



Rincon Consultants, Inc.

250 East 1st Street, Suite 301
Los Angeles, California 90012

213 788 4842
FAX 908 2200

info@rinconconsultants.com
www.rinconconsultants.com

July 31, 2017
Rincon Job No. 17-04059

Marie Waite
CC: Mie Joness
County of Los Angeles
Department of Beaches and Harbors
13483 Fiji Way, Trailer 3
Marina del Rey, CA 90292
Email: MWaite@bh.lacounty.gov

Subject: Final 2017 Report on Nesting Colonial Waterbird and Raptor Survey Results for Marina del Rey, Los Angeles County, California

Dear Ms. Waite,

This report presents the results of the final 2017 nesting colonial waterbird and raptor surveys conducted for the Los Angeles County Department of Beaches and Harbors (DBH), in accordance with the annual nesting bird survey requirements of the 2012 Marina del Rey Local Coastal Program (LCP). Rincon Consultants, Inc. (Rincon) conducted four surveys during the nesting bird season (January 1st to September 30th) to determine the presence/absence of nesting colonial water birds and raptors that may utilize the trees within the unincorporated area of Marina del Rey.

Existing Site Conditions

Marina del Rey (Study Area) is an unincorporated community located in the southwestern portion of Los Angeles County, southeast of the incorporated neighborhood of Venice and north of the incorporated neighborhood of Playa del Rey. The Study Area consists of a man-made small craft harbor surrounded by residential, commercial, and marine uses. The approximate 804-acre Study Area consists of 401 acres of land and 403 acres of water. The Study Area is also directly adjacent to the Ballona Creek and Ballona Wetlands Ecological Reserve to the south. The primary bird nesting habitats in the Study Area are the ornamental trees and shrubs bordering roadways and pedestrian paths. These ornamental trees have historically been utilized by colonial waterbirds such as double-crested cormorants (DCCO; *Phalacrocorax auritus*), great blue herons (GBHE; *Ardea herodias*), snowy egrets (SNEG; *Egretta thula*), and black-crowned night-herons (BCNH; *Nycticorax nycticorax*). The Study Area is further broken down into seven different nesting areas (Figure 1)¹. All figures are located in Appendix A.

¹ Nomenclature of nesting locations follows the "Conservation & Management Plan for Marina del Rey" (Hamilton and Cooper 2010), unless otherwise noted.



Admiralty Way

The Admiralty Way nesting area (Figure 2) is the northern-most area, located on the northern boundary of the Study Area. Admiralty Way is a heavily traveled, four-lane road bordered by Yvonne B. Burke Park and residences to the north. The southern side of the road consists of residential areas, a fire station, and commercial areas including restaurants and a hotel. The harbor is directly south of this area. This site has previously been documented primarily as a black-crowned night-heron colony. Peregrine falcons (*Falco peregrinus*) have also been documented nesting in this area.

Panay Way

The Panay Way nesting area (Figure 3) is south of Admiralty Way, bordered by residential areas with commercial areas interspersed between residences and parking areas for the Marina. Ongoing construction is occurring to the south at the property near the intersection of Via Marina (Parcel 15, AMLI Apartments). Construction activities were observed during the June 22 and July 27 surveys. There is a public beach north of this area and harbor waters to the north, east, and south. No active nest colonies have been documented within the Panay Way area since 2009.

Marquesas Way

The Marquesas Way nesting area (Figure 4) is south of Panay Way. It is primarily a residential area, with several apartment complexes bordering the area and harbor waters to the north, east, and south. Ongoing construction was observed on the street at Parcel 14 (Neptune Apartments) and Parcel 13 Villa del Mar Apartments). Construction activities were observed during all four surveys (see table 1 for dates). Historically, this area has primarily been utilized by black-crowned night-herons and snowy egrets.

Bora Bora Way

The Bora Bora Way nesting area (Figure 5) is south of Marquesas Way. The area is primarily residential with a nesting colony located in the Mariner's Village nesting area bordering it to the south. Harbor waters are located to the north and east.

