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MARK PESTRELLA, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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April 28, 2022

IN REPLY PLEASE

REFER TO FILE:

WW-0
10363-4-1F

TO: Each Supervisor

FROM: Mark Pestrella, PE 
Director of Public Works

BOARD MOTION OF MARCH 1, 2022, AGENDA ITEM 60B ADOPTING POLICIES TO SUPPORT URBAN WATER CONSERVATION IN LOS ANGELES COUNTY - REPORT ON ACTIONS TAKEN

On March 1, 2022, the Board approved Item 60B – Adopting Policies to Support Urban Water Conservation Motion directing Public Works to identify and implement actions of the Los Angeles County Waterworks Districts (Districts) to increase water conservation and report back on these measures within 60 days. The Motion also directed Public Works to incorporate water conservation messaging into the Safe, Clean Water Program education and workforce job training programs; to advance the next Water for LA campaign to highlight the Journey of Water; and to include water conservation and re-use priorities as part of Infrastructure LA and the coordinated work for the Bipartisan Infrastructure Law (BIL). The following is a summary of each of these efforts:

Los Angeles County Waterworks Districts

Following two years of exceptional drought in California, the Districts are actively engaged with the residents, businesses, and communities we serve to promote water conservation and to reduce water waste throughout the region. The Districts have outlined the following new and ongoing actions currently underway to enhance water conservation programs:

Increased Public Outreach and Community Engagement

Over the last 2 years of drought, the Districts' social media campaigns have provided a wealth of information and a large number of water-saving tips to the Districts' customers. The Districts have prioritized building trust with its customers as well as increasing awareness of the service it provides. The Districts will continue growing these relationships with the community to help carry the region through this prolonged drought. As the drought has worsened over the last six months, the Districts have now secured an experienced third-party public relations consultant to help boost its existing public

outreach and community engagement programs. These programs are aimed at facilitating and encouraging positive behavior changes regarding water use and water conservation as well as increasing customers' understanding of the value of water infrastructure. These efforts include:

Social and other Media Outreach

A social and other media campaign, including information regarding the Districts' water conservation programs. The campaign includes messaging on various platforms, including social media (Twitter, NextDoor, Instagram, and Facebook), the Districts' website, bill inserts, messaging on bills, posters, flyers, newspaper articles, newsletters, and fact sheets.

School Education Program

An education program targeting fifth grade students during the 2022-23 and the 2023-24 school years, focused on establishing an understanding of current and future water-related issues.

Increased Rebate Programs

The Districts have continued to work with partner agencies to enhance rebate programs offered to customers, which include:

- Water Saving Devices – Through partnerships with local water agencies, the Districts currently offer customers rebates to offset the cost to purchase and install the following devices:
 - Weather controlled residential irrigation controllers
 - Irrigation controlled soil moisture sensors
 - Replacement of sprinkler heads
 - Flow monitoring devices
- Malibu Smart/Topanga Smart – In partnership with West Basin Municipal Water District and the City of Malibu, the Districts offer residential and commercial customer rebates for fixtures and appliances, such as high-efficiency clothes washers and toilets, installation of water smart technologies, rotary sprinkler nozzles, and lawn assessments.
- Antelope Valley Drought Group – In partnership with Palmdale Water District, Antelope Valley-East Kern Water Agency, Quartz Hill Water District, Rosamond

Community Services District, and Littlerock Creek Irrigation District, the Districts meet with the group monthly to coordinate conservation messaging and create messaging for displays such as billboards and videos.

- Cash for Grass – Provides a rebate for replacing residential grass with drought tolerant landscaping.

Additional Actions

- The Districts, in close coordination with partner and neighboring water agencies, have significantly increased water conservation messaging via eblast, robocalls, website, and bill inserts.
- The Districts have increased participation at community meetings and events to establish connections with customers, provide information about the Districts' operations, water conservation efforts and programs, and address water issues and concerns.
- The Districts have resumed offering free water use audits to customers for a comprehensive review of their indoor and outdoor water use and to check for leaks in appliances and fixtures such as toilets, sinks, showers, dish and clothes washers, and pools.
- In compliance with Senate Bill 552, the Districts are revising their current Water Shortage Contingency Plan and establishing a task force to facilitate drought and water shortage preparedness for small water systems with less than 3,000 service connections, including Waterworks District No. 21, Kagel Canyon; Waterworks District No. 36, Val Verde; and Waterworks District No. 37, Acton. This will provide opportunities for coordination and communication in relation to water conservation efforts and long-term solutions for drought preparedness.

Governor's Executive Order No. N-7-22

On March 28, 2022, Governor Newsom issued Executive Order N-7-22 taking steps to further drive water conservation at the local level. This new executive order, among other measures, has recommended the State's Department of Water Resources (DWR) to adopt regulations by May 25, 2022, directing urban water suppliers, including the Districts, to take the following actions:

1. Submit to DWR an annual water supply and demand assessment

2. Implement at least Level 2 of their Water Shortage Contingency Plan (WSCP)
3. Ban irrigation on non-functional turf for existing industrial/commercial properties

Level 2 of the Districts' WSCP includes establishing target quantities or water budgets for each customer along with corresponding conservation surcharges to discourage excessive water use. This would require Board action, and the Districts are currently preparing for that process now. The Districts would also be required to implement additional water conservation measures including outdoor water use restrictions.

Once a water shortage is declared, DWR will specify a year(s) to use as a baseline water usage for the creation of the Districts' customer individual water budgets. It is anticipated that DWR will set an approximate reduction target of 20 percent from the baseline year. Customers that go over their water budget will have a surcharge applied to their water bills as outlined in the Districts' WSCP and Rules and Regulations documents. Customers that believe their water budgets are not accurate will have the ability to appeal their conservation targets. The Districts' Customer Information System will be augmented to automatically apply any surcharges. The Customer Information System will also be used to track and report on each Districts' progress in meeting systemwide conservation targets.

