to reduce double bagging, and to encourage reuse and in-store recycling of paper carryout bags.

Encourage grocery stores to implement energy efficiency technology particularly in relation to storage of cold and frozen foods (assuming a reduction of 0.65 metric ton carbon dioxide equivalent for each megawatt hour saved¹).

Consider converting public vehicles to low-emitting fuels (assuming a reduction of 0.45 metric ton carbon dioxide equivalent for each 1,000 vehicle miles traveled2). Consider funding conversion of vehicles through participation in South Coast Air Quality Management District's Carl Moyer Program.

Rationale:

The above finding is based on the analysis included in Sections 2.0 and 3.0 of the Initial Study and Sections 3.3 and 4.0 of the EIR. The recommended ordinances (analyzed as Alternative 5 in the EIR) will not directly generate GHG emissions that may have a significant impact on the environment, and will not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. The recommended ordinances will ban the issuance of plastic carryout bags and impose a fee or charge on the issuance of paper carryout bags, and therefore will not result in significant GHG emissions from the overall life cycle of paper or plastic carryout bags. However, indirect impacts resulting from end of life from the decomposition of paper carryout bags in landfills will be cumulatively significant under a conservative worst-case analysis. Mitigation measure GHG-1 will reduce the cumulative impact by increasing public awareness, promoting recycling of paper bags, promoting use of reusable bags, and encouraging further efforts to reduce GHG emissions. While the County will not take credits for the reduction in GHG emissions resulting from mitigation measures, these measures will be expected to reduce GHG emissions from the decomposition of paper carryout bags in landfills to the greatest extent feasible. It is also important to note that GHG emissions from landfills located in the County are already controlled in accordance with applicable regional, State, and federal regulations pertaining to GHG emissions. Any potential increases in GHG emissions due to decomposition of paper carryout bags in landfills in the County will be controlled by Antelope Valley Air Quality Management District (AVAQMD) Rule 1150.1 or SCAQMD Rule 1150.1. Therefore, current regulations will aid in mitigating impacts to GHG emissions resulting from decomposition of paper carryout bags in landfills; additional feasible mitigation separate from mitigation measure GHG-1 is not available.

¹Emission factors taken from http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results

² Emission factors taken from http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results

Moreover, the County anticipates that the \$0.10 fee or charge on paper carryout bags included in the recommended County ordinance will significantly reduce the number of consumers that will use paper carryout bags in place of plastic carryout bags, while still retaining an option for consumers to purchase paper carryout bags. It would be infeasible at this time to implement a full ban on the issuance of paper bags, as the County anticipates a certain transition period for consumers to become aware of and adapt to the recommended County ordinance, particularly, to remember to take and use reusable bags at affected stores. In addition, visitors to the County may not be aware of recommended County ordinance and may not know to take and use reusable bags at affected stores in the County.

Implementation of a fee or charge on the issuance of paper carryout bags will help to minimize the number of paper carryout bags used in the County and any corresponding GHG emissions due to the decomposition of paper carryout bags in landfills. If the paper carryout bag fee decreases conversion to paper carryout bags by 80 to 90 percent, similar to what occurred with the Ireland and Washington, DC, bag fees, indirect impacts to GHG emissions would be reduced even further. The recommended ordinances will require each affected store to issue a quarterly report of the total number of paper carryout bags provided to customers, along with a summary of any efforts undertaken by the store to promote the use of reusable bags. The County will keep and analyze these reports to determine and ensure that consumers in the County are using fewer carryout bags. The County will also use the reports to assess whether the recommended ordinances are having the desired effects, and if other measures are needed. The County will also conduct additional public outreach through an education program to increase the percentage of paper carryout bags that are diverted from landfills. Currently, there is nearly universal access to curbside recycling throughout the County where homeowners can conveniently recycle paper bags. Additional public education and outreach would increase the number of bags recycled and further reduce indirect impacts to GHG emissions. Any remaining cumulative GHG emission impacts are overridden as described in Section IX, Statement of Overriding Considerations.

The County acknowledges that some commenters on the Draft EIR have called for mitigation to reduce potential health impacts from reusable bags. However, the there is no evidence available to the County that suggests that use of reusable bags results in any environmental impacts such that mitigation would be required or would be appropriate. It is expected that consumers will wash their reusable bags along with the rest of their laundry, and it is unlikely that the need to wash reusable bags will require the average consumer to do additional loads of laundry. In addition, all wastewater that enters the sewer pipeline in the County is subjected to a secondary treatment at a minimum, thus avoiding further significant adverse impact to the natural environment.³

In addition, commenters have suggested that carbon offsets be used to reduce GHG emissions. The County finds that carbon offsets are infeasible at this time for the recommended County ordinance. Payment of an infinite number of carbon offsets for a potentially unlimited amount of time lacks a sufficient legal nexus (i.e. results from a highly attenuated GHG source based on speculative life cycle data that may not be directly attributable to the County and the cities), and is more appropriately considered when specific project-level details are known for the manufacturing and disposal facilities. As noted in response to Comment No. 8 of the July 16, 2010, comment letter from Save the Plastic Bag Coalition (see Section 13 of the EIR), and as provided in the Natural Resource Agency's statement of reasons for revisions to the State CEQA Guidelines, "In some instances, materials may be manufactured for many different projects as a result of general market

³ Sanitation Districts of Los Angeles County. Accessed on: 15 October 2010. "Wastewater Treatment and Water Reclamation." Web site. Available at: http://www.lacsd.org/about/wastewater_facilities/moresanj/default.asp

demand, regardless of whether one particular project proceeds. Thus, such emissions may not be 'caused by' the project under consideration. Similarly, in this scenario, a lead agency may not be able to require mitigation for emissions that result from the manufacturing process. Mitigation can only be required for emissions that are actually caused by the project [State CEQA Guidelines, Section 15126.4(a)(4)]."⁴

Furthermore, the County believes that imposition of carbon offset fees would be infeasible for policy considerations and economic reasons, and would fail to meet the objectives of the recommended County ordinance. There are still outstanding policy concerns regarding carbon offsets and their approach and effectiveness.^{5,6,7,8,9,10,11} Economically, imposition of carbon offset fees could deter future adoption of the recommended ordinances or alternatives by the County's incorporated cities, especially given the economic hardship facing the County and many cities,^{12,13,14,15,16,17} and therefore would not further the objectives of the recommended ordinances: (1) conduct outreach to the County's 88 incorporated cities to encourage adoption of comparable ordinances; (2) reduce the Countywide consumption of plastic carryout bags from the estimated 1,600 plastic carryout bags per household in 2007, to fewer than 800 plastic bags per household in 2013; (3) reduce by 50 percent by 2013 the Countywide contribution of plastic carryout bags to litter that blights public spaces Countywide; (4) reduce by \$4 million the County's, cities', and County Flood Control District's costs for prevention, cleanup, and enforcement efforts to reduce

¹³ Luhby, Tami. 6 October 2010. "City budgets slammed by falling property taxes." Available at: http://money.cnn.com/2010/10/06/news/economy/cities_property_taxes/index.htm

¹⁴ Dougherty, Conor. 25 May 2010. "States, Still Grappling with Budget Woes." *The Wall Street Journal*. Available at: http://online.wsj.com/article/SB10001424052748704792104575264772303847934.html

¹⁵ Riccardi, Nicholas. 7 October 2010. "Cities' budgets squeezed by housing crunch." *Los Angeles Times*. Available at: http://articles.latimes.com/2010/oct/07/nation/la-na-league-20101007

⁴ California Natural Resources Agency. December 2009. *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97.* Available at: http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf

⁵ Mitchell, Dan. 5 May 2007. "How Clean Is Your Carbon Credit?" *The New York Times*. Available at: http://www.nytimes.com/2007/05/05/business/05online.html

⁶ Revkin, Andrew. 29 April 2007. "Carbon-Neutral Is Hip, but Is It Green?" *The New York Times*. Available at: http://www.nytimes.com/2007/04/29/weekinreview/29revkin.html?ex = 1335499200&en = d9e2407e4f1a20f0&ei = 5124

⁷ Davies, Nick. 16 June 2007. "The Inconvenient Truth about the Carbon Offset Industry." *The Guardian*. Available at: http://www.guardian.co.uk/environment/2007/jun/16/climatechange.climatechange

⁸ Kaste, Martin, National Public Radio. 28 November 2006. "'Carbon Offset' Business Takes Root." Available at: http://www.npr.org/templates/story/story.php?storyId = 6548098

⁹ Monbiot, George. 18 October 2006. "Selling Indulgences." *The Guardian*. Available at: http://www.monbiot.com/archives/2006/10/19/selling-indulgences/

¹⁰ David Suzuki Foundation. Accessed on: 25 October 2010. "The problems with carbon offsets from tree-planting." Web site. Available at: http://www.davidsuzuki.org/issues/climate-change/science/the-problems-with-carbon-offsets-from-tree-planting/

¹¹ Granda, Patricia. 2005. Carbon Sink Plantations in the Ecuadorian Andes: Impacts of the Dutch FACE-PROFAFOR monoculture tree plantations' projects on indigenous and peasant communities. Quito, Ecuador: Acción Ecológica. Available at: http://www.wrm.org.uy/countries/Ecuador/face.pdf

¹² CBS Evening News. 26 March 2010. "City, State Budgets Crippled Nationwide." Available at: http://www.cbsnews.com/stories/2010/03/26/eveningnews/main6336699.shtml

¹⁶ Semuels, Alana. 18 October 2010. "California Cities are Lowering Standards to Raise Revenue." Los Angeles Times. Available at: http://www.latimes.com/business/la-fi-desperate-cities-20101018,0,7536692.story

¹⁷ County of Los Angeles Chief Executive Office. 5 August 2010. Memorandum re: Sacramento Update. Available at: http://file.lacounty.gov/bc/q3_2010/cms1_150053.pdf#search = "shortfall"

litter in the County; (5) substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the population) with an environmental awareness message; and (6) reduce Countywide disposal of plastic carryout bags in landfills by 50 percent from 2007 annual amounts.

The EIR analyzed alternatives in accordance with the recommendations of Section 15126.6 of the State CEQA Guidelines, which require evaluation of a range of reasonable alternatives to the project, or to the location of the project, that would feasibly attain most of the basic objectives of the project but could potentially avoid or substantially lessen any of the significant effects of the project, and evaluation of the comparative merits of the alternatives. The discussion of alternatives is intended to focus on four criteria:

- Alternatives to the proposed ordinances or their location that may be capable of avoiding or substantially reducing any significant effects that a project may have on the environment
- Alternatives capable of accomplishing most of the basic objectives of the proposed ordinances and potentially avoid or substantially lessen one or more of the significant effects
- The provision of sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed ordinances
- The no-project analysis of what would be reasonably expected to occur in the foreseeable future if the proposed ordinances were not approved

Pursuant to Section 15126.6(e)(2) of the State CEQA Guidelines, if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the feasible action alternatives. The analysis of alternatives should be limited to those that the County determines could feasibly attain most of the basic objectives of the proposed ordinances. Section 15364 of the State CEQA Guidelines defines feasibility as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

Alternatives addressed in the EIR were derived from work undertaken by the County, as well as from comments received in response to the NOP and NOA of the EIR and from interested parties who attended the public scoping meetings. As a result of the Initial Study, comments received during the scoping period and public review period for the Draft EIR, and the environmental analysis undertaken in the Draft EIR, six alternatives, including the No Project Alternative, were determined to represent a reasonable range of alternatives:

- 1. No Project Alternative
- 2. Alternative 1, Ban Plastic and Paper Carryout Bags in Los Angeles County
- 3. Alternative 2, Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags in Los Angeles County
- 4. Alternative 3, Ban Plastic Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County
- 5. Alternative 4, Ban Plastic and Paper Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County
- 6. Alternative 5, Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County

The effectiveness of each alternative to achieve the basic objectives of the proposed ordinances was evaluated in relation to the statement of objectives described in Section 2.0, *Project Description*, of the EIR. The proposed ordinances would meet all of the basic objectives established by the County (Table V-1, *Ability of the Proposed Ordinances and Alternatives to Attain County Objectives*). Although the No Project Alternative would not meet most of the basic objectives of the proposed ordinances, it was analyzed as required by CEQA.

TABLE V-1
ABILITY OF THE PROPOSED ORDINANCES AND ALTERNATIVES
TO ATTAIN COUNTY OBJECTIVES

Objective	Proposed Ordinances	No Project	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Conduct outreach to all 88 incorporated cities of the County to encourage adoption of comparable ordinances	Yes	No	Yes	Yes	Yes	Yes	Yes
Reduce the Countywide consumption of plastic carryout bags from the estimated 1,600 plastic carryout bags per household in 2007 to fewer than 800 plastic bags per household in 2013	Yes	No	Yes	Yes	Yes	Yes	Yes
Reduce the Countywide contribution of plastic carryout bags to litter that blights public spaces by 50 percent	Yes	No	Yes	Yes	Yes	Yes	Yes
Reduce by \$4 million the County's, cities', and Flood Control District's costs for prevention, cleanup, and enforcement efforts to reduce litter in the County	Yes	No	Yes	Yes	Yes	Yes	Yes
Substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the population) with an environmental awareness message	Yes	No	Yes	Yes	Yes	Yes	Yes
Reduce Countywide disposal of plastic carryout bags in landfills by 50 percent from 2007 annual amounts	Yes	No	Yes	Yes	Yes	Yes	Yes

Although the No Project Alternative would reduce potential impacts to air quality and GHG emissions compared with the proposed ordinances, impacts to biological resources, hydrology and water quality, and utilities and service systems would be exacerbated, rather than avoided or reduced. In addition,

the No Project Alternative would not meet any of the basic objectives of the proposed ordinances established by the County. Although the proposed ordinances originally studied in the EIR meet all of the basic objectives, the proposed ordinances were deemed to be infeasible as they are environmentally inferior to the alternatives analyzed in the EIR because they do not restrict the issuance of paper carryout bags and only affect a limited range of stores. Alternatives 1, 2, 3, 4, and 5 would meet all of the basic objectives established by the County. Alternatives 3, 4, and 5 would result in additional benefits to biological resources as a result of reduced consumption of plastic carryout bags due to a greater number of stores being included in the proposed ordinances. As with the proposed ordinances, and consistent with the County's evaluation of impacts resulting from paper carryout bags from a conservative worst-case scenario, Alternative 3 may have the potential to result in cumulatively considerable impacts to GHG emissions because it would not limit the issuance of paper carryout bags. Alternatives 2 and 5 would be expected to reduce consumption of paper carryout bags through implementation of a fee. Unlike the proposed ordinances, Alternatives 1 and 4 would not result in any increase in the use of paper carryout bags, but these alternatives were deemed infeasible because Alternatives 1 and 4 do not allow an option for consumers to purchase carryout bags.

Table V-2, *Comparative Analysis of Impacts of the Proposed Ordinances and Alternatives*, provides a comparative analysis for the originally proposed ordinances, the No Project Alternative, and the six alternatives discussed in this document. Based on the analysis, the Environmentally Superior Alternative is Alternative 4. This alternative is capable of creating the maximum reductions in the consumption of both paper and plastic carryout bags, and would meet all of the six objectives of the proposed ordinances. Alternative 5 will also result in a significant reduction in the use of plastic carryout bags, while retaining an option for consumers to purchase paper carryout bags.

As a result of the CEQA process, including the analysis of the alternatives and public comments, the County has determined that Alternative 5 is feasible, and has decided to adopt Alternative 5 as the recommended County ordinance. The County will encourage each of the 88 incorporated cities in the County to adopt comparable ordinances.

Table V-2 denotes comparative analyses as neutral (similar/equivalent impacts compared with the proposed ordinances), positive (reduced adverse impacts or increased beneficial impacts compared with the proposed ordinances), or negative (increased adverse impacts compared with the originally proposed ordinances).

 TABLE V-2

 COMPARATIVE ANALYSIS OF IMPACTS OF THE PROPOSED ORDINANCES AND ALTERNATIVES

Resource	Originally Proposed Ordinances	No Project	Ban Plastic and Paper Carryout Bags in Los Angeles County	Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags in Los Angeles County	Ban Plastic Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County	Ban Plastic and Paper Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County	Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County
Air Quality	The proposed ordinances may indirectly result in an increased demand for paper carryout bags, which may subsequently result in increased criteria pollutant emissions from the manufacture, distribution, and disposal of paper carryout bags, which would be offset to some degree by the anticipated reduction in plastic carryout bags and increase in reusable bags. <i>Impact:</i> Emissions due to the life cycle of paper carryout bags are below the level of significance	The No Project Alternative would not result in a potential increase in the use of paper carryout bags, but would not result in any decrease in the use of plastic carryout bags. The No Project Alternative would result in criteria pollutant emissions from the manufacture, distribution, and disposal of plastic carryout bags, which would be offset to some degree by the fact that there would be no increase in the use of paper carryout bags. However, the No Project Alternative would not encourage a transition to the use of reusable bags. <i>Comparative Impact:</i> Neutral	Alternative 1 would not result in a potential increase in the use of paper or plastic carryout bags, and would result in a greater use of reusable bags. Alternative 1 would not result in criteria pollutant emissions from the manufacture, distribution, and disposal of paper carryout bags. <i>Comparative Impact:</i> Positive	Alternative 2 would not result in as much of a potential increase in the use of paper carryout bags, while reducing the use of plastic carryout bags and increasing the use of reusable bags. Alternative 2 would not result in the same degree of criteria pollutant emissions from the manufacture, distribution, and disposal of paper carryout bags. <i>Comparative Impact:</i> Positive	Alternative 3 may indirectly result in an increased demand for paper carryout bags, which may subsequently result in increased criteria pollutant emissions from the manufacture, distribution, and disposal of paper carryout bags, which would be offset to some degree by the anticipated reduction in plastic carryout bags and increase in reusable bags. <i>Comparative Impact:</i> Negative	Alternative 4 would not result in a potential increase in the use of paper or plastic carryout bags, and would result in a greater use of reusable bags. Alternative 4 would not result in criteria pollutant emissions from the manufacture, distribution, and disposal of paper carryout bags. <i>Comparative Impact:</i> Positive	Alternative 5 will substantially reduce the use of plastic carryout bags. Due to the implementation of a fee on the issuance of paper carryout bags, the degree of increase in use of paper carryout bags will be limited, and Alternative 5 will result in a greater use of reusable bags. Criteria pollutant emissions due to the life cycle of paper carryout bags will be below the level of significance. <i>Comparative Impact:</i> Positive
Biological Resources	The proposed ordinances would be expected to result in beneficial impacts to biological resources as they would reduce the amount of litter attributable to plastic carryout bags in the County of Los Angeles storm drain system, which drains directly to the Pacific Ocean. <i>Impact:</i> Beneficial	No Project Alternative would not result in a significant reduction in the use and disposal of plastic carryout bags within the County. Therefore, the No Project Alternative would not assist in reducing marine litter attributed to plastic carryout bag waste, which has been shown to have potentially significant adverse impacts upon biological resources. <i>Comparative Impact:</i> Negative	Alternative 1 would be expected to result in beneficial impacts to biological resources as it would reduce the amount of litter attributable to plastic carryout bags in the County of Los Angeles storm drain system, which drains directly to the Pacific Ocean. <i>Comparative Impact:</i> Neutral	Alternative 2 would be expected to result in beneficial impacts to biological resources as it would reduce the amount of litter attributable to plastic carryout bags in the County of Los Angeles storm drain system, which drains directly to the Pacific Ocean. <i>Comparative Impact</i> : Neutral	Alternative 3 would be expected to result in additional beneficial impacts to biological resources as it would further reduce the amount of litter attributable to plastic carryout bags in the County of Los Angeles storm drain system, which drains directly to the Pacific Ocean. <i>Comparative Impact</i> : Positive	Alternative 4 would result in additional beneficial impacts to biological resources, as it would further reduce the amount of litter attributable to plastic carryout bags in the County storm drain system, which drains directly to the Pacific Ocean. <i>Comparative Impact:</i> Positive	Alternative 5 will result in additional beneficial impacts to biological resources as it would further reduce the amount of litter attributable to plastic carryout bags in the County of Los Angeles storm drain system, which drains directly to the Pacific Ocean. <i>Comparative Impact:</i> Positive
Greenhouse Gas Emissions	The proposed ordinances may indirectly result in an increased demand for paper carryout bags. The increase in demand for paper carryout bags may result in increased GHG emissions as a result of the manufacture, distribution, and disposal of paper carryout bags, which would be offset to some degree by the anticipated reduction in plastic carryout bags and increase in reusable bags. <i>Impact:</i> Life cycle impacts resulting from paper carryout bags would be cumulatively significant under a conservative worst-case analysis	The No Project Alternative would not result in a potential increase in the use of paper carryout bags, but would not result in any decrease in the use of plastic carryout bags. The No Project Alternative would result in GHG emissions from the manufacture, distribution, and disposal of plastic carryout bags, which would be offset to some degree by the fact that there would be no increase in the use of paper carryout bags. However, the No Project Alternative would not encourage a transition to the use of reusable bags. <i>Comparative Impact:</i> Neutral	Alternative 1 would not result in a potential increase in the use of paper or plastic carryout bags, and would result in a greater use of reusable bags. Alternative 1 would not result in GHG emissions from the manufacture, distribution, and disposal of paper carryout bags. <i>Comparative Impact:</i> Positive	Alternative 2 would not result in as much of a potential increase in the use of paper carryout bags, while reducing the use of plastic carryout bags and increasing the use of reusable bags. Alternative 2 would not result in the same degree of GHG emissions from the manufacture, distribution, and disposal of paper carryout bags. <i>Comparative Impact:</i> Positive	Alternative 3 may indirectly result in an increased demand for paper carryout bags. The increase in demand for paper carryout bags may result in increased GHG emissions as a result of the manufacture, distribution, and disposal of paper carryout bags, which would be offset to some degree by the anticipated reduction in plastic carryout bags and increase in reusable bags. <i>Comparative Impact:</i> Negative	Alternative 4 would not increase use of paper or plastic carryout bags, and would result in a greater use of reusable bags. Alternative 4 would not result in GHG emissions from the manufacture, distribution, and disposal of paper carryout bags. <i>Comparative Impact:</i> Positive	Alternative 5 will result in substantial reductions in the use of plastic carryout bags and would result in a greater use of reusable bags. Due to the implementation of a fee on the issuance of paper carryout bags, the degree of increase in use of paper carryout bags would be limited. Alternative 5 will not result in significant cumulative GHG emissions from the manufacture and distribution of paper carryout bags, but GHG emissions from the disposal of paper carryout bags in landfills may remain cumulatively considerable. <i>Comparative Impact:</i> Positive

TABLE V-2 COMPARATIVE ANALYSIS OF IMPACTS OF THE PROPOSED ORDINANCES AND ALTERNATIVES, Continued

Resource	Originally Proposed Ordinances	No Project	Ban Plastic and Paper Carryout Bags in Los Angeles County	Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags in Los Angeles County	Ban Plastic Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County	Ban Plastic and Paper Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County	Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County
Hydrology and Water Quality	The proposed ordinances may indirectly result in an increased demand for paper carryout bags. The increase in demand for paper carryout bags may result in increased eutrophication impacts as a result of the manufacture of paper carryout bags, which would be offset to some degree by positive impacts to surface water quality and drainage caused by anticipated reductions in the manufacture, transport, and disposal of plastic carryout bags. <i>Impact:</i> Impacts due to the life cycle of paper carryout bags would be below the level of significance	The No Project Alternative would not result in a potential increase in the use of paper carryout bags, but would not result in any decrease in the use of plastic carryout bags. Unlike the proposed ordinances, the No Project Alternative would not result in potential indirect increases in eutrophication caused by a potential increase in consumer use of paper carryout bags. However, the No Project Alternative may also result in potential indirect impacts to surface water quality caused by the life cycle of plastic carryout bags and drainage caused by plastic carryout bag litter. <i>Comparative Impact:</i> Negative	Alternative 1 would not result in a potential increase in the use of paper or plastic carryout bags, and would result in a greater use of reusable bags. Alternative 1 would not result in increased eutrophication impacts as a result of the manufacture of paper carryout bags, and would result in positive impacts to surface water quality and drainage caused by anticipated reductions in the use of plastic carryout bags.	Alternative 2 would not result in as much of a potential increase in the use of paper carryout bags, while reducing the use of plastic carryout bags and increasing the use of reusable bags. Alternative 2 would not result in the same degree of increased eutrophication impacts as a result of the manufacture of paper carryout bags, and would result in positive impacts to surface water quality caused by anticipated reductions in the use of plastic carryout bags. <i>Comparative Impact:</i> Positive	Alternative 3 may indirectly result in an increased demand for paper carryout bags. The increase in demand for paper carryout bags may result in increased eutrophication impacts as a result of the manufacture of paper carryout bags, which would be offset, to some degree, by positive impacts to surface water quality caused by anticipated reductions in the use of plastic carryout bags. <i>Comparative Impact:</i> Negative	Alternative 4 would not result in a potential increase in the use of paper or plastic carryout bags, and would result in a greater use of reusable bags. Alternative 4 would not result in increased eutrophication impacts as a result of the manufacture of paper carryout bags, and would result in positive impacts to surface water quality caused by anticipated reductions in the use of plastic carryout bags. <i>Comparative Impact:</i> Positive	Alternative 5 will result in substantial reductions in the use of plastic carryout bags and increased use of reusable bags. Due to the implementation of a fee on the issuance of paper carryout bags, the degree of increase in use of paper carryout bags would be limited. Alternative 5 will not result in significant eutrophication impacts as a result of the manufacture of paper carryout bags, and will result in positive impacts to surface water quality caused by anticipated reductions in the use of plastic carryout bags. <i>Comparative Impact:</i> Positive
Utilities and Service Systems	The proposed ordinances may indirectly result in an increased demand for paper carryout bags. The increased demand for paper carryout bags may result in increased water consumption, energy consumption, wastewater generation, and solid waste generation due to the manufacture, distribution, and disposal of paper carryout bags, which would be offset to some degree by the anticipated reduction in plastic carryout bags. <i>Impact:</i> Impacts due to the life cycle of paper carryout bags would be below the level of significance	The No Project Alternative would not increase impacts to utilities and service systems that would result from the implementation of the proposed ordinances as it would not result in an increase in the consumer use of paper carryout bags. However, due to the fact that the No Project Alternative would not result in significant reductions in the disposal of plastic carryout bags in the County, the No Project Alternative would not create any potential benefits to utilities and service systems. The No Project Alternative would not lead to reduced operational impacts and costs associated with storm drain system maintenance. <i>Comparative Impact:</i> Negative	Alternative 1 would not result in a potential increase in the use of paper or plastic carryout bags, and would result in a greater use of reusable bags. Alternative 1 would lead to reduced operational impacts and costs associated with storm drain system maintenance due to the reduction in plastic carryout bag litter. Alternative 1 would not result in increased water consumption, energy consumption, wastewater generation, and solid waste generation due to the manufacture, distribution, and disposal of paper carryout bags. <i>Comparative Impact:</i> Positive	Alternative 2 would not result in as much of a potential increase in the use of paper carryout bags, while reducing the use of plastic carryout bags and increasing the use of reusable bags. Alternative 2 would lead to reduced operational impacts and costs associated with storm drain system maintenance due to the reduction in plastic carryout bag litter. Alternative 2 would not result in the same degree of increased water consumption, energy consumption, wastewater generation, and solid waste generation due to the manufacture, distribution, and disposal of paper carryout bags. <i>Comparative Impact:</i> Positive	Alternative 3 may indirectly result in an increased demand for paper carryout bags. The increased demand for paper carryout bags may result in increased water consumption, energy consumption, wastewater generation, and solid waste generation due to the manufacture, distribution, and disposal of paper carryout bags, which would be offset, to some degree, by the anticipated reduction in plastic carryout bags. <i>Comparative Impact:</i> Negative	Alternative 4 would not result in a potential increase in the use of paper or plastic carryout bags, and would result in a greater use of reusable bags. Therefore there would be no impacts to increased water consumption, energy consumption, wastewater generation, and solid waste generation due to the manufacture, distribution, and disposal of paper carryout bags or plastic carryout bags. Alternative 4 would lead to reduced operational impacts and costs associated with storm drain system maintenance due to the reduction in plastic carryout bag litter.	Alternative 5 will result in substantial reductions in the use of plastic carryout bags and would result in a greater use of reusable bags. Due to the implementation of a fee on the issuance of paper carryout bags, the increase in use of paper carryout bags will be limited. Alternative 5 will not result in significant impacts related to increased water consumption, energy consumption, wastewater generation, and solid waste generation impacts as a result of the manufacture of paper carryout bags. Alternative 5 will result in positive impacts to surface water quality caused by anticipated reductions in the use of plastic carryout bags. <i>Comparative Impact:</i> Positive

FOF/SOC Sapphos Environmental, Inc. Page V-5

V.A NO PROJECT ALTERNATIVE

Description of Alternative

Under the No Project Alternative, the County would not pass an ordinance to ban the issuance of plastic carryout bags by certain stores in the unincorporated territories of the County, and would not encourage the adoption of comparable ordinances by the 88 incorporated cities within the County. Under this alternative and as discussed in detail in Section 4.2.1 of the EIR, potential impacts to air quality and GHG emissions would not increase in comparison with the proposed ordinances. However, in comparison with the proposed ordinances, impacts to biological resources, hydrology and water quality, and utilities and service systems would be exacerbated, rather than be avoided or reduced. In addition, the No Project Alternative would not meet any of the basic objectives of the proposed ordinances established by the County, including those relating to litter. The No Project Alternative has been analyzed in detail in the EIR in accordance with the requirements of CEQA.

Effectiveness in Meeting Project Objectives

As shown in Table V-1, the No Project Alternative would not accomplish any of the basic objectives of the proposed ordinances established by the County. The No Project Alternative would not facilitate encouragement of the 88 incorporated cities of the County to adopt ordinances to ban the issuance of plastic carryout bags. The No Project Alternative would not assist in reducing the Countywide consumption of plastic carryout bags, would not result in a reduction of plastic carryout bag litter that blights public spaces and marine environments, and would not reduce the County's, cities', and Flood Control District's costs for prevention, clean-up, and enforcement efforts to reduce litter in the County. The No Project Alternative would not increase public awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags. In addition, the No Project Alternative would not assist in reducing Countywide disposal of plastic carryout bags in landfills.

Comparison of Effects of the No Project Alternative to Effects of the Proposed Project

The regulatory framework and existing conditions would be the same as that described for the proposed ordinances. A summary comparison of this alternative to effects of the proposed ordinances is presented in Table V-2. The analysis presented in the table, and as further detailed in Section 4.2.1 of the EIR, shows that this alternative differs from the proposed ordinances in the assessment of air quality, biological resources, GHG emissions, hydrology and water quality, and utilities and service systems.

Feasibility: The Board of Supervisors finds that specific economic, legal, social, technological, or other considerations make this alternative infeasible and therefore rejects this alternative.

Rationale: The No Project Alternative would meet none of the six objectives of the proposed ordinances (Table V-1). The No Project alternative would not result in any reduction in the use of plastic carryout bags within the County. Without the reduction in use, none of the six objectives of the proposed ordinances can be met.