Mariner's Village

The Mariner's Village nesting area (Figure 6) is primarily a residential area with some commercial uses interspersed between apartment complexes. Harbor waters are located to the east of the property. Historically, this area has been dominated by great blue heron and double-crested cormorant nest colonies.

Burton Chace Park

The Burton Chace Park nesting area (Figure 7) is located east, across the main channel, from Marquesas Way. The area contains a 10-acre public park that frequently hosts fairs, festivals, and concerts for the community. Harbor waters are located to the east, south and west of the park. Until this year's survey, this area had not had any waterbird nesting activity since 2011.

Fiji Way

Fiji Way (Figure 8) is located south of Burton Chace Park, across the main channel from Bora Bora Way and Mariner's Village. This area consists of a mix of commercial and residential uses, with several large parking lots. Directly southeast of Fiji Way is Ballona Creek and the Ballona Wetlands Ecological Preserve, a 600-acre conservation site. This nesting area has not been documented active since 2012.



Methodology

The nesting bird surveys for colonial waterbirds and raptors were conducted by Rincon Associate Biologists Lily Sam and Stephanie McLaughlin between April 11 – July 27, 2017. Table 1 provides specific detail on the timing of and environmental conditions during the surveys.

Table 1 Survey Details

Survey Date	Time	Observers	Weather
11 April, 2017	0800-1600	Stephanie McLaughlin, Lily Sam	59 – 66 °F, 3 mph WSW, 5-20% cloud cover AM-PM
18 May, 2017	0600-1430	Lily Sam	60 – 65 °F, 4 mph WSW, 100% cloud cover AM – 20% cloud cover PM
22 June, 2017	0700-1430	Lily Sam	69 – 75 °F, 5 mph SW, 100% cloud cover AM – 0% cloud cover PM
27 July, 2017	0715-1500	Lily Sam	68°F, 5-15 mph SW, 100% cloud cover AM – 10% cloud cover PM

The Study Area included all parts of Marina del Rey accessible to the public. The biologists surveyed for both active and inactive colonial waterbird and raptor nests using standard accepted methods and in accordance with the requirements outlined in Policies #23 and #34 in the Marina Del Rey LCP. All suitable and historical nesting sites in Marina del Rey were closely examined. The biologists made observations from the ground, surveying for existing nest structures, whitewash on the vegetation and ground, birds exhibiting breeding/nesting behavior such as courtship displays, copulation, vegetation or food carries, and territorial displays, and the presence of fledglings. Where nests or young were suspected, close physical inspection of the tree was conducted to confirm presence or absence of nests or birds. Binoculars (8x35) were used to aid in the identification of observed birds and other wildlife. Inaccessible areas (i.e. fenced property) were also surveyed with the aid of binoculars and a spotting scope. The locations of all trees with waterbird and raptor nests were recorded using a Trimble Geo 7X handheld with Rangefinder.

Nests were identified as active² based on observations of at least one adult constructing or attending the nest, including incubation, brooding, and nest maintenance. Nests with at least one young bird were also considered active. “Likely active” nests are described as nests that look relatively fresh (new nesting material and recent whitewash present on or under the nest) with an adult bird perching near but not in the nest. The same methods documented in the 2014, 2015, and 2016 reports of determining “likely active” nests were used for the Study Area in 2017 to compare the resulting trends from 2009. In general, we have combined “active” and “likely active” in this report, and refer to these nests as “active” unless otherwise noted.