Please note that on April 26, 2022, the Metropolitan Water District declared a Water Shortage Emergency Condition for portions of their district served solely by State Water Project and restricting outdoor watering to 1 day per week for those service areas. The Districts are not within these service area and are not subject to these restrictions.

Summary and Next Steps

Over the last 6 months, the Districts have steadily ramped up water conservation efforts to address potential future water shortages resulting from a third consecutive dry year. The Districts' water conservation actions, including increased financial incentives, messaging, and community outreach, have been aimed at promoting voluntary water conservation in accordance with the Board Motion. The Governor's latest executive order is expected to trigger stricter mandatory water usage restrictions consistent with a water shortage emergency declaration. Once these restrictions are adopted by DWR, the next step of the Districts' response will include seeking Board approval to implement mandatory water conservation actions, including establishing water budgets for customers and implementing water conservation surcharges.

Safe, Clean Water Program (SCWP)

Public Works is currently advancing the SCWP District Education programs in accordance with the Board's Motion in late 2021. Specifically, the public education and community engagement program is being initiated in tandem with a new strategic communications plan. Additionally, early framing has begun around potential education and/or engagement grants which could perhaps fund non-profits, community-based organizations, and/or small cities to help advance SCWP goals. Regarding workforce development, Public Works is exploring a possible expansion of the existing Public Works partnership with the Worker Education & Resource Center PLACE Program to train and place more workers who have barriers to employment within the County workforce. Regarding the schools education program, benchmarking of existing programs and potential future partnerships are being explored. All of these efforts will be further developed with water conservation messaging, especially in relation to stormwater capture and the integrated and collaborative processes that interested parties can engage in alongside meaningful water usage behavioral changes to ensure regional water supplies are resilient and sustainable.

Water for LA Program

The March 1, 2022, Board Motion also directed Public Works to advance the next Water for LA campaign to educate the public and foster more sustainable behavior and collaboration regarding the region's water resources.

Los Angeles County is home to a diverse population of over 10 million people across 4,084 square miles. In order to sustain the people and environment of Los Angeles County, we need safe, clean, and reliable water. Established by Public Works in 2019, Water for LA (www.WaterForLA.com) is an ongoing water education platform to provide trusted information to the residents of Los Angeles County and inspire them to reevaluate and improve their relationship with water. The initial 2020 campaign was on the topic of stormwater and urban runoff pollution prevention.

For 2022, Water for LA will be focused on the journey water takes to reach our region for use. With most of our water being sourced from outside the Los Angeles region, it is important to understand the journey water takes and the ways water systems and issues are managed in Los Angeles County.

The objective of the Journey of Water campaign is to educate Los Angeles County residents about the region's water supply sources, the journey water takes to reach homes, businesses, and schools in our communities, and the integrated and collaborative processes that they can engage in that ensure such supplies are resilient and sustainable.

Each Supervisor
April 28, 2022
Page 6

The Journey of Water campaign will also inspire behavioral changes to conserve water and educate residents on the water management systems, such as the local groundwater basins, recycled water projects, and the role of regional stormwater infrastructure.

A consultant has been selected to conduct foundational research and develop the Journey of Water campaign, which will include a core set of messages, with additional messaging targeting individual demographics. The campaign will consist of a 12-week intensive campaign kicking off late summer through early fall, which may include advertising on the radio during local baseball games, newspaper ads, bus shelter ads, and social media to inspire behavioral change. Advertising will occur on both English and Spanish media platforms. The Water for LA website will be refreshed with new education content about the Journey of Water. Campaign effectiveness will be tracked during the 12-week campaign and will be utilized to track behavioral change and to inform future campaign topics.

Infrastructure LA

As directed by the Board on April 5, 2022, Item 30, in the Ensure Equitable and Sustainable Outcomes in Federal and State Infrastructure Funding Motion, Infrastructure LA is developing project proposals and a list of infrastructure projects for potential funding from the BIL. Infrastructure LA is currently reviewing eligibility criteria for the water conservation and re-use programs which has approximately \$3 billion in available funding.

If you have any questions, please contact me or your staff may contact Deputy Director, Keith Lilley, at (626) 458-4012 or klilley@pw.lacounty.gov.

RB:sb

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cc: Chief Executive Office
County Counsel
Executive Office

MOTION BY SUPERVISORS HILDA L. SOLIS

MARCH 1, 2022

AND SHEILA KUEHL

Adopting Policies to Support Urban Water Conservation in Los Angeles County

While recent storms have brought much needed rain and snowfall, dry conditions in Los Angeles County (County) and the State of California (State) are likely to extend to a third consecutive year. Recent updates and data on the state of the water supply to the County have only underscored the need for greater commitments and efforts to conserve water resources. Governor Newsom’s proclamation extending the drought emergency statewide and urging Californians to voluntarily reduce water usage remains in effect. To safeguard drinking water supplies, the State Water Resource Control Board recently adopted regulations to prohibit overwatering yards, washing cars without a shutoff nuzzle, hosing sidewalks, or watering grass within 48 hours after rainfall. Earlier this month, Governor Newsom proposed \$750 million in the State’s budget to support drought resilience and response.

On July 27, 2021, the Board of Supervisors adopted a motion, [Supporting Urban](#)

MOTION

SOLIS _____

KUEHL _____

HAHN _____

BARGER _____

MITCHELL _____

[Water Conservation in Los Angeles County](#), introduced by Supervisors Hilda L. Solis and Sheila Kuehl in response to the drought conditions, instructing the Chief Executive Officer, in coordination with the Department of Public Works, the Department of Parks and Recreation, and the Internal Services Department to report back to the Board on the following:

- Baseline water usage based on average of 2017, 2018, and 2019 annual usage data at top 100 County facilities;
- The percentage of water sourced from recycled water sources particularly for irrigation of large, landscaped areas such as golf courses;
- A summary of planned and recently completed water efficiency upgrades and the status of that work; and
- Recommendations on how to achieve a 15% reduction in water use as compared to the 2017-2019 baseline at County facilities that are in alignment with other County sustainability goals, such as preservation of the urban tree canopy.