Moreover, in comparison with the proposed ordinances, the No Project Alternative would exacerbate impacts to biological resources and hydrology and water quality, and would not have positive impacts to utilities and service systems, because it would allow continued distribution of plastic carryout bags in the County. With respect to biological resources, as discussed in the EIR, including in Sections 4.2.1.3, 3.2, and 13.0, the No Project Alternative would not assist in reducing litter attributable to

plastic carryout bag waste, would not improve habitats and aquatic life, and would not result in potentially beneficial impacts upon sensitive habitats, because it would not significantly reduce the use and disposal of plastic carryout bags within the County. The No Project Alternative would continue to exacerbate rather than avoid or reduce impacts to biological resources.

With respect to hydrology and water quality, as discussed in the EIR, including in Section 3.4, Section 4.2.1.3, and Section 13.0, the No Project Alternative would continue to exacerbate impacts because it would not significantly reduce the use of plastic carryout bags in the County. The No Project Alternative would not assist in meeting TMDL requirements, water quality standards, or waste discharge requirements because it would allow continued contribution of plastic carryout bags that can become litter in major surface water systems in the County drainage areas, the Pacific Ocean, and inland drainages in the Antelope Valley. The No Project Alternative would also not result in potentially beneficial impacts to surface water drainage, storm drain systems, or surface water quality in the County, and would not assist the County in attaining TMDLs because the alternative would not result in a decrease of the use of plastic carryout bags.

With respect to utilities and service systems, as discussed in the EIR, including in Sections 3.5, Section 4.2.1.3, and Section 13.0, the No Project Alternative would not result in significant reductions in the use and disposal of plastic carryout bags in the County, and therefore would not result in any potential benefits to landfills and would not lead to reduced operational impacts and costs associated with storm drain system maintenance.

Finally, the No Project Alternative would not provide any of the benefits set forth in the Statement of Overriding Considerations (see Section IX).

V.B ALTERNATIVE 1: BAN PLASTIC AND PAPER CARRYOUT BAGS IN LOS ANGELES COUNTY

Description of Alternative

Alternative 1 would extend the scope of the proposed ordinances to include a ban on the issuance of both paper and plastic carryout bags in Los Angeles County, and encouraging the 88 incorporated cities to adopt similar proposed ordinances. Alternative 1 would ban the issuance of paper and plastic carryout bags from the same stores addressed by the proposed ordinances, that is, those within the County that (1) meet the definition of a "supermarket" as found in the California Public Resources Code, Section 14526.5, and (2) are buildings that have over 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and have a pharmacy licensed pursuant to Chapter 9 of Division 2 of the Business and Professions Code. As with the proposed ordinances, Alternative 1 would affect approximately 67 stores in the unincorporated areas of the County and approximately 462 stores in the incorporated cities of the County.^{1,2}

As with the proposed ordinances and as discussed in detail in Sections 3.0 and 4.2.2 of the EIR, Alternative 1 would not result in significant adverse impacts to air quality, biological resources,

¹ As a result of the voluntary Single Use Bag Reduction and Recycling Program, the County has determined that 67 stores in unincorporated areas would be affected by the proposed County ordinance.

² Number of stores in the 88 incorporated cities of the County was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110 and 446110 with a gross annual sales volume of \$2 million or higher and a square footage of 10,000 square feet or greater. Accessed on: 29 April 2010.

hydrology and water quality, and utilities and service systems, and would achieve additional benefits. In that there would be no transition from plastic to paper carryout bags if both types of bags were banned, impacts to air quality, biological resources, GHG emissions, hydrology and water quality, and utilities and service systems would be eliminated, reduced, or avoided.

Effectiveness in Meeting Project Objectives

As shown in Table V-1, Alternative 1 would meet all of the ordinance objectives that were identified by the County. In addition, Alternative 1 would also serve to reduce Countywide consumption of paper carryout bags and the Countywide disposal of paper carryout bags in landfills.

Comparison of Effects of the Alternative to Effects of the Proposed Project

The regulatory framework and existing conditions would be the same as that described for the proposed ordinances. A summary comparison of this alternative to effects of the ordinances is presented in Table V-2. The analysis presented in the table shows that this alternative would result in positive impacts to air quality, GHG emissions, hydrology and water quality, and utilities and service systems when compared to the proposed ordinances.

Finding:

The Board of Supervisors finds that specific economic, legal, social, technological, or other considerations make this alternative infeasible and therefore rejects this alternative.

Rationale:

This alternative meets all of the basic objectives of the proposed ordinances (Table V-1) and would not result in an increase in the use of paper carryout bags. However, a ban on the issuance of both plastic and paper carryout bags is infeasible because the County prefers an option at this time for consumers to purchase carryout bags. The County anticipates a certain transition period for consumers to become aware of and adapt to the recommended ordinances, particularly to remember to take and use reusable bags at affected stores. In addition, visitors to the County may not be aware of recommended ordinances and may not know to take and use reusable bags at affected by Alternative 1 (compared to Alternatives 3, 4, or 5), the alternative would not produce the additional benefits to biological resources that would result from banning the issuance of plastic bags at a greater number of stores. For the same reason, the alternative would not provide as large of a reduction in litter that is attributable to plastic carryout bags. Therefore, it would also not provide a comparable opportunity for reduction of costs related to litter prevention, cleanup, and disposal of plastic carryout bags, nor a comparable reduction in litter that blights public spaces.

V.C ALTERNATIVE 2: BAN PLASTIC CARRYOUT BAGS AND IMPOSE A FEE ON PAPER CARRYOUT BAGS IN LOS ANGELES COUNTY

Description of Alternative

Alternative 2 would extend the scope of the proposed ordinances to include a fee on the issuance of paper carryout bags in Los Angeles County, and encouraging the 88 incorporated cities to adopt similar proposed ordinances. Alternative 2 would require a fee for issuance of paper carryout bags by

the same stores addressed by the proposed ordinances, that is, those within the County that (1) meet the definition of a "supermarket" as found in the California Public Resources Code, Section 14526.5, and (2) are buildings that have over 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and have a pharmacy licensed pursuant to Chapter 9 of Division 2 of the Business and Professions Code. As with the proposed ordinances, the number of stores that could be affected by Alternative 2 in the unincorporated areas of the County is approximately 67.³ The number of stores that could be affected by Alternative 2 in the incorporated cities of the County is approximately 462.⁴

As with the proposed ordinances and as discussed in detail in Section 4.2.3 of the EIR, Alternative 2 would not result in significant adverse impacts to air quality, biological resources, hydrology and water quality, and utilities and service systems, and would achieve additional benefits. Alternative 2 would be expected to result in a minimal transition from plastic to paper carryout bags due to a fee on the issuance of paper carryout bags, and therefore in comparison with the proposed ordinances would eliminate, reduce, or avoid impacts to air quality, biological resources, hydrology and water quality, and utilities and service systems. However, because it is not possible to know the exact percentage of increase from plastic to paper carryout bags under Alternative 2, the indirect impacts from the life cycle of paper carryout bags may be cumulatively considerable, depending on the actual percentage increase despite the presence of a fee.

Effectiveness in Meeting Project Objectives

As shown in Table V-1, Alternative 2 would meet all of the objectives of the proposed ordinances identified by the County. In addition, Alternative 2 would also serve to reduce the Countywide consumption of paper carryout bags and the Countywide disposal of paper carryout bags in landfills.

Comparison of Effects of the Alternative to Effects of the Project

The regulatory framework and existing conditions would be the same as that described for the proposed ordinances. A summary comparison of this alternative to effects of the ordinances is presented in Table V-2. The analysis presented in the table shows that this alternative would be anticipated to result in positive impacts to air quality, hydrology and water quality, and utilities and service systems when compared with the proposed ordinances.

Finding:

The Board of Supervisors finds that specific economic, legal, social, technological, or other considerations make this alternative infeasible and therefore rejects this alternative.

Rationale:

Alternative 2 meets all of the basic objectives of the proposed ordinances (Table V-1). Alternative 2 would also be expected to reduce consumption of paper carryout bags through

³ As a result of the voluntary Single Use Bag Reduction and Recycling Program, the County has determined that 67 stores in unincorporated areas would be affected by the proposed County ordinance.

⁴ Number of stores in the 88 incorporated cities of the County was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110 and 446110 with a gross annual sales volume of \$2 million or higher and a square footage of 10,000 square feet or greater. Accessed on: 29 April 2010.

implementation of a fee. However, due to the limited number of stores that Alternative 2 would affect (compared to Alternatives 3, 4, or 5), it would not provide the additional benefits to biological resources that would result from banning the issuance of plastic bags at a greater number of stores. For the same reason, it would not provide as large of a reduction in litter attributable to plastic carryout bags. Therefore, it would also not provide a comparable opportunity for reduction of costs related to litter prevention, cleanup, and disposal, nor a comparable reduction in litter that blights public spaces.

V.D ALTERNATIVE 3: BAN PLASTIC CARRYOUT BAGS FOR ALL SUPERMARKETS AND OTHER GROCERY STORES, CONVENIENCE STORES, PHARMACIES, AND DRUG STORES IN LOS ANGELES COUNTY

Description of Alternative

Alternative 3 would extend the scope of the proposed ordinances to apply to all supermarkets and other grocery stores, convenience stores, pharmacies and drug stores, but not including restaurant establishments. Alternative 3 would ban the issuance of plastic carryout bags from stores within the County that (1) meet the definition of a "supermarket" as found in the California Public Resources Code, Section 14526.5, and (2) are buildings that have retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and have a pharmacy licensed pursuant to Chapter 9 of Division 2 of the Business and Professions Code. In addition, Alternative 3 would apply to stores within the County that are part of a chain of convenience food stores, supermarkets and other grocery stores, convenience stores, pharmacies and drug stores in the County. The number of stores that could be affected by Alternative 3 in the unincorporated areas of the County is approximately 1,091.⁵ The number of stores that could be affected by Alternative 3 in the incorporated cities of the County is approximately 5,084.⁶ It was assumed that each store larger than 10,000 square feet currently uses approximately 10,000 plastic carryout bags per day,⁷ and each store smaller than 10,000 square feet currently uses approximately 5,000 plastic carryout bags per day.⁸ It is important to note that these numbers are likely very high, as 10,000 plastic carryout bags per day is more than twice the bag average reported by the California Department of Resources Recycling and Recovery (CalRecycle) in 2008 for AB 2449 affected stores. In 2008, 4,700 stores statewide affected

⁵ Number of stores in the unincorporated territories of the County was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110, 445120, and 446110 with no filters for gross annual sales volume or square footage. Accessed on: 29 April 2010.

⁶Number of stores in the 88 incorporated cities of the County was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110, 445120, and 446110 with no filters for gross annual sales volume or square footage. Accessed on: 29 April 2010.

⁷ Based on coordination between the County Department of Public Works and several large supermarket chains in the County, it was determined that approximately 10,000 plastic carryout bags are used per store per day. Due to confidential and proprietary concerns, and at the request of the large supermarket chains providing this data, the names of these large supermarket chains will remain confidential. Reported data from only 12 stores reflected a total plastic carryout bags and rounded to approximately 10,000 bags per day.

⁸Data from the infoUSA indicates that approximately 40 percent of the stores larger than 10,000 square feet in the unincorporated territories of the County are larger than 40,000 square feet. Therefore, the average size of the stores to be affected by the proposed County ordinance would be larger than 20,000 square feet. Accordingly, it would be reasonable to estimate that the stores smaller than 10,000 square feet that would be affected by Alternative 3 would be at less than half the size of the stores to be affected by the proposed ordinances and would use less than half the number of bags.

by AB 2449 reported an average of 4,695 bags used per store per day.⁹ While 10,000 plastic carryout bags per store per day may not accurately reflect the actual number of bags consumed per day on average for stores larger than 10,000 square feet in the County unincorporated and incorporated areas, for the purposes of the EIR, this number was used to conservatively evaluate impacts resulting from a worst-case scenario. The same may also be true of the 5,000 plastic carryout bags per store per day estimate for stores less than 10,000 square feet. While the 5,000 plastic carryout bags per store per day may likely be very high, this number was used for the purposes of the EIR to conservatively evaluate impacts resulting from a worst-case scenario.

As with the proposed ordinances and as discussed in detail in Section 4.2.4 of the EIR, Alternative 3 would not result in significant adverse impacts to air quality, biological resources, or hydrology and water quality, and would achieve additional benefits. In that there would be an increased reduction in the consumption of plastic carryout bags, corresponding adverse impacts to air quality, biological resources, GHG emissions, hydrology and water quality, and utilities and service systems due to plastic carryout bags would be eliminated, reduced, or avoided. However, due to a likely increase in the demand for paper carryout bags, indirect impacts to air quality, biological resources, GHG emissions, hydrology and utilities and service systems due to paper carryout bags may be increased. As with the proposed ordinances, indirect GHG emission impacts due to the life cycle of paper carryout bags may have the potential to be cumulatively considerable.

Effectiveness in Meeting Project Objectives

As shown in Table V-1, Alternative 3 would meet all six objectives identified by the County.

Comparison of Effects of the Alternative to Effects of the Project

The regulatory framework and existing conditions would be the same as that described for the proposed ordinances. A summary comparison of this alternative to effects of the proposed ordinances is presented in Table V-2. The analysis presented in the table shows that this alternative would be anticipated to result in positive impacts to biological resources when compared to the proposed ordinances.

Finding:

The Board of Supervisors finds that specific economic, legal, social, technological, or other considerations make this alternative infeasible and therefore rejects this alternative.

Rationale:

This alternative meets all of the basic objectives of the proposed ordinances (Table V-1). However, as with the proposed ordinances, and consistent with the County's evaluation of impacts due to paper carryout bags under a conservative worst-case scenario, Alternative 3 may have the potential to result in cumulatively considerable indirect impacts to GHG emissions because it would not limit the issuance of paper carryout bags. It would also cause greater impacts to air quality, hydrology and water quality, and utilities and public services, than the proposed ordinances would cause, even though those impacts are below the level of significance.

⁹ Dona Sturgess, California Department of Resources Recycling and Recovery, Sacramento, CA. 29 April 2010. E-mail to Luke Mitchell, County of Los Angeles, Department of Public Works, Alhambra, CA.
V.E ALTERNATIVE 4: BAN PLASTIC AND PAPER CARRYOUT BAGS FOR ALL SUPERMARKETS AND OTHER GROCERY STORES, CONVENIENCE STORES, PHARMACIES, AND DRUG STORES IN LOS ANGELES COUNTY

Description of Alternative

Alternative 4 would extend the scope of the proposed ordinances to apply to all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores (as opposed to applying only to stores larger than 10,000 square feet under the proposed ordinances), but not including restaurant establishments. Alternative 4 would ban the issuance of plastic and paper carryout bags from stores within the County that (1) meet the definition of a "supermarket" as found in the California Public Resources Code, Section 14526.5, and (2) are buildings that generate sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and have a pharmacy licensed pursuant to Chapter 9 of Division 2 of the Business and Professions Code. In addition, Alternative 4 would apply to stores within the County that are part of a chain of convenience food stores, all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores in Los Angeles County.

As with the proposed ordinances and as discussed in detail in Section 4.2.4 of the EIR, Alternative 4 would not result in significant adverse impacts to air quality, biological resources, hydrology and water quality, and utilities and service systems, and would achieve additional benefits. In that there would be an increased reduction in the consumption of plastic carryout bags, corresponding adverse impacts to air quality, biological resources, GHG emissions, hydrology and water quality, and utilities and service systems due to plastic carryout bags would be eliminated, reduced, or avoided. Unlike the proposed ordinances, Alternative 4 would not have the potential to result in cumulatively considerable impacts to GHG emissions.

Alternative 4 would affect approximately 1,091 stores in the unincorporated areas of the County and approximately 5,084 stores in the incorporated cities of the County.¹⁰,¹¹ It was assumed that each store larger than 10,000 square feet currently uses approximately 10,000 plastic carryout bags per day,¹² and each store smaller than 10,000 square feet currently uses approximately 5,000 plastic carryout bags per day.¹³ It is important to note that these numbers are likely very high, as 10,000 plastic carryout bags per day is more than twice the bag average reported by the California Department of Resources Recycling and Recovery in 2008 for AB 2449 affected stores. In 2008, 4,700 stores

¹⁰ Number of stores in the unincorporated territories of the County was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110, 445120, and 446110 with no filters for gross annual sales volume or square footage. Accessed on: 29 April 2010.

¹¹Number of stores in the 88 incorporated cities of the County was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110, 445120, and 446110 with no filters for gross annual sales volume or square footage. Accessed on: 29 April 2010.

¹² Based on coordination between the County Department of Public Works and several large supermarket chains in the County, it was determined that approximately 10,000 plastic carryout bags are used per store per day. Due to confidential and proprietary concerns, and at the request of the large supermarket chains providing this data, the names of these large supermarket chains will remain confidential. Reported data from only 12 stores reflected a total plastic carryout bags and rounded to approximately 10,000 bags per day.

¹³Data from the infoUSA indicates that approximately 40 percent of the stores larger than 10,000 square feet in the unincorporated territories of the County are larger than 40,000 square feet. Therefore, the average size of the stores to be affected by the proposed County ordinance would be larger than 20,000 square feet. Accordingly, it would be reasonable to estimate that the stores smaller than 10,000 square feet that would be affected by Alternative 3 would be at less than half the size of the stores to be affected by the proposed ordinances and would use less than half the number of bags.

statewide affected by AB 2449 reported an average of 4,695 bags used per store per day.¹⁴ While 10,000 plastic carryout bags per store per day may not accurately reflect the actual number of bags consumed per day on average for stores larger than 10,000 square feet in the County unincorporated and incorporated areas, for the purposes of the EIR, this number was used to conservatively evaluate impacts resulting from a worst-case scenario. The same may also be true of the 5,000 plastic carryout bags per store per day estimate for stores less than 10,000 square feet. While the 5,000 plastic carryout bags per store per day may likely be very high, for the purposes of the EIR, this number was used to conservatively evaluate impacts resulting from a worst-case scenario as well.

Effectiveness in Meeting Project Objectives

As shown in Table V-1, Alternative 4 would meet all of the six objectives identified by the County. In addition, Alternative 4 would also serve to reduce the Countywide consumption of paper carryout bags and the Countywide disposal of paper carryout bags in landfills.

Comparison of Effects of the Alternative to Effects of the Project

The regulatory framework and existing conditions would be the same as that described for the proposed ordinances. A summary comparison of this alternative to effects of the proposed ordinances is presented in Table V-2. The analysis presented in the table shows that this alternative would be anticipated to result in positive impacts to air quality, biological resources, GHG emissions, hydrology and water quality, and utilities and service systems when compared to the proposed ordinances.

Finding:

The Board of Supervisors finds that specific economic, legal, social, technological, or other considerations make this alternative infeasible and therefore rejects this alternative.

Rationale:

This alternative meets all of the basic objectives of the proposed ordinances (Table V-1) and would not result in any increase in the use of paper carryout bags. However, a ban on the issuance of both plastic and paper bags is infeasible at this time because the County prefer to retain an option for consumers to purchase carryout bags. The County anticipates a transition period for consumers to become aware of and adapt to the recommended ordinances, particularly to remember to take and use reusable bags at affected stores. In addition, visitors to the County may not be aware of recommended ordinances and may not know to take and use reusable bags at affected stores at affected stores in the County.

¹⁴ Dona Sturgess, California Department of Resources Recycling and Recovery, Sacramento, CA. 29 April 2010. E-mail to Luke Mitchell, County of Los Angeles, Department of Public Works, Alhambra, CA.

V.F ALTERNATIVE 5: BAN PLASTIC CARRYOUT BAGS AND IMPOSE A FEE ON PAPER CARRYOUT BAGS FOR ALL SUPERMARKETS AND OTHER GROCERY STORES, CONVENIENCE STORES, PHARMACIES, AND DRUG STORES IN LOS ANGELES COUNTY

Description of Alternative

To maximize to the greatest extent feasible the potential environmental benefit from a fee on the issuance of paper carryout bags, and to mitigate GHG-related impacts from a shift to paper carryout bag use, the County developed Alternative 5, which combines Alternatives 2, 3, and 4. Like Alternatives 3 and 4, Alternative 5 will affect all supermarkets and other grocery stores, pharmacies, drug stores, and convenience stores in the County, with no limits on square footage or sales volumes. Like Alternative 2, Alternative 5 will ban the issuance of plastic carryout bags and place a fee on the issuance of paper carryout bags at affected stores. Alternative 5 will ban the issuance of plastic carryout bags and impose a fee or charge of at least \$0.05 on the issuance of paper carryout bags from stores within the County that (1) meet the definition of a "supermarket" as written in the California Public Resources Code, Section 14526.5, and (2) are buildings that have retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and have a pharmacy licensed pursuant to Chapter 9 of Division 2 of the Business and Professions Code. In addition, Alternative 5 will apply to other grocery stores, convenience stores, and drug stores within the County. Alternative 5, like Alternative 3 and 4, which included the same broader range of stores, will include a phased approach in that it will apply to large grocery stores and pharmacies prior to smaller grocery stores, convenience stores, and drug stores.

Alternative 5 will affect approximately 1,091 stores in the unincorporated areas of the County and approximately 5,084 stores in the incorporated cities of the County.^{15,16} This is the same number of stores analyzed for Alternatives 3 and 4. It is assumed that each store larger than 10,000 square feet currently uses approximately 10,000 plastic carryout bags per day.¹⁷ and that each store smaller than 10,000 square feet currently uses approximately 5,000 plastic carryout bags per day.¹⁸ It is important to note that these numbers are very high, as 10,000 plastic carryout bags per day is more than twice the bag average reported by CalRecycle in 2008 for AB 2449 affected stores. In 2008, 4,700 stores

¹⁵ Number of stores in the unincorporated territories of the County was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110, 445120, and 446110 with no filters for gross annual sales volume or square footage. Accessed on: 29 April 2010.

¹⁶ Number of stores in the 88 incorporated cities of the County was determined from the infoUSA database for businesses with North American Industry Classification System codes 445110, 445120, and 446110 with no filters for gross annual sales volume or square footage. Accessed on: 29 April 2010.

¹⁷ Based on coordination between the County Department of Public Works and several large supermarket chains in the County, it was determined that approximately 10,000 plastic carryout bags are used per store per day. Due to confidential and proprietary concerns, and at the request of the large supermarket chains providing this data, the names of these large supermarket chains will remain confidential. Reported data from only 12 stores reflected a total plastic carryout bags and rounded to approximately 10,000 bags per day.

¹⁸ Data from the infoUSA indicates that approximately 40 percent of the stores greater than 10,000 square feet in the unincorporated territories of the County are larger than 40,000 square feet. Therefore, the average size of the stores to be affected by the proposed County ordinance would be greater than 20,000 square feet. Accordingly, it would be reasonable to estimate that the stores smaller than 10,000 square feet that would be affected by Alternative 5 would be at less than half the size of the stores to be affected by the proposed ordinances and would use less than half the number of bags.

throughout California affected by AB 2449 reported using an average of 4,695 bags per store per day.¹⁹ While 10,000 plastic carryout bags per store per day may not accurately reflect the actual number of bags consumed per day on average for stores larger than 10,000 square feet in the County, for the purposes of this EIR this number was used to conservatively evaluate impacts resulting from such a worst-case scenario. The same may also be true of the estimate of 5,000 plastic carryout bags per store per day for stores smaller than 10,000 square feet. While this estimate is likely very high, this number was used for the purposes of this EIR to conservatively evaluate impacts resulting from such a worst-case scenario as well.

As with the proposed ordinances, Alternative 5 will not result in significant adverse impacts to air quality, biological resources, or hydrology and water quality. Alternative 5 will achieve additional benefits due to a greater reduction in the use of plastic carryout bags. Alternative 5 will lead to a greater reduction in the consumption of plastic carryout bags as a result of including a greater number of stores than the proposed ordinances; therefore, life cycle impacts of plastic carryout bags to air quality, biological resources, GHG emissions, hydrology and water quality, and utilities and service systems will be eliminated, reduced, or avoided in comparison with the proposed ordinances. A minimal transition, as discussed below, from plastic to paper carryout bags will be expected to occur if a fee or charge were placed on the issuance of paper carryout bags. Alternative 5 impacts due to the life cycle impacts of paper carryout bags will be less than the impacts of Alternative 3, which would ban plastic carryout bags at the expanded number of stores without imposing a fee or ban on the issuance of paper carryout bags.

Effectiveness in Meeting Project Objectives

As shown in Table V-1, Alternative 5 meets all of the basic objectives of the proposed ordinances established by the County. In addition, Alternative 5 will also serve to reduce Countywide consumption of paper carryout bags and the Countywide disposal of paper carryout bags in landfills.

Comparison of Effects of the Alternative to Effects of the Project

The regulatory framework and existing conditions will be the same as that described for the proposed ordinances. Table V-2 provides a summary comparison of Alternative 5 to the proposed ordinances. The comparative analysis presented in the table shows that Alternative 5 will result in positive impacts to air quality, biological resources, hydrology and water quality, and utilities and service systems.

Finding:

The Board of Supervisors finds that this alternative is feasible.

Rationale:

This alternative meets all of the basic objectives of the proposed ordinances (Table V-1). The fee or charge on the issuance of paper carryout bags will allow for flexibility during the anticipated transition period that the County anticipates for consumers to become aware of and adapt to the recommended ordinances, particularly to remember to take and use reusable bags at affected stores, and for visitors to become aware of the recommended ordinances. Further,

¹⁹ Dona Sturgess, California Department of Resources Recycling and Recovery, Sacramento, CA. 29 April 2010. E-mail to Luke Mitchell, County of Los Angeles, Department of Public Works, Alhambra, CA.

because the Alternative 5 will affect a larger number of stores, it will be expected to afford additional benefits to biological resources because it will reduce plastic carryout bag litter, to the greatest extent feasible, that would otherwise end up in wildlife habitats. The alternative will provide for a larger reduction in litter attributable to plastic carryout bags; a greater opportunity for reducing costs related to litter prevention, cleanup, and disposal; and a greater improvement to the quality of life for County residents by reducing litter that blights public spaces.

V.G PROPOSED ORDINANCES (ORIGINALLY PROPOSED PROJECT)

Description of Proposed Ordinances

The proposed ordinances would ban the issuance of plastic carryout bags in the County, and would encourage the 88 incorporated cities to adopt similar ordinances. The proposed ordinances would ban the distribution of plastic carryout bags at affected stores within the County that (1) meet the definition of a "supermarket" as found in the California Public Resources Code, Section 14526.5, and (2) are buildings that have over 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law and have a pharmacy licensed pursuant to Chapter 9 of Division 2 of the Business and Professions Code. The proposed ordinances would affect approximately 67 stores in the incorporated cities of the County and approximately 462 stores in the unincorporated territory of the County.

As discussed in detail in the EIR, including in Sections 3.0 and 13.0, the proposed ordinances would not result in significant adverse impacts to air quality, biological resources, hydrology and water quality, and utilities and service systems, and would achieve additional benefits. However, under the County's conservative worst-case scenario, the indirect impacts from the life cycle of paper carryout bags, including end of life, would have the potential to be cumulatively considerable.

Effectiveness in Meeting Project Objectives

As shown in Table V-1, the proposed ordinances would meet all of the objectives identified by the County.

Finding:

The Board of Supervisors finds that specific economic, legal, social, technological, or other considerations make the proposed ordinances infeasible and therefore rejects the originally proposed ordinances.

Rationale:

The originally proposed ordinances meet all of the basic objectives (Table V-1). However, due to the limited number of stores that they would affect (compared to Alternatives 3, 4, or 5), the proposed ordinances would not provide the additional benefits to biological resources that would result from banning the issuance of plastic bags at a greater number of stores (as would Alternative 5). For the same reason, the proposed ordinances would not provide the largest reduction in litter attributable to plastic carryout bags; would not provide the greatest opportunity for reducing costs related to litter prevention, cleanup, and disposal; and would not provide the greatest public spaces.

SECTION VI FINDINGS REGARDING MITIGATION MONITORING PROGRAM

VI.A REQUIREMENTS OF MITIGATION MONITORING PROGRAM

Pursuant to Section 21081.6 of the Public Resources Code, when a public agency is making findings required by Section 21081, it must adopt a reporting or monitoring program for the changes made to the project or conditions of project approval adopted to mitigate or avoid significant effects on the environment.

The County hereby finds that the Mitigation Monitoring Program meets the requirements of Section 21081.6 of the Public Resources Code by providing a monitoring program designed to ensure compliance of the recommended County ordinance with mitigation measures adopted by the County.

VII.A LOCATION AND CUSTODIAN OF DOCUMENTS

Section 15091(e) of the California Code of Regulations, State CEQA Guidelines, requires the public agency to specify the location and custodian of the documents or other materials that constitute the record of proceedings upon which the decision is based. Section 10.0, References, of the EIR lists all sources used in the preparation of the environmental analysis. Unless otherwise noted, reference materials are located at the LACDPW, which shall also serve as the custodian of the documents constituting the record of proceedings upon which the County Board of Supervisors has based its decision related to the proposed ordinances. The designated location and custodian of documents is as follows:

County of Los Angeles c/o Department of Public Works Attn: Mr. Coby Skye Environmental Programs Division 900 South Fremont Avenue, 3rd Floor Alhambra, California 91803 Tel: (626) 458-5163

References not available from the LACDPW are located at Sapphos Environmental, Inc., and can be reviewed by contacting the following party:

Dr. Laura Watson Environmental Compliance Specialist Sapphos Environmental, Inc. 430 North Halstead Street Pasadena, California 91107 Tel: (626) 683-3547

SECTION VIII CERTIFICATION REGARDING INDEPENDENT JUDGMENT

Pursuant to Section 21082.1(c) of the Public Resources Code, the County Board of Supervisors certifies that the Chief Executive Office, the LACDPW, and other County staff, have independently reviewed and analyzed the Final EIR on behalf of the County of Los Angeles. The Chief Executive Office, LACDPW, and other County staff reviewed the Draft EIR prepared by the County and required changes to the document prior to circulation for public review. The Draft EIR that was circulated for public review reflected the independent judgment of the Chief Executive Office and LACDPW, acting on behalf of the County of Los Angeles. The Final EIR similarly has been subject to review and revision by County staff and reflects the independent judgment of the County of Los Angeles.

As discussed in detail in Section 4.2.6 of the EIR, the indirect impacts from implementation of the recommended ordinances (analyzed as Alternative 5) will result in increased indirect GHG emissions from the decomposition of paper carryout bags in landfills, which will result in cumulatively significant impacts under the County's conservative worst-case analysis. This indirect impact is the only potentially significant impact that will result from Alternative 5. The EIR identified mitigation measure GHG-1 to mitigate GHG emission impacts from the recommended ordinances. While the implementation of mitigation measure GHG-1 will monitor and reduce the consumption of paper carryout bags and, to the maximum extent feasible, indirectly offset end-of-life GHG emissions resulting from the recommended ordinance, the County has decided that no emission reduction credits will be taken for the measure, and for the purposes of the decision-making process, the County will proceed with the conclusion that indirect impacts to end-of-life GHG emissions will remain cumulatively considerable.