Birds are referred to by their four-letter species code throughout the report. Table 2 provides a guide for these acronyms. In the event that a nest could not be identified to a specific species, a likely species was assigned. Small colonial nests were presumed to belong to BCNH and/or SNEG, and large colonial nests were presumed to belong to GBHE or GREG. Nest counts may be compared with those from similar

² Observations used to describe a nest as active or likely active in 2017 are consistent with previous years (2009, 2011, 2012, 2014, 2015, and 2016) to allow results to be compared.



waterbird nesting surveys conducted at Marina del Rey in 2009 (Hamilton and Cooper 2010), 2011 (Hamilton Biological, Inc. 2011), 2012 (Point Blue Conservation Science, unpublished data), 2014 (Hamilton Biological, Inc. 2014), 2015 (Hamilton Biological, Inc. 2015), and 2016 (Rincon Consultants, Inc. 2016).

Table 2: Species Acronyms

Species Name	Acronym
Black-crowned night heron	BCNH
Snowy egret	SNEG
Great blue heron	GBHE
Great egret	GREG
Double-crested cormorant	DCCO
American crow	AMCR
Small colonial waterbird	SNEG/BCNH
Large colonial waterbird	GBHE/GREG

Results

During the 2017 breeding season, 135 active colonial waterbird nests were detected. The following species were observed: BCNH (56 nests), small colonial waterbird (24 nests), DCCO (20 nests), SNEG (18 nests), and GBHE (17 nests). As described above, small colonial nests were presumed to belong to BCNH and/or SNEG. We were able to positively identify all large colonial waterbird nests, and did not document any nesting great egrets (*Ardea alba*) in 2017. The 135 active nests were located in 27 trees in four main areas, Marquesas Way (17 trees), Mariner's Village (11 trees), Bora Bora Way (one tree), and Burton Chace Park (one tree) (Table 2). No raptor nests were observed during the 2017 surveys. It appears that the peregrine falcon nest that was previously found at the Ritz-Carlton Hotel building at the Admiralty Way nesting area was no longer present. See Appendix B for tree numbers, locations, and descriptions.

Table 2 Active Colonial Waterbird Nests¹

Location	GBHE	BCNH	SNEG	BCNH/SNEG	DCCO	Total
Burton Chace Park	0	1	0	0	0	1
Marquesas Way	0	55	18	22	0	95
Mariner's Village	16	0	0	2	20	38
Bora Bora Way	1	0	0	0	0	1
Total	17	56	18	24	20	135

¹ Fiji Way, Admiralty Way, and Panay Way are not included as no active colonial waterbird nests were found in these areas.

Admiralty Way

No active waterbird nests were observed and no peregrine falcon nest was observed in the Admiralty Way nesting area in 2017 (Figure 2).

Panay Way

No active waterbird or raptor nests were found within the Panay Way nesting area in 2017 (Figure 3).



Marquesas Way

A total of 95 active waterbird nests were observed in the Marquesas Way nesting area (Figure 4). A majority of the waterbird nests were found in trees along the road median toward the eastern end of Marquesas Way. Several nests were also found in adjacent private property. Rincon biologists determined that 55 of these nests belonged to BCNH and 18 belonged to SNEG. Twenty-two nests were presumed to have been used by either BCNH or SNEG. A majority of nests (78 nests) were found in paperbark melaleucas (*Melaleuca quinquenervia*), 11 nests were found in fig trees, and six nests were found in pine trees (*Pinus* sp.). Two of the pine trees had no previous history, as of 2009, of nesting activity. The two new nesting trees (Tree 78 and 79, BCNH nests) were located on the adjacent Villa del Mar property (Lease Parcel 13). See appendix C for nest photos.

Bora Bora Way

One GBHE nest was observed in a pine tree (Tree #77) early in the survey season (Figure 5). The nest had been abandoned and dismantled by the bird after the first survey in April. No raptor nests were observed within the Bora Bora Way nesting area in 2017.

Mariner's Village

A total of 38 active nests were detected in the Mariner's Village nesting area in 2017 (Figure 6). Of these 38 nests, 16 were confirmed to be GBHE nests. The 16 GBHE nests in Mariner's Village were dispersed across seven different trees, four of which were gums (*Eucalyptus globulus*), and three of which were pine. Tree 24, a eucalyptus containing the DCCO colony held the 20 nests. Two BCNH/SNEG nests were discovered in one pine tree. See Appendix C for nest photos.