The motion further directed the Department of Public Works to survey drought-related education and outreach efforts by local water agencies in unincorporated areas of the County, and report back with a plan to enhance these efforts through the Water for LA Program to reach the highest water users, and ensure that information on resources to support water efficiency upgrades reaches linguistically isolated communities.

In response to the motion, the Chief Executive Office submitted a [report](#) on November 24, 2021, providing recommendations to reduce unnecessary water usage in

support of community health and sustainability goals, as well as to improve the County's ability to track progress and identify specific areas with high water demand or water waste. The report's recommendations focused on non-recreational landscaping, County buildings, recreational facilities, investments in software data collection and tracking, and community policies to support long-term water conservation. Additionally, the Department of Public Works produced a supplemental report which recommended the County further utilize its Water for LA Program to outreach to constituents to help reduce water use and serve as a liaison to connect water agencies with available water conservation resources. The Water for LA Program and its accompanying [website](#) were established in 2019. Campaigns to date have focused on the topics of water conservation and then stormwater and urban runoff pollution prevention. However, the prolonged drought conditions warrant additional and broader-scale water conservation education, which has been validated by stakeholders involved to date in the County Water Plan development effort.

In November 2018, voters in Los Angeles County approved parcel tax Measure W, with approximately 70% of the vote. Through Measure W, the Safe, Clean Water Program provides local, dedicated funding to increase Los Angeles County's local water supply, improve water quality, and enhance communities. The program generates up to \$285 million each year to fund multi-benefit stormwater and urban runoff capture projects. To date, 78 infrastructure projects have been funded, which collectively provide a suite of drought-related benefits that will supplement current and future water usage conservation efforts to enhance regional sustainability:

- Capture stormwater from over 207,000 acres;

- Increase total 24-hr storm storage capacity by 3,667 acre-feet; and
- Increase annual average stormwater capture by 54,664 acre-feet.

Additionally, the Safe Clean Water Program is tasked with the development of various education programs that could serve as yet another forum to explicitly help coordinate regional drought messaging in conjunction with Water For LA.

Lastly, in December 2021, Senators Dianne Feinstein and Alex Padilla called on the U.S. Department of the Interior to prioritize \$8.3 billion in western water infrastructure funding for California projects that will promote preparedness and resiliency to climate-driven droughts. Additional messaging and concurrence with such prioritization could emphasize the needs for our state, and specifically LA County.

As climate change-induced droughts continue to threaten regional water supply, the County must commit long-term investments and continue to demonstrate its leadership in prioritizing water conservation at its own facilities in order to meet the numerous goals outlined in the OurCounty Sustainability plan and being further explored and developed in the County Water Plan.

WE, THEREFORE, MOVE that the Board of Supervisors

1. Direct the Chief Sustainability Office, in coordination with County Counsel, the Departments of Public Works, Parks and Recreation, and the Internal Services Department, to return within 180 days with a draft Board policy for the Board's consideration that establishes permanent water conservation measures for outdoor water use at all County-owned properties, such as requiring water

efficient irrigation systems, multi-benefit landscape design, limits on washing of sidewalks and cars, banning non-functional turf, and other recommendations from the November 24, 2021 report back.

2. Direct the Department of Public Works to incorporate water conservation messaging during development of the Safe, Clean Water public education program, local workforce job training program, and school education programs.
3. Direct the Department of Public Works to advance the next Water for LA campaign to educate the public and foster more sustainable behavior and collaboration regarding the region's water resources. This next campaign, understood to be utilizing materials about the Journey of Water, should be launched promptly in 2022 and aim to help coordinate and facilitate regional drought messaging as identified as a critical need by stakeholders currently involved in the County Water Plan development process. The campaign should educate LA County residents in their language about the region's water supply sources, the journey water takes to reach the homes, businesses, and schools in our communities, and the integrated and collaborative process that they can engage in alongside meaningful water usage behavioral changes that ensure such supplies are resilient and sustainable.
4. Direct the Internal Services Department to report back in writing within 180 days with recommendations on implementing a water usage data collection and tracking tool for use by all County Departments, and priority County facilities to implement submetering to track indoor versus outdoor water usage, including resources necessary to implement these recommendations.

5. Direct the Department of Parks and Recreation to report back in writing within 180 days on resources needed to implement water conservation measures at their facilities as recommended in the November 24, 2021 report back, including repair of leaking infrastructure as identified in the Lakes Management Plan, pool covers, and priority sites for replacement of spray irrigation systems and implementation of smart meters.
6. Direct the Los Angeles County Waterworks Districts to identify and implement actions to increase water conservation and report back in writing on these measures within 60 days to the Board.
7. Direct the Chief Executive Office's Legislative Affairs and Intergovernmental Relations (CEO-LAIR) division, in coordination with the Department of Public Works, to send a five-signature letter to the Secretary of the Department of the Interior (DOI), with a copy of the letter to be sent to the Los Angeles County Congressional Delegation, in support of Senator Feinstein and Senator Padilla's effort to urge the DOI to prioritize California projects designed to counter extreme climate-driven droughts during implementation of the western water infrastructure funding in the Infrastructure Investment and Jobs Act.
8. Direct the Department of Public Works to include water conservation and re-use priorities as part of Infrastructure LA, and to the coordinated work being developed for the Bipartisan Infrastructure Law (BIL).