Section 15093 of State CEQA Guidelines states that, when a public agency approves a project that will result in unavoidable significant impacts, it must state in writing specific reasons to support its decision. If specific economic, legal, social, technological, or other benefits of the project outweigh its unavoidable adverse environmental effects, the adverse effects may be considered "acceptable." Pursuant to Public Resources Code Section 21081(b) and Section 15093 of the State CEQA Guidelines, the Board of Supervisors has considered the benefits of the project along with the unavoidable environmental risks, and has adopted all feasible mitigation measures for the unavoidable significant impact. The Board of Supervisors has also examined a range of reasonable alternatives to the project, and has determined that adoption and implementation of the recommended ordinance (analyzed as Alternative 5) is the most desirable, feasible, and appropriate action. The County Board of Supervisors, as the lead agency for the project pursuant to CEQA, has determined that the economic and environmental benefits of the recommended ordinance outweigh the unavoidable adverse environmental effects resulting from the County's conservative worst-case scenario, and adopts the following Statement of Overriding Considerations.

The Board of Supervisors finds that each of the following benefits is an overriding consideration, independent of the other benefits, which warrants approval of the recommended County ordinance. Substantial evidence in the record supports this conclusion, and can be found in the preceding findings, EIR, Record of Proceedings documentation, and public hearings and proceedings for ordinances.

IX.A ADVERSE ENVIRONMENTAL RISKS

Section 3.3 and Section 4.0 of the EIR identified and evaluated potentially significant cumulative impacts related to GHG emissions. Based on a conservative worst-case analysis, the indirect impacts to GHG emissions from the end-of-life of paper carryout bags may have the potential to be cumulatively considerable, depending on the actual percentage increase in conversion to paper carryout bags, the number of stores affected, the actual bag usage per day, the size of the fee or charge, and other relevant factors that are specific to each of the 88 incorporated cities within the County. In the development of this EIR, the County has recognized and acknowledged that each city has the authority to render an independent decision regarding implementation of its own ordinance. For the purposes of this EIR, the County has extended the worst-case scenario for the

County ordinance and alternatives to a scenario where all 88 cities adopt comparable ordinances. However, an individual determination, including for cumulative impacts, for each city would be contingent on the exact parameters of the city's proposed ordinance, consideration of the aboveidentified factors, the city's adopted thresholds of significance, and its projected AB 32 GHG emissions target.

Although the decomposition of paper carryout bags in landfills results in emissions of methane gas, a GHG, it is important to note that the results presented in the EIR are highly conservative and are likely to be overestimates for the County, as emissions from active landfills in the County are strictly controlled by SCAQMD Rule 1150.1, AVAQMD Rule 1150.1, and the new State requirements that regulate methane emissions from landfills in accordance with the goals of AB 32. The USEPA's Landfill Methane Outreach Program states that methane collection efficiency ranges from 60 to 90 percent.^{1,2}

The conclusion that GHG emissions from the decomposition of paper carryout bags in landfills is expected to be cumulatively considerable is based on the County's conservative assumption of a 50-percent conversion from plastic carryout bags to paper carryout bags. However, if the paper carryout bag fee has the effect of decreasing conversion to paper carryout bags by 80 to 90 percent, similar to what occurred with the Ireland and Washington, DC, bag fees, indirect impacts to GHG emissions would be reduced. Although implementation of a fee of \$0.10 on the issuance of paper carryout bags, the recommended ordinances are expected to result in a limited increase in the use of paper carryout bags, so GHG emission impacts will still have the potential to remain as significantly adverse on a cumulative level.

The EIR analyzed Alternatives 1 and 4, which would ban the issuance of paper carryout bags and therefore would avoid any potentially significant cumulative GHG emission impacts due to a potential increase in disposal of paper carryout bags. However, County determined that a ban on the issuance of both plastic and paper carryout bags is infeasible at this time because the County requires an option for consumers to purchase carryout bags at this time. The County anticipates a certain transition period for consumers to become aware of and adapt to the recommended ordinances, particularly to remember to use reusable bags at affected stores. In addition, visitors to the County may not be aware of recommended ordinances and may not know to take and use reusable bags at affected stores in the County.

The economic and environmental benefits, as well as public policy considerations, resulting from implementation of the recommended ordinances override the potential cumulative indirect impacts associated with GHG emissions. Implementation of a fee on the issuance of paper carryout bags will minimize the number of paper carryout bags used in the County, as well as any corresponding GHG emissions due to the decomposition of paper carryout bags in landfills. The recommended ordinances will require each affected store to issue a quarterly report of the total number of paper carryout bags sold along with a summary of efforts, if any, undertaken by the store to promote the use of reusable bags. The County will keep records of these reports to ensure that consumers in the County are using fewer carryout bags and more reusable bags as a result of the recommended

¹ California Air Resources Board. 17 June 2010. *Methane Emissions from Municipal Solid Waste Landfills*. Available at: http://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf

² U.S. Environmental Protection Agency. Accessed on: 7 October 2010. "Landfill Methane Outreach Program." Web site. Available at: http://www.epa.gov/lmop/basic-info/index.html#a03

ordinances. The County will also use the reports to assess whether the desired effects of the recommended ordinances are being obtained. As part of mitigation measure GHG-1, the County will also implement and/or expand public outreach through an education program to increase the percentage of paper carryout bags that are diverted from landfills. There is nearly universal access to curbside recycling throughout the County, where paper bags can be recycled by homeowners conveniently. Additional public education and outreach would increase the number of bags recycled and further reduce indirect impacts to GHG emissions. Any remaining cumulative GHG emission impacts are overridden by the purpose of the recommended ordinances to substantially reduce the operational costs and environmental impacts associated with the use of plastic carryout bags in the County.

IX.B OVERRIDING CONSIDERATIONS

The recommended ordinances are consistent with the County's commitment to environmental stewardship. The County determined that the economic and environmental benefits of implementing the recommended ordinances, as discussed below, outweigh and override the one adverse effect of the recommended ordinances, and any effect remaining after mitigation is deemed acceptable due to several overriding considerations.

It is a benefit that the recommended ordinances will assist the County in meeting all six of its basic objectives, which aim to reduce plastic carryout bag use and the associated litter that is found throughout the County:

- The recommended ordinances include outreach to all 88 incorporated cities of the County to encourage adoption of comparable ordinances.
- The recommended ordinances will assist in reducing the Countywide consumption of plastic carryout bags from the current estimate of 1,600 plastic carryout bags per household in 2007 to fewer than 800 plastic bags per household in 2013.
- The recommended ordinances will assist in reducing by 50 percent by 2013 the Countywide contribution of plastic carryout bags to litter that blights the County's public spaces.
- The recommended ordinances will assist in reducing by \$4 million the County's, cities', and Flood Control District's costs for prevention, cleanup, and enforcement efforts to reduce litter in the County.
- The recommended ordinances will assist in substantially increasing awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the population) with an environmental awareness message.
- The recommended ordinances will assist in reducing Countywide disposal of plastic carryout bags in landfills by 50 percent from 2007 annual amounts.

The benefit that the recommended ordinances meet the County's basic objectives in conjunction with additional benefits described below outweigh and override the adverse environmental effect identified in the EIR.

Economic Considerations

It is a benefit that the recommended ordinances will help to reduce the costs associated with plastic carryout bag litter, and this consideration alone outweighs and overrides the one adverse

effect identified in the EIR. The recommended ordinances will help to reduce the amount of litter in the County attributable to plastic carryout bags and the associated costs to government for litter prevention, cleanup, and enforcement efforts. Research conducted by the LACDPW found that approximately 6 billion plastic carryout bags are consumed in the County each year, which is equivalent to approximately 1,600 bags per household per year.^{3,4,5} California public agencies spend more than \$375 million each year for litter prevention, cleanup, and disposal. In the County, specifically, the County Flood Control District alone exhausted \$24 million of these public funds in 2008–2009 (the most recent data available), while LACDPW expended additional resources separate from and in addition to state funds to address litter.^{6,7} By banning the issuance of plastic carryout bags at all supermarkets and other grocery stores, convenience stores, pharmacies, and drug stores in the County, the recommended ordinances will significantly reduce the number of plastic carryout bags used in the County, along with the associated litter attributable to plastic carryout bags.

Paper carryout bags are less likely than plastic carryout bags to be littered and to end up in storm water runoff because they are heavier (anywhere from 6 to 10 times) than plastic bags, and are therefore less likely to become airborne and scattered as litter.⁸ Survey data received by LACDPW staff indicate that plastic carryout bag litter is a major operational problem for landfills within the County's incorporated and unincorporated areas. Landfill operators noted that plastic bags cause serious litter issues due to their lightweight nature and propensity to become airborne.⁹ Each survey respondent indicated that it was costly and time consuming to provide cleanup crews to address the plastic bag litter problem in neighborhoods in County's unincorporated and incorporated areas that are adjacent to these landfills.¹⁰

Unlike regular plastic, paper is biodegradable and compostable; the paper used to make standard paper carryout bags is originally derived from wood pulp, which is a naturally biodegradable material.¹¹ Due to the biodegradable properties of paper, paper bags do not persist in the marine environment for as long as plastic bags.¹² A study performed in Washington, DC, showed that plastic bag trash accounted for 45 percent of the trash collected in tributary streams, and was the

⁸ Cadman, J., S. Evans, M. Holland, and R. Boyd. 2005. *Proposed Plastic Bag Levy – Extended Impact Assessment Final Report*. Prepared for: Scottish Executive.

⁹ County of Los Angeles Department of Public Works. 2007. Survey: All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles. Los Angeles, CA.

¹⁰ County of Los Angeles Department of Public Works. 2007. Survey: All Solid Waste Facilities: Plastic Bag Analysis for the County of Los Angeles. Los Angeles, CA.

¹¹ County of Los Angeles, Department of Public Works. Accessed on: 28 April 2010. *Backyard Composting*. Web site. Available at: http://dpw.lacounty.gov/epd/sg/bc.cfm

¹² Andrady, Anthony L. and Mike A. Neal. 2009. "Applications and Societal Benefits of Plastics." In *Philosophical Transactions of the Royal Society B: Biological Sciences,* 364: 1977–1984.

³ California Integrated Waste Management Board. 12 June 2007. Board Meeting Agenda, Resolution: Agenda Item 14. Sacramento, CA.

⁴ U.S. Census Bureau. 2000. "State & County Quick Facts: Los Angeles County, California." Web site. Available at: http://quickfacts.census.gov/qfd/states/06/06037.html

⁵ At an average of slightly fewer than three persons per household

⁶ California Department of Transportation. Accessed: September 2009. "Facts at a Glance." *Don't Trash California*. Available at: http://www.donttrashcalifornia.info/pdf/Statistics.pdf

⁷ County of Los Angeles. October 2009. Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

most abundant type of trash in the streams, probably due to the amount of brush and vegetation in streams that can snag the bags. More than 20 percent of the trash in rivers was also attributed to plastic bags. Paper products were not found in the streams except in localized areas, and were not present downstream. The study stated that political action to eliminate the use of free plastic carryout bags would effectively remove a significant portion of trash from streams and rivers.¹³ The recommended ordinance will remove a significant source of litter from the County, thereby improving the quality of life for Los Angeles residents by reducing litter that blights public spaces and reducing the costs of litter cleanup.

Environmental Considerations

It is a benefit that the recommended ordinances will help to reduce the environmental impacts associated with plastic carryout bag use, and this consideration alone outweighs and overrides the one adverse environmental effect identified in the EIR. The County has approximately 75 miles of shoreline along the Pacific Ocean, into which the County's storm drain and flood control system empties. The CIWMB estimates that approximately 147,038 tons of plastic grocery and other merchandise bags were disposed of in California in 2003, about 0.4 percent of the state's overall waste stream by weight.¹⁴ CIWMB states, "plastic film, especially grocery bags, constitutes a high percentage of litter, which is unsightly, costly to clean up, especially when it enters marine environments, and causes serious negative impacts to shore birds and sea life."¹⁵ The CIWMB estimates that approximately 3.9 percent of plastic waste can be attributed to plastic carryout bags related to grocery and other merchandise. Several organizations have studied the effects of plastic litter: Caltrans conducted a study on freeway storm water litter;¹⁶ the Friends of Los Angeles River conducted a waste characterization study on the Los Angeles River;¹⁷ the City of Los Angeles conducted a waste characterization study on 30 storm drain basins;¹⁸ and LACDPW conducted a trash reduction and a waste characterization study of street sweeping and trash capture systems near and within the Hamilton Bowl, located in Long Beach, California.¹⁹ These studies concluded that plastic film (including plastic bag litter) composed between 7 to 30 percent by mass and between 12 to 34 percent by volume of the total litter collected.²⁰

¹³ Anacostia Watershed Society. December 2008. *Anacostia Watershed Trash Reduction Plan*. Prepared for: District of Columbia Department of the Environment.

¹⁴ California Integrated Waste Management Board. December 2004. *Statewide Waste Characterization Study*. Sacramento, CA.

¹⁵ California Integrated Waste Management Board. Accessed on: 1 March 2010. *Plastic Film Cooperative Recycling Initiative. Problem Statement.* Available at: http://www.calrecycle.ca.gov/Plastics/Film/#Problem

¹⁶ Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 2001. *Results of the Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation. Available at: http://www.owp.csus.edu/research/papers/PP020.pdf

¹⁷ City of Los Angeles. 18 June 2004. *Characterization of Urban Litter*, p.1–5. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.

¹⁸ City of Los Angeles. 18 June 2004. *Characterization of Urban Litter*, p.1–5. Prepared by: Ad Hoc Committee on Los Angeles River and Watershed Protection Division. Los Angeles, CA.

¹⁹ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

²⁰ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

During the 2008 International Coastal Cleanup led by the Ocean Conservancy, 400,000 volunteers picked up 6.8 million pounds of trash from lakes, rivers, streams, and ocean beaches around the world. One in every 10 items collected was a plastic bag. Plastic bags accounted for 12 percent of the total number of items collected, with a total of 1,377,141, and were the second most prevalent form of marine debris collected during the cleanup, after cigarettes / cigarette filters.²¹

A survey by the National Marine Debris Monitoring Program, funded by the USEPA, used standardized methodology to monitor marine debris in the United States over a 5-year period. The most abundant debris items found during the survey were straws, plastic beverage bottles, and plastic bags. According to survey data, approximately 50 percent of all marine debris in the United States originates from land-based activities, and approximately 30 percent of all marine debris originates from general sources, including plastic bottles and plastic bags. Plastic bags with a seam of less than 1 meter in length made up 9 percent of the total number of items recorded.²² Furthermore, the survey saw a substantial increase in general-source items over the 5-year monitoring period, with an average annual increase of 5.4 percent.

Plastics break down into smaller pieces over time, eventually forming tiny particles of plastics called microplastics.²³ However, plastics are chemically resistant and do not biodegrade, so they persist in the marine environment.²⁴ A study of the coastal ocean conducted in 2002 near Long Beach, California, showed that on average there were eight pieces of plastic per cubic meter of coast. The average mass of plastic was 2.5 times greater than that of plankton, and was even greater after a storm.²⁵ Plastic fragments and plastic resin pellets used in the manufacture of plastic products can serve as vehicles for persistent organic pollutants such as polychlorinated biphenyls (PCB) and dichlorodiphenyltrichloroethan (DDT), which can cause adverse impacts to biological resources if ingested, including internal blockages and toxic poisoning.^{26,27,28,29}

As discussed in Section 3.2 of the EIR, according to the RWQCB for the Los Angeles Region, trash can be harmful to wildlife species, and plastic bags are one of the more common items of trash observed by RWQCB staff.³⁰ Seabirds, sea turtles, and marine mammals that feed at or near the ocean surface are especially prone to ingesting plastic debris that floats, and can die as a result of

²¹Ocean Conservancy. A Rising Tide of Ocean Debris and What We Can Do About It. International Coastal Cleanup 2009 Report. Available at: http://www.oceanconservancy.org/pdf/A_Rising_Tide_full_lowres.pdf

²² Sheavly, S.B. 2007. *National Marine Debris Monitoring Program: Final Program Report, Data Analysis and Summary*, 76 pp. Prepared by: Ocean Conservancy, Grant Number X83053401-02. Prepared for: U.S. Environmental Protection Agency, Washington, District of Columbia.

²³ Thompson, R. C. 7 May 2004. "Lost at Sea: Where Is All the Plastic?" In Science, 304 (5672): 843.

²⁴ Andrady, Anthony L. and Mike A. Neal. 2009. "Applications and Societal Benefits of Plastics." In *Philosophical Transactions of the Royal Society B: Biological Sciences,* 364: 1977–1984.

²⁷ Takada, H. et. al. Pellet Watch: Global Monitoring of Persistent Organic Pollutants (POPs) using Beached Plastic Resin Pellets. Available at: http://www.tuat.ac.jp/~gaia/ipw/documents/takadaproceeding.pdf

²⁸ Teuten, E. L. et. al. 2009. "Transport and release of chemicals from plastic to the environment and to wildlife." In *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*: 2027-2045.

²⁹ Todd, Peter, A. et. *al.* 2010. "Impacts of Pollution on marine life in Southeast Asia." In *Biodiversity and Conservation 19*: 1063–1082.

³⁰ Regional Water Quality Control Board, Los Angeles Region. Revised 27 July 2007. "Trash Total Maximum Daily Loads for the Los Angeles River Watershed." Los Angeles, CA.

ingestion, starvation, suffocation, infection, drowning, and entanglement.^{31,32,33,34,35} The recovery plan drafted by the National Marine Fisheries Service and the U.S. Fish and Wildlife Service for the endangered leatherback turtle (*Dermochelys coriacea*) lists ingestion of marine debris, including plastic bags, as one of the factors threatening this species.³⁶ The recovery plan states that leatherback turtles consume floating plastic, including plastic bags, because they mistake the floating plastic for jellyfish.³⁷ The recovery plans for the threatened green turtle (*Chelonia mydas*), loggerhead turtle (*Caretta caretta*), and olive ridley turtle (*Lepidochelys olivacea*) also note that ingestion of plastic bags is a serious threat to those species.^{38,39,40} The recovery plan for the short-tailed albatross (*Phoebastria albatrus*) also indicates that ingestion of plastics is a serious threat to those species.^{38,39,40} The recovery plan for the short-tailed albatross (*Phoebastria albatrus*) also indicates that ingestion of plastics is a serious threat to the federally endangered species.⁴¹ Based on this evidence, the prevention of trash, such as plastic carryout bags, from entering the water bodies like the Los Angeles River can help improve habitats and benefit aquatic species.⁴² Jared Blumenfeld, the USEPA's regional administrator for the Pacific Southwest, said recently that the ban on plastic carryout bags in American Samoa "will decrease the amount of plastic waste in the territory and directly protect marine and bird life in the Pacific."⁴³

Although the recommended ordinance could increase the production, distribution, and disposal of paper carryout bags, the paper bags have the potential to biodegrade if they are sufficiently exposed to oxygen, sunlight, moisture, soil, and microorganisms (such as bacteria); they are denser and less susceptible to becoming airborne than plastic bags; and they generally have a higher

³¹ California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc ocean litter final strategy.pdf

³² National Research Council, Committee on the Effectiveness of National and International Measures to Prevent and Reduce Marine Debris and Its Impacts. 2008. *Tackling Marine Debris in the 21st Century*.

³³U.S. Environmental Protection Agency. August 2002. Assessing and Monitoring Floatable Debris. Washington, DC.

³⁴ California Ocean Protection Council. 20 November 2008. *An Implementation Strategy for the California Ocean Protection Council Resolution to Reduce and Prevent Ocean Litter*. Available at: http://www.opc.ca.gov/webmaster/ftp/pdf/opc ocean litter final strategy.pdf

³⁵ Gregory, Murray R. 2009. "Environmental Implications of Plastic debris in Marine Settings --Entanglement, Ingestion, Smothering, Hangers-on, Hitch-hiking and Alien Invasions." In *Philosophical Transactions of the Royal Society B: Biological Sciences,* 364: 2013–2025.

³⁶ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Leatherback Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_leatherback_pacific.pdf

³⁷ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Leatherback Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_leatherback_pacific.pdf

³⁸ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the East Pacific Green Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_green_eastpacific.pdf

³⁹ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Loggerhead Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_loggerhead_pacific.pdf

⁴⁰ National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1998. *Recovery Plan for U.S. Pacific Populations of the Olive Ridley Turtle*. Available at: http://www.nmfs.noaa.gov/pr/pdfs/recovery/turtle_oliveridley.pdf

⁴¹U.S. Fish and Wildlife Service. September 2008. *Short-tailed Albatross Recovery Plan*. Available at: http://alaska.fws.gov/fisheries/endangered/pdf/stal_recovery_plan.pdf

⁴² Regional Water Quality Control Board, Los Angeles Region. Revised 27 July 2007. "Trash Total Maximum Daily Loads for the Los Angeles River Watershed." Los Angeles, CA.

⁴³ U.S. Environmental Protection Agency. 30 September 2010. "U.S. EPA applauds American Samoa's decision to ban plastic shopping bags." Available at:

http://yosemite.epa.gov/opa/admpress.nsf/0/921A87D72D9AAFC1852577AE007394F1

recycling rate than do plastic bags. The USEPA reported that the recycling rate for high-density polyethylene plastic bags and sacks was 11.9 percent in 2007, compared to a recycling rate of 36.8 percent of paper bags and sacks.⁴⁴ Currently, CIWMB estimates that less than 5 percent of plastic film in California is recycled.⁴⁵ The high recycling rate for paper bags and sacks is due in part to the availability of curbside recycling programs. The County currently has an education outreach program for curbside recycling, which includes paper carryout bags.⁴⁶ There is nearly universal access to curbside recycling throughout the County, where homeowners can conveniently recycle paper bags. The paper used to make standard paper carryout bags is originally derived from wood pulp, which is a naturally biodegradable and compostable material, and stores in the County are already using paper carryout bags composed of a minimum of 40 percent post-consumer recycled content. Therefore, based upon the available evidence, paper carryout bags are less likely to become litter than are plastic carryout bags.

Public Policy Considerations

The recommended ordinances are consistent with the County's commitment to environmental stewardship and its commitment to reduce carryout bag use and litter, while increasing the use of reusable bags and recycling in the unincorporated areas of the County.⁴⁷ This consideration is a benefit and alone outweighs and overrides the one adverse effect identified in the EIR. The County's commitment to this policy is demonstrated by its adoption of the County's voluntary Single Use Bag Reduction and Recycling Program in January 2008, which was a comprehensive strategy to reduce the consumption and disposal of plastic and paper carryout bags that sought to join the interests of supermarkets and retail stores, environmental groups, the plastic bag industry, local government, and the public. Further, from November 15 to December 17, 2009, the LACDPW conducted a Brag About Your Bag campaign to promote reusable bags Countywide, during which it distributed over 50,000 reusable bags at supermarkets throughout the County.⁴⁸

The recommended ordinances are also consistent with the County's policy and agenda to support and/or sponsor Statewide legislation regarding carryout bags. The County's current policy is to "support legislation which reduces the environmental impacts of single-use carryout bags and decreases the financial burden on local governments to address those impacts, including legislation

⁴⁴ U.S. Environmental Protection Agency. November 2008. "Table 21: Recovery of Products in Municipal Solid Waste, 1960 to 2007." *Municipal Solid Waste in the United States: 2007 Facts and Figures*. Washington, DC. Available at: http://www.epa.gov/waste/nonhaz/municipal/pubs/msw07-rpt.pdf. The referenced table included the recovery of post-consumer wastes for the purposes of recycling or composting, it did not include conversion/fabrication scrap. The report includes the recovery of plastic bags, sacks, and wraps (excluding packaging) for a total of 9.1 percent of plastic recovered in this category. The County of Los Angeles conservatively estimates that the percentage of plastic bags in this category for the County of Los Angeles is less than 5 percent.

⁴⁵ California Integrated Waste Management Board. Accessed on: 1 March 2010. *Plastic Film Cooperative Recycling Initiative. Problem Statement.* Available at: http://www.calrecycle.ca.gov/Plastics/Film/#Problem

⁴⁶ County of Los Angeles, Department of Public Works. Accessed on: 12 October 2010. Outreach Programs. Web sites. available at: http://dpw.lacounty.gov/epd/recycling/outreach.cfm and http://dpw.lacounty.gov/epd/recycling/crm.cfm

⁴⁷ County of Los Angeles Board of Supervisors. 19 December 2006. "Policy No. 3.045, Energy and Environmental Policy." *Board of Supervisors Policy Manual*. Available at: http://countypolicy.co.la.ca.us/

⁴⁸ County of Los Angeles. "Los Angeles County's Voluntary Single Use Bag Reduction and Recycling Program." Web site. Available at: http://www.bragaboutyourbag.org/

which seeks to promote the use of reusable bags, reduce the use of plastic or paper carryout bags, and/or increase at-store recycling of carryout bags."⁴⁹

In addition, the recommended ordinances further the goals of the Countywide Strategic Plan, which directs the provision of operational effectiveness and community and municipal services. The recommended ordinances will reduce carryout bag use and associated litter, while promoting the use of reusable bags. The recommended ordinances will also help meet the goals of the Countywide Strategic Plan by implementing environmentally responsible practices to reduce the County's impacts and promote environmental stewardship, and by coordinating departmental resources effectively to cost effectively implement environmentally beneficial programs. The recommended ordinances will assist in reducing direct costs related to maintaining the County's storm water and flood control infrastructure. The recommended ordinances will also help reduce blight, litter, and other negative environmental impacts associated with carryout bags, while promoting sustainability, thereby improving the well-being of County residents. The County's efforts to reduce carryout bag consumption and litter, while increasing the use of reusable bags and recycling, are ongoing.

⁴⁹ County of Los Angeles Chief Executive Office. 1 June 2010. Board Letter: Motion To Support AB 1998 (Brownley) Related to Single-Use Carryout Bags and Revise The County's State Legislative Agenda to Expand Existing Legislative Policy on Single-Use Carryout Bags (Item No. 64-C - Agenda of June 1, 2010). Los Angeles, CA.

Based on the foregoing findings and the information contained in the record, the Board of Supervisors of the County of Los Angeles makes the following findings with respect to the significant environmental impacts resulting from the Ordinances to Ban Plastic Carryout Bags in Los Angeles County pursuant to Section 15091 of the State CEQA Guidelines:

- Changes or alterations have been required in, or incorporated into, the recommended ordinance to avoid or substantially lessen the significant environmental effects as identified in the Final EIR.
- The changes and alterations for the recommended ordinance for the unincorporated area of the County are within the responsibility and jurisdiction of the County.
- With respect to the impacts that could occur if the County's 88 incorporated cities adopted similar ordinances, the Board of Supervisors finds that incorporation of changes or alterations similar to those set forth in mitigation measure GHG-1 are within the responsibility and jurisdiction of those agencies and not the County. Such changes have been adopted by such other agencies or can and should be adopted by such other agencies. However, the Board of Supervisors acknowledges that the feasibility of such changes or alterations similar to those set forth in mitigation measure GHG-1, including the feasibility of each element of such mitigation measure, is within the sole discretion of such other agencies.
- The mitigation measure identified in the Final EIR is feasible and will be required as a condition of approval of the recommended ordinance.

Based on the foregoing findings and the information contained in the record, the Board of Supervisors makes the following additional findings regarding the environmental impacts resulting from the Ordinances to Ban Plastic Carryout Bags in Los Angeles County:

- Comments, responses to comments, and revisions to the Draft EIR merely clarify and amplify the analysis presented in the EIR and require recirculation of the EIR according to the State CEQA Guidelines, Section 15088.5(b). Similarly, revisions to the definitions contained in the Draft EIR for the proposed ordinances, alternatives, and mitigation measures since publication of the Draft EIR do not result in any new significant impacts or any substantial increases in the severity of an environmental impact that was not described in the Draft EIR, and do not require recirculation according to the State CEQA Guidelines, Section 15088.5(b).
- After careful consideration of all comments, the Board of Supervisors recognizes that disagreements among experts still remain regarding the environmental impacts identified in the EIR. These disagreements are addressed in throughout the EIR, including in Sections ES.3, 3.0, 4.0, and 13.0, and the Board of Supervisors finds that substantial evidence supports the conclusions of the EIR.
- The recommended ordinance and the adoption of similar ordinances by each of the County's 88 incorporated cities (identified as Alternative 5 in the EIR) is feasible and

capable of meeting all of the basic objectives of the proposed ordinances. In Section 4.2.6, the EIR provides a detailed analysis of impacts resulting from adoption of the recommended ordinance and adoption of similar ordinances by the County's 88 incorporated cities.

• In the development of the EIR, the County recognized and acknowledged that each city has the authority to render an independent decision regarding implementation of its own comparable ordinance. For the purposes of this EIR, the County has extended the conservative worst-case scenario for the proposed ordinances and alternatives to a scenario where all 88 cities adopt comparable ordinances. However, each city has sole discretion in making an individual determination, including for cumulative impacts, regarding the exact parameters of the city's proposed ordinance, the actual percentage increase in conversion to paper carryout bags, the number of stores affected, the actual bag usage per day, the size of the fee or charge, if any, its projected AB 32 GHG emissions target, and any other relevant factors specific to each incorporated city.

Based on the foregoing findings and the substantial evidence contained in the record, and as conditioned by the foregoing findings:

- All effects on the environment due to the recommended ordinances have been eliminated or substantially lessened where feasible.
- Alternative 5 has been deemed feasible and capable of meeting all of the basic objectives of the proposed ordinances, and has been chosen to be carried forward for adoption.
- Any remaining significant environmental effects that have been found to be unavoidable are acceptable due to the overriding concerns set forth in the foregoing Statement of Overriding Considerations.

Ordinances to Ban Plastic Carryout Bags in Los Angeles County

MITIGATION MONITORING PROGRAM

(Sch # 2009111104)

PREPARED FOR:

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS ENVIRONMENTAL PROGRAMS DIVISION 900 SOUTH FREMONT AVENUE, 3RD FLOOR ALHAMBRA, CALIFORNIA 9 I 803

PREPARED BY:

SAPPHOS ENVIRONMENTAL, INC. 430 NORTH HALSTEAD STREET PASADENA, CALIFORNIA 91107

NOVEMBER 3, 2010

TABLE OF CONTENTS

PAGE

I	INTRC	DUCTION	l-1
II	PROJE	СТ	II-1
	II.1	Definitions	II-1
	II.2	Existing Conditions	II-2
		II.2.1 Plastic Carryout Bags	II-2
		II.2.2 Paper Bags	II-4
		II.2.3 Reusable Bags	II-4
		II.2.4 Voluntary Single Use Bag Reduction and Recycling Program	II-5
	II.3	Statement of Objectives	II-6
		II.3.1 Program Goals	II-6
		II.3.2 Countywide Objectives	II-7
	II.4	Description of Ordinance	II-7
III	MONI	TORING PROGRAM	-1
TABLE			PAGE
-1		Mitigation Monitoring Plan: Ordinance to Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags in Los Angeles County	III-2

SECTION

SECTION I INTRODUCTION

The California Environmental Quality Act [CEQA; Public Resources Code (PRC), Section 21000 *et seq.*] requires a Lead Agency or Responsible Agency that approves or carries out a project, where an Environmental Impact Report (EIR) has identified significant environmental effects, to adopt a "reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment" [PRC, Section 21081.6 (a) (1)]. The County of Los Angeles (County) is the Lead Agency for the Ordinance to Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County (ordinance). A public agency shall "provide that measures to mitigate or avoid significant impacts to the environment are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or, in the case of the adoption of a plan, policy, regulation, or project design" [PRC, Section 21081.6 (b)].