Burton Chace Park

One BCNH nest was observed in a New Zealand Christmas tree (*Metrosideros excelsa*) located just northeast of the 13650 Mindanao Way building within the Burton Chace Park nesting area in 2017 (Figure 7). See Appendix C for nest photos.

Fiji Way

No active waterbird or raptor nests were found within the Fiji Way nesting area in 2017 (Figure 8).

Conclusions

Nesting Bird Survey

Table 3 provides waterbird population trends by species between 2009 and 2017. BCNH populations generally increased between 2009 and 2015. Although they have decreased slightly in the last two years, BCNH numbers have remained relatively stable. Populations of SNEG have continued to fluctuate over the years. DCCOs have been relatively stable during the last three years after their population steadily increased from 2009 to 2014 and then dropped between 2014 and 2015. GREs have not nested in any areas since 2012, after a decline from an already low population. GBHE populations appear to be stabilizing after a decline. A description of nesting activity in each of the Potential Nesting Areas is explained in further detail below. Overall, the Study Area supports a stable number of 150 to 135 active nests of various waterbirds. Addition of suitable nesting trees may increase capacity for active nests, however the number of active nests is not an indicator of population health or number. Further studies regarding the fledgling success at each of the Potential Nesting Areas should be conducted to determine where suitable nest trees should be added to increase population numbers.



Table 3 Population trends by species, based on number of active nests

Species	2009	2011	2012 ²	2014	2015	2016	2017	Trend
Black-crowned night-heron ¹	43	81	64	81	89	71	79	Increase, then relatively stable
Snowy egret	35	24	10	18	25	26	18	Mixed
Great blue heron	32	25	28	22	16	16	17	Decrease, then relatively stable
Great egret ³	5	1	1	0	0	0	0	Decrease
Double-crested cormorant	19	22	24	30	19	22	20	Increase, then decrease and relatively stable
Total	132	153	127	152	149	135	135	

¹ Consistent with previous year's surveys, this data includes small colonial water bird nests (SNEG/BCNH)

² Based on Hamilton 2015 Report that noted this was from a single day survey (Point Blue Conservation Science, unpublished data), so likely undercount for several species

³ Includes large colonial waterbird nests (GBHE/GREG)

Table 4 provides waterbird population trends at each nesting area between 2009 and 2017. Results continue to indicate that GBHE and DCCO are selecting to nest in Mariner's Village over Fiji Way. Trends in BCNH and SNEG populations continue to show a shift away from the Admiralty Way nest area to the Marquesas Way nest area. Burton Chase Park and Bora Bora Way continue to have little to no nesting activity.

Table 4 Population trends by nesting area, based on number of active nests¹

Location	2009	2011	2012	2014	2015	2016	2017	Trend
Admiralty Way	71	64	25	33	17	2	0	Decrease
Marquesas Way	9	38	49	66	97	96	95	Increase, then stable
Mariner's Village	29	18	41	53	35	37	38	Mixed, then stable
Fiji Way	25	29	12	0	0	0	0	Decrease,
Burton Chase Park	0	4	0	0	0	0	1	Relatively stable
Bora Bora Way ²	NA	NA	NA	11	0	1	1	Decrease
Total	134	153	127	152	149	135	135	

¹ Panay Way are not included as no active colonial waterbird nests were found in this nesting area

² No data was recorded for Bora Bora Way during the 2009, 2011, and 2012 reports by Hamilton Biological, Inc.

Admiralty Way

No active nests were observed in Admiralty Way in 2017. Although nesting numbers had been decreasing since 2009, the decline of BCNH nests since 2014 can likely be attributed to the removal of suitable nesting habitat and changes in the overall vegetation community in this nesting area due to the restoration work at the Oxford Basin between 2014 and 2016. The vegetation community of the Oxford Basin before and after restoration effort is drastically different. Specifically, thick stands of mature eucalyptus trees that may have supported nesting waterbirds were largely removed and areas replanted with wetland and upland species. It is unknown whether birds have historically nested within the Oxford Basin but previous surveys conducted by Hamilton Biological indicated that there were nests in the eucalyptus stand immediately adjacent to the north of the basin in 2009.