#

EXECUTIVE OFFICE



BOARD OF SUPERVISORS

CELIA ZAVALA
EXECUTIVE OFFICER

COUNTY OF LOS ANGELES
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BOARD OF SUPERVISORS

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MEMBERS OF THE BOARD

HILDA L. SOLIS
HOLLY J. MITCHELL
SHEILA KUEHL
JANICE HAHN
KATHRYN BARGER

August 30, 2022

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Dear Supervisors:

**ADOPT NEW POLICY NO. 3.047 – WATER CONSERVATION
ALL DISTRICTS
(3-VOTES)**

SUBJECT

As directed by the Board of Supervisors' (Board) motion (Solis-Kuehl; Item No. 60-B, Agenda of March 1, 2022), the Chief Sustainability Office (CSO), in coordination with County Counsel, the Departments of Public Works (DPW), Parks and Recreation (DPR), and Internal Services (ISD), has prepared a new Board Policy No. 3.047 – Water Conservation (Attachment I). This policy demonstrates the County's commitment to ensuring that water is used efficiently at County facilities, that water uses are prioritized based on alignment with County sustainability goals, and recognizes the need to adapt to the impacts of a changing climate.

IT IS RECOMMENDED THAT THE BOARD:

- 1) Adopt the new Board Policy No. 3.047 – Water Conservation - and make the policy effective immediately upon adoption;
- 2) Instruct DPW, DPR, and ISD to explore State and Federal funding as well as programs available through local water agencies such as the Metropolitan Water District to support turf removal and replacement and other water efficiency upgrades; and
- 3) Instruct Departments to report back in writing within six months with identification and

quantification of non-functional turf areas in their facilities and a prioritized plan for replanting these areas consistent with the requirements in the new Board Policy.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

California is in the midst of a historic drought which started roughly in 2020. State water supplies have been severely impacted, including the two major sources of imported water that the Los Angeles region relies on, the State Water Project and the Colorado River, which together typically supply 60% or more of our region's water. This year, the State Water Project will only provide 5% of requested water supplies. Reservoirs fed by the Colorado River are now at historically low levels, threatening their ability to provide electricity as well as water supply, and California may have to cut water supply from that source for the first time since the aqueduct from the River was built in the 1930s. The federal government has suggested that next year, supplies from the Colorado River may need to be reduced by an amount equal or greater to the entire allocation to the State of Arizona, which gets over a third of its water from that source. In response, the State has imposed emergency drought restrictions, and more stringent requirements may be proposed in the coming months, especially if conditions do not improve during the upcoming wet weather season.

This most recent drought period comes on the heels of the previous drought which lasted until 2017. The briefness of the reprieve suggests that, as climate projections have predicted, California will continue to see longer and drier drought periods as climate change intensifies. Though the County is subject to the State and local agency emergency drought provisions, adapting to the ongoing climate crisis requires more long-term investments by decreasing overall water demand, and ensuring that water is used to meet our highest priorities, such as community health and well-being.

The attached policy addresses water conservation primarily for outdoor water uses at County facilities, which is where most water is used and there is great opportunity for water savings; for instance, through more intentional landscaping and irrigation practices. Specifically, the policy places time limitations on when irrigation of landscaped and vegetated areas may occur, directs the types of new or replacement irrigation systems that may be installed, limits new artificial turf as well as watering or installing non-functional turf, and requires native and/or drought-tolerant plants and trees to be planted in new or replacement plantings. The policy also places limits on a variety of other water uses, including washing paved surfaces, decorative water features, car-washing, cooling systems, and water misters, and requires pool covers to be used on outdoor pools when not in use.

Implementation of Strategic Plan Goals

The recommended action helps effectuate the County's Strategic Plan Goal II - Foster Vibrant and Resilient Communities; specifically, Strategy II.3.1 – Improve water quality, reduce water consumption, and increase water supplies. Additionally, the Policy is consistent with the OurCounty Sustainability Plan as adopted by the Board on August 6, 2019, and specifically Strategy 9B which calls for the County to implement strong water conservation measures.

FISCAL IMPACT/FINANCING

Some water conservation measures called for in the policy may result in higher costs than standard practices, such as requiring pool covers, directives related to irrigation systems, as well as requiring

native and drought-tolerant landscaping. Many of these requirements relate to new or replacement activities, so budget impacts will depend on how often such projects are implemented. These added costs may be partially offset by water savings.

The policy may also result in operational impacts resulting from changes to irrigation practices and requirements to plant native and drought tolerant plants, which may require different types of maintenance as compared to non-native plants.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

The proposed Board Policy was reviewed by County Counsel.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

No impact on current services or projects.

Respectfully submitted,



CELIA ZAVALA

Executive Officer, Board of Supervisors

CZ:JL:RK:jg

Enclosures

c: County Counsel
Chief Executive Office
Internal Services
Parks and Recreation
Public Works

3.047 - Water Conservation Policy

Effective Date: TBD

PURPOSE

To establish a water conservation policy for County departments to ensure that water is used efficiently and that water uses are prioritized in alignment with County sustainability goals. This policy sets limits on how water is used and establishes requirements regarding high water use applications such as irrigation, in order to reduce water demand.

REFERENCE

March 1, 2022: [Board Motion 60-B](#)

POLICY

It is the policy of the County of Los Angeles to ensure that the waste or unreasonable use of water is prohibited at all County facilities, and that the use of water at County facilities is prioritized in alignment with the County's adopted sustainability goals, as expressed in the OurCounty sustainability plan.

All County departments will adhere to the following requirements regarding water use at County facilities. For the purposes of requirements that apply to new or replacement activities and projects, a project that has not yet started the design development phase at adoption of this policy is mandated to incorporate the following requirements:

1. No County Department shall use a water hose to wash any paved surfaces, including, but not limited to, sidewalks, walkways, driveways and parking areas, except as necessary to alleviate safety or sanitation hazards. This section shall not apply to Department-approved water-conserving spray cleaning devices. The use of water-pressure devices for the purpose of graffiti removal or sanitation hazards is exempt from this prohibition. A simple spray nozzle does not qualify as a water-conserving spray cleaning device.
2. No County Department shall use water to clean, fill, or maintain levels in decorative fountains, ponds, lakes or similar structures which are used solely for aesthetic purposes, unless such water is part of a recirculating system. Water features such as lakes, ponds, and splash pads that provide recreational or habitat benefits are exempt from this prohibition.