This Mitigation Monitoring Program (MMP) analyzes the potential for significant environmental impacts associated with the Ordinance to Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County (ordinance). The ordinance will be implemented for certain stores within the County of Los Angeles (County), California.

The ordinance involves prohibiting certain stores and retail establishments from issuing plastic carryout bags in the unincorporated territory of the County, as well as the County's encouragement of the adoption of comparable ordinances by each of the 88 incorporated cities within the County. The ordinance will principally involve the following elements.

II.1 DEFINITIONS

For the purposes of this MMP, the following terms are defined as follows:

- *Reusable bag(s)*: a bag with handles that is specifically designed and manufactured for multiple reuse and meets all of the following requirements: (1) has a minimum lifetime of 125 uses, which for purposes of this subsection, means the capability of carrying a minimum of 22 pounds 125 times over a distance of at least 175 feet; (2) has a minimum volume of 15 liters; (3) is machine washable; (4) does not contain lead, cadmium, or any other heavy metal in toxic amounts; (5) has printed on the bag, or on a tag that is permanently affixed to the bag, the name of the manufacturer, the location (country) where the bag was manufactured, a statement that the bag does not contain lead, cadmium, or any other heavy metal in toxic amounts, and the percentage of postconsumer recycled material used, if any; and (6) if made of plastic, is a minimum of at least 2.25 mils thick.
- *Paper carryout bag(s)*: a carryout bag made of paper that is provided by a store to a customer at the point of sale and can contain some percentage of post-consumer recycled content. Can be interchangeably referred to as a recyclable paper carryout bag.
- *Plastic carryout bag(s)*: any bag made predominantly of plastic derived from either petroleum or a biologically based source, such as corn or other plant sources, which is provided to a customer at the point of sale. "Plastic carryout bag" includes compostable and biodegradable bags but does not include reusable bags, produce bags, or product bags.
- Recyclable paper carryout bag(s): a paper bag that meets all of the following requirements: (1) contains no old growth fiber, (2) is one hundred percent (100%) recyclable overall and contains a minimum of forty percent (40%) post-consumer recycled material; (3) is capable of composting, consistent with the timeline and specifications of the American Society of Testing and Materials (ASTM) Standard D6400; (4) is accepted for recycling in curbside programs in the County; (5) has printed on the bag the name of the manufacturer, the location (country) where the bag was manufactured, and the percentage of postconsumer recycled material used; and (6) displays the word "Recyclable" in a highly visible manner on the outside of the bag.

II.2 EXISTING CONDITIONS

II.2.1 Plastic Carryout Bags

In 1977, supermarkets began offering to customers plastic carryout bags designed for single use, and by 1996, four out of every five grocery stores were using plastic carryout bags.^{1,2,3,4} Since then, plastic carryout bags have been found to contribute substantially to the litter stream and to have adverse effects on marine wildlife.^{5,6,7,8,9,10} The prevalence of litter from plastic bags in the urban environment also compromises the efficiency of systems designed to channel storm water runoff. Furthermore, plastic bag litter leads to increased cleanup costs for the County, the California Department of Transportation (Caltrans), and other public agencies.^{11,12,13} Plastic bag litter also contributes to environmental degradation and degradation of the quality of life for County residents and visitors.¹⁴ In particular, the prevalence of plastic bag litter in the storm water system and coastal waterways hampers the ability of, and exacerbates the cost to, local agencies to comply with the National Pollution Discharge Elimination System and total maximum daily loads limits (TMDLs) for trash, pursuant to the federal Clean Water Act (CWA).^{15,16}

⁷ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. *An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors*. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

⁸ Bjorndal, K. et. al. 1994. "Ingestion of Marine Debris by Juvenile Sea Turtles in Coastal Florida Habitats." In *Marine Pollution Bulletin, 28* (3). Available at:

 $http://accstr.ufl.edu/publications/BjorndalEtAl_1994_IngestionOfMarineDebrisByJuvenileSeaTurtlesInCostalFlorida.pdf$

⁹ Okeanos Ocean Research Foundation. 1989. *Marine Mammal and Sea Turtle Encounters with Marine Debris in the New York Bight and the Northeast Atlantic*. Available at: http://swfsc.noaa.gov/publications/TM/SWFSC/NOAA-TM-NMFS-SWFSC-154_P562.PDF

¹⁰ Gomerčić, H. et. al. *European Journal of Wildlife Research*. 2006. "Biological Aspects of Cuvier's Beaked Whale (*Ziphius cavirostris*) Recorded in the Croation Part of the Adriatic Sea." DOI 10.1007/s10344-006-0032-8

¹¹ California Integrated Waste Management Board. 12 June 2007. Board Meeting Agenda, Resolution: Agenda Item 14. Sacramento, CA.

¹² County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

¹⁴ Keep America Beautiful. Accessed 19 October 2010. "Litter Prevention." Available at: http://www.kab.org/site/PageServer?pagename = focus_litter_prevention

¹⁵ United States Code, Title 33, Section 1313, "Water Quality Standards and Implementation Plans." Clean Water Act, Section 303(d).

¹SPI: The Plastics Industry Trade Association. 2007. Web site. Available at: http://www.plasticsindustry.org/

² County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

³ SPI: The Plastics Industry Trade Association. 2007. Web site. Available at: http://www.plasticsindustry.org/

⁴ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

⁵ United Nations Environment Programme. April 2009. *Marine Litter: A Global Challenge*. Nairobi, Kenya. Available at : http://www.unep.org/regionalseas/marinelitter/publications/docs/Marine_Litter_A_Global_Challenge.pdf

⁶ California Integrated Waste Management Board. 12 June 2007. Board Meeting Agenda, Resolution: Agenda Item 14. Sacramento, CA.

¹³ Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 1998–2000. *Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation.

The California Integrated Waste Management Board (CIWMB) estimates that approximately 3.9 percent of plastic waste can be attributed to plastic carryout bags used for grocery and other merchandise, which represents approximately 0.4 percent of the total waste stream in California.^{17,18} Several organizations have studied the effects of plastic litter: Caltrans conducted a study on freeway storm water litter;¹⁹ the Friends of Los Angeles River conducted a waste characterization study of the Los Angeles River;²⁰ the City of Los Angeles conducted a waste characterization study on 30 storm drain basins;²¹ and the County of Los Angeles Department of Public Works conducted a trash reduction and a waste characterization study of street sweeping and trash capture systems near and within the Hamilton Bowl, located in Long Beach, California.²² These studies concluded that plastic film (including plastic bag litter) composed between 7 to 30 percent by mass and between 12 to 34 percent by volume of the total litter collected. Despite the implementation of best management practices, installation of litter control devices, such as cover fences for trucks, catch basins, and facilities to prevent airborne bags from escaping, and despite the use of roving patrols to pick up littered bags, plastic bag litter remains prevalent throughout the County.²³ Assembly Bill (AB) 2449 requires all supermarkets (grocery stores with more than \$2 million in annual sales) and retail businesses of at least 10,000 square feet with a licensed pharmacy to establish a plastic carryout bag recycling program at each store. Starting on July 1, 2007, each store must provide a clearly marked bin that is easily available for customers to deposit plastic carryout bags for recycling. The stores' plastic bags must display the words "please return to a participating store for recycling."²⁴ In addition, the affected stores must make reusable bags available to their patrons. These bags can be made of cloth, fabric, or plastic with a thickness of 2.25 mils or greater.²⁵ The stores are allowed to charge their patrons for reusable bags.²⁶ Store operators must maintain program records for a minimum of three years and make the records available to the local jurisdiction.²⁷

¹⁷ California Environmental Protection Agency, Integrated Waste Management Board. December 2004. "Table ES-3: Composition of California's Overall Disposed Waste Stream by Material Type, 2003." *Contractor's Report to the Board: Statewide Waste Characterization* Study, p. 6. Produced by: Cascadia Consulting Group, Inc. Berkeley, CA. Available at: http://www.ciwmb.ca.gov/Publications/default.asp?pubid = 1097

¹⁸ Note: Plastics make up approximately 9.5 percent of California's waste stream by weight, including 0.4 percent for plastic carryout bags related to grocery and other merchandise, 0.7 percent for non-bag commercial and industrial packaging film, and 1 percent for plastic trash bags.

¹⁹ Combs, Suzanne, John Johnston, Gary Lippner, David Marx, and Kimberly Walter. 1998–2000. *Caltrans Litter Management Pilot Study*. Sacramento, CA: California Department of Transportation.

²⁰ Friends of the Los Angeles River and American Rivers. 2004. *Great Los Angeles River*. Los Angeles and Nevada City, CA.

²¹ City of Los Angeles, Sanitation Department of Public Works. June 2006. *Technical Report: Assessment of Catch Basin Opening Screen Covers*. Los Angeles, CA.

²² County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport_08-2007.pdf

²³ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport 08-2007.pdf

²⁴ Public Resources Code, Section 42250–42257. 2006. Assembly Bill 2449.

²⁵ Public Resources Code, Section 42250–42257. 2006. Assembly Bill 2449.

²⁶ Public Resources Code, Section 42250–42257. 2006. Assembly Bill 2449.

¹⁶ County of Los Angeles, Department of Public Works, Environmental Programs Division. August 2007. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. Alhambra, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/PlasticBagReport 08-2007.pdf

²⁷ California Integrated Waste Management Board. 12 June 2007. Board Meeting Agenda, Resolution: Agenda Item 14. Sacramento, CA.

II.2.2 Paper Bags

The production, distribution, and disposal of paper carryout bags also have known adverse effects on the environment.^{28,29} There is a considerable amount of energy that is used, trees that are felled, and pollution that is generated in the production of paper carryout bags.^{30,31} The CIWMB determined in the 2004 Statewide Waste Characterization Study that approximately 117,000 tons of paper carryout bags are disposed of each year by consumers throughout the County. This amount accounts for approximately 1 percent of the total 12 million tons of solid waste generated each year.³² However, paper bags have the potential to biodegrade if they are sufficiently exposed to oxygen, sunlight, moisture, soil, and microorganisms (such as bacteria); they are denser and less susceptible to becoming airborne; and they generally have a higher recycling rate than do plastic bags. The U.S. Environmental Protection Agency (EPA) reported that the recycling rate for high-density polyethylene plastic bags and sacks was 11.9 percent in 2007, compared to a recycling rate of 36.8 percent of paper bags and sacks.³³ The County currently has an education outreach program for curbside recycling, which includes paper carryout bags.³⁴ There is nearly universal access to curbside recycling throughout the County, where paper bags can be recycled by homeowners conveniently. The paper used to make standard paper carryout bags is originally derived from wood pulp, which is a naturally biodegradable and compostable material. Therefore, based upon the available evidence, paper carryout bags are less likely to become litter than are plastic carryout bags. The brown paper bags commonly found at supermarkets are made from Kraft paper.³⁵ It also appears that the paper carryout bags currently used by stores in the County are made of at least 40 percent post-consumer recycled content.³⁶

II.2.3 Reusable Bags

Reusable bags offer an alternative to plastic carryout bags, compostable plastic carryout bags, and paper carryout bags. The utility of a reusable bag has been noted in various reports, such as the 2008

³² California Environmental Protection Agency, Integrated Waste Management Board. December 2004. *Contractor's Report to the Board: 2004 Statewide Waste Characterization Study*. Produced by: Cascadia Consulting Group, Inc. Berkeley, CA. Available at: http://www.ciwmb.ca.gov/publications/localasst/34004005.pdf

²⁸ County of Los Angeles, Department of Public Works, Environmental Programs Division. October 2008. County of Los Angeles Single Use Bag Reduction and Recycling Program – Program Resource Packet. Alhambra, CA.

²⁹ Green Cities California. March 2010. *Master Environmental Assessment on Single-Use and Reusable Bags*. Prepared by ICF International. San Francisco, CA.

³⁰ County of Los Angeles Board of Supervisors. 22 January 2008. *Single Use Bag Reduction and Recycling Program* (*Resolution and Alternative 5*). Los Angeles, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/Resources.cfm

³¹ County of Los Angeles, Department of Public Works, Environmental Programs Division. October 2008. County of Los Angeles Single Use Bag Reduction and Recycling Program – Program Resource Packet. Alhambra, CA.

³³ U.S. Environmental Protection Agency. November 2008. "Table 21: Recovery of Products in Municipal Solid Waste, 1960 to 2007." *Municipal Solid Waste in the United States: 2007 Facts and Figures*. Washington, DC. Available at: http://www.epa.gov/waste/nonhaz/municipal/pubs/msw07-rpt.pdf. The referenced table included the recovery of postconsumer wastes for the purposes of recycling or composting, it did not include conversion/fabrication scrap. The report includes the recovery of plastic bags, sacks, and wraps (excluding packaging) for a total of 9.1 percent of plastic recovered in this category. The County of Los Angeles conservatively estimates that the percentage of plastic bags in this category for the County of Los Angeles is less than 5 percent.

³⁴ County of Los Angeles Department of Public Works. Accessed 12 October 2010. Outreach Programs. Web site available at: http://dpw.lacounty.gov/epd/recycling/outreach.cfm

³⁵ American Forest and Paper Association. Accessed 25 October 2010. Web site. Facts about Paper. Available at: http://www.afandpa.org/FunFacts.aspx

³⁶ Perez, David. County of Los Angeles, Department of Public Works. 30 October 2008. E-mail Correspondence regarding Paper Bag Distribution – Field Survey Summary. On file at: Sapphos Environmental, Inc. Pasadena, CA.

report by Green Seal, which estimates the life of a reusable bag as being between two and five years.³⁷ In 1994, the Green Seal report encouraged an industry standard of a minimum of 300 reusable bag uses; today, Green Seal recommends a more ambitious standard of a minimum of 500 uses under wet conditions (bag testing under wet conditions is more stringent testing).³⁸ Furthermore, life cycle studies for plastic products have documented the adverse impacts related to various types of plastic and paper bags; however, life cycle studies have also indicated that reusable bags are the preferable option to both paper bags and plastic bags.^{39,40,41,42}

Reusable bags are intended to provide a viable alternative to the use of paper or plastic carryout bags.⁴³ Currently, some stores within the County, such as certain Whole Foods divisions, do not offer plastic carryout bags at checkout, but instead offer reusable bags for sale and provide rebates if its patrons bring their own reusable bags. Other stores, such as certain Ralphs divisions, offer reusable bags for purchase at registers and offer various incentives such as store rewards or store credit to customers who use reusable bags.⁴⁴

II.2.4 Voluntary Single Use Bag Reduction and Recycling Program

On January 22, 2008, the County Board of Supervisors approved a motion to implement the voluntary Single Use Bag Reduction and Recycling Program in partnership with large supermarkets and retail stores, the plastic bag industry, environmental organizations, recyclers and other key stakeholders. The program aims to promote the use of reusable bags, increase at-store recycling of plastic bags, reduce consumption of single-use bags, increase the post-consumer recycled material content of paper bags, and promote public awareness of the effects of litter and consumer responsibility in the County. The voluntary program establishes benchmarks for measuring the effectiveness of the program, seeking a 30-percent decrease in the disposal rate of carryout plastic bags from the fiscal year 2007–2008 usage levels by July 1, 2010, and a 65-percent decrease by July 1, 2013.⁴⁵

³⁷ Green Seal, Inc. is an independent non-profit organization that uses science-based standards and the power of the marketplace to provide recommendations regarding sustainable products, standards, and practices.

³⁸ Green Seal, Inc. 13 October 2008. Green Seal Proposed Revised Environmental Standard For Reusable Bags (GS-16). Washington, DC. Available at: http://www.greenseal.org/certification/gs-

 $^{16\}_reusable_bag_proposed_revised_standard_background\%20 document.pdf$

³⁹ Reusable bag manufacturers in the United States are expected to enforce industry standards and recommendations, such as using recycled materials, to reduce adverse environmental impacts.

⁴⁰ Green Seal, Inc. 13 October 2008. *Green Seal Proposed Revised Environmental Standard For Reusable Bags (GS-16)*. Washington, DC. Available at: http://www.greenseal.org/certification/gs-

 $^{16\}_reusable_bag_proposed_revised_standard_background\%20 document.pdf$

⁴¹ Boustead Consulting & Associates, Ltd. 2007. *Life Cycle Assessment for Three Types of Grocery Bags – Recyclable Plastic; Compostable, Biodegradable Plastic; and Recycled, Recyclable Paper.* Available at: http://www.americanchemistry.com/s plastics/doc.asp?CID=1106&DID=7212

⁴² Green Cities California. March 2010. *Master Environmental Assessment on Single-Use and Reusable Bags*. Prepared by: ICF International. San Francisco, CA.

⁴³ Green Seal, Inc. 13 October 2008. Green Seal Proposed Revised Environmental Standard For Reusable Bags (GS-16). Washington, DC. Available at: http://www.greenseal.org/certification/gs-

¹⁶_reusable_bag_proposed_revised_standard_background%20document.pdf

⁴⁴ Ralphs Grocery Company. 2009. "Doing Your Part: Try Reusable Shopping Bags." Web site. Available at: http://www.ralphs.com/healthy_living/green_living/Pages/reusable_bags.aspx

⁴⁵ County of Los Angeles Board of Supervisors. 22 January 2008. *Single Use Bag Reduction and Recycling Program* (*Resolution and Alternative 5*). Los Angeles, CA. Available at: http://dpw.lacounty.gov/epd/PlasticBags/Resources.cfm

The County identified three tasks to be undertaken by the County, stores, and manufacturers as part of the voluntary program's key components:

- 1. Large supermarket and retail stores: develop and implement store-specific programs such as employee training, reusable-bag incentives, and efforts related to consumer education
- 2. Manufacturer and trade associations: encourage members to participate in the program, provide technical assistance and marketing recommendations, and coordinate with large supermarkets and stores
- 3. County of Los Angeles Working Group: facilitate program meetings, determine specific definitions for target stores, establish a framework describing participant levels and participation expectations, and develop and coordinate program specifics such as educational material, reduction strategies, establishment of disposal rates and measurement methodology, progress reports, and milestones

In March 2008, the County provided each of the 88 incorporated cities in the County with a sample "Resolution to Join" letter that extended to the cities an opportunity to join the County in the abovementioned activities related to the Single Use Plastic Bag Reduction and Recycling Program. There are currently 11 cities within the County that have signed resolutions to join the County in its efforts and in adopting similar ordinances for their respective cities: Agoura Hills, Azusa, Bell, Glendale, Hermosa Beach, Lomita, Pico Rivera, Pomona, Redondo Beach, Santa Fe Springs, and Signal Hill. These cities have implemented a variety of public education and outreach efforts to encourage participation within their cities, including developing public education brochures, running public service announcements on their city's cable television channel, establishing committees focused on community outreach, and distributing recycled-content reusable bags at community events.

These endeavors were undertaken in an effort to increase the participation of grocery stores, to shift consumer behavior to the use of recycled plastic bags, and to encourage a considerable transition to the use of reusable bags.

Since that time, the Working Group found that the program was not successful in achieving its goals. Over a two-year period and despite State law, stores in the unincorporated area did not provide data that would enable County staff to determine if the voluntary program benchmark of 30 percent disposal reduction of plastic bags had been met. Furthermore, although the public education and outreach aspects of the program, including the successful Brag About Your Bag Campaign[®], were effective in raising awareness of the environmental impacts of carryout bags and the benefits of reusable bags, this awareness did not translate into a shift in consumer behavior that was significant enough to address the major objectives of the County.⁴⁶

II.3 STATEMENT OF OBJECTIVES

II.3.1 Program Goals

The County is seeking to substantially reduce the operational cost and environmental degradation associated with the use of plastic carryout bags in the County, particularly the component of the litter

⁴⁶ County of Los Angeles Chief Executive Office. 5 August 2010. *Single Use Bag Reduction and Recycling Program and Expanded Polystyrene Food Containers – Final Quarterly Progress Report*. Available at: http://dpw.lacounty.gov/epd/PlasticBags/PDF/BoardLetters/bdls 080510 bagrpt10.pdf

stream composed of plastic bags, and reduce the associated government funds used for prevention, clean-up, and enforcement efforts.

The County has identified five goals of the ordinance, listed in order of importance: (1) litter reduction, (2) blight prevention, (3) coastal waterways and animal and wildlife protection, (4) sustainability (as it relates to the County's energy and environmental goals), and (5) landfill disposal reduction.

II.3.2 Countywide Objectives

The ordinance program has six objectives:

- Conduct outreach to all 88 incorporated cities of the County to encourage adoption of comparable ordinances
- Reduce the Countywide consumption of plastic carryout bags from the estimated 1,600 plastic carryout bags per household in 2007, to fewer than 800 plastic bags per household in 2013
- Reduce the Countywide contribution of plastic carryout bags to litter that blights public spaces Countywide by 50 percent by 2013
- Reduce the County's, Cities', and Flood Control District's costs for prevention, cleanup, and enforcement efforts to reduce litter in the County by \$4 million
- Substantially increase awareness of the negative impacts of plastic carryout bags and the benefits of reusable bags, and reach at least 50,000 residents (5 percent of the population) with an environmental awareness message
- Reduce Countywide disposal of plastic carryout bags in landfills by 50 percent from 2007 annual amounts

II.4 DESCRIPTION OF ORDINANCE

The County ordinance, identified and analyzed as Alternative 5 in the Environmental Impact Report (EIR) (see Section 12.2), will ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags at certain retail establishments in the unincorporated territories of the County. The County will also encourage adoption of similar ordinances by each of the 88 incorporated cities in the County. The County provided a detailed analysis of impacts from adoption of the ordinance in combination with adoption of similar ordinances by the 88 incorporated cities in the County in Section 4.2.6 of the EIR.

The County ordinance aims to significantly reduce the number of carryout bags that are disposed of or that enter the litter stream by ensuring that certain retail establishments located in the County will not distribute or make available to customers any plastic carryout bags, including compostable and biodegradable plastic carryout bags. The ordinance will ban the issuance of plastic carryout bags and place a fee or charge on the issuance of paper carryout bags by any retail establishment, as defined, that is located in the unincorporated territory of the County. The ordinance will impose a 10 cent charge (which is at least \$0.05 as studied in Alternative 5 in the EIR) on the issuance of paper carryout bags, which will be called "recyclable paper carryout bags", and will require that the bags be one hundred percent (100%) recyclable overall and contain a minimum of forty percent (40%) post-consumer recycled material, among a number of other criteria. The ordinance will require a store to provide or make available to a customer only recyclable paper carryout bags or reusable bags, and will also encourage a store to educate its staff to promote reusable bags and to post signs encouraging customers to use reusable bags.

The retail establishments that will be affected by the ordinance are located within the unincorporated area of the County and are either:

- (1) A full-line, self-service retail store with gross annual sales of two million dollars (\$2,000,000), or more, that sells a line of dry grocery, canned goods, or nonfood items and some perishable items;
- (2) A store of at least 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law (Part 1.5 (commencing with Section 7200) of Division 2 of the Revenue and Taxation Code) and that has a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code; or
- (3) A drug store, pharmacy, supermarket, grocery store, convenience food store, foodmart, or other entity engaged in the retail sale of a limited line of goods that includes milk, bread, soda, and snack foods, including those stores with a Type 20 or 21 license issued by the Department of Alcoholic Beverage Control.

The ordinance will also include a performance standard for reusable bags, which among other things, will require reusable bags to have a minimum lifetime of 125 uses and be machine washable. The ordinance will also include a phased approach, where the ordinance will apply to large grocery stores and pharmacies before applying to smaller grocery stores, convenience stores, and drug stores. The ordinance also prescribes procedures so affected retail establishments can report on a quarterly basis the number of recyclable paper carryout bags provided to customers.

The Mitigation Monitoring Program (MMP) contained herein satisfies the requirements of CEQA as they relate to the EIR for the Ordinance to Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags for All Supermarkets and Other Grocery Stores, Convenience Stores, Pharmacies, and Drug Stores in Los Angeles County (ordinance). The Draft EIR, dated June 2, 2010, was circulated for a 45-day public review and comment period.

The EIR identifies mitigation measures that have been incorporated into the project to avoid, reduce, and mitigate significant impacts to potential cumulative greenhouse gas (GHG) emissions resulting from the end of life of paper carryout bags. This MMP has been designed to ensure compliance with mitigation measures defined in the EIR during implementation of the project. This MMP would be adopted by the County of Los Angeles Board of Supervisors. Table III-1, *Mitigation Monitoring Plan: Ordinance to Ban Plastic Carryout Bags and Impose a Fee on Paper Carryout Bags in Los Angeles County,* lists those mitigation measures required by the County to mitigate or avoid significant impacts anticipated in association with the EIR project description. It shall be the responsibility of the County to carry out the MMP by imposing the requirements of the mitigation measures throughout the implementation of the ordinance.

The monitoring program element of the MMP describes each required mitigation measure organized by impact area, with an accompanying delineation of the following:

- The agency or agencies (or private parties) responsible for implementation
- The period of the project during which implementation of the mitigation measure is to be monitored
- The Enforcement Agency (the agency with the power to enforce the mitigation measure)
- The Monitoring Agency (the agency to whom the reports are made)

As the indicated mitigation measures are completed, the monitoring agency will sign and date the MMP to indicate that the required mitigation measure has been completed for the subject period. The monitoring agency will also note the documentation (title of the monitoring report) that was submitted for each mitigation measure.

TABLE III-1 MITIGATION MONITORING PLAN ORDINANCE TO BAN PLASTIC CARRYOUT BAGS AND IMPOSE A FEE ON PAPER CARRYOUT BAGS IN LOS ANGELES COUNTY

	Responsible				Documentation of Compliance	
Mitigation Measure	Implementation Party	Monitoring Period	Enforcement Agency	Monitoring Agency	Source	Signature/Date
Greenhouse Gas Emissions			-			
Greenhouse Gas Emissions Measure GHG-1 Wherever the EIR identifies a potential significant impact from "end of life" GHG emissions, the Final EIR recommends the adoption of all of the following mitigation measures. Although these measures will help offset GHG emissions, they may not mitigate them to below the level of significance. • Implement and/or expand public outreach and educational programs to increase the percentage of paper carryout bags that are recycled curbside. • If the adopted ordinance includes a fee or charge on the issuance of paper carryout bags of at least \$0.05, consider increases to the fee or charge to further reduce consumption of paper carryout bags. • Distribute reusable grocery bags, free of charge within the project area to encourage further transitions to reusable bags. Consider public/private partnerships to offset costs of distribution. • Implement an outreach program for affected stores to encourage consumer transition to reusable bags, to reduce double bagging, and to encourage reuse and in-store recycling of paper carryout bags.	County of Los Angeles	Implementation	County of Los Angeles	County of Los Angeles	Quarterly reports for a period of five years after implementation of the county ordinance	(Signature/Date of Monitoring Agency)
• Encourage grocery stores to implement energy efficiency technology particularly in relation to storage of cold and frozen foods (assuming a reduction of 0.65 metric ton carbon dioxide equivalent for each megawatt hour saved).						
• Consider converting public vehicles to low-emitting fuels (assuming a reduction of 0.45 metric ton carbon dioxide equivalent for each 1,000 vehicle miles traveled). Consider funding conversion of vehicles through participation in South Coast Air Quality Management District's Carl Moyer Program.						

ENCLOSURE II

PROPOSED ORDINANCE

ANALYSIS

This ordinance amends Title 12 – Environmental Protection of the Los Angeles County Code, by adding a Chapter regulating the use of plastic carryout bags and recyclable paper carryout bags and promoting the use of reusable bags within the County unincorporated area.

Pursuant to this new Chapter, plastic carryout bags, as defined, may no longer be distributed by affected stores and a 10-cent (\$0.10) charge for recyclable paper carryout bags distributed by those stores will apply.

ANDREA SHERIDAN ORDIN County Counsel Bv

TRUC L. MOORE Deputy County Counsel Public Works Division

TLM:ia

09/23/10 (Requested) 10/22/10 (Revised)

ORDINANCE NO.

An ordinance amending Title 12 – Environmental Protection of the Los Angeles County Code, relating to regulating the use of plastic carryout bags and recyclable paper carryout bags and promoting the use of reusable bags within the County unincorporated area.

The Board of Supervisors of the County of Los Angeles ordains as follows:

SECTION 1. Chapter 12.85 is hereby added to read as follows:

12.85.010 Definitions.

The following definitions apply to this Chapter:

A. "Customer" means any person purchasing goods from a store.

B. "Operator" means the person in control of, or having the responsibility for, the operation of a store, which may include, but is not limited to, the owner of the store.

C. "Person" means any natural person, firm, corporation, partnership, or other organization or group however organized.

D. "Plastic carryout bag" means any bag made predominantly of plastic derived from either petroleum or a biologically-based source, such as corn or other plant sources, which is provided to a customer at the point of sale. "Plastic carryout bag" includes compostable and biodegradable bags but does not include reusable bags, produce bags, or product bags.

E. "Postconsumer recycled material" means a material that would otherwise be destined for solid waste disposal, having completed its intended end use and product life cycle. "Postconsumer recycled material" does not include materials and by-products

2

generated from, and commonly reused within, an original manufacturing and fabrication process.

F. "Produce bag" or "product bag" means any bag without handles used exclusively to carry produce, meats, or other food items to the point of sale inside a store or to prevent such food items from coming into direct contact with other purchased items.

G. "Recyclable" means material that can be sorted, cleansed, and reconstituted using available recycling collection programs for the purpose of using the altered form in the manufacture of a new product. "Recycling" does not include burning, incinerating, converting, or otherwise thermally destroying solid waste.

H. "Recyclable paper carryout bag" means a paper bag that meets all of the following requirements: (1) contains no old growth fiber, (2) is one hundred percent (100%) recyclable overall and contains a minimum of forty percent (40%) post-consumer recycled material; (3) is capable of composting, consistent with the timeline and specifications of the American Society of Testing and Materials (ASTM) Standard D6400; (4) is accepted for recycling in curbside programs in the County; (5) has printed on the bag the name of the manufacturer, the location (country) where the bag was manufactured, and the percentage of postconsumer recycled material used; and (6) displays the word "Recyclable" in a highly visible manner on the outside of the bag.

 "Reusable bag" means a bag with handles that is specifically designed and manufactured for multiple reuse and meets all of the following requirements:
(1) has a minimum lifetime of 125 uses, which for purposes of this subsection, means

3
the capability of carrying a minimum of 22 pounds 125 times over a distance of at least 175 feet; (2) has a minimum volume of 15 liters; (3) is machine washable; (4) does not contain lead, cadmium, or any other heavy metal in toxic amounts; (5) has printed on the bag, or on a tag that is permanently affixed to the bag, the name of the manufacturer, the location (country) where the bag was manufactured, a statement that the bag does not contain lead, cadmium, or any other heavy metal in toxic amounts, and the percentage of postconsumer recycled material used, if any; and (6) if made of plastic, is a minimum of at least 2.25 mils thick.