However, it should be noted that the number of active nests dropped drastically in 2012, even before the restoration effort occurred between 2014 and 2016 (Table 4). Although some trees remain with old nests from previous years remain, none of them were determined to be active during the 2017 survey timeframe.

This reduction and now lack of nesting is likely due to unknown occurrences contributing to the steep decline in 2012, compounded by tree removal activity between 2014 and 2016 that resulted in a lack of dense, protected stands of mature trees. For more tree recommendations, see the Compensatory Mitigation section below.

Marquesas Way

Marquesas Way is the most active SNEG and BCNH nesting area within the Study Area. The total number of nests in 2017 is similar to previous years. However, survival rates of fledglings on Marquesas Way may be lower than average, due to the amount of potential traffic-related fledgling mortalities. Fledgling carcasses were observed on every survey along Marquesas Way and several residents and nearby construction workers have reported to the biologists that they witnessed birds being run over by local traffic once they have fallen out of or left the trees. A few carcasses of BCNH and SNEG adults have been observed dangling from the trees. One dead adult SNEG and one adult BCNH appeared to be caught on fishing line.

BCNH young leave the nest at approximately one month of age to forage on the ground, despite their inability to fly until they are six weeks old³. Likewise, SNEG young are capable of leaving the nest as early as 10 days of age when disturbed, although they typically return to the nest afterwards if feasible⁴. SNEG fledglings typically remain in the vicinity of the colony for approximately 7-8 weeks. The behavior of these two species presents a challenge at this particular nesting site due to the high level of vehicle and pedestrian traffic. From the observations made by the surveying biologist, speed limits may not be followed. Trash in the nesting area, or that the birds encountered while feeding or roosting elsewhere, may also present challenges to the adult birds, as evidenced by birds tangled in fishing line. No loose fishing line was observed within the immediate survey area but it is possible that the birds may have been entangled while foraging and became further entangled and unable to escape from the tree branches once they return to the roost/nest. However, at this time the main cause of death at this nesting site primarily appears to be vehicle strikes. Though the number of nests on Marquesas Way has remained high, it is possible that this nest colony is not fledging many young to adulthood, and consequently not adding to the population of adult waterbirds.

In light of this situation, the County installed traffic caution signs in early July 2016 along Marquesas way to inform drivers to slow down and watch for birds to prevent vehicle strikes. Further enforcement of the speed limits and general education of the community about wildlife may help decrease the death tolls of young birds.

Bora Bora Way

In 2014, 11 active DCCO nests were observed in the Bora Bora Way nesting area. However, the nest tree was subsequently removed, as documented in the 2015 survey, due to health and safety concerns. The

³ Hothem, Roger L., Brianne E. Brussee and William E. Davis Jr..(2010). Black-crowned Night-Heron (*Nycticorax nycticorax*), The Birds of North America (P. G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America: <https://birdsna.org/Species-Account/bna/species/bcnher>

⁴ Parsons, Katharine C. and Terry L. Master.(2000). Snowy Egret (*Egretta thula*), The Birds of North America (P. G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America: <https://birdsna.org/Species-Account/bna/species/snoegr>



removal of that tree may have reduced the amount of suitable nesting habitat in this area for DCCOs as none have been observed nesting there since. One GBHE nest was observed in a pine within this area in 2017.

Mariner's Village

Mariner's Village continues to be the most active GBHE and DCCO nesting area within the Study Area. The number of nests in 2017 is similar to previous years and populations appear to be stable. A grove of pines at the eastern end of the apartment complex, along with decorative water features appear to serve as active roosting and foraging habitat. This nesting area of larger waterbird species may be benefiting from the proximity of roosting and foraging habitat to nesting habitat.