3. No County Department shall permit water to leak from any pipe or fixture within the Department's facilities or anywhere on its premises. Any such leaks shall be addressed as soon as feasible, and no later than 48 hours after discovery.
4. No County Department shall wash a vehicle with a hose if the hose does not have a self-closing water shut-off or similar device attached to it, or otherwise allow a hose to run continuously while washing a vehicle.
5. New or replacement cooling systems at County facilities are required to meet current Title 24 building codes as they relate to water cooled condenser efficiency. County departments will prioritize updating water based cooling tower systems and treatment to maximize water and energy conservation.
6. Pool covers must be used on outdoor County pool facilities when not in use, except during times when the use of a pool cover may create a safety hazard, such as days with high winds or other hazardous conditions. Pool covers that are lost due to theft or vandalism should be prioritized for replacement based on funding availability.
7. Water misters at County events may only be used for public health (e.g., cooling), and their use should be minimized by first considering the use of alternatives such as providing shade structures, avoiding the scheduling of events on high heat days, or using misters with timers or sensors, etc.
8. No County Department shall use water in a manner that causes or allows excess or continuous water flow or runoff onto an adjoining sidewalk, driveway, street, gutter or ditch.
9. No County Department shall irrigate their premises during periods of rainfall and/or within 48 hours after a measurable rain event of at least one fourth (1/4) of one (1) inch of rain.
10. County facilities shall not water non-functional turf grass (streetscapes, medians, parking lots, areas not used for recreation). Turf block installed to comply with low impact development (LID) standards or turf grass that is a character-defining feature of a historic landscape may be granted an exception to this provision on a case-by-case basis. Exceptions must be approved by the subject department in consultation with the Chief Sustainability Officer.
11. The following policies will apply to irrigation systems used at all County facilities:
 - a. All new static spray irrigation equipment must be WaterSense certified or equivalent. Operation of existing static spray irrigation systems, as well as other new overhead irrigation systems such as those using rotary heads, must comply with other requirements in this Policy.
 - b. All new or replacement irrigation systems, as well as existing systems for large landscaped or vegetated areas (at least 3 acres in size), must have

rain sensors that shut off the systems. Within 6 months of adoption of this Policy, Departments must identify existing systems in need of rain sensors per this directive, and to the extent feasible install rain sensors within a year, and for remaining systems, identify and request necessary resources to implement rain sensors.

- c. New or replacement irrigation systems must allow for separate watering of trees.

12. No County Department shall water or irrigate landscaping or other vegetated areas between the hours of 9:00 a.m. and 4:00 p.m. During these hours, golf course greens and tees and sports fields may be irrigated in order to accommodate event schedules. Supervised testing or repairing of irrigation systems is allowed anytime. Exceptions to these time limitations include watering during high heat days for the purpose of preventing loss of vegetation, or in instances when watering must be done manually during normal staff hours, for instance, as a result of automated irrigation systems being out of service.

13. All irrigation of landscaped or other vegetated areas using static spray head sprinklers and bubblers shall be limited to no more than ten (10) minutes per watering day per station. All irrigation of landscaped or other vegetated areas using standard rotors and multi-stream rotary heads shall be limited to no more than fifteen (15) minutes per cycle and up to two (2) cycles per watering day per station. Exempt from these irrigation restrictions are:

- a. Irrigation systems using very low-flow drip-type irrigation when no emitter produces more than four (4) gallons of water per hour and micro-sprinklers using less than fourteen (14) gallons per hour;
- b. Establishment watering for native and/or drought-tolerant landscaping; and
- c. Watering of trees.

14. The following policies will apply to the installation of new or replacement landscaping and vegetation at all County facilities:

- a. At least 75% of all new or replacement County plants must be native and/or drought tolerant plants and trees with the exception of recreational areas, and in cases where this requirement may create a substantial adverse change to character defining features of a historic landscape.
- b. County facilities may not use artificial turf on outdoor areas. Sports fields are exempted from this provision, however, design and material selection decisions for artificial turf should be made to mitigate sustainability issues related to artificial turf to the maximum extent feasible. These include, but are not limited to, design and material selection to ensure permeability, avoid release of materials and chemicals that may impact runoff or air quality, consider end-of-life disposal, and reduce surface and radiative heat.
- c. County facilities may not install non-functional turf grass (i.e., turf in areas not used for recreation).

RESPONSIBLE DEPARTMENTS

All County Departments and Chief Executive Office

DATE ISSUED/SUNSET DATE

Issue Date:	Sunset Review Date:



COUNTY OF LOS ANGELES
DEPARTMENT OF PARKS AND RECREATION

"Parks Make Life Better!"

Norma E. García-González, Director

Alina Bokde, Chief Deputy Director

September 15, 2022

TO: Supervisor Holly J. Mitchell, Chair
Supervisor Hilda L. Solis
Supervisor Sheila Kuehl
Supervisor Janice Hahn
Supervisor Kathryn Barger

FROM: Norma E. García-González
Director

SUBJECT: **RESOURCES NEEDED TO IMPLEMENT WATER CONSERVATION MEASURES AT DEPARTMENT OF PARKS AND RECREATION FACILITIES (ITEM NO. 60-B, AGENDA OF MARCH 1, 2022)-MOTION BY SUPERVISORS HILDA L. SOLIS AND SHEILA KUEHL**

On July 27, 2021, and March 1, 2022, the Los Angeles County Board of Supervisors adopted two motions, introduced by Supervisors Hilda L. Solis and Sheila Kuehl in response to the drought conditions. Taking action on the July 27th motion, the Chief Sustainability Office submitted a report on November 24, 2021, providing recommendations to reduce unnecessary water usage in support of community health and sustainability goals, focused on non-recreational landscaping, County buildings, recreational facilities, investments in software data collection and tracking, and community policies to support long-term water conservation. As a collaborator on the November 24, 2001 *"Report Back on Supporting Urban Water Conservation in Los Angeles County,"* the Department of Parks and Recreation (DPR) underscored our lasting commitment to water conservation and highlighted several water conservation projects either completed or in progress. The report focused on the top water using facilities. It remains true that a primary barrier to implementation of additional and remaining water conservation projects for DPR is lack of funding.