J. "Store" means any of the following retail establishments located within the unincorporated area of the County:

(1) A full-line, self-service retail store with gross annual sales of two million dollars (\$2,000,000), or more, that sells a line of dry grocery, canned goods, or nonfood items and some perishable items;

(2) A store of at least 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law (Part 1.5 (commencing with Section 7200) of Division 2 of the Revenue and Taxation Code) and that has a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code; or

(3) A drug store, pharmacy, supermarket, grocery store, convenience food store, foodmart, or other entity engaged in the retail sale of a limited line of goods that includes milk, bread, soda, and snack foods, including those stores with a Type 20 or 21 license issued by the Department of Alcoholic Beverage Control.

12.85.020 Plastic carryout bags prohibited.

A. No store shall provide to any customer a plastic carryout bag.

B. This prohibition applies to bags provided for the purpose of carrying away goods from the point of sale and does not apply to produce bags or product bags.

12.85.030 Permitted bags.

All stores shall provide or make available to a customer only recyclable paper carryout bags or reusable bags for the purpose of carrying away goods or other materials from the point of sale, subject to the terms of this Chapter. Nothing in this Chapter prohibits customers from using bags of any type that they bring to the store themselves or from carrying away goods that are not placed in a bag, in lieu of using bags provided by the store.

12.85.040 Regulation of recyclable paper carryout bags.

A. Any store that provides a recyclable paper carryout bag to a customer must charge the customer 10 cents (\$0.10) for each bag provided, except as otherwise provided in this Chapter.

B. No store shall rebate or otherwise reimburse a customer any portion of the 10-cent (\$0.10) charge required in Subsection A, except as otherwise provided in this Chapter.

C. All stores must indicate on the customer receipt the number of recyclable paper carryout bags provided and the total amount charged for the bags.

D. All monies collected by a store under this Chapter will be retained by the store and may be used only for any of the following purposes: (1) costs associated with

complying with the requirements of this Chapter, (2) actual costs of providing recyclable paper carryout bags, or (3) costs associated with a store's educational materials or education campaign encouraging the use of reusable bags, if any.

E. All stores must report to the Director of Public Works, on a quarterly basis, the total number of recyclable paper carryout bags provided, the total amount of monies collected for providing recyclable paper carryout bags, and a summary of any efforts a store has undertaken to promote the use of reusable bags by customers in the prior quarter. Such reporting must be done on a form prescribed by the Director of Public Works, and must be signed by a responsible agent or officer of the store confirming that the information provided on the form is accurate and complete. For the periods from January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31, all quarterly reporting must be submitted no later than 30 days after the end of each quarter.

F. If the reporting required in Subsection E is not timely submitted by a store, such store shall be subject to the fines set forth in Section 12.85.080.

12.85.050 Use of reusable bags.

A. All stores must provide reusable bags to customers, either for sale or at no charge.

B. Each store is strongly encouraged to educate its staff to promote reusable bags and to post signs encouraging customers to use reusable bags.

12.85.060 Exempt customers.

All stores must provide at the point of sale, free of charge, either reusable bags or recyclable paper carryout bags or both, at the store's option, to any customer participating either in the California Special Supplemental Food Program for Women, Infants, and Children pursuant to Article 2 (commencing with Section 123275) of Chapter 1 of Part 2 of Division 106 of the Health and Safety Code or in the Supplemental Food Program pursuant to Chapter 10 (commencing with Section 15500) of Part 3 of Division 9 of the Welfare and Institutions Code.

12.85.070 Operative date.

This Chapter shall become operative on July 1, 2011, for stores defined in Subsections J(1) and J(2) of Section 12.85.010. For stores defined in Subsection J(3) of Section 12.85.010, this Chapter shall become operative on January 1, 2012.

12.85.080 Enforcement and violation—penalty.

A. The Director of Public Works has primary responsibility for enforcement of this Chapter. The Director of Public Works is authorized to promulgate regulations and to take any and all other actions reasonable and necessary to enforce this Chapter, including, but not limited to, investigating violations, issuing fines and entering the premises of any store during business hours. The Director of the Department of Agricultural Commissioner/Weights and Measures and the Director of Public Health may assist with this enforcement responsibility by entering the premises of a store as part of their regular inspection functions and reporting any alleged violations to the Director of Public Works.

B. If the Director of Public Works determines that a violation of this Chapter has occurred, he/she will issue a written warning notice to the operator of a store that a violation has occurred and the potential penalties that will apply for future violations.

C. Any store that violates or fails to comply with any of the requirements of this Chapter after a written warning notice has been issued for that violation shall be guilty of an infraction.

D. If a store has subsequent violations of this Chapter that are similar in kind to the violation addressed in a written warning notice, the following penalties will be imposed and shall be payable by the operator of the store:

(1) A fine not exceeding one hundred dollars (\$100.00) for the first violation after the written warning notice is given;

(2) A fine not exceeding two hundred dollars (\$200.00) for the second violation after the written warning notice is given; or

(3) A fine not exceeding five hundred dollars (\$500.00) for the third and any subsequent violations after the written warning notice is given.

E. A fine shall be imposed for each day a violation occurs or is allowed to continue.

F. All fines collected pursuant to this Chapter shall be deposited in the Solid Waste Management Fund of the Department of Public Works to assist the department with its costs of implementing and enforcing the requirements of this Chapter.

G. Any store operator who receives a written warning notice or fine may request an administrative review of the accuracy of the determination or the propriety of

any fine issued, by filing a written notice of appeal with the Director of Public Works no later than 30 days after receipt of a written warning notice or fine, as applicable. The notice of appeal must include all facts supporting the appeal and any statements and evidence, including copies of all written documentation and a list of any witnesses, that the appellant wishes to be considered in connection with the appeal. The appeal will be heard by a hearing officer designated by the Director of Public Works. The hearing officer will conduct a hearing concerning the appeal within 45 days from the date that the notice of appeal is filed, or on a later date if agreed upon by the appellant and the County, and will give the appellant 10 days prior written notice of the date of the hearing. The hearing officer may sustain, rescind, or modify the written warning notice or fine, as applicable, by written decision. The hearing officer will have the power to waive any portion of the fine in a manner consistent with the decision. The decision of the hearing officer is final and effective on the date of service of the written decision, is not subject to further administrative review, and constitutes the final administrative decision.

12.85.090 Severability.

If any section, subsection, sentence, clause, or phrase of this ordinance is for any reason held to be invalid by a decision of any court of competent jurisdiction, that decision will not affect the validity of the remaining portions of the ordinance. The Board of Supervisors hereby declares that it would have passed this ordinance and each

and every section, subsection, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of this ordinance would be subsequently declared invalid.

12.85.10 No conflict with federal or state law.

Nothing in this ordinance is intended to create any requirement, power or duty that is in conflict with any federal or state law.

[1285TMCC]

ENCLOSURE III

BACKGROUND INFORMATION

BACKGROUND AND PROGRAM INFORMATION PLASTIC AND PAPER CARRYOUT BAGS

Recommended Project

The recommended project, which corresponds to Alternative 5 as evaluated in the Final Environmental Impact Report (FEIR), would prohibit stores, as defined, from providing single use plastic carryout bags. Paper bags with a minimum of 40 percent post-consumer recycled content could be provided to customers for a charge of 10 cents per bag. Stores would retain the fee revenue to offset their costs for compliance with the ordinance. Stores subject to the Ordinance include supermarkets and large retail stores with a pharmacy, which would be required to comply by July 1, 2011, as well as small grocery stores, small pharmacies, convenience stores, and foodmarts by January 1, 2012.

Background

Board Actions

At the April 10, 2007 Board Meeting

Your Board instructed the Chief Executive Officer to work with the Director of Internal Services and the Director of Public Works to solicit input from outside environmental protection and grocer organizations to:

- 1. Investigate the issue of polyethylene plastic and paper sack consumption in the County, including the pros and cons of adopting a policy similar to that of San Francisco.
- 2. Inventory and assess the impact of the current campaigns that urge recycling of paper and plastic sacks.
- 3. Report back to the Board within 90 days on findings and recommendations to reduce grocery and retail sack waste; any impact an ordinance similar to the one proposed in San Francisco would have on recycling efforts in Los Angeles County; and any unintended consequences of the ordinance.

The Board instructions were fully addressed in the January 22, 2008 Board Meeting presenting the staff report that explained the findings and recommended adoption of the voluntary Single Use Bag Reduction and Recycling Program (Program).

At the January 22, 2008 Board Meeting

Your Board instructed:

1. The Chief Executive Officer to include in the 2007-08 State Legislative Agenda the sponsoring or pursuit of legislation to enact the following:

- a. Repeal the provision of Assembly Bill 2449 (Section 42254(b)(2) of the Public Resources Code) which prohibits any public agency, including local governments, from imposing a fee on plastic carryout bags at supermarkets and retail stores.
- b. Implement a Statewide fee on plastic carryout bags, with the provision that funds raised would be directed to local governments on a per-capita basis for litter prevention and source reduction efforts; or, establish Statewide benchmarks to reduce the consumption of plastic carryout bags and increase at-store recycling of plastic bags.
- c. Amend the provision of Assembly Bill 2449 (Section 42252(a) of the Public Resources Code) to also require an environmental awareness message imprinted on each plastic carryout bag describing the negative impacts littered plastic carryout bags have on the environment and wildlife, and the need to use reusable bags. Currently, Assembly Bill 2449 only requires plastic carryout bags to have the following words imprinted, 'please return to a participating store for recycling.'
- 2. The Single Use Bag Reduction and Recycling Program Working Group to develop an environmental awareness message to be imprinted on each plastic carryout bag distributed by large supermarkets and retail stores describing the negative impacts littered plastic carryout bags have on the environment and wildlife, and the need to use reusable bags. This environmental awareness message would be a required feature under Alternative 5, Large Supermarket and Retail Store Responsibilities, Item 3.
- 3. County Counsel, with input from the Single Use Bag Reduction and Recycling Program Working Group to explore the development of an ordinance mandating the environmental awareness message described above to be imprinted on each plastic carryout bag distributed by, at a minimum, large supermarkets and retail stores in the unincorporated County areas.
- 4. County Counsel, in consultation with the Chief Executive Office, Public Works, Internal Services, Public Health, and the Sanitation Districts, to complete a draft ordinance banning plastic carryout bags at large supermarkets and retail stores upon completion of any necessary environmental review in compliance with the California Environmental Quality Act.

The first Board instruction regarding legislation was addressed by, among other actions, Item 64-C on the June 1, 2010, Board agenda, recommending support of AB 1998 (Brownley) – Single Use Carryout Bags. This Bill would have phased out the distribution of single use carryout bags in retail food stores. AB 1998 did not pass out of the Senate. In the past, the County sponsored or supported AB 2058 (2008, Brownley, Davis, Levine); AB 2829 (2008, Davis); AB 68 (2009, Brwnley); AB 87 (2009, Davis); and the CEO continues to seek similar legislation to support.

The second Board instruction regarding development of an environmental awareness message was addressed by the County Working Group, which developed several environmental messages. The County Working Group included representatives of the Board offices, the County Sanitation Districts, Cities, consumers, the plastic bag industry, grocery stores, environmental organizations, and other interested stakeholders. These messages were included in the Program Resource Packet distributed to large supermarkets and retail stores in the unincorporated areas of the County, and are currently displayed on the Program website, Brag About Your Bag[®] reusable bags, Program brochures, and other outreach materials distributed at community events and shared with partner cities.

The third Board instruction regarding the development of an ordinance mandating the environmental awareness message described above to be imprinted on each plastic carryout bag distributed was evaluated by the County Working Group. Since an ordinance banning plastic bags at stores would eliminate the ability for incorporating any environmental messaging, other mechanisms have been evaluated, such as voluntary store efforts, and additional public education and outreach.

The primary purpose of the proposed Ordinance is to address the fourth Board instruction, to prohibit the purchase and use of single use plastic carryout bags at large supermarkets and retail stores in unincorporated areas of the County.

Voluntary Single Use Bag Reduction and Recycling Program

Store Operations

After the voluntary Program was adopted by the Board in January 2008, Public Works staff generated an initial list of large supermarkets and pharmacies (the stores subject to AB 2449) from a variety of County and public resources, such as the Agricultural Commissioner/Weights and Measures through their Scanner Price Verification Program, the County online business license database, online search engines, field visits, as well as search results from a marketing company. A total of 67 "AB 2449 stores" were identified throughout the unincorporated areas of the County. Locations of operating stores were verified by maps and field visits. Phone calls were then made to stores to verify their operational status, explain the voluntary Program, and obtain baseline plastic carryout bag data. Documents were gathered and developed by Public Works staff to assist stores in participating in the voluntary Program. The documents were finalized by the County Working Group through e-mails and stakeholder meetings. Contact was also made to the California Integrated Waste Management Board (now the California Department of Resource Recovery and Recycling, CalRecycle) to obtain data from the State At-Store Plastic Bag Recycling Program reports.

The voluntary Program was officially launched on July 1, 2008. In August 2008, the Program Resource Packet, Store Participation Checklist, and cover letter jointly developed by the County and the California Grocers Association (CGA) were mailed out to identified AB 2449 stores. The stores had the option of returning the completed Store Participation Checklist by postal mail, fax, and electronic mail, or enter their responses on the online version of the checklist.

In late 2008, store site visits commenced. At the visits, store managers were given a Contact List, the California At-Store Recycling Program forms, and a copy of Assembly Bill No. 2449, chaptered in 2006. They were also provided, as needed, another copy of the documents initially mailed out. A Store Visit Form was filled out by County representatives performing the visit. They were responsible for obtaining basic store information (i.e. address, manager, contact information, etc.) and conducting a visual inspection of store policies and practices regarding carryout bags (i.e. location of reusable bags, price of reusable bags, contents of plastic bag recycling bin, etc.). Store visits also provided a way for County representatives to answer questions and share ideas to assist in the implementation of the Program at stores.

At some stores where paper bags were not made available and customers were encouraged to bag their own purchases, the plastic bag recycling bin was not readily available and often solely used by employees to dispose of bags that had fallen to the ground and left unused. Store representatives often expressed concerns that customers would mistake the recycling bins for trash receptacles. Paper trash was the most commonly noticed contaminant in the recycling bins. Since the State law regarding plastic carryout bags was enacted, 75 percent of the 67 "AB 2449 Stores" in the County unincorporated areas have provided designated bins for customers to place plastic bags for at-store recycling, 96 percent have made reusable bags available, and all have a recycling message on their single use plastic carryout bags.

91 percent of the "AB 2449 Stores" completed a checklist to indicate their status, however at any point in time only eight (8) stores were able to meet the minimum participation levels established in the Program Resource Packet. A summary of Store participation is included in Table 1. Following the store site visits, phone calls were made to store contacts to obtain plastic bag recycling data. In 2009, Public Works staff conducted additional store site visits with a consultant of the American Chemistry Council (ACC) to assist stores that were found without plastic bag recycling bins. Of the 67 identified "AB 2449 Stores", 12 did not have recycling bins for plastic bags and some placed their bins at inaccessible locations such as the back of the store.

TABLE 1: Single Use Bag Reduction and Recycling Program STORE OPERATIONS SUMMARY

	Store Information				Voluntary Program		Bag Data		
			1		Checklist	Meets Minimum	FY 07/08	2009	2009
Name	Address	Zip	Community	SD	Received	Participation	Consumption	Consumption	Recycling
99 Ranch Market #03	1015 S Nogales St	91748	Rowland Heights	1	x		x	x	x
99 Ranch Market #18	1625 S Azusa Ave	91745	Hacienda Heights	4	x		X	x	x
Acton Market	3638 Smith Ave	93510	Acton	5	x				
Albertsons #6301	23850 Copper Hill Dr	91355	Saugus	5	x	x	x	x	x
Albertsons #6422	26850 The Old Road	91381	Stevenson Ranch	5	x		x	x	x
Albertsons #6537	19725 Colima Rd	91748	Rowland Heights	4	x		x	x	x
Albertsons #6580	17120 Colima Rd	91745	Hacienda Heights	4	x		x	x	x
Best Way Markets	19050 E La Puente Rd	91792	Valinda	1	x			Ob an	
Big Saver Foods #5	5829 Compton Ave	90001	Florence	2	x		x	x	x
Bodega R-Ranch Market #4	8601 Hooper Ave	90002	Florence	2				0.0.20	
Cost Saver Market	22905 S Vermont Ave	90502	West Carson	2					1
Cost Saver Market #2	1141 W Carson St	90502	West Carson	2	x				1
CVS #4065	858 N Sunset Ave	91744	Valinda	1	x	x	x	х	x
CVS #8898	7300 S Alameda St	90255	Walnut Park	1	x		x	x	x
CVS #9477	5399 W Centinela Ave	90045	Ladera Heights	2	x		x	x	x
CVS #9507	650 E El Segundo Blvd	90059	Willowbrook	2	x		X	х	x
CVS #9531	4501 W Slauson Ave	90043	View Park	2	x		x	x	x
CVS #9688	451 S Sierra Madre Blvd	91107	East Pasadena	5	х	x	x	x	x
CVS #9696	10048 Mills Ave	90624	South Whittier	4	х		x	x	x
CVS #9730	2141 S Hacienda Blvd	91745	Hacienda Heights	4	х		x	x	x
Dominguez Food Warehouse	15107 S Atlantic Av	90221	East Rancho Dominguez	2					
El Super	1301 E Gage Ave	90001	Florence	2	x			x	
El Super #4	3405 Cesar E Chavez Ave	90063	East Los Angeles	1	x		x	x	
Food 4 Less #334	11407 S Western Ave	90047	West Athens	2	x				
Food 4 Less #368	851 W Sepulveda Blvd	90502	West Carson	2	x				
Food 4 Less #378	11840 Wilmington Ave	90059	Willowbrook	2	x				
Greenland Market	18901 Colima Rd	91748	Rowland Heights	1	x		x		
Howie's Ranch Market	6580 N San Gabriel Blvd	91775	East San Gabriel	5	x				
Hows Market	3035 Huntington Dr	91107	East Pasadena	5	x		x	Х	x
Pavless Foods #10	620 E El Segundo Blvd	90059	Willowbrook	2	x				
Ralphs #001	2675 Foothill Blvd	91214	La Crescenta	5	x	x		Х	
Ralphs #084	29675 The Old Rd	91384	Castaic	5	x	x		X	1
Ralphs #143	31970 Castaic Rd	91384	Castaic	5	x	x		х	
Ralphs #185	5245 W Centinela Ave	90045	Ladera Heights (partial)	2	x			Х	
Ralphs #279	4700 Admiralty Way	90292	Marina del Rey	4	x			х	
Ralphs #626	520 Workman Mill Rd	91746	Valinda	1	x			X	
Ralphs #630	2270 N Lake Ave	91001	Altadena	5	х			х	
Ralphs #757	24975 Pico Canyon Rd	91381	Stevenson Ranch	5	х	-		X	
Rite Aid #5423	1534 E Florence Ave	90001	Florence	2	х		x	x	x
Rite Aid #5455	11750 Wilmington Ave	90059	Willowbrook	2	x		x	x	x
Rite Aid #5492	1237 W Carson St	90502	West Carson	2	х		х	х	x
Rite Aid #5526	735 E Altadena Dr	91001	Altadena	5	х		Х	X	x

TABLE 1: Single Use Bag Reduction and Recycling Program STORE OPERATIONS SUMMARY

Store Information			Voluntary Program		Bag Data				
					Checklist	Meets Minimum	FY 07/08	2009	2009
Name	Address	Zip	Community	SD	Received	Participation	Consumption	Consumption	Recycling
Rite Aid #5538	2647 Foothill Blvd	91214	La Crescenta	5	х		Х	х	Х
Rite Aid #5562	31910 Castaic Rd	91384	Castaic	5	x		Х	х	x
Rite Aid #5591	18993 Colima Rd	91748	Rowland Heights	1	x		х	х	х
Rite Aid #5592	2060 S Hacienda Blvd	91745	Hacienda Heights	4	x		x	x	x
SF Supermarket	18475 Colima Rd	91748	Rowland Heights	1	x			x	
Smart & Final #341	1125 E El Segundo Blvd	90059	Willowbrook	2					
Smart & Final #348	21600 S Vermont Ave	90502	West Carson	2	х		Ĭ		
Stater Brothers #15	14212 Mulberry Dr	90604	South Whittier	4	x		x	x	x
Stater Brothers #67	19756 Colima Rd	91748	Rowland Heights	4	x		x	x	x
Super King Market #3	2260 N Lincoln Ave	91001	Altadena	5	х	X		x	x
Superior Grocers #102	7316 Compton Ave	90001	Florence	2	x		x	x	x
Superior Grocers #113	3600 Cesar E Chavez	90063	East Los Angeles	1	x		x	x	x
T.S. Emporium	1457 S Nogales St	91748	Rowland Heights	1	х				
Top Valu Market #03	10819 S Hawthorne Blvd	90304	Lennox	2	х		x	x	x
Top Valu Market #14	4831 Whittier Bl∨d	90022	East Los Angeles	1	х		х	x	X
Top Valu Market #18	970 W 1st St	90731	La Rambla	4	х		х	x	x
Trader Joe's #32	7260 S Rosemead Blvd	91775	East San Gabriel	5					
Valu Plus #39	15055 Mulberry Dr	90604	South Whittier	4	х			x	x
Vons #2030	25850 The Old Road	91355	Stevenson Ranch	5	х	Х			
Vons #3086	2122 S Hacienda Blvd	91745	Hacienda Heights	4	х				
Walgreens #6125	6325 S Rosemead Blvd	91775	East San Gabriel	5	х				
Walgreens #7529	27983 Sloan Canyon Rd	91384	Castaic	5	х				
Walgreens #7556	28460 Haskell Canyon Rd	91390	Saugus	5	х				
Walgreens #9468	13331 Telegraph Rd	90605	South Whittier	1					
Wal-Mart #2297	25450 The Old Road	91381	Stevenson Ranch	5	Х				

Public Education and Outreach

Brag About Your Bag® Campaign

On November 10, 2009, the Los Angeles County Board of Supervisors approved a resolution to launch the first Countywide Brag About Your Bag[®] Campaign, which began on "America Recycles Day" (November 15) and concluded with "A Day Without a Bag" on December 17. Bags were provided to residents at public outreach events, including events held at the Los Angeles County Fair.

The campaign was designed to reach at least 50,000 residents both in the unincorporated and incorporated areas of the County by conducting a four-week partnership with various entities including grocery stores, EarthShare of California, Heal the Bay, and Public Works, in order to distribute reusable bags to residents at no cost, and reduce the amount of plastic bags that enter the litter stream. In exchange for the bags received, residents were asked to bring in five used clean plastic bags. The collected plastic bags would then be used to make the world's largest plastic bag ball, in order to draw visual attention to the immense problem of plastic bag consumption within the County.

On September 24, 2009, a letter and form were sent to each city recycling coordinator to gauge interest in participating in the campaign. Follow-up calls were placed to all 88 cities, which resulted in 55 cities participating. Furthermore, nine cities in the County provided a proclamation to join in the campaign launch.

The success of the campaign owes itself to the organizations and individuals in which the County partnered. Luke Walton, who is a member of the Los Angeles Lakers, was the official spokesperson for the campaign and lent his voice to radio commercials on 710 ESPN as well as his image that appeared on posters and other promotional materials. Other campaign partners included Heal the Bay, EarthShare of California, One Bag at a Time, Earthwise Bags, 710 ESPN, 101.9 LA Nueva, and 107.5 KLOVE. Public Works staff contacted various companies to become a partner in sponsoring the campaign. At any of the three sponsorship levels, sponsors would get their logo on the reusable bags. Companies provided cash donations, reusable bags, and items to use for contests, which greatly reduced the cost of the campaign to the County.

Public Works worked with various markets throughout the region to host campaign events. Primarily, the market partners consisted of Albertson's, Buy Low, Food 4 Less, How's, Ralphs, and Valu Plus. Due to the difficulty of working with certain local proprietors, other locations, including city halls, were secured for the event dates. Other market locations included Jax, Northgate, Stater Bros., Wal-Mart, Whole Foods, and Wolfe's. In order to provide flexibility for city participants, and to distribute bags outside of limited dates provided originally, Public Works distributed bags at nine (9) other events.

Public Works used a variety of outlets to promote the campaign. Press releases were sent to local cities to be tailored for their specific campaign events and sent to their local press and/or placed on their city websites. Articles written about the campaign also

appeared in five (5) different County newsletters and in the San Gabriel Valley Tribune. The County purchased radio spots that were played during the month-long campaign funded by a State grant. Campaign posters were distributed to local cities, which provided a degree of flexibility by allowing cities to write in their event locations and dates.

Approximately 60,000 bags were distributed at local events within the County. For the majority of events, Public Works handed out between 600 and 1,000 bags per market event. Aside from these events, local city hall events received between 200-300 bags and a Wal-Mart event in Rosemead passed out approximately 2,000 bags. Cities, as well as non-profits including LA Works, Heal the Bay, and EarthShare of California helped to assist in the distribution of reusable bags at local supermarkets. Local governments also donated approximately 1,000 bags which were handed out during their city's Brag About Your Bag[®] event.

Public Works worked with 710ESPN radio to host a special one-day distribution event at the UCLA vs. USC football game that took place on Saturday, November 28, 2009 at the Los Angeles Coliseum. Public Works distributed approximately 7,500 customized Brag About Your Bag[®] reusable bags. Both USC and UCLA agreed to allow Public Works to use their logo for this one-time event.

As an added incentive to bring in five (5) single use plastic bags in exchange for a reusable bag, residents were also given an opportunity to win two prizes: lunch with Luke Walton (18 and under) and a trip for two to Miami. The winners for the events were announced at the concluding press conference on December 17, 2009.

The collected plastic bags were gathered together to construct a ball structure made exclusively from single use plastic bags. The feat was completed with help of individual volunteers and members of CalWorks, the Sierra Club, the Los Angeles and San Gabriel Conservation Corp., La Causa, and Public Works. The ball was completed on December 30, 2009, and has been certified with the Guinness World Record for the Largest Plastic Bag Sculpture using 36,700 bags.

Data Collection Efforts for Disposal Rate Reduction Measurement

CalRecycle Data Collection

In an effort to establish baseline consumption data for Fiscal Year (FY) 2007-08, Public Works attempted to work with CalRecycle over a two year period since supermarkets and large retail stores with a pharmacy are required by State law to submit plastic bag consumption and recycling data to CalRecycle. Although CalRecycle provided recycling data for calendar years 2007 and 2008, this data does not enable us to calculate accurate baseline consumption figures because:

• Data is aggregated Statewide making it virtually impossible to identify the proportion attributable to the County's unincorporated areas.

- Most data received from CalRecycle are aggregated by store chain due to the corporate reporting procedure of most companies even though State law requires stores to maintain store-specific data.
- Plastic film is commingled with plastic bags by stores for recycling and CalRecycle has not been able to develop an accurate ratio by which to estimate the percentage of plastic bags contained in the commingled plastic film.

Public Works Data Collection

Due to the above cited limitations from CalRecycle, Public Works attempted to work directly through the 67 unincorporated area stores to obtain the necessary data. Public Works experienced significant challenges and delays in collecting this data despite sending letters, repeatedly calling store managers, and meeting directly with store personnel. As indicated in Table 1, Public Works has collected limited purchasing and/or recycling data from 45 out of the 67 stores located in the County unincorporated areas. A total of 31 stores have provided data for all years, however, this recycling data is for commingled plastic film with no method identified for adjusting the stated amounts to account only for plastic bags. Therefore, this data collection methodology has not enabled us to obtain data to determine if the first voluntary Program benchmark has been achieved.

American Chemistry Council Proposed Data Collection

At the request of the ACC, the Working Group had agreed to include plastic bags that are recycled through curbside recycling programs in the benchmark calculation. The ACC submitted a report of plastic bags recycled from material recovery facilities (MRFs) that collect plastic film and bags from curbside programs, covering calendar years 2007-09. Public Works has determined that this report cannot be used in its current form because it contains incomplete information and data that is difficult to segregate and/or verify. Public Works has requested the following important follow-up information from the ACC for verification:

- Documented records of percentage of plastic bags present in the soft plastic recycling stream, which may include plastic bags, plastic film, or other plastic products and materials.
- Documented records of amount of soft plastic specifically originating from County unincorporated areas.
- Quantity of soft plastic originating from curbside programs, segregated from materials originating from commercial sources (which likely include store-collected materials already accounted for in data provided by CalRecycle and/or individual stores).
- Amount of soft plastic recycled or recovered from the total amount processed by the facility (the remainder would be contaminated materials sent for disposal).

Public Works has been unable to verify this information either through ACC or directly through the MRFs that provided the data originally. In many cases, it appears that the MRFs did not track this information or for proprietary reasons are unwilling to share it publicly. In order to develop a methodology to include curbside recycling in the calculation of the benchmark, the above issues must be addressed to ensure that only plastic bags are counted; bags counted as recycled are actually being recycled; and the same bags are not counted at multiple stages of the recycling process. The estimated plastic bag recycling figures may be substantially inflated without such verification. Additionally, absent these critical factors, estimates could only be extrapolated, with questionable accuracy, based on limited data currently available.

Program Evaluation

On January 28, 2008, your Board adopted benchmarks to establish numerical standards by which to evaluate the effectiveness of stores in reducing single use plastic bags as a component of the voluntary Program. The first Board-established voluntary benchmark, using total consumption during FY 2007-08 as the baseline, is 30 percent disposal reduction by July 1, 2010.

Public Works initially planned to address the benchmark utilizing data from CalRecycle, however, as discussed below, when the data was not available for the unincorporated areas, the Department attempted to directly collect the data from the unincorporated area stores. This methodology resulted in a limited response from stores, as discussed above.

Over a two-year period and despite State law, stores in the unincorporated areas have not provided data that would enable staff to determine if the voluntary Program benchmark of 30 percent disposal reduction of plastic bags by July 1, 2010 has been met. The public education and outreach aspects of the voluntary Program, including the enormously successful Brag About Your Bag Campaign[®], were effective in raising awareness of the environmental impacts of single use bags and the benefits of reusable bags. However, this awareness did not translate into a shift in consumer behavior that was significant enough to address the major objectives of the County, including the primary objective of significantly reducing the use of single use bags, and the corresponding litter and disposal of those bags.

The final measure of the effectiveness of the Program was the participation of stores in the voluntary Program. Despite site visits, phone calls, faxes, and letters from County staff, less than 12 percent of the 67 large supermarkets and pharmacies in the County unincorporated areas met the minimum participation levels identified in the Resource Packet distributed to each store in August 2008. As a result, in August 2010, a recommendation was presented to the Program Working Group to:

- 1. Discontinue the County's labor-intensive outreach to stores to collect data.
- 2. Finalize the EIR and ordinance to ban plastic bags for adoption by the Board of Supervisors.

3. Continue to support AB 1998 that seeks to ban single use bags Statewide.

The overall assessment of the Voluntary Program was that it was not successful in achieving the County's objectives.

Reusable Bag Standard

Under current State law (California Public Resources Code, Chapter 5.1), plastic carryout bags are considered reusable if they meet certain requirements, including being at least 2.25 mils thick.¹ It does not specify a standard for durability of reusable bags, leading to a standard that may lead to a proliferation of slightly thicker bags that are essentially utilized by the public as single-use bags. Although there are no current Federal and local laws regulating reusable bags, the County has gathered and analyzed relevant current and proposed reusable bag standards and guidelines worldwide, including the Green Seal standard, Korean Industrial Standards, and Canada's Environmental Choice Program, to establish a performance-based standard for reusable bags that is designed to ensure multiple uses of these bags. The following minimum reusable bag performance standards are recommended:

- Bags must have a minimum volume of 15 liters.²
- Bags must have a minimum load capacity of 22 pounds under wet conditions³.
- Bags must have a minimum lifetime of 125 uses⁴.