Burton Chace Park

This nesting area has not been active since four nests were found in 2014 surveys, however one active BCNH nest was found within the nesting area in 2017. Several small nest structures were also observed in the Burton Chace Park vicinity. However, there was no activity observed and no build up of guano underneath which implies that these structures most likely belong to a small mammal such as a squirrel or possibly a small to medium sized bird.

Fiji Way

No active nests were observed in 2017. This nesting area has not been active since 2012 (GBHE nests), when several dying cypress trees were removed for public health and safety reasons. In 2015, Hamilton Biological theorized that the nest colony may have moved to Mariner's Village, which the 2015, 2016, and 2017 data appears to support. With the removal of the cypress trees, there may not be enough suitable nesting habitats for GBHE in this area. Ficus and eucalyptus trees lining the southern most point of Fiji Way between the Ballona Creek Bike Path and the Archstone Breakwater Apartments appear to be used as a roosting area for waterbirds. Although no waterbirds were observed within this area during any of the surveys, heavy staining from guano was observed.

Human Health and Safety

Some areas, such as the Marquesas Way nesting area, Mariner's Village nesting area, and a roosting location just outside of the Burton Chace Park nesting area, have been and continue to be subject to deposits of large amounts waterbird guano. Since colonial waterbirds gather in large groups, especially DCCOs, guano rapidly builds up underneath nesting and roosting areas. The large accumulation of guano can present problems if they are within or near areas of highly utilized by humans, such as swimming areas, seating areas, living quarters, and restaurants. The build up of guano may also be a source of offensive odors for some people. In their 2010 Conservation and Management Plan, Hamilton Biological discussed the many problems that a build-up of bird guano can pose to human health, including the spread of disease. It is possible for airborne particles of guano to spread a bacterium, *Chlamydophila psittaci*, which, if contracted can cause severe pneumonia and other serious health problems for humans (Harkinezhad et al. 2009). In 2017, a Rincon biologist observed a blower being used near the Marquesas Way nesting area at a nearby apartment complex to blow dust and debris from the street medians. Not only does this activity potentially disturb nesting birds, but it may also be a health concern given the proximity to guano deposits, since it could potentially make particles of guano airborne. General education of the community about safe practices in areas with guano deposits may be warranted.



As documented in the 2010 Conservation and Management Plan, guanotrophy can occur in trees where there are large amounts of guano deposited into the soil. This may cause the tree's health to decline or eventually kill the tree, which may result in future safety concerns if branches dropped or the tree fell over. If DBH determines that the build-up of guano represents a potential hazard to the public, we recommend one of the following options:

1. Install bird deterrents in the affected area or trees to reduce or eliminate nesting or roosting. Bird deterrents can be relatively cost effective, but many of them may only work temporarily as the birds become accustomed to them over time. Only deterrents that do not harm birds, such as Mylar flash tape, inflatable "scare eyes," or hanging reflectors or mirrors, should be used.
2. Another option would be to remove the tree that the birds are using and to replace it with one that may not be as enticing to the large waterbirds such as GBHEs and DCCOs. Trees that are generally shorter with thick foliage would be recommended since the large waterbirds prefer to roost and perch on tall, open or dead tree snags. However, removal of trees may not be feasible or desirable. Additionally, agency consultation would likely be required to remove waterbird colonial nesting sites.
3. Therefore, a third option would be to "net" the tree canopy, thereby preventing waterbirds from utilizing it but still preserving the tree itself. Only nets and materials specifically made for this purpose should be installed to prevent potential accidental entrapment. Nets should also be inspected regularly to prevent entrapments. Nets are more effective for small shrubs and trees and keeping smaller passerines from nesting, but may not be the most convenient for large trees since gapping and tears can occur. It is possible that larger raptor species may be able to nest or roost on top of the net so it may need to be combined with another deterrent method.

Compensatory Mitigation

In the event that trees supporting nesting colonial waterbirds