The March 1st motion directed DPR to report back on resources needed to implement water conservation measures at DPR facilities as recommended in the November 24, 2021, *"Report Back on Supporting Urban Water Conservation in Los Angeles County."* While the report stated that of the top 100 water-using County facilities based on average annual water usage from the three fiscal years preceding the COVID-19 shutdown, 51 are managed by DPR, it also underscored that high water use does not necessarily translate to water waste, and water may be in use by DPR to support critical County priorities such as community health. As a result, it is important to understand in greater detail the operational requirements and water saving measures that have been examined by DPR.

This report provides an approximation of resources needed to implement some of the key recommendations in the November 24, 2001, *"Report Back on Supporting Urban Water Conservation in Los Angeles County."* The cost approximations provided below are preliminary, produced from staff estimates. If detailed cost estimates are required for budgetary requests, then DPR recommends retaining a consultant(s) with industry expertise to create project scopes, conduct design work, and prepare cost estimates in anticipation of project implementation.

SMART IRRIGATION CONTROLS

At the core of an irrigation system is the controller or timer, where irrigation schedules are set, determining the amount of water applied to the landscape. The use of smart controllers can lead to water conservation as watering schedules are based on evapotranspiration and the plant type. Irrigation professionals can control when and how much water is applied to the landscape using controllers or timers. DPR has been actively installing and using weather-based smart controllers for many park sites and working with available rebates to help offset the costs of these devices. However, there is additional work needed to bring smart controllers to all park sites as well as to upgrade older smart controllers operating on 2G or 3G to the current 5G network. DPR's studies identified the need for smart controllers at forty parks including the Los Angeles County Arboretum and Botanic Garden, Manzanita Park, and Lennox Park. Smart controller network upgrades are needed at more than twenty-five parks such as Victoria Community Regional Park, Jesse Owens Park and Adventure Park. The approximate up-front cost to replace standalone controllers with smart controllers and upgrade existing controllers to 5G network is \$686,000. Rebates may be available to offset some of the costs. Rebates are available after the equipment is purchased and installed, so they do not cover upfront costs. Initial and on-going training opportunities for staff are also recommended to ensure staff is fluent in the use of smart controllers and can optimize the various features of these irrigation controllers.

MASTER VALVES AND FLOW SENSORS

Operational master valves and flow sensors are recommended best practice for each park facility. As DPR has old and aging infrastructure, most of the park facilities still could benefit from master valves and flow sensors to identify leaks and prevent water loss from line breaks, such as Kenneth Hahn State Recreation Area, City Terrace Park, Frank G. Bonelli Regional Park, and Acton Park. It is approximated to cost \$2,100,000 plus any installation costs for the components needed for master valves and flow sensors across DPR facilities.

IRRIGATION RETROFITS

Similar to the need for master valves and flow sensors, some parks require large-scale irrigation retrofits to replace old systems. At DPR we recently completed the Whittier Narrows Recreation Area Irrigation System Renovation Project. The Project scope includes consultant services for site assessment, irrigation design, plans, specifications, and cost estimates. It also includes construction for replacing irrigation lines, sprinkler heads, remote control valves, installation of a water meter and irrigation system isolation valves, and the repair or replacement of an existing well pump. The \$2,139,000 budget for this project covered many of the needed improvements at a portion of the park, however there are additional identified improvements approximating \$7,000,000 as derived from the design development phase of the project scoping. Irrigation retrofits can be also be considered as part of a park's larger modernization, such as with the currently planned at Ruben F Salazar Park improvements that include irrigation retrofits, turf replacement, drought tolerant plantings, tree plantings, etc.

TURF REDUCTION AT GOLF COURSES

Replacing turfgrass in out-of-play areas with native grasses and/or drought tolerant plants can be a good way to improve sustainability and reduce water usage. Some out-of-play areas can even be non-irrigated and covered with wood mulch or pine straw from low-cost reclaimed tree materials. If a golf course is suitable for turf reduction, there are typically 10-15 acres of turf that can be removed. The approximate costs to implement turf reduction and irrigation reconfigurations is \$3,000,000 - \$5,000,000 per golf course. This includes course re-design, irrigation reconfiguration, turf removal, planting, and mulching. DPR has completed turf reduction projects at Knollwood and El Cariso Golf Courses. The Diamond Bar golf course is currently being reconstructed and includes a turf reduction component. Altadena and Marshall Canyon Golf Courses are in progress for turf reduction. DPR has plans for turf reduction at Los Verdes, Lakewood, and La Mirada Golf Courses, but has not yet received specific cost estimates for this work, nor funding for this work. Additional opportunities for turf replacement exist at Santa Anita and Los Amigos, but funding is required. In total, it is approximated that DPR will require approximately \$25,000,000 to implement turf replacement projects at applicable golf courses.

TURF REDUCTION AT PARK FACILITIES

A range of opportunities may exist to remove nonfunctional turf from portions of some parks. Nonfunctional turf is defined as purely ornamental lawns, such as those in street medians, that require irrigation but provide no recreational or environmental benefit. Turf that is used passively for open space and general enjoyment of the park is considered functional turf and would not be contemplated for removal. It should be noted that turfgrass removal has been conducted at some facilities and not every park has non-functional turfgrass.

Also, over the years, turfgrass removal projects have been designed, but were not implemented due to project costs and lack of funding. For example, a design and proposal for turfgrass removal at Kenneth Hahn State Recreation Area was developed and estimated to cost \$2,870,000. This project was unable to secure funding, and therefore didn't occur.