Figure 1 shows a sample bid specifications for ordering reusable bags developed by Public Works.

¹ http://codes.lp.findlaw.com/cacode/PRC/1/d30/3/5.1/s42250

² Environmental Choice Program CCD-100 (Reusable Utility Bags) See: http://www.terrachoice-<u>certified.com/common/assets/criterias/CCD-100.pdf</u> 3 Green Seal[™] Environmental Standard for Reusable Bags (GS-16) See:

http://www.greenseal.org/certification/standards/reusable_utility_bags_gs-16.pdf 4 As tested by Environmental Choice Program Acceptance Test Procedure ATP001

Enclosure III

Figure 1: Sample Reusable Bag Bid Specifications

COUNT DEPARTM 900 SOU' ALHMABR SPECIFI	Y OF LOS ANGELES ENT OF PUBLIC WORKS TH FREMONT AVENUE A, CALIFORNIA 91803-1331 CATIONS
FOR: Single Use Bag Reduction & Recycling Proc	gram
SPECIFICATION #: REQUISITION #:	QUOTATION #:
MAKE:	MODEL:
VENDOR:	BID PREPARED BY:
ADDRESS:	PHONE:
	BID EXPIRATION DATE:
SPECIFICATION WRITTEN BY: (Name)	APPROVED: (Name)
NOTICE: Bidder shall complete the right-hand column, ind when not exactly as specified. State " <u>As Specifi</u> RETURN THIS BID TO: (Name) <u>Environmental Programs Division</u> BID DUE BY: (Date)	icating specific size and/or make and model of all components ied" if item is exactly as shown in left column. PHONE #: (Phone) FAX #: (Fax) TIME: (Time)
JOB DESCRIPTION: Provide domestically manufactured reusable bags with handles QUANTITY: 5,000	 Minimum load capacity of 22 pounds under wet conditions Minimum lifetime of 300 uses Federal Hazardous Substances Act Consumer Product Safety Improvement Act,
DESCRIPTION: Made from 80-100% cotton canvas DIMENSIONS: 17"x14" x 4";	 section 101 Code of Federal Regulations, Title 16, Part 1303 California Toxic Toy Bill (AB 1108) Label must list Fiber content & Country of origin
24" (handles)	Vender may diseless pertificates of compliance and test
COLOR: Natural with Black trim and handles IMPRINT COLOR: 1-color/2 sides Black trim – Black ink IMPRINT AREA: 10" x 10"	 reports (by an accredited testing laboratory) at the time of proofing/draft review by the County to prove the dye/ink of the bags also <u>do not</u>: Rub off when dry or wet Fade through machine washing, perspiration, and light own accured
ARTWORK: Customer will provide artwork for customized imprint. File will be prepared in PC Illustrator, EPS format. Smeared/blurry logos will not be accepted.	NOTE: If you are unable to bid on this job, please write "No Bid" and re-fax these specs to the number above.
QUALITY: Vendor is responsible for superior quality. Vendor <u>is required</u> to disclose any certificates of compliance and test reports (by an accredited testing laboratory) at the time of proofing/draft review by the County, and all fees associated with testing and producing reports to the County shall be incorporated into the bid quote. The bags shall be required to comply with the following:	Job Quote: \$

Enclosure III

County of Los Angeles Reusable Bags Page 2 of 2

DELIVERY DATE: Must be in warehouse NO LATER than (Date).

LOS ANGELES COUNTY CONTACTS:

(FOR PROOFING) (Name)

(Phone)

Los Angeles County contacts may be reached Monday thru Thursday, 7 a.m. - 5:30 p.m.

PLEASE RETURN ANY NEGATIVES, ARTWORK, ORIGINAL DISC AND COPIES TO:

DEPT. OF PUBLIC WORKS 900 SOUTH FREMONT AVENUE ALHAMBRA, CA 91803 ATTN: (Name) ANNEX 2nd FLOOR

IMPORTANT NOTES: BIDS MUST INCLUDE AN EXPIRATION DATE SPECIFYING THE TIME FRAME FOR WHICH THE GIVEN PRICES ARE VALID.

INVOICE WILL NOT BE PAID UNTIL ALL MERCHANDISE, COPIES, NEGATIVES, AND ARTWORK HAVE BEEN RETURNED TO THE DEPT. OF PUBLIC WORKS.

ENCLOSURE IV

SOCIOECONOMIC STUDY



Project Report Economic Impact Analysis

Proposed Ban on Plastic Carryout Bags in Los Angeles County Ordinance to be placed in Title 12 of the Los Angeles County Code

Prepared for Sapphos Environmental, Inc. Pasadena, California

Submitted by

AECOM Technical Services (AECOM) (formerly Economics Research Associates) 11/3/2010 Project No. 18373

Wilshire BHOA.743309.10 ulevard Suite 1500 Los Angeles, CA 90024 310.477.9585 FAX 310.478.1950 www.aecom.com

Table of Contents

Table of Contents	2
General & Limiting Conditions	3
Summary	4
Overview	5
Environmental Concerns	5
Brief History of Plastic Bag Efforts	6
Summary of Proposed Ordinance	9
Los Angeles County Demographics	10
Impact to Stores (Primary Consumers)	12
Pricing	12
Types of Bags Used at Checkout	13
Paper Bags	14
Reusable Bags	15
Employment	15
Transportation	16
Impact	16
Per Capita Plastic Bag Consumption and Recycling	17
Per Capita Plastic Bag Consumption in California	17
Existing Hidden Cost of Plastic Carryout Bags	18
Switching Costs from Current Conditions to Post-Ban Carryout Methods	18
Cost of Additional Trash Bags	20
Sales Tax Implications	21
Total Cost of Proposed Ban	22
Socioeconomic Impacts	23
Appendices	24

General & Limiting Conditions

Every reasonable effort has been made to ensure that the data contained in this report are accurate as of the date of this study; however, factors exist that are outside the control of AECOM and that may affect the estimates and/or projections noted herein. This study is based on estimates, assumptions and other information developed by AECOM from its independent research effort, general knowledge of the industry, and information provided by and consultations with the client and the client's representatives. No responsibility is assumed for inaccuracies in reporting by the client, the client's agent and representatives, or any other data source used in preparing or presenting this study.

This report is based on information that was current as of September 2010 and AECOM has not undertaken any update of its research effort since such date.

Because future events and circumstances, many of which are not known as of the date of this study, may affect the estimates contained therein, no warranty or representation is made by AECOM that any of the projected values or results contained in this study will actually be achieved.

Possession of this study does not carry with it the right of publication thereof or to use the name of "AECOM" or "Economics Research Associates" in any manner without first obtaining the prior written consent of AECOM. No abstracting, excerpting or summarization of this study may be made without first obtaining the prior written consent of AECOM. Further, AECOM has served solely in the capacity of consultant and has not rendered any expert opinions. This report is not to be used in conjunction with any public or private offering of securities, debt, equity, or other similar purpose where it may be relied upon to any degree by any person other than the client, nor is any third party entitled to rely upon this report, without first obtaining the prior written consent of AECOM. This study may not be used for purposes other than that for which it is prepared or for which prior written consent has first been obtained from AECOM. Any changes made to the study, or any use of the study not specifically prescribed under agreement between the parties or otherwise expressly approved by AECOM, shall be at the sole risk of the party making such changes or adopting such use.

This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

Summary

In this report, AECOM has assessed the economic impact of a proposed ban on plastic carryout bags at grocery stores, pharmacies, and select other retail establishments doing business in Los Angeles County (County).

The report is divided into several sections:

- 1. First, an overview of common terms, environmental concerns, a brief history of existing bans and taxes on plastic bags, and a summary of the proposed ordinance to ban plastic carryout bags is provided.
- 2. Next, characteristics of Los Angeles County residents, including total population and number of households, and employment characteristics, are summarized.
- 3. The report then explores the impact on primary consumers, such as grocery stores and other retail stores, and on retail customers, who are the typical end users of plastic carryout bags.
- 4. The report concludes with a discussion of the potential socioeconomic impact of the proposed ordinance to County residents.

Economic impact is framed in terms of the **financial cost to retail customers**, specifically defined as new costs related to the proposed ordinance less costs that exist under current conditions. Potential savings or added value to customers, in the form of reduced taxes for litter abatement, increased property values, and the value of other environmental benefits associated with the proposed ordinance were not calculated in this study.

The per-capita costs to customers were estimated by analyzing the following three components that are expected to result in additional direct costs to customers:

- <u>Switching costs:</u> costs incurred for customers to purchase other means to carry their purchases from stores (e.g., paper bags and reusable bags) less the costs of current carryout methods (e.g., plastic, paper, and reusable bags). Many of these costs are currently incorporated into retail prices for goods and are therefore 'hidden' from customers.
- <u>New purchases</u>: costs incurred for additional garbage bags purchased to replace plastic bags that are currently reused as wastebasket and trash can liners, and for the disposal of pet waste.
- <u>New sales tax</u>: additional taxes resulting from switching costs and new purchases as described above.

Per-Capita Cost = Switching Costs + New Purchases + New Sales Tax

Per direction of the client, AECOM modeled an average, expected cost scenario to estimate the potential impact to the customer resulting from the proposed ordinance to ban plastic carryout bags and impose a charge on paper carryout bags. This model is based on a moderate case scenario, using the average or expected value of each key variable. It is AECOM's opinion that this scenario is representative of the economic impact most likely to occur under the proposed ordinance. The actual economic impact will vary depending on a number of factors, such as the actual cost of bags, the rate at which customers switch from plastic bags to other options, and the decision of stores to pass along any costs or savings to customers.

At present, the proposed ban on plastic bags is limited to supermarkets and other grocery stores, convenience stores, large retail outlets with pharmacies, and drug stores located only in the County unincorporated areas. As a result, the impact of the ban will be limited because only certain stores, and therefore customers, will be affected.

Based on an estimate of the costs outlined above, the total estimated economic impact to residents of the County unincorporated areas is approximately \$5.72 per capita annually.

Overview

For purposes of this report, the following key terms are defined:¹

- **Customer**: Any person purchasing or otherwise obtaining goods or other materials from a store.
- Levy: A fee or charge paid on an item at the point of sale.
- **Plastic carryout bag**: Any plastic bag that is provided to a customer at the point of sale (e.g., at the checkout register), excluding reusable bags, produce bags, or product bags, but including compostable and biodegradable bags, whether such bags are made predominantly of plastic derived from petroleum or biological based sources, such as corn or other plant sources.²
- **Reusable bag:** A bag with handles that is specifically designed and manufactured for multiple reuse, is machine-washable, and, if made of plastic, is at least 2.25 mils thick.³
- **Single-use carryout bag**: Any non-reusable bag provided at the retail point-of-sale for carrying and transporting retail goods. May be made of paper, plastic, or other material.
- **Single-use** *plastic* carryout bag, or single-use plastic bag: Same as plastic carryout bag, above. Used interchangeably.
- **Store**: Any retail establishment located within or doing business within the geographical limits of Los Angeles County.
- **Trash Bag** or **Garbage Bag**: Any plastic bag specifically designed, packaged, and/or sold for purposes of household trash disposal.⁴

Environmental Concerns

The widespread use of plastic carryout bags raises significant environmental concerns about short and long term adverse effects to marine ecosystems, solid waste management, global resource consumption, and impacts resulting from litter, all of which require public resources to mitigate or manage. Separate from this report, an environmental impact study is being conducted to quantify the environmental effects of plastic bags and impact of the proposed ordinance in Los Angeles County.

AECOM has <u>not</u> conducted a review of environmental literature for this report. Nonetheless, a summary of life-cycle assessments prepared for Seattle Public Utilities indicates that:

- "Plastic shopping bags entering the marine environment represent a threat (not quantified) to marine life along with other packaging and other littered items.
- In most instances, a switch to reusable bags provides the greatest environmental benefits if used a minimum number of times. The environmental benefits of the reusable bag relative to those of

¹ Based on draft language and definitions provided by County Counsel. 19 October 2010. County of Los Angeles Department of Public Works. *Plastic Bag Ordinance to be Placed in Title 12 of the Los Angeles County Code* (Draft).

² Also referencing Nolan-ITU Pty Ltd., et al. Environment Australia: Department of the Environment and Heritage: Plastic Shopping Bags – Analysis of Levies and Environmental Impacts: Final Report. December 2002. (p.1)

³ Based on draft language and definitions provided by County Counsel. 19 October 2010. County of Los Angeles Department of Public Works. *Plastic Bag Ordinance to be Placed in Title 12 of the Los Angeles County Code* (Draft). Full text in ordinance: "Reusable bag" means a bag with handles that is specifically designed and manufactured for multiple reuse and meets all of the following requirements: (1) has a minimum lifetime of 125 uses, which for purposes of this section, "uses" means the capability of carrying a minimum of 22 pounds 125 times over a distance of at least 175 feet; (2) has a minimum volume of 15 liters; (3) is machine washable(4) does not contain lead, cadmium, or any other heavy metal in toxic amounts; (5) has printed on the bag or on a tag that is permanently affixed, the name of the manufacturer, the location (country) where the bag was manufactured, the statement that the bag does not contain lead, cadmium, or any other heavy metal in toxic amounts, and the percentage of postconsumer recycled material used, if any; and (6) if made of plastic, is a minimum of at least 2.25 mils thick.

⁴ Nolan-ITU Pty Ltd., et al. Environment Australia: Department of the Environment and Heritage: Plastic Shopping Bags – Analysis of Levies and Environmental Impacts: Final Report. December 2002. (p.1) and http://en.wiktionary.org/wiki/trash_bag Accessed 15 November 2009.

disposable plastic bags depend on the number of times it is reused. Policies developed to discourage disposable shopping bags should focus on consumer behavior to maximize this approach.

 There was general agreement among the studies that paper bags were shown to have the greater environmentally [sic] burden, due primarily to the greater amount of resources (materials, [including water], and fuels for transport from greater weight per bag) that they require."⁵

In Los Angeles County, litter clean-up, including clean up of plastic carryout bags, is a substantial cost borne by various agencies, including California Department of Transportation (Caltrans), LA County Department of Public Works, LA County Flood Control District, and numerous municipal agencies, among others. For example:

- The County of Los Angeles Flood Control District spent over \$24 million on litter prevention, cleanup, and disposal in 2008-2009, the year data is most recently available.⁶
- Caltrans District 7 collected 50,000 cubic yards of litter and debris at a cost of \$12 million in FY 2005-2006. This does not include tens of thousands of hours spent by community services workers collecting litter along highways.⁷

In terms of litter volume, results of a 2001 Caltrans study of wastewater litter catch basins along freeways in Los Angeles indicated that plastic film comprised 7 percent by mass and 12 percent by volume of the total litter collected.⁸

These findings suggest that a reduction in plastic bag use could not only reduce environmental impacts related to plastic waste, but also lead to a tangible reduction in plastic carryout bag litter, resulting in potentially lower collection costs to County agencies. These savings could be passed on to rate payers or, more likely, allocated to other uses by the affected agencies for the public good, and may offset or help to offset the costs identified in this study. This analysis did not attempt to calculate the per-capita value of such benefits.

Cities in the United States and countries around the world have implemented various taxes, fees, charges, bans, and other strategies to address the environmental and civic costs and concerns related to the use and disposal of plastic bags. The efforts attempt to reduce the negative impacts resulting from single-use plastic bag waste and litter. A brief history of plastic bag bans and taxes is presented below; while it is intended to provide regional and international context to the proposed ordinance, it is not a comprehensive list.

Brief History of Plastic Bag Efforts

1994: <u>Denmark</u> levies a tax on suppliers of both paper and plastic bags. This tax is largely passed on to retailers, who in turn pass the cost on to customers. Denmark experienced an initial reduction of 60 percent in total disposable bag use; there has been a slight increase in this rate over time.⁹

2002: <u>Ireland</u> levies a nationwide tax against plastic shopping bags that is paid directly by consumers. Known as the "PlasTax," the 0.15 euro levy is applied at the point-of-sale to retailers and is required to be passed on directly to the consumer as an itemized line on any invoice. The PlasTax applies to all single-use,

⁵ Herrera Environmental Consultants, Inc. Alternatives to Disposable Shopping Bags and Food Service Items: Volume I. January 29, 2008. (p.ES-5). Available online: http://www.seattlebagtax.org/herrera1.pdf

⁶ Los Angeles County Municipal Storm Water Permit (Order 01-182) Individual Annual Report Form. October 2009. Available at: http://dpw.lacounty.gov/wmd/NPDESRSA/AnnualReport/2009/Appendix%20D%20-%20Principal%20Permittee%20Annual%20Report/Principal%20Permittee%20Annual%20Report.pdf

⁷ *ibid*. p.26

⁸ Lippner, Gary, John Johnston, Suzanne Combs, Kimberly Walter, and David Marx. *Results of the Caltrans Litter Management Pilot Study*. 2001. (Table 1, p.13) Presented in **Transportation Research Record 1743**. Available online at: http://www.owp.csus.edu/research/papers/papers/PP020.pdf

Authors note that study results are limited to freeway environment and that litter in municipal storm systems may have different characteristics. Variability in litter collected suggest that long term monitoring records are needed to produce statistically reliable results. (p.10)

⁹ GHK Ltd. The Benefits and Effects of the Plastic Shopping Bag Charging Scheme. Final Report. May 2007.

plastic carryout bags including biodegradable polymer bags. It does not apply to bags for fresh produce, reusable bags sold for 0.70+ euro, or to bags holding goods sold on board a ship or plane or in an area of a port or airport exclusive to intended passengers.¹⁰ Plastic bag usage initially declined 90 to 95 percent; it subsequently leveled off closer to 75 percent of the original value.^{11, 12} However, there also appears to have been an increase in pre-packaging for fresh foods and a high rate of switchover to single-use paper bags.¹³

The Government of <u>South Africa</u> passed regulations in May 2002 prohibiting "the manufacture, trade, and commercial distribution of plastic bags... with wall thickness less than 80 micrometres (microns)."¹⁴ Regulations were to become effective one year from date of published notice.¹⁵ However, lobbying by industry and labor resulted in their repeal nearly a year later.¹⁶ It appears that the regulations never went into effect.

<u>Australia</u>: The Environmental Protection and Heritage Council has been very active in trying to reduce plastic bag use. Retailers support single-use carryout bag reductions via a voluntary "Retailers Code." From 2003 to 2005, plastic bag use fell from 5.95 billion bags to 3.92 billion bags, and then fell again to 3.36 billion bags in 2006. This represents a 44-percent decrease over three years from voluntary activities. However, consumption of plastic bags rose 14 percent year over year in 2007, back up to 3.93 billion bags.¹⁷

In November of 2008, South Australia (a state in Australia) adopted a ban of lightweight, check-out style plastic bags. The ban, which went into effect on May 4, 2009, prevents any and all retailers from giving away or selling any plastic bag that is less than 35 microns thick and made of polyethylene polymer. As a result of the ban, more than ninety percent of shoppers are taking reusable bags to the supermarket, compared to approximately sixty percent before the ban took effect.¹⁸

<u>Taiwan</u>: The Taiwanese Government set a direct charge against consumers in 2003 as part of a wider wastereduction initiative. The charge resulted in a 68-percent reduction in plastic bag use. However, there was also significant switching to paper and alternative bags. The initial ban on thin plastic bags was withdrawn from application to storefront restaurants following an increase in total plastic use and problems with compliance.¹⁹

2007: In November, the <u>City and County of San Francisco</u> (CA) banned the use of non-compostable plastic checkout bags in supermarkets and grocery stores with \$2 million or more in annual sales revenue. The ordinance allows use of recyclable paper bags and compostable plastic or durable (reusable) plastic bags at least 2.25 mils thick.

2008: On May 27, 2008, the <u>City of Malibu</u> adopted an ordinance banning plastic carryout bags. The ordinance provides that no affected retail establishment, restaurant, vendor or nonprofit vendor shall provide plastic bags or compostable plastic bags to customers.²⁰ Further, this same section of the ordinance prohibits

¹⁰ Nolan-ITU Pty Ltd., et al. Environment Australia: Department of the Environment and Heritage: Plastic Shopping Bags – Analysis of Levies and Environmental Impacts: Final Report. December 2002. (p.21)

¹¹ Scottish Executive, Environment Group Research Report. Proposed Plastic Bag Levy -- Extended Impact Assessment: Volume 1: Main Report: Final Report. August 2005. (p.7)

¹² GHK Ltd. The Benefits and Effects of the Plastic Shopping Bag Charging Scheme. Final Report. May 2007.

¹³ GHK Ltd. The Benefits and Effects of the Plastic Shopping Bag Charging Scheme. Final Report. May 2007.

¹⁴ 80 microns = 3.15 mils

¹⁵ "Regulations on Plastic Bags Under Section 24 of the Environmental Conservation Act" South Africa Environmental Quality Protection Branch, General Policy. May 9, 2002.

¹⁶ Nhamo, Godwell. Environmental Policy Processes Surrounding South Africa's Plastic Bags Regulations: Tensions, Debates and Responses in Waste Product Regulation. Ph.D. Dissertation, Rhodes University, Grahamstown, South Africa, May 2005. (p.iii)

¹⁷ Australian Environmental Protection and Heritage Council. *Decision Regulatory Impact Statement: Investigation of Options to Reduce the Impacts of Plastic Bags.* April 2008.

¹⁸ Zero Waste South Australia. http://www.zerowaste.sa.gov.au/plastic-bags

¹⁹ GHK Ltd. The Benefits and Effects of the Plastic Shopping Bag Charging Scheme. Final Report. May 2007.

²⁰ Malibu Municipal Code, Title 9, "Public Peace and Welfare," Chapter 9.28, "Ban on Shopping Bags," Section 9.28.020.

any person from distributing plastic carryout bags or compostable plastic carryout bags at any City facility or any event held on City property. The ordinance became effective on June 26, 2008 and became operative for grocery stores, food vendors, restaurants, pharmacies, and city operations 6 months after the effective date, and at all other retail stores 12 months after the effective date.

In July, the <u>Seattle City Council</u> (WA) imposed a 20-cent-per-bag charge on retailers with the express purpose of reducing plastic and paper waste. The charge was suspended until a referendum could be held in August 2009, when voters passed a law revoking the fee. The American Chemistry Council spent approximately \$1.4 million in their effort to repeal the ban.^{21 22}

The <u>Los Angeles City Council</u> unanimously voted on July 22, 2008, to ban single-use, plastic carryout bags from stores beginning January 1, 2010, if the State had not imposed a fee of at least 25 cents by then. The ban allows shoppers to "either bring their own bags or pay 25 cents for a paper or biodegradable bag." As of the writing of this report, the ordinance has not been implemented. ²³

2009: In September, the <u>San Jose City Council</u> (CA) recommended approval of a ban that would prohibit the distribution of plastic carryout bags in all retail outlets except restaurants and those operated by nonprofit and social service organizations. Under the proposed ordinance, paper bags made of at least 50 percent recycled material would be allowed for a fee. ^{24 25} In July of 2010, the City of San Jose issued a Draft EIR for the proposed plastic carryout bag ordinance.

In <u>Palo Alto</u> (CA), a complete ban went into effect in September on single-use plastic bags in grocery stores. The City was sued in April 2009 over the ordinance, but settled out of court, agreeing to conduct a full environmental impact analysis before applying the ban to other retail outlets.

The City Council of <u>Edmonds</u>, a suburb of Seattle, WA, voted to approve a complete ban on plastic bags in July 2009, pending the results of an environmental review. The ordinance bans single use plastic bag distribution in all retail outlets, while allowing for the distribution of free paper bags. The ordinance became effective on August 27, 2010.

In September, the <u>District of Columbia</u> adopted an ordinance to charge a fee on carryout bags that took effect on January 1, 2010. Titled "The Anacostia River Clean Up and Protection Act of 2009," the ordinance stipulates that a retail establishment shall charge each customer making a purchase from the establishment a fee of 5 cents for each disposable carryout bag provided to the customer with the purchase. The tax is one of the first of its kind in the nation. Under regulations created by the District of Columbia Department of the Environment, bakeries, delicatessens, grocery stores, pharmacies, and convenience stores that sell food, as well as restaurants and street vendors, liquor stores and "any business that sells food items," must charge the tax on paper or plastic carryout bags. Since the adoption of this ordinance, the District of Columbia has seen bag use drop to a median value of 5.0 million bags per month, down from an estimated bag use of 22.5 million bags per month prior to implementation of the ban.²⁶

²¹ "Debate Over Plastic Bags Heats Up In Seattle" NPR. August 10, 2009. Accessed online September 10, 2009 at

²² Christman, Keith. Senior Director, American Chemistry Council. Telephone interview with AECOM staff. September 4, 2009. The American Chemistry Council (ACC), formerly known as the Chemical Manufacturers' Association, is an industry trade association for American chemical companies, based in Arlington County, Virginia. The trade group represents U.S. chemical companies as well as the plastics and chlorine industries.

²³ "LA Plastic Bag Ban: Disposable Bags Outlawed by 2010" *Huffington Post.* July 23, 2008.

²⁴ "San Jose Closer to Ban on Plastic, Most Paper Bags" San Jose Mercury News. August 25, 2009.

²⁵ City of San Jose. City Council Agenda Synopsis, September 22, 2009. Available online: http://www.sanjoseca.gov/clerk/Agenda/20090922/20090922syn.pdf

²⁶ For detailed calculations, see Appendix 1. According to the legislative record for the ban, the District of Columbia did not track singleuse bag consumption prior to implementation of the ban. Source: May 14, 2009 Fiscal Impact Statement – "Anacostia River Clean Up and Protection Act of 2009" for bill number 18-150 available in the May 14, 2009 Committee Report, accessed 10/19/2010 at: http://www.dccouncil.washington.dc.us/lims/legislation.aspx?LegNo=B18-

^{0150&}amp;Description=%22ANACOSTIA+RIVER+CLEAN+UP+AND+PROTECTION+ACT+OF+2009%22.+%0D%0A+&ID=22118 In the fiscal impact estimates, the District of Columbia based estimates of existing bag usage in the District on figures for 2008 bag consumption in Seattle, WA. Bag use after implementation of the ban is based on Anacostia River Clean-up Protection Fund

<u>Mexico City</u>: Single use plastic shopping bags were officially banned in March 2009, and the law went into effect in August, with a one-year grace period to give retail outlets and plastics manufacturers time to implement a cost-effective switch.²⁷ The law affects all stores, production facilities and service providers within the Federal District, which encompasses the city limits.²⁸

2010: <u>American Samoa</u> is the first US Territory to ban plastic shopping bags. The law, signed by Governor Togiola Tulafono in August 2010, takes effect February 23, 2011. According to Jared Blumenfeld, the Environmental Protection Agency's Regional Administrator for the Pacific Southwest, "We welcome American Samoa's leadership in the Pacific islands to ban plastic shopping bags. This action will decrease the amount of plastic waste in the territory and directly protect marine and bird life in the Pacific."²⁹

Summary of Proposed Ordinance

The proposed ordinance under examination in this report would prohibit the issuance of plastic carryout bags by select retail establishments located within or doing business within the geographical limits of the County unincorporated areas. In addition, the proposed ordinance requires stores to charge 10¢ per bag, payable by customers, on all paper carryout bags provided at the retail point of sale.³⁰ Note that non-recyclable paper carryout bags will be prohibited under the ordinance.

The following retail establishments would be subject to the proposed ordinance (representing approximately 1,000 stores in the County unincorporated areas):³¹

- 1) A full-line, self-service retail store with gross annual sales of two million dollars (\$2,000,000) or more, and which sells a line of dry grocery, canned goods, or nonfood items and some perishable items, or
- 2) Has over 10,000 square feet of retail space that generates sales or use tax pursuant to the Bradley-Burns Uniform Local Sales and Use Tax Law (Part 1.5 (commencing with Section 7200) of Division 2 of the Revenue and Taxation Code) and has a pharmacy licensed pursuant to Chapter 9 (commencing with Section 4000) of Division 2 of the Business and Professions Code; or
- 3) Is a drug store, pharmacy, supermarket, grocery store, convenience food store, foodmart, or other entity engaged in the retail sale of a limited line of goods that generally includes milk, bread, soda, and snack foods, including stores with a Type 20 or 21 license issued by the Department of Alcoholic Beverage Control.

Other legislation pertinent to the proposed ordinance includes the California statute known as Assembly Bill 2449 (effective July 1, 2007, located in California Public Resources Code Sections 42250 - 42257). AB 2449 requires all large supermarkets and retail stores to offer reusable bags for purchase, and to place containers for plastic bag recycling in prominent locations at each store.³² AB 2449 specifically prohibits local governments from imposing a fee on plastic carryout bags.³³

- ²⁸ CNN Wire. "No More Plastic Bags for Mexico City." August 19, 2009.
- ²⁹ United States Environmental Protection Agency. September 30, 2010. U.S. EPA applauds American Samoa's decision to ban plastic shopping bags. Available at: http://yosemite.epa.gov/opa/admpress.nsf/0/921A87D72D9AAFC1852577AE007394F1
- ³⁰ County of Los Angeles Department of Public Works. 12 October 2010. *Plastic Bag Ordinance to be Placed in Title 12 of the Los Angeles County Code* (Draft).

³³ Los Angeles County Department of Public Works. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. August 2007. (p.7)

Distributions data provided by the Mr. William Bowie in the District of Columbia Office of the Chief Financial Officer, Office of Tax and Revenue, via email exchange in October 2010.

²⁷ Malkin, Elisabeth. "Unveiling a Plastic Bag Ban in Mexico City." *New York Times*. August 21, 2009.

³¹ ibid.

³² Available online: http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_2401-2450/ab_2449_bill_20060930_chaptered.pdf

Los Angeles County Demographics

In Los Angeles County, the majority of residents live in incorporated cities (Table 1). Cities are home to 9.2 million County residents, made up of 3.0 million households with an approximate size of 3.0 persons per household. In contrast, 11 percent of the County's population resides in unincorporated areas: 1.1 million residents and 305,000 households with an approximate size of 3.5 persons per household. Households in unincorporated areas tend to be about 17 percent larger than those in cities. Nearly 40 percent of the households across the County include children under the age of 18.

	Incorporated Cities	Unincorporated Areas	Total LA County
Population	9,165,000	1,090,000	10,260,000
% Distribution	89%	11%	100%
Households	2,985,000	305,000	3,290,000
% Distribution	91%	9%	100%
Average HH Size	3.0	3.5	3.1

Table 1: Population and Households, 2010

Source: California Department of Finance, ESRI Business Analyst, American Community Survey Population values rounded to nearest 5,000, total population excludes group quarters

Approximately 91 percent of the resident workforce was employed in 2008, the latest date when statistics by location were available. The services industry is unquestionably the largest employer in the County, employing 45-48 percent of residents. In the unincorporated areas of the County, employment is weighted more towards blue collar occupations, including industries such as agriculture, construction, and manufacturing.

Table 2: Employment b	y Status and	Industry,	2008
-----------------------	--------------	-----------	------

	Incorporated		Unincorporated		Total	
	Cities	S	Areas	6	LA Cour	nty
Workforce Status (Civilian, Age 16+)						
Employed	3,510,000	90.5%	395,000	90.7%	3,905,000	90.5%
Unemployed	370,000	9.5%	40,000	9.3%	410,000	9.5%
Total Resident Workforce	3,880,000		435,000		4,315,000	
Industry (Employed Pop, Aged 16+)						
Agriculture/Mining	10,000	0.2%	0	0.3%	10,000	0.2%
Construction	230,000	5.9%	30,000	6.7%	260,000	6.0%
Manufacturing	435,000	11.2%	55,000	12.9%	490,000	11.4%
Wholesale Trade	165,000	4.3%	25,000	5.4%	190,000	4.4%
Retail Trade	405,000	10.5%	45,000	10.9%	450,000	10.4%
Transportation/Utilities	185,000	4.8%	25,000	5.6%	210,000	4.9%
Information	165,000	4.2%	15,000	3.0%	180,000	4.2%
Finance/Insurance/Real Estate	300,000	7.7%	30,000	7.0%	330,000	7.6%
Services	1,865,000	48.1%	195,000	44.5%	2,060,000	47.7%
Public Administration	115,000	3.0%	15,000	3.7%	130,000	3.0%
Occupation (Workforce Pop, Age 16+)						
White Collar	<u>2,445,000</u>	<u>63.0%</u>	<u>255,000</u>	<u>58.9%</u>	<u>2,700,000</u>	<u>62.6%</u>
Management/Business/Financial	340,000	13.9%	35,000	12.8%	375,000	13.9%
Professional	545,000	22.3%	50,000	18.9%	595,000	22.0%
Sales	290,000	11.9%	30,000	11.8%	320,000	11.9%
Administrative Support	365,000	15.0%	40,000	15.4%	405,000	15.0%
Services	<u>630,000</u>	<u>16.2%</u>	<u>70,000</u>	<u>16.3%</u>	<u>700,000</u>	<u>16.2%</u>
Blue Collar	805,000	<u>20.7%</u>	<u>110,000</u>	<u>24.8%</u>	<u>915,000</u>	<u>21.2%</u>
Farming/Forestry/Fishing	0	0.1%	0	0.2%	0	0.0%
Construction/Extraction	40,000	4.9%	5,000	5.6%	45,000	4.9%
Installation/Maintenance/Repair	25,000	3.2%	5,000	3.8%	30,000	3.3%
Production	55,000	6.8%	10,000	7.9%	65,000	7.1%
Transportation/Material Moving	45,000	5.7%	10,000	7.4%	55,000	6.0%

Source: ESRI Business Analyst

Population values rounded to nearest 5,000

Impact to Stores (Primary Consumers)

Grocery stores, supermarkets, drug stores, convenience stores, and large-format retail outlets with pharmacies (such as Target and Wal-Mart) are most likely to be impacted by the proposed ordinance due to the language of the draft ordinance.

Key issues related to a ban on plastic bags include the following, according to a survey of local food service and general retailers prior to the implementation of a Seattle ban:³⁴

- Retailers are willing to cooperate as long as any measures do not "impose onerous new requirements in fees, record-keeping, or other time-consuming activities"
- Retailers' concern increases as the size of the retailer decreases
- Retailers prefer that the local government force the issue rather than suggest that shops institute changes they want the government to shoulder customer blame
- Retailers want one to two years of lead time prior to the onset of any program

The U.S. retail grocery industry includes about 70,000 grocery stores with combined annual revenue of almost \$500 billion. Large companies include Kroger, Safeway, and SUPERVALU. The industry is concentrated: the 50 largest companies generate about 70 percent of revenue. Convenience stores, discount stores, and warehouse clubs and superstores that sell groceries are distinct from, but related to the retail grocery industry.

The retail grocery industry includes national and regional chains and independent retailers. Large companies may operate multiple chains under different banners. A typical grocery store averages 47,500 square feet; carries 45,000 different items; and generates almost \$400,000 weekly, according to the Food Marketing Institute. In retail grocery outlets, major product lines include perishable foods (50 percent of industry sales); non-perishable foods (25 percent); and non-food items (20 percent). Perishables include meats/poultry/fish, produce, dairy, frozen foods, and deli items. Nonperishable foods (or dry grocery products) include most packaged goods, such as cereals, snacks, and soft drinks. Nonfood items include health and beauty products, general merchandise, and medication (including prescription drugs).³⁵

Because price is a primary driver in the grocery shopping decision, companies have come to rely on price discounting and promotions to drive volume. While manufacturers bear most of the cost of trade promotions, frequent discounts have conditioned consumers to look for the best deal and have diminished store loyalty. Deep discounts and specials often create short-term volume increases at the expense of long-term business. This issue drives the concern among retailers that local customers may shop elsewhere if prices at local stores increase as a result of a plastic bag ban, which would be passed along to customers through higher retail prices or charges on carryout paper bags.

Pricing

According to interviews with industry experts and bag manufacturers, the typical price range for a single-use, plastic carryout bag in Los Angeles runs between one-half cent to one cent (\$0.005 to \$0.01) per bag. Single-use paper bags of the type commonly found in grocery stores typically sell for between five and fifteen cents (\$0.05 to \$0.15) per bag.

³⁴ Herrera Environmental Consultants, Inc. *Alternatives to Disposable Shopping Bags and Food Service Items: Volume I.* January 29, 2008. (p.6-3). Available online: http://www.seattlebagtax.org/herrera1.pdf

Focus group attendees included: pharmacy manager of large chain grocery store, owner of privately owned book store, manager of large chain department store, assistant manager of privately owned clothing store, manager of privately owned book store, manager of community owned grocery store, pharmacy manager of large chain grocery store, manager of privately owned general store, part owner of privately owned convenience store, part owner of privately owned convenience store (Appendix I)

³⁵ First Research. Industry Profile: Grocery Stores and Supermarkets. Quarterly update 7/6/2009.

Table 3: Estimated Retail Price of Single-Use Carryout Bag

	LDPE	<u>HDP</u>	E	Paper Sack	Reusable	Bag	Recycling
		low	high		low	high	\$/lb
CA Grocers Association	\$0.005			\$0.15	\$0.75	\$0.99	
Ralphs	\$0.005			\$0.05			
Command Packaging		\$0.015	\$0.025				
American Chemistry Council	\$0.010						\$0.15
Crown Poly Inc.	\$0.010	\$0.015	\$0.020				
Low	\$0.005			\$0.050	\$0.75		
Average	\$0.008			\$0.100	\$0.87		
High	\$0.010			\$0.150	\$0.99		

Source: Interviews with Matthew Dodson (CA Grocers Association), Kent Boatner (Ralphs), Pete Grande (Command Packaging), Keith Christman (American Chemistry Council), Cathy Browne (Crown Poly Inc.)

Types of Bags Used at Checkout

Studies from Australia indicate a substantially different mix of bag use among customers depending on whether or not there is a charge for carryout bags. In stores where single-use bags were available for free, more than two-thirds of customers chose single-use bags as the method to transport goods out of the store. In contrast, only a third of customers chose single-use bags in stores where there was a charge for each single-use bag.

Table 4: Distribution of Bags at Checkout (Australia)

	Supermarket/	Grocery Stores	All Retail Outlets		
	No Charge for Single Use Bag	Charge a fee for Single Use bags	No Charge for Single Use Bag	Charge a fee for Single Use bags	
Single use carryout bag	67%	31%	72%	27%	
Reusable bag	16%	31%	13%	33%	
No bag*	17%	39%	15%	40%	

* No bag transactions include no bag and bags other than purpose-built reusable shopping bags (trolleys, back packs, handbags)

Source: Australian Environmental Protection and Heritage Council. *Plastic Retail Carry Bag Use, 2006 and 2007 Consumption: Final Report.* February 7, 2008. (P.17-18)

A survey of carryout bag use in Los Angeles County grocery stores conducted in August/September 2009 provides insight into typical customer behavior regarding carryout bag use (Table 5).³⁶ In the survey, grocers were divided into two categories:

- Traditional stores "include most large supermarket chains [and] typically provide plastic carryout bags as the first choice to [the] consumer." Retail chains in this category include Albertsons, Bristol Farms, Food 4 Less, Gelson's, Gigante, Jon's Marketplace, Pavilions, Payless Foods, Price Rite 101, Ralphs, Superior Grocers, Top Valu, and Vons.
- Non-traditional stores "encourage the use of reusable bags by not making plastic carryout bags as
 readily available to consumers as a first choice." Retail chains in this category include Whole Foods
 and Trader Joe's.

The LA County survey found that, on average, 96 percent of transactions at traditional stores used plastic carryout bags, with the remainder split evenly between paper and reusable bags. In non-traditional stores, 4 percent of transactions used plastic carryout bags, 78 percent used paper carryout bags, and 18 percent used reusable bags. The survey excluded 'express lane' transactions, which are likely to have higher volumes of

³⁶ Sapphos Environmental, Inc. *Bag Usage Data Collection Survey*. November 2009.

transactions involving reusable bags (such as backpacks or handbags) and no-bag transactions (where the customer carries the purchase out by hand). The survey methodology did not include a mechanism by which to count no-bag transactions, leading to under-representation of this carryout method.³⁷

	Traditional Gro	Non-Traditior	al Stores	
Observations	4,280		840	
Average Transaction Value	\$35		\$38	
Plastic Carryout	17,110	96%	85	4%
Paper Carryout	270	2%	1,480	78%
Reusable bag	<u>410</u>	<u>2%</u>	<u>340</u>	<u>18%</u>
Total Bags Used	17,790	100%	1,910	100%
Average Number of Bags per Transaction	4.2		2.3	

Table 5: Distribution of Bags at Checkout (Los Angeles)

Survey excluded express lanes, which would likely lead to higher counts of reusable bags or no-bag transactions In Non-Traditional Stores Category, Both Whole Foods and Trader Joes typically use paper bags unless plastic is requested by the customer.

Source: Sapphos Environmental, Inc. Bag Usage Data Collection Survey (11/2009)

As shown in Table 5, each transaction at a traditional grocery store consumed approximately 4.2 bags, of which 96 percent were plastic carryout bags. In contrast, transactions at non-traditional stores consumed 2.3 bags each, of which 78 percent were paper. The difference in the number of bags per transaction indicates that paper bags have a higher carrying capacity than plastic bags, considering that average transaction values were within 10 percent (\$3) of each other at both stores, without additional information about the quantity or type of purchases between stores. According to the survey data, one *paper* carryout bag has the same capacity as approximately 1.8 *plastic* carryout bags.³⁸

Paper Bags

The most direct impact to retailers of the proposed ban on plastic bags would be the increased cost resulting from a switch to paper carryout bags. Paper carryout bags are more expensive to retailers, and therefore to customers, on a per-bag basis than are plastic carryout bags (see Table 3).

According to Matthew Dodson, Director of Local Government Relations at the California Grocers Association, the most immediate impact of a potential plastic bag ban would be the higher cost to retailers of paper bags versus plastic bags, which in turn would have to be passed to consumers.³⁹

In a no-charge scenario (where plastic bags are banned but paper bags are free), customers have little incentive to switch to reusable bags because paper bags appear to be provided 'free of charge'. As a result, customers are likely to pay the higher cost for paper bags incurred by retailers via increases in food and other retail prices.

Under the proposed ordinance that imposes a 10-cent charge, consumers would explicitly assume the cost of the paper bags, thus relieving retailers of the need to pass the cost on indirectly. Additionally, it is anticipated

³⁷ Sapphos Environmental, Inc. Email correspondence between Sapphos survey team and AECOM staff. 30 November 2009.

³⁸ This is a maximum capacity estimate, because (1) lower volume purchases (e.g. express lanes) are likely to use fewer bags but were excluded from the Sapphos survey; and (2) non-traditional stores have a substantially higher distribution of reusable bags, which have higher capacity than either paper or plastic.

³⁹ Dodsen, Matthew. California Grocers Association. Telephone interview with AECOM staff. September 16 2009. The California Grocers Association is a non-profit, statewide trade association representing the food industry since 1898. CGA represents approximately 500 retail members operating over 6,000 food stores in California and Nevada, and approximately 300 grocery supplier companies. Retail membership includes chain and independent supermarkets, convenience stores and mass merchandisers.
that a charge placed on each paper bag would lead to a shift in consumer behavior towards reusable bags, due to the desire to avoid the charge.

Reusable Bags

Reusable bags, if they are promoted as an alternative to plastic and/or paper, must be washable to a minimum standard that protects the health and safety of the consumer.⁴⁰ Furthermore, customers must be educated to clean their reusable bags. This adds some additional cost to the proposed ordinance, which is likely to be assumed by public agencies and/or retailers in terms of public education campaigns.

In his interview, Mr. Dodson stated that most retailers are currently selling reusable bags at cost, with little to no profit accruing to the retailer. Many grocers/retailers sell their bags for \$0.75 to \$0.99 per bag (Table 3), though some grocers offer bags at a higher retail price.⁴¹ Encouraging the use of reusable bags over paper bags can lead to cost savings that accrue to the retailer, because they then do not have to purchase, store, and provide carryout bags to customers. Some retailers (such as Ralphs and Whole Foods) pass this savings to the customer by providing an instant rebate or reward for each reusable bag used in a transaction.⁴²

According to the proposed ordinance, a reusable bag must have "a minimum lifetime of 125 uses, which…means the capability of carrying a minimum of 22 pounds 125 times over a distance of at least 175 feet" and have "a minimum volume of 15 liters…"⁴³ According to data gathered in the analysis of the Australia plastic bag initiative, a reusable bag has a lifetime of between 125 and 204 uses.⁴⁴ Based on its average cost and lifespan, a reusable bag costs one-half of 1¢ (\$0.005) per use.

Table 6: Reusable Bag Capacity and Cost

	Reuse Capacity	Cost/Bag	Cost/Use
Low	125	\$0.75	\$0.004
Average	165	\$0.87	\$0.005
High	204	\$0.99	\$0.005

Source : Nolan-ITU Pty Ltd., et al. 2006 and Table 3

Employment

Mr. Kent Boatner, Director of Store Operations for Ralphs Grocery Company, Southern California, does not expect a plastic bag ban to increase employment at his stores.⁴⁵ He estimates that it takes approximately the same amount of time to bag items into paper and plastic, though other studies have shown that 14 percent of customers think bagging takes more time with paper than with plastic, as do more than nearly 70 percent of grocery employees. This may be a factor in the use of plastic over paper by many checkout clerks. In terms of compliance with the proposed ordinance (without a fee), he does not anticipate needing new personnel, and would expect existing store employees, probably a store manager, to complete all necessary paperwork.

⁴⁰ National Plastic Shopping Bags Working Group. *Plastic Shopping Bags in Australia*. December 6, 2002. (p.21)

⁴¹ See also: Los Angeles County Department of Public Works. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. August 2007 and the Green Cities California Master Environmental Assessment on Single Use and Reusable Bags (2010) available online at http://www.greencitiescalifornia.org/mea

⁴² For example, Ralph's provides additional points on the Ralph's reward card for each reusable bag used per transaction. Whole Foods offers a \$0.05 instant rebate for each reusable bag used per transaction.

⁴³ County of Los Angeles Department of Public Works. 12 October 2010. *Plastic Bag Ordinance to be Placed in Title 12 of the Los Angeles County Code* (Draft).

⁴⁴ Nolan-ITU Pty Ltd., et al. Environment Australia: Department of the Environment and Heritage: Plastic Shopping Bags – Analysis of Levies and Environmental Impacts: Final Report. December 2002. The Allen Consulting Group. Phasing Out Light-Weight Plastic Bags: Costs and Benefits of Alternative Approaches. May 2006.

⁴⁵ Boatner, Kent. Director of Store Operations for Ralphs Grocery Company. Telephone interview with AECOM staff. September 15, 2009.

Under a no-charge scenario, there is no anticipated impact to grocery store employment as a result of longer bagging times or additional administrative expenses resulting from the proposed ordinance. Under a 10-cent charge scenario, there are likely to be some additional compliance costs for retailers. These costs may be offset in part or in full by the charge itself, which according to the language of the proposed ordinance accrues to the retailer at the point of sale and may be used to offset the costs of complying with the ordinance.

Transportation

Another potential cost to retailers involves the transportation of paper bags, which are heavier than plastic and require more trucks to transport the same number of bags. According to information provided by Southern California Director of Store Operations for Ralphs, the ratio of plastic to paper in terms of transportation volume is 8:1 (8 plastic bags can be shipped for every 1 paper bag).^{46,47}

The number of paper bags demanded upon implementation of the proposed ordinance will impact the number of net new shipments required to supply both wholesalers and retailers with sufficient volume of carryout bags. Although a lower number of paper bags can be transported per truck, the proposed ordinance would discourage consumers from utilizing paper bags. As a result, it is likely that the total number of trucks required to transport carryout bags would decline, leading to potentially lower transportation costs.⁴⁸ Therefore, this study has not estimated the distribution of any potential new transportation costs associated with the proposed ordinance.

Impact

The net economic impact of the proposed ordinance to primary consumers of carryout bags (grocery, supermarket, and other large retail outlets) is expected to be negligible.

It is also possible that retailers may experience reduced transportation and warehousing costs as a result of expected changes in consumer behavior. Although it is feasible that a reduction in costs to primary customers would be passed on to consumers in the form of lower prices, for the purposes of this analysis such impacts were assumed to be negligible and were not calculated.

⁴⁶ Boatner, Kent. Director of Store Operations for Ralphs Grocery Company. Telephone interview with AECOM staff. September 15, 2009. Ralphs Grocery is the largest supermarket division of Cincinnati, Ohio-based retail conglomerate Kroger. In addition to Ralphs supermarkets, the company operates the following brand name stores in California: Cala Foods, Bell Markets, Food-4-Less, and FoodsCo

⁴⁷ One truck can transport 864,000 carryout plastic bags. A truck can hold 24 palettes. A palette of plastic bags consists of 36 cases holding 1,000 plastic bags each. With regard to paper bags, however, one truck can transport 108,000 carryout paper bags. A same-sized palette of paper bags consists of 15 cases holding 300 paper bags each, or 4,500 paper bags per palette. One truck of 24 pallets can transport 108,000 paper bags, roughly 12 percent, or one-eighth of the number of plastic bags that can be transported on the same truck.

⁴⁸ See Appendix 2 for detailed calculations.

Impact to Customers

As described in the previous section, the estimated direct cost of the switch from one plastic bag to one paper bag is between 5 and 10 cents per bag. Given the thin margins at grocery stores and commodity retail outlets in general, new costs incurred as a result of the proposed ordinance may be potentially passed on directly to consumers in the form of higher prices. Under the proposed ordinance, those costs are directly levied on the customer through a charge of 10¢ per bag.

Per Capita Plastic Bag Consumption and Recycling

Carryout plastic bags are used and recycled at different rates around the world. In Ireland, annual consumption was approximately 325 plastic carry bags per person per year prior to the implementation of the PlasTax. The Irish recycling rate of plastic bags was only one-half of one percent (0.5%). Australians consumed approximately 350 single-use plastic bags per year. The Australian recycling rate prior to the implementation of a number of plastic bag reduction policies was estimated at 2.7 percent.⁴⁹ The rate of plastic bag recycling in the United States is estimated to be less than 5 percent.⁵⁰ The table below summarizes available data on plastic bag consumption and recycling prior to the implementation of bans, taxes, or fees on plastic or carryout bags.

	Bags/Capita	Recycling Rate
Ireland	325	0.5%
Australia	340 - 350	2.7%
Scotland	153	
Hong Kong	1,095	
Wales	164	
United States		<5%

Table 7: Single-use Plastic Bag	Consumption (ne	o bans, fees, or taxes)
---------------------------------	-----------------	-------------------------

Source: see Footnote 51 51

Per Capita Plastic Bag Consumption in California

AECOM estimates that residents of Los Angeles County consume from 580 to 700 single-use plastic bags per capita per year (see Appendix 3: Calculation of Per Capita Plastic Bag Consumption for details). These values are based on the estimated tonnage of plastic bags in the waste stream, as well as consumption figures from the Los Angeles County Department of Public Works. To calculate plastic bag consumption from the California waste stream, plastic bag tonnage is converted to bags per person and then adjusted for estimated recycling rates. We compared this value to estimates in the Los Angeles County Department of Public Works August 2007 study, and combined the results to develop an average estimate of plastic bag consumption per capita for residents of Los Angeles County. We then adjusted the per capita estimate to include only those

⁴⁹ The Allen Consulting Group. Phasing Out Light-Weight Plastic Bags: Costs and Benefits of Alternative Approaches. May 2006. (p.6)

⁵⁰ Los Angeles County Department of Public Works. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. August 2007.

⁵¹ Nolan-ITU Pty Ltd., et al. Environment Australia: Department of the Environment and Heritage: Plastic Shopping Bags – Analysis of Levies and Environmental Impacts: Final Report. December 2002. | Scottish Executive, Environment Group Research Report. Proposed Plastic Bag Levy -- Extended Impact Assessment: Volume 2: Appendices. August 2005. | Scottish Executive, Environment Group Research Report. Proposed Plastic Bag Levy -- Extended Impact Assessment: Volume 1: Main Report: Final Report. August 2005. | GHK Ltd. The Benefits and Effects of the Plastic Shopping Bag Charging Scheme. Final Report. May 2007. | National Assembly for Wales. Report on the Sustainability Committee's Inquiry into Petition P-03-63: Banning Plastic Bags. November 2008. | The Allen Consulting Group. Phasing Out Light-Weight Plastic Bags: Costs and Benefits of Alternative Approaches. May 2006. (p.6) | Los Angeles County Department of Public Works. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. August 2007.

bags likely to be consumed at retail outlets affected by the proposed ordinance. This was accomplished by using the percentage distribution of actual carryout bags among retail outlets in Australia, and comparing that figure with the estimated retail sales percentage distribution among retail categories for US consumers.

In conclusion, Los Angeles County residents currently consume an estimated 402 to 484 single use plastic bags annually at stores likely to be impacted by the County's proposed ban on plastic bags. **The average consumption rate is 433 plastic carryout bags per capita.**

Table 8: Single Use Plastic Carryout Bags Per Capita

	Total Bags per Capita	Bags/Capita at Stores likely to be impacted
Low	584	402
Average	630	433
High	703	484

Source: Appendix 3: Calculation of Per Capita Plastic Bag Consumption

Existing Hidden Cost of Plastic Carryout Bags

By applying the retailers' average cost per single-use bag to the average number of bags consumed per capita, the current hidden cost of single-use plastic carryout bags is estimated to be approximately \$3.25 per person annually, assuming approximately 433 plastic bags are used per capita at an average cost of \$0.008 per bag.⁵² This is the estimated dollar cost that retailers, and therefore retail customers, in Los Angeles are already paying for 'free' single-use plastic carryout bags.

Table 9: Existing Hidden Cost per Capita

	Bags per Capita	Cost per Bag	Cost per Capita
Average	433	\$0.008	\$3.25

Source: Table 3, Table 8

Switching Costs from Current Conditions to Post-Ban Carryout Methods

The Irish government published a study in late 2008 on customer maximum willingness to pay for plastic bags, nearly seven years after the PlasTax went into effect. The survey found that 40 percent of respondents were not willing to pay anything for the use of a plastic bag in a retail context. In other words, a high proportion of customers did not want plastic bags if they were not perceived to be free.

Data suggests that when customers have a free carryout bag option, they overwhelmingly choose that option. Initial data from Washington, D.C., which implemented only a 5¢ fee on plastic and paper bags, suggests a drop in bag usage of nearly 80 percent.⁵³ In a qualitative study of the 2007 plastic bag ban in San Francisco commissioned by a pro-plastic bag advocacy group,⁵⁴ the author observed that, of the 25 stores he visited, all grocery chains affected by the ordinance had switched to paper bags, with none offering plastic of any type to customers at check-out. In comparison, independent grocers not subject to the San Francisco ban continued to offer plastic bags as the primary carryout option. According to an article in the Wall Street Journal, a 2008 survey of San Francisco residents showed that 58 percent said they "almost never" take reusable bags to the grocery store despite the existing ban on plastic bags, indicating a high reliance on paper alternatives.⁵⁵ In Los Angeles, customers at non-traditional grocery stores offering free paper carryout bags (with limited or no

⁵² Table 3, Table 8

⁵³ For details, see Appendix 1: Washington DC Plastic Bag Fee

⁵⁴ Lilienfeld, Robert. "A Qualitative Study of Grocery Bag Use in San Francisco." The ULS Report. September 22, 2008.

⁵⁵ Gamerman, Ellen. "An Inconvenient Bag." Wall Street Journal. September 26, 2008.

plastic bag option) used paper bags in more than three out of every four transactions.⁵⁶ When single-use bags were available for free, more than two-thirds of customers in Australia chose them as the method to transport goods out of the store. In contrast, less than a third of customers chose single-use bags in stores where there was a charge for each bag used.

Under the proposed ordinance, AECOM has therefore assumed that a majority of customers would change their primary carryout method based on information discussed above. Additionally, AECOM believes the inclusion of a "no bag" option is necessary in order to capture the impact of express lines and potential shift share from growing public awareness about the impact of single-use bags resulting from the proposed ordinance.

The number of carryout bags consumed per person *after* the implementation of the proposed ordinance is based on redistribution of current annual bag consumption per capita at affected stores (433 bags) to new carryout methods (paper, reusable, and no bags), adjusted for capacity differences between paper and plastic.

Table 10 provides the estimated distribution and number of carryout bags after the implementation of the proposed ordinance. Under the proposed ordinance, we expect a decrease in use of carryout paper bags and an increase in use of reusable bags, and a net decrease in total bags resulting from both greater capacity of paper bags compared to plastic as well as the use of no bag options. It is assumed that single-use paper bag consumption after the proposed ordinance will be approximately 64 new paper bags per capita per year (assuming 27 percent of the 433 plastic bags used currently would be replaced by paper bags, and 1 paper bag holds the equivalent of 1.8 plastic bags).

Based on the distribution of bags at checkout in Australia, and as described in Table 3 and Table 6, the estimated direct cost per bag varies by bag type, as shown below. To reach the total cost of the change in use, the average cost per bag is applied to the estimated number of bags consumed after implementation of the proposed ordinance. The total annual post-ban carryout cost for all bag types is estimated to be \$6.81 per capita.

From Plastic (433 Bags) to:	New Distribution	Post-Ordinance Bags	Cost per Bag	Total Cost
Paper	27%	64	\$0.100	\$6.40
Reusable bag	33%	78	\$0.005	\$0.41
No bag	40%	<u>173</u>	\$0.000	<u>\$0.00</u>
Total		315		\$6.81

Table 10: Post-Ordinance Distribution and Cost of Carryout Bags

Source: Table 4, Table 5, Table 6 and Table 8, AECOM

After subtracting the hidden costs of single-use, plastic carryout bags under the currently existing scenario (status quo, no-ban), the net post-ban cost of switching to alternative carryout methods under the proposed County ordinance is approximately \$3.56 per capita annually (Table 11).

Table 11: Total Switching Cost per Capita

(Post-Ordinance Carryout Cost less Current Carryout Cost)

	Post-Ban Cost	Pre-Ban Hidden Cost	Net Post-Ban Cost	Change
Average	\$6.81	\$3.25	\$3.56	2.1x

Source: Table 9, Table 10

⁵⁶ Table 5, Sapphos Environmental, Inc. *Bag Usage Data Collection Survey*. November 2009.

Cost of Additional Trash Bags

Many shoppers reuse disposable plastic carryout bags as trash can liners, for animal waste disposal, and for other activities. Los Angeles County residents impacted by the proposed ordinance may want to replace those plastic bags with other products. A study conducted on behalf of Seattle Public Utilities in November 2007 found that 92 percent of households claim to reuse or recycle their plastic grocery bags, with more than half (51 percent) typically reusing their plastic carryout bags.⁵⁷ According to a 2007 study of households that reuse plastic shopping bags commissioned by the American Plastics Council, the primary use is as wastebasket/trash liners (55 percent), followed by carrying/transporting items (18 percent), and animal waste (10 percent).⁵⁸ Bags reused for trash cans and animal waste make their way directly into the waste stream; bags reused for other purposes may eventually be recycled or else are thrown away. Based on data from these two studies, the total reuse rate of plastic carryout bags as trash bags is approximately 28% (see

Table 26 in the Appendix for details). Although paper carryout bags can be used for these uses, for the purposes of this analysis it was assumed that no paper bags would be used as trash bin liners.

The rate of substitution between plastic carryout bags to trash bags has been estimated as seven-to-one.⁵⁹ In other words, it takes seven disposable plastic carryout bags to replace one plastic trash bag.

Starting with the estimated use of 433 bags per capita under the status quo, a reuse rate of 28 percent indicates that Los Angeles residents reuse approximately 121 plastic carryout bags as trash bags each year. Based on the substitution rate discussed above, AECOM estimates that the proposed ordinance will result in an average demand for 17 new trash bags per capita per year.⁶⁰ As a point of reference, Californians purchase an estimated 126 trash bags per capita per year, based on information from the California Integrated Waste Management Board.⁶¹ This does not include single-use carryout bags that have been repurposed as trash bags.

Table 12: New Demand for Trash Bags Resulting from Proposed Ordinance

	Plastic Bags per Capita at	Reused	Substitution	New Trash Bags
	Impacted Stores (current)	Bags/Capita	Rate	Demanded (post-ban)
Average	433	121	7x	17

Source: Appendix 4: Trash Bag Calculation

The retail price of a plastic trash bag varies based on the capacity, brand, quality, and retail outlet, among other factors. A brief price check of 4-gallon trash bags⁶² at several grocery stores in Los Angeles revealed prices ranging from 4.2¢per bag (RuffiesTM 4-gallon bags, 105-count at Target) to 10.5¢ per bag (GladTM 4-gallon bags, 30-count at Target), with an average price of 7.9¢ per bag. Table 13 summarizes prices identified among a variety of retailers. Four-gallon trash bags are the smallest size bags typically sold at stores affected by the ban and are therefore the most likely substitute for a plastic carryout bag being used as a garbage bag.

⁵⁷ Elway Research, Inc. Public Opinion on Disposable Plastics. December 2007. In Appendix H of Herrera Environmental Consultants, Inc. Alternatives to Disposable Shopping Bags and Food Service Items: Volume II, Appendices. January 2008. (pp. 80-144). Available online: http://www.seattlebagtax.org/herrera2.pdf

⁵⁸ American Plastics Council. National Plastic Shopping Bag Recycling Signage Testing: A Survey of the General Population. March 2007.

⁵⁹ The Allen Consulting Group. Phasing Out Light-Weight Plastic Bags: Costs and Benefits of Alternative Approaches. May 2006. (p.17)

⁶⁰ Appendix 4: Trash Bag Calculation Appendix 5: Socioeconomic Impacts

⁶¹ California Integrated Waste Management Board. "Comprehensive Film Plastic Diversion and Management Action Plan and Plastic Trash Bag Program." December 2004. | California Department of Finance, E5 Population Data. See also Appendix 4: Trash Bag Calculation

⁶² AECOM has assumed that residents substitute plastic carryout bags for small household trash cans and wastebaskets. Based on limited observations, the smallest trash bag sold at most affected store types is a 4-gallon size.