The approximate cost for the removal of nonfunctional turf, which includes turf removal, irrigation retrofits or installation, new plant material, mulch, and a contingency for contractor costs, is estimated at \$10.00/square foot. As each park is unique in design and function, opportunity for nonfunctional turfgrass removal could range widely per park. Therefore, it is recommended to engage a consultant to provide a nonfunctional turfgrass removal proposal and design for each applicable park. Field surveys and more detailed analysis are required to provide specific amounts of nonfunctional turfgrass. It is estimated to cost \$250,000 to provide an evaluation of all parks, engage in meetings with field staff, and to create graphics depicting recommended turf reduction areas. Rebates may be available to offset some of the costs of turf replacement, however, amounts of rebate amounts can vary and do not cover upfront costs, but are paid after project completion.

LAKES

DPR operates fourteen park facilities containing lakes that provide recreation, habitat, and aesthetic value. The lakes within the DPR parks system provide green space along with a wide range of recreational activities to the residents within the unincorporated areas throughout Los Angeles County as well as the adjacent cities. All fourteen lakes experience a variety of lake maintenance challenges and have various levels of needed maintenance, which can include the repair or replacement of liners that eliminate water loss from leakage. Seven of the lakes have identified lake liner repair or replacement needs, which include the lake at Descanso Gardens, La Mirada Park Lake, Baldwin Lake at the Los Angeles Arboretum, Apollo Park Lake, Alondra Park Lake, the North Lake at Earvin "Magic" Johnson Recreation Area, and Legg Lake at Whittier Narrows Recreation Area. Using approximate costs for two lake projects with known cost estimates, it is extrapolated that at least \$12,000,000 is needed for these lake projects to provide repair or replacements to liners to aid in water conservation. The costs to rehabilitate Baldwin Lake are not included in the above as the Baldwin Lake project is currently funded.

La Mirada Park Lake has an observed damaged lake liner which has only partially been reconstructed. Apollo Park Lake has a deteriorating lake liner and sections of the concrete collar are eroding or breaking apart. Alondra Park Lake has cracks in both the concrete collar and walkways around the lake margins. Legg Lake at Whittier Narrows Recreation Area suffers a deteriorating lake liner and sections of the concrete collar are eroding or breaking apart. Similarly, Earvin "Magic" Johnson Recreation Area Lake (North Lake) has a deteriorating lake liner and sections of the concrete collar are eroding or breaking apart. Descanso Gardens Lake requires the removal and replacement of the existing liner, dredging, and an aeration system.

POOL COVERS

DPR has been working to obtain pool covers and reels for all outdoor pools without pool covers to reduce pool water evaporation and help the pool water retain heat. Pool covers will be used except in areas experiencing high winds in which the cover may create a safety hazard. The total estimated costs for pool heating covers is \$400,000.

POOL FACILITIES

DPR operates thirty swimming pools and twenty-three splash pads and associated community aquatics programming. As provided in the December 9, 2021, report back on Extending the Recreation Summer Swim Program at LA County Pools (Item No. 45-A, Agenda of August 31, 2021), DPR needs approximately \$10,300,000 for capital improvements to County's seasonal pools. Many of these needed improvements are related to water conservation and include various repairs such as valve replacements, pump shaft replacement, plastering, relief valves, and concrete repair.

COUNTY BUILDINGS/RESTROOMS

DPR has approximately 275 free standing restroom buildings. Seventy-five to one hundred of these buildings will be upgraded under Project Restroom, a Countywide program to improve park restroom safety, hygiene, accessibility, availability, function, and ease of maintenance. Funding for Project Restroom was provided by the State of California, Department of Parks and Recreation under the Recreation Revenue Enhancement Program. The approved fixtures for use in Project Restroom use 20 percent less water than the current Federal standards and meet many compliances and certificates including WaterSense and will satisfy LEED credits.

To bring the remaining DPR restrooms to the current standards established under Project Restroom, it can be approximated to cost between \$30,400,000 to \$50,000,000 as many of the existing DPR restrooms may require complete replacement, ADA upgrades, and path of travel work.

NON-POTABLE RECYCLED WATER DELIVERY

The county's use of non-potable recycled water in the top 100 facilities is limited to nine facilities, all owned and operated by DPR. It is recommended that the feasibility of implementation of non-potable recycled water delivery be explored through Infrastructure LA and coordinated in the work being developed for the Bipartisan Infrastructure Law. Another opportunity for regional collaboration for the delivery of non-potable recycled water is through the County Water Plan which is currently under development and scheduled for a draft to be released in the Fall of 2022. The County Water Plan will provide an opportunity to think holistically and regionally about our water resources – fostering collaboration among stormwater, potable water, and recycled water stakeholders to identify opportunities for integrated solutions. Lakes managed by DPR is one great example of areas that could be prioritized for investments in recycled water and/or stormwater capture. Non-potable recycled water is not used extensively by County facilities. The feasibility of using non-potable recycled water is limited by several factors, many outside of the County's control such as the lack of proximity of infrastructure and the unavailability of non-potable recycled water supply from local water agencies. For these reasons, the feasibility of implementation of non-potable recycled water delivery should be pursued from larger County collaboratives working on infrastructure solutions.

USE OF NATIVE AND/OR DROUGHT TOLERANT VEGETATION

It is the practice of DPR to propose and install native and/or drought tolerant plants when landscape planting is included as a part of any park project or retrofit. Using climate appropriate plant species increases the likelihood of plant survival, while decreasing the reliance on our heavily impacted water resources. As landscaping is included as part of projects that come online for implementation, there are no current cost approximations for standalone vegetation replacement projects.