When the price per trash bag is applied to the number of new bags demanded, the annual estimated total cost resulting from the proposed ordinance is approximately \$1.37 per capita annually.⁶³

Brand	Retailer	Volume (Gal)	Quantity (Bags)	Price	Price/Bag
Ralphs	Ralphs	4	30	\$1.99	\$0.066
Vons	Safeway	4	30	\$2.49	\$0.083
Jons	Springfield	4	30	\$2.79	\$0.093
Pavilions	Safeway	4	30	\$2.49	\$0.083
Target	Glad	4	30	\$3.14	\$0.105
Target	Ruffies	4	105	\$4.39	\$0.042
Average					\$0.079

Source: In-Store Survey by AECOM. Multiple locations throughout Los Angeles, CA. September-October 2009.

Sales Tax Implications

In addition to switching costs and additional purchases of trash bags, Los Angeles County residents affected by the proposed ordinance will also be subject to sales tax levied on applicable purchases at stores subject to the proposed ordinance. Under the proposed ordinance, the 10¢ charge on each paper bag is assumed to be taxable, since the charge is based on the cost of the paper bag.⁶⁴ .⁶⁵ This assumption was made so that the maximum impact could be assessed; however the final determination regarding whether sales tax applies will be made by the Board of Equalization. Consumers would also pay additional taxes when purchasing new reusable bags and trash bags.

The sales tax rate in Los Angeles County ranges from 9.75 percent to 10.75 percent, depending on the jurisdiction. The sales tax rate in the County unincorporated areas is 9.75 percent. The average sales tax rate in the County as of July 2009 was 9.76 percent; the median tax rate was 9.75 percent.⁶⁶

When the median sales tax rate is applied to total taxable sales for paper bags, reusable bags, and trash bags under the proposed ordinance, the total new sales tax is approximately \$0.80 per capita per year. Table 14 summarizes the additional costs associated with purchasing additional reusable bags and paper carryout bags (first column) and additional trash bags (second column), all of which would be subject to the median tax rate of 9.75 percent.

Table 14: New Sales Tax per Capita

	Taxable Sales: Post-Ban Carryout Bags	Taxable Sales: Trash Bags	Total Taxable Sales	New Taxes
Average	\$6.81	\$1.37	\$8.17	\$0.80

Source: Table 15,

Table 28, Appendix 4: Los Angeles County Sales Tax Rate, AECOM

Total Cost of Proposed Ordinance

The total cost of the proposed ordinance is a combination of costs resulting from:

⁶³ Table 28 in Appendix 3: Calculation of Per Capita Plastic Bag Consumption

 $^{^{\}rm 64}$ This is a worst-case assumption; the 10¢ charge may not be subject to sales tax.

⁶⁵ This is a worst-case assumption; the 10¢ charge may not be subject to sales tax.

⁶⁶ California State Board of Equalization, effective July 2009. For more details, see Appendix 3

- (1) Switching from plastic to alternative carryout methods (paper, reusable, and no bags);
- (2) Purchasing additional trash bags; and
- (3) Paying additional sales tax on items 1 and 2.

As shown in Table 15, the total annual cost of the proposed ordinance banning plastic carryout bags and charging 10¢ on paper carryout bags is estimated to be \$5.72 per capita per year. This is equivalent to a cost of approximately \$20 per household per year.

Table 15: Total Per Capita Cost of Proposed Ordinance (10¢ fee)

	Carryout Bags Cost	Trash Bags Cost	New Sales Tax for Carryout and Trash Bags	Total Cost
Average Cost	\$3.56	\$1.37	\$0.80	\$5.72*

Source: Table 11, Table 14, Table 28

*May not add up due to rounding

Socioeconomic Impacts

The estimated cost resulting from the proposed ordinance has been examined to see if there is a disproportionate impact on lower income households. In the County unincorporated areas, nearly 15 percent of households earn less than \$20,000 per year.⁶⁷ As a point of reference, the 2010 federal poverty threshold was defined as a family of four earning less than \$22,000.⁶⁸

By requiring stores to charge customers for paper bags, the proposed ordinance is likely to avoid a regressive impact. Customers can choose to avoid the charge on carryout paper bags by employing lower cost alternative, such as bringing reusable bags with them to the store or not using a bag for small purchases.

In a comprehensive study of an anticipated plastic bag tax in Australia (2002), researchers projected that lowincome Australians would work harder compared to their moderate-income counterparts to avoid the proposed plastic bag tax. As a result, the impact of the levy on low-income families was expected to be considerably lower than the average cost to the average Australian. Further, the study's authors found that lower-income residents would experience no new or additional costs as compared to a no-charge situation under certain circumstances.⁶⁹

Since customers in Los Angeles are able to choose whether or not to pay the explicit cost associated with paper bags under the proposed ordinance, it is anticipated that the majority of lower-income residents will act to avoid most or all of the potential costs associated with the ordinance. This allows residents to control the costs they bear, and adjust behaviors accordingly. In addition, the proposed ordinance provides an exemption for residents participating in the California Special Supplemental Food Program for Women, Infants, and Children or in the Supplemental Food Program, thereby further mitigating the potential impact on low income residents. The impact of the proposed ordinance on lower-income residents of the County is therefore expected to be negligible.

⁶⁷ California Department of Finance & ESRI Business Analyst. See Table 30 in Appendix 5: Socioeconomic Impacts

⁶⁸ US Census Bureau. Available online 10/22/2010 at http://www.census.gov/hhes/www/poverty/data/threshld/index.html According to the 2009 Poverty Thresholds published by the U.S. Census Bureau, the poverty threshold is \$22,000 for a family of four, and \$17,100 for a family of three, and will vary slightly by the number of children under age 18 in the household.

⁶⁹ No impact scenario: If low-income households cut their plastic bag use by 95 percent instead of the nationally projected 75 percent, the study's authors found that they would experience no new or additional costs as compared to a no-tax situation under certain circumstances.

Nolan-ITU Pty Ltd., et al. Environment Australia: Department of the Environment and Heritage: Plastic Shopping Bags – Analysis of Levies and Environmental Impacts: Final Report. December 2002. (p.62)

Appendices

Date Collected	Actual Month	M	onthly Receipts	Plastic Bags (est.)*	% Change over Prior Month
February	January	\$	105,158.36	2,629,000	
March	February	\$	180,049.14	4,501,000	71%
April	March	\$	192,931.21	4,823,000	7%
Мау	April	\$	224,521.19	5,613,000	16%
June	May	\$	210,741.80	5,269,000	-6%
July	June	\$	198,079.60	4,952,000	-6%
August	July	\$	199,015.60	4,975,000	0%
September	August	\$	199,591.45	4,990,000	0%
NA	September				
Total		\$	1,510,088.35	37,752,000	bags in reporting period
Average		\$	188,761.04	4,719,000	bags/month
Median		\$	198,547.60	4,964,000	bags/month
Annual (est.)		\$	2,382,571.20	59,568,000	bags/year
2009 Estimate of Plastic Bags Issued per Month (pre-ban)			22,500,000	(270,000,000 annually)	
Estimated Monthly % Change: 2010 vs 2009			-78 %		

Table 16: Washington DC Bag Fee Analysis

* Bag estimate rounded to nearest 100

Source: Mr. William Bowie, Washington DC Office of the Chief Financial Officer, via email correspondence with AECOM staff dated 10/21/2010, and

May 14, 2009 Fiscal Impact Statement – "Anacostia River Clean Up and Protection Act of 2009" for bill number 18-150 available in the May 14, 2009 Committee Report, accessed 10/19/2010 at: http://www.dccouncil.washington.dc.us/lims/legislation.aspx?LegNo=B18-0150&Description=%22ANACOSTIA+RIVER+CLEAN+UP+AND+PROTECTION+ACT+OF+2009%22.+%0D%0A+&ID=22118

Bags		Plastic	Paper	Total	
Trucks					
Trucks: Pallets	1:	24	24		
Pallets: Cases	1:	36	15		
Cases: Bags	1:	1,000	300		
Bags: Truck	1 :	864,000	108,000		
Bags per Capita					
Status Quo		433	48		
Ban, no fee		0	183		
Ban, 10¢ fee		0	64		
Trucks per Capita		0.000500	0.000440	0 0000 17	Ratio to Status Quo
Status Quo		0.000502	0.000446	0.000947	100%
Ban, 10¢ fee		0.000000	0.000592	0.000592	63%

Table 17: Estimated Transportation Impact

Source: Boatner, Kent. Director of Store Operations for Ralphs Grocery Company. Telephone interview with AECOM staff. September 15, 2009. | AECOM calculations

Appendix 3: Calculation of Per Capita Plastic Bag Consumption

Category	Tons	% of Waste	Pounds/Capita
Plastic Trash Bags	390,500	22%	21.6
Plastic Grocery & Other Merchandise Bags	147,000	8%	8.1
Non-Bag Comm/Industrial Film	290,300	17%	16.1
Film Products	93,100	5%	5.2
Other/Misc Film	<u>826,800</u>	<u>47%</u>	<u>45.7</u>
Total Film Plastic	1,747,700	100%	96.7
Other Plastic Waste	2,062,000		114.1
All Plastic Waste (Film Plastic + Other)	3,809,700		210.8

Table 18: Amount and Composition of Film Plastic Disposed In California, 2003–2004

Source: California Integrated Waste Management Board. Comprehensive Film Plastic Diversion and Management Action Plan and Plastic Trash Bag Program. December 2004. | Cascadia Consulting Group. Statewide Waste Characterization Study. December 2004.

Table 19: Absolute and Relative Weights of Single-use Carryout Bags

	Grams	Pounds (lbs)	Relative Weight
Disposable Plastic Carry Bag	5.5	0.01213	1.0x
Paper Grocery Bag	42.6	0.09392	7.7x

Source: Nolan-ITU Pty Ltd., et al. Environment Australia: Department of the Environment and Heritage: Plastic Shopping Bags – Analysis of Levies and Environmental Impacts: Final Report. December 2002.

Table 20: Single-use Carryout Bags Consumed per Capita, California

Category	Disposed Lbs/Capita	Lbs/Bag	Bags Disposed/ Capita	Disposal Factor*	Total Bags/ Capita
Plastic Grocery & Other Merchandise Bags	8.1	0.01213	668	95%	703
* 95% disposal rate based on 5% recycling rate					

Source:

Table 18, California Integrated Waste Management Board. "Comprehensive Film Plastic Diversion and Management Action Plan and Plastic Trash Bag Program." December 2004. | Los Angeles County Department of Public Works. *An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors.* August 2007.

Table 21: Alternative: Single-use Carryout Bags Consumed per Capita, California

Plastic Bags Consumed in LA County	6,000,000,000				
Veer	2002	2004	2005	2006	2007
rear	2003	2004	2005	2006	2007
Population	9,961,000	10,078,000	10,163,000	10,223,000	10,276,000
Bags per Capita	602	595	590	587	584
Minimum	584				
Maximum	602				

Source: Los Angeles County Department of Public Works. An Overview of Carryout Bags in Los Angeles County: A Staff Report to the Los Angeles County Board of Supervisors. August 2007. | California Department of Finance, E5 Population Estimates

Tuble LE. Retain madding obe of Flagtic Dags by Type of Retainer, Australia

	2002 Pre-Ban	2005 Post-Ban
Supermarket	61 %	57%
Other Food & Liquor	15 %	16%
General Merchandise	10 %	11%
Fast food, convenience and service stations	6 %	7%
Other Retail	8%	9%
Supermarket & Other Food & Liquor	76 %	73%

Source: The Allen Consulting Group. *Phasing Out Light-Weight Plastic Bags: Costs and Benefits of Alternative Approaches.* May 2006. Table refers to the distribution of plastic bags used by various retail outlets in Australia before and after the implementation of a ban on plastic bags

Table 23: Annual Expenditure Characteristics of US Consumer

	Western Region	Income: \$50,000- \$69,999
Estimated Retail Outlet Purchase	\$7,902	\$7,141
Percent at Grocery & Pharmacy Outlets	62%	62%

Source: Bureau of Economic Affairs, Consumer Expenditure Survey 2008 and AECOM

Table 24: Average Grocery & Pharmacy as Percent of Total Plastic Bag Use (Pre-Ban)

Australia	76%	Australia
United States	62%	United States
Average	69%	Average

Source:

Table 22, Table 23

Appendix 4: Trash Bag Calculation

Table 25: Estimated Trash Bags Consumed per Capita, California

Trash Bags sold in California (2003)	4,500,000,000
California Population (2003)	35,652,700
Trash Bags sold per Capita*	126

* Does not include reuse of plastic carryout bags

Source: California Integrated Waste Management Board. "Comprehensive Film Plastic Diversion and Management Action Plan and Plastic Trash Bag Program." December 2004. | California Department of Finance, E5 Population Data.

Table 26: Estimated Reuse Rate of Plastic Bag as Trash Bag

	Paper
Reuse rate of plastic carryout bags	51%
Percent used for wastebasket/trash liners	<u>55%</u>
Total reuse rate of plastic carryout bags for trash disposal	28%

Source: Elway Research, Inc. Public Opinion on Disposable Plastics. December 2007. In Appendix H of Herrera Environmental Consultants, Inc. Alternatives to Disposable Shopping Bags and Food Service Items: Volume II, Appendices. January 2008. (pp. 80-144). | American Plastics Council. National Plastic Shopping Bag Recycling Signage Testing: A Survey of the General Population. March 2007.

Table 27: Rate of Substitution (no. of plastic bags replaced by one alternative bag)

	Rate
Paper bag	2x
Reusable bag	125x
Trash bag	7x

Source: The Allen Consulting Group. *Phasing Out Light-Weight Plastic Bags: Costs and Benefits of Alternative Approaches.* May 2006. (p.17) and Table 5, Sapphos Environmental, Inc. Bag Usage Data Collection Survey (11/2009)

Table 28: Post Ban: Total New Cost per Capita of Additional Trash Bags

	New Trash Bag Demand	Cost/Bag	Cost/Capita
Average	17	\$0.079	\$1.37

Source: Table 12, Table 13

Appendix 4: Los Angeles County Sales Tax Rate

Table 29: Sales Tax Rate, Los Angeles County

City Rate Acton 9.75% Charter Oak 9.75% Agoura 9.75% Chatsworth (Los Angeles*) 9.75% Agoura Hills* 9.75% City of Commerce* 9.75% Agua Dulce 9.75% City of Industry* 9.75% Alhambra* 9.75% City of Industry* 9.75% Almondale 9.75% City Terrace 9.75% Alondra 9.75% Cole 9.75% Altadena 9.75% Commerce* 9.75% Antelope Acres 9.75% Cornell 9.75% Arcadia* 9.75% Cornell 9.75% Artesia* 9.75% Cornell 9.75% Artesia* 9.75% Cornell 9.75% Artesia* 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
City Rate Acton 9.75% Charter Oak 9.75% Agoura 9.75% Chatsworth (Los Angeles*) 9.75% Agoura Hills* 9.75% City of Commerce* 9.75% Agua Dulce 9.75% City of Industry* 9.75% Alhambra* 9.75% City of Industry* 9.75% Almondale 9.75% City Terrace 9.75% Almondale 9.75% Cole 9.75% Alondra 9.75% Cole 9.75% Antelope Acres 9.75% Cornell 9.75% Arcadia* 9.75% Cornell 9.75% Artesia* 9.75% Cornell 9.75% Artesia* 9.75% Cornell 9.75% Artesia* 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Acton 9.75% Charter Oak 9.75% Agoura 9.75% Chatsworth (Los Angeles*) 9.75% Agoura Hills* 9.75% City of Commerce* 9.75% Agua Dulce 9.75% City of Industry* 9.75% Alhambra* 9.75% City of Industry* 9.75% Alhambra* 9.75% City Terrace 9.75% Almondale 9.75% Claremont* 9.75% Alondra 9.75% Cole 9.75% Altadena 9.75% Commerce* 9.75% Artelope Acres 9.75% Compton* 9.75% Arteta (Los Angeles*) 9.75% Cornell 9.75% Artesia* 9.75% Crenshaw 9.75% Athens 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Agoura 9.75% Chatsworth (Los Angeles*) 9.75% Agoura Hills* 9.75% City of Commerce* 9.75% Agua Dulce 9.75% City of Industry* 9.75% Alhambra* 9.75% City of Industry* 9.75% Alhambra* 9.75% City of Industry* 9.75% Almondale 9.75% City Terrace 9.75% Alondra 9.75% Claremont* 9.75% Altadena 9.75% Commerce* 9.75% Antelope Acres 9.75% Cornell 9.75% Arcadia* 9.75% Cornell 9.75% Artesia* 9.75% Covina* 9.75% Artesia* 9.75% Covina* 9.75% Artesia* 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Agoura Hills* 9.75% City of Commerce* 9.75% Agua Dulce 9.75% City of Industry* 9.75% Alhambra* 9.75% City Terrace 9.75% Almondale 9.75% Claremont* 9.75% Alondra 9.75% Claremont* 9.75% Altadena 9.75% Cole 9.75% Antelope Acres 9.75% Commerce* 9.75% Artedia* 9.75% Cornell 9.75% Arcadia* 9.75% Cornell 9.75% Artesia* 9.75% Cornell 9.75% Artesia* 9.75% Cornell 9.75% Artesia* 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Agua Dulce 9.75% City of Industry* 9.75% Alhambra* 9.75% City Terrace 9.75% Almondale 9.75% Claremont* 9.75% Alondra 9.75% Cole 9.75% Altadena 9.75% Cole 9.75% Antelope Acres 9.75% Compton* 9.75% Arcadia* 9.75% Cornell 9.75% Arleta (Los Angeles*) 9.75% Covina* 9.75% Artesia* 9.75% Covina* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Alhambra* 9.75% City Terrace 9.75% Almondale 9.75% Claremont* 9.75% Alondra 9.75% Cole 9.75% Altadena 9.75% Commerce* 9.75% Antelope Acres 9.75% Compton* 9.75% Arcadia* 9.75% Cornell 9.75% Arleta (Los Angeles*) 9.75% Covina* 9.75% Artesia* 9.75% Covina* 9.75% Artesia* 9.75% Covina* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Almondale 9.75% Claremont* 9.75% Alondra 9.75% Cole 9.75% Altadena 9.75% Commerce* 9.75% Antelope Acres 9.75% Compton* 9.75% Arcadia* 9.75% Cornell 9.75% Arleta (Los Angeles*) 9.75% Covina* 9.75% Artesia* 9.75% Covina* 9.75% Artesia* 9.75% Covina* 9.75% Athens 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Bailey 9.75% Diamond Bar* 9.75%
Alondra 9.75% Cole 9.75% Altadena 9.75% Commerce* 9.75% Antelope Acres 9.75% Compton* 9.75% Arcadia* 9.75% Cornell 9.75% Arleta (Los Angeles*) 9.75% Covina* 9.75% Artesia* 9.75% Covina* 9.75% Artesia* 9.75% Crenshaw 9.75% Athens 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Bailey 9.75% Del Sur 9.75%
Altadena 9.75% Commerce* 9.75% Antelope Acres 9.75% Compton* 9.75% Arcadia* 9.75% Cornell 9.75% Arleta (Los Angeles*) 9.75% Covina* 9.75% Artesia* 9.75% Covina* 9.75% Athens 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Bailey 9.75% Diamond Bar* 9.75%
Antelope Acres 9.75% Compton* 9.75% Arcadia* 9.75% Cornell 9.75% Arleta (Los Angeles*) 9.75% Covina* 9.75% Artesia* 9.75% Covina* 9.75% Artesia* 9.75% Crenshaw 9.75% Athens 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Arcadia* 9.75% Cornell 9.75% Arleta (Los Angeles*) 9.75% Covina* 9.75% Artesia* 9.75% Crenshaw 9.75% Athens 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Arleta (Los Angeles*) 9.75% Covina* 9.75% Artesia* 9.75% Crenshaw 9.75% Athens 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Artesia* 9.75% Crenshaw 9.75% Athens 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Athens 9.75% Cudahy* 9.75% Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Avalon* 10.25% Culver City* 9.75% Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Azusa* 9.75% Del Sur 9.75% Bailey 9.75% Diamond Bar* 9.75%
Bailey 9.75% Diamond Bar* 9.75%
Baldwin Park* 9.75% Downey* 9.75%
Barrington 9.75% Duarte* 9.75%
Bassett 9.75% Eagle Rock (Los Angeles*) 9.75%
Bel Air Estates 9.75% East Los Angeles 9.75%
Bell Gardens* 9.75% East Lynwood (Lynwood*) 9.75%
Bell* 9.75% East Rancho Dominguez 9.75%
Bellflower* 9.75% East San Pedro (Los Angeles*) 9.75%
Beverly Hills* 9.75% Eastgate 9.75%
Biola College (La Mirada*) 9.75% Echo Park (Los Angeles*) 9.75%
Bouquet Canvon (Santa Clarita*) 9.75% El Monte* 10.25%
Bradburv* 9.75% El Segundo* 9.75%
Brents Junction 9.75% Elizabeth Lake 9.75%
Brentwood (Los Angeles*) 9.75% Encino (Los Angeles*) 9.75%
Burbank* 9.75% Flintridge (LaCanada/ Flintridge*) 9.75%
Cabrillo 975% Elorence 975%
Calabasas Highlands 975% Forest Park 975%
Calabasas Park 975% Friendly Valley (Santa Clarita*) 975%
Calabasas* 975% Gardena* 975%
Canoga Annex 975% Glassell Park (Los Angeles*) 975%
Canoga Park (Los Angeles*) 975% Glendale* 975%
Canvon Country (Santa Clarita*) 975% Glendora* 975%
Carson* 9.75% Gorman 9.75%
Castaic 9.75% Granada Hills (Los Angeles*) 9.75%
Cedar 9.75% Green Valley 0.75%
Century City 9.75% 9.75% Hacienda Heights 9.75%
Cerritos* 9.75% Harbor City (Los Angeles*) 9.75%

Hawaiian Gardens*	9.75%	Naples	9.75%
Hawthorne*	9.75%	Newhall (Santa Clarita*)	9.75%
Hazard	9.75%	North Gardena	9.75%
Hermosa Beach*	9.75%	North Hills (Los Angeles*)	9.75%
Hidden Hills*	9.75%	North Hollywood (Los Angeles*)	9.75%
Highland Park (Los Angeles*)	9.75%	Northridge (Los Angeles*)	9.75%
Hollywood (Los Angeles*)	9.75%	Norwalk*	9.75%
Honby	9.75%	Oban	9.75%
Huntington Park*	9.75%	Olive View (Los Angeles*)	9.75%
Hyde Park (Los Angeles*)	9.75%	Pacific Palisades (Los Angeles*)	9.75%
Industry*	9.75%	Pacoima (Los Angeles*)	9.75%
Inglewood*	10.25%	Pallett	9.75%
Irwindale*	9.75%	Palmdale*	9.75%
Kagel Canyon	9.75%	Palos Verdes Estates*	9.75%
L.A. Airport (Los Angeles*)	9.75%	Palos Verdes/Peninsula	9.75%
La Canada- Flintridge*	9.75%	Panorama City (Los Angeles*)	9.75%
La Crescenta	9.75%	Paramount*	9.75%
La Habra Heights*	9.75%	Pasadena*	9.75%
La Mirada*	9.75%	Pearblossom	9.75%
La Puente*	9.75%	Pearland	9.75%
La Verne*	9.75%	Perry (Whittier*)	9.75%
La Vina	9.75%	Pico Rivera*	10.75%
Ladera Heights	9.75%	Pinetree	9.75%
Lake Hughes	9.75%	Playa Del Rey (Los Angeles*)	9.75%
Lake Los Angeles	9.75%	Pomona*	9.75%
Lakeview Terrace (Los Angeles*)	9.75%	Porter Ranch (Los Angeles*)	9.75%
Lakewood*	9.75%	Portuguese Bend (Rancho Palos Verdes*)	9.75%
Lancaster*	9.75%	Pt. Dume	9.75%
Lang	9.75%	Quartz Hill	9.75%
Lawndale*	9.75%	Rancho Dominguez	9.75%
Lennox	9.75%	Rancho Palos Verdes*	9.75%
Leona Valley	9.75%	Rancho Park (Los Angeles*)	9.75%
Lincoln Heights (Los Angeles*)	9.75%	Ravenna	9.75%
Littlerock (Also Little Rock)	9.75%	Redondo Beach*	9.75%
Llano	9.75%	Reseda (Los Angeles*)	9.75%
Lomita*	9.75%	Rimpau (Los Angeles*)	9.75%
Long Beach*	9.75%	Rolling Hills Estates*	9.75%
Longview	9.75%	Rolling Hills*	9.75%
Los Angeles*	9.75%	Rose Bowl (Pasadena*)	9.75%
Los Nietos	9.75%	Rosemead*	9.75%
Marina Del Rey	9.75%	Rowland Heights	9.75%
Maywood*	9.75%	San Dimas*	9.75%
Mint Canyon	9.75%	San Fernando*	9.75%
Mission Hills (Los Angeles*)	9.75%	San Gabriel*	9.75%
Moneta	9.75%	San Marino*	9.75%
Monrovia*	9.75%	San Pedro (Los Angeles*)	9.75%
Montebello*	9.75%	Santa Clarita*	9.75%
Monterey Park*	9.75%	Santa Fe Springs*	9.75%
Montrose	9.75%	Santa Monica*	9.75%
Mount Wilson	9.75%	Saugus (Santa Clarita*)	9.75%

Sawtelle (Los Angeles*)	9.75%	Van Nuys (Los Angeles*)	9.75%
Seminole Hot Springs	9.75%	Vasquez Rocks	9.75%
Sepulveda (Los Angeles*)	9.75%	Venice (Los Angeles*)	9.75%
Sherman Oaks (Los Angeles*)	9.75%	Verdugo City (Glendale*)	9.75%
Sierra Madre*	9.75%	Vernon*	9.75%
Signal Hill*	9.75%	Veteran's Hospital (Los Angeles*)	9.75%
Sleepy Valley	9.75%	View Park	9.75%
Solemint	9.75%	Vincent	9.75%
South El Monte*	9.75%	Walnut Park	9.75%
South Gate*	10.75%	Walnut*	9.75%
South Pasadena*	9.75%	Watts	9.75%
South Whittier	9.75%	West Covina*	9.75%
Stevenson Ranch	9.75%	West Hills (Los Angeles*)	9.75%
Studio City (Los Angeles*)	9.75%	West Hollywood*	9.75%
Sulphur Springs	9.75%	West Los Angeles (Los Angeles*)	9.75%
Sun Valley (Los Angeles*)	9.75%	Westchester (Los Angeles*)	9.75%
Sunland (Los Angeles*)	9.75%	Westlake (Los Angeles*)	9.75%
Sylmar (Los Angeles*)	9.75%	Westlake Village*	9.75%
Tarzana (Los Angeles*)	9.75%	Westwood (Los Angeles*)	9.75%
Temple City*	9.75%	Whittier*	9.75%
Terminal Island (Los Angeles*)	9.75%	Willowbrook	9.75%
Toluca Lake (Los Angeles*)	9.75%	Wilmington (Los Angeles*)	9.75%
Topanga (Los Angeles*)	9.75%	Wilsona Gardens	9.75%
Topanga Park (Los Angeles*)	9.75%	Windsor Hills	9.75%
Torrance*	9.75%	Winnetka (Los Angeles*)	9.75%
Tujunga (Los Angeles*)	9.75%	Woodland Hills (Los Angeles*)	9.75%
Universal City	9.75%		
Val Verde Park	9.75%		
Valencia (Santa Clarita*)	9.75%		
Valinda	9.75%		
Valley Village	9.75%		
Valyermo	9.75%		

* Incorporated City

Source: California State Board of Equalization, rates effective July 2009

Table 30: Household Income

Income Range	Incorporated Cities		Unincorporate Areas	ed	Total LA Cou	nty
< \$10,000	230,000	7.7%	20,000	6.6%	250,000	7.6%
\$10,000 - \$20,000	295,000	9.9%	25,000	8.2%	320,000	9.7%
\$20,000 - \$30,000	285,000	9.5%	25,000	8.2%	310,000	9.4%
\$30,000 - \$40,000	275,000	9.2%	25,000	8.2%	300,000	9.1%
\$40,000 - \$50,000	285,000	9.5%	30,000	9.8%	315,000	9.6%
\$50,000 - \$60,000	265,000	8.9%	30,000	9.8%	295,000	9.0%
\$60,000 - \$75,000	340,000	11.4%	40,000	13.1%	380,000	11.6%
\$75,000 - \$100,000	405,000	13.6%	45,000	14.8%	450,000	13.7%
\$100,000 - \$150,000	335,000	11.2%	40,000	13.1%	375,000	11.4%
\$150,000 +	270,000	9.0%	25,000	8.2%	295,000	9.0%
Total Households	2,985,000		305,000		3,290,000	
Median Household Income	\$54,200		\$60,000		\$54,800	
Average Household Income	\$74,600		\$77,500		\$74,900	

Source: California Department of Finance & ESRI Business Analyst Population values rounded to nearest 5,000

Table 1: Population and Households, 2010	10
Table 2: Employment by Status and Industry, 2008	11
Table 3: Estimated Retail Price of Single-Use Carryout Bag	13
Table 4: Distribution of Bags at Checkout (Australia)	13
Table 5: Distribution of Bags at Checkout (Los Angeles)	14
Table 6: Reusable Bag Capacity and Cost	15
Table 7: Single-use Plastic Bag Consumption (no bans, fees, or taxes)	17
Table 8: Single Use Plastic Carryout Bags Per Capita	. 18
Table 9: Existing Hidden Cost per Capita	. 18
Table 10: Post-Ordinance Distribution and Cost of Carryout Bags	. 19
Table 11: Total Switching Cost per Capita (Post-Ordinance Carryout Cost less Current Carryout Cost)	. 19
Table 12: New Demand for Trash Bags Resulting from Proposed Ordinance	. 20
Table 13: Retail Price of 4-Gallon Garbage Bag	. 20
Table 14: New Sales Tax per Capita	. 20
Table 15: Total Cost of Proposed Ordinance (10¢ fee)	. 22
Table 16: Washington DC Bag Fee Analysis	. 25
Table 17: Estimated Transportation Impact	. 26
Table 18: Amount and Composition of Film Plastic Disposed In California, 2003–2004	. 27
Table 19: Absolute and Relative Weights of Single-use Carryout Bags	. 27
Table 20: Single-use Carryout Bags Consumed per Capita, California	. 27
Table 21: Alternative: Single-use Carryout Bags Consumed per Capita, California	. 27
Table 22: Retail Industry Use of Plastic Bags by Type of Retailer, Australia	. 28
Table 23: Annual Expenditure Characteristics of US Consumer	. 28
Table 24: Average Grocery & Pharmacy as Percent of Total Plastic Bag Use (Pre-Ban)	. 28
Table 25: Estimated Trash Bags Consumed per Capita, California	. 29
Table 26: Estimated Reuse Rate of Plastic Bag as Trash Bag	. 29
Table 27: Rate of Substitution (no. of plastic bags replaced by one alternative bag)	. 29
Table 28: Post Ban: Total New Cost per Capita of Additional Trash Bags	. 29
Table 29: Sales Tax Rate, Los Angeles County	. 30
Table 30: Household Income	33