MAXIMIZE STORMWATER CAPTURE

The concept to maximize stormwater capture at recreation facilities, especially those that allow water to be reused for irrigation needs has been discussed with DPW and with DPR's Landscape Design Section. Currently, DPR is working in collaboration with the Department of

Public Works in various stages on twenty-five potential stormwater capture projects. A few of the projects have started construction. The scope for many of the projects includes stormwater infiltration and flow diversion. However, despite the number benefits of stormwater capture, the opportunity for water reuse into irrigation systems is limited mainly due to our region's low average rainfall of approximately 16 inches per year. Most of this rainfall occurs during the fall and winter months, which means that the irrigation system would require a different water source (i.e., potable or recycled) for most of the year and particularly the driest and most water intensive months of summer. These factors in combination with the special equipment needed to have a dual water source irrigation system, typically means that a capture and re-use irrigation system becomes cost prohibitive when estimating cost benefits of a project.

CONCLUSION

In conclusion, recently DPR has completed and/or is implementing at least twenty-four water efficiency projects as outlined in the November 24, 2021 *"Report Back on Supporting Urban Water Conservation in Los Angeles County"*. DPR has applied many measures to reduce water use, including water management such as monthly reports and limiting irrigation to comply with the 2015 mandatory water use restrictions of 25%. DPR has employed landscape maintenance practices to conserve water, such as extra mulching and more efficient watering practices, and operates in line with current State water use restrictions.

In addition to water efficiency projects, it is also critical that DPR maintain tree health for each of our trees and adjust irrigation as necessary that prioritizes tree health water requirements. Many high need unincorporated communities suffer from a lack of tree shade canopy cover and are often subjected to higher rates of respiratory diseases and heat-related stressors, such as heatwaves. DPR facilities require a baseline level of water to maintain landscapes and trees, and provide recreational amenities that use water and energy, such as splash pads and pools. Trees and the shade canopy they provide serve critical functions in support of community health and sustainability goals.

Additional efforts for water conservation include water demand reduction measures such as turf replacement, installation of water-efficient toilets and urinals, and collaboration with DPW to implement stormwater capture projects. Advancing remaining water efficiency projects will require significant resources as highlighted throughout this report. As climate-changed induced droughts continue and increase in both severity and frequency, the regional water supply continues to be threatened. DPR appreciates the County's recognition that leadership and long-term investments are needed to meet the goals of the OurCounty Sustainability plan and to prioritize water conservation for County facilities. We look forward to continuing to advance water efficiency efforts and value any investments that can be made into the critical infrastructure of our parks.

If you have any questions, please contact Jill Sourial, Deputy Director of Planning and Development at JSourial@parks.lacounty.gov.

NEGG:JS:SW:AV:ev

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April 12, 2023

To: Supervisor Janice Hahn, Chair
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RECOMMENDATIONS ON IMPLEMENTING WATER USAGE DATA COLLECTION AND TRACKING TOOLS TO SUPPORT URBAN WATER CONSERVATION

On March 1, 2022, the Board of Supervisors (Board) approved a motion titled Adopting Policies to Support Urban Water Conservation in Los Angeles County ([Motion](#)). The motion consisted of multiple directives, including an instruction for the Internal Services Department (ISD) to report back with recommendations on implementing a water usage data collection and tracking tool for use by all County Departments. Additionally, ISD was instructed to recommend priority County facilities to implement submetering to track indoor versus outdoor water usage, including resources necessary to implement these recommendations. ISD is providing this report pursuant to the Board's instruction.

On November 24, 2021, the Chief Executive Office (CEO) submitted a report to the Board that listed the top 100 County of Los Angeles (County) public facility water users ([Report](#)). This report, and others that have since followed, reflect an important review by the County to identify and implement water saving strategies. In response to severe drought conditions – somewhat mitigated by storms in late 2022 to early 2023 – the County is tasked with enacting sustainable water consumption practices. The County's policy, if successful at achieving water savings, may serve to guide and model water use reduction to neighboring jurisdictions and to residents, leading to an overall water savings throughout the region.

Submetering monitoring systems were identified as a potential solution to the issue of over-consumption. In theory, such systems would provide insight to how and where water is being used for outdoor irrigation and inside County buildings. Continuous monitoring and feedback from such systems could reduce usage and result in more manageable water bills. However, upon review, the costs of installing submetering systems in County facilities appear to outweigh the benefits in most instances.

ISD manages the water account billings for 36 of the top 100 users identified in the above-mentioned CEO report. Of these accounts, three accounts have annual expenditures in excess of \$1 million, three accounts are between \$500,000 to \$1 million, 8 accounts are between \$100,000 to \$500,000, and the remaining 22 accounts expend less than \$100,000 per year, with some as low as several thousand dollars annually. Currently, the total annual spend is approximately \$11.6 million.

Research indicates that the yearly budget estimate for installing a submetering monitoring system is \$25,000 to \$60,000 per site, plus an annual operating cost of \$25,000 to \$50,000 per site. Thus, the total first-year budget estimate for all 36 sites with billing accounts managed by ISD would range from \$1.8 million to \$3.96 million (\$900,000 to \$2.16 million for installations, plus \$900,000 to \$1.8 million for annual operational costs).

County facilities with the highest water usage are jails and hospital complexes. The top three annual water bills are:

Men's Central Jail	\$2.4 million
County of Los Angeles USC/Medical Center	\$2.35 million
Sheriff's Twin Towers	\$1.55 million

Based on cost investments for submetering monitoring systems, the following recommendations are presented for consideration:

- 1) Conserve water by following existing Board directives that encourage removal of non-recreational sod and replacing thirsty grasses and high water need plants with California natives over time.
- 2) Implement a pilot submetering monitoring system on one or two of the highest water use facilities. Data collected from this pilot could inform future County-driven water saving measures.

If you have any questions, please contact me at (323) 267-2101 or your staff may contact Minh Le, ISD General Manager of Energy and Environmental Service, at (323) 267-2006 or via email at msle@isd.lacounty.gov.

SH:ML:TC:ea

c: Executive Office, Board of Supervisors
Chief Executive Officer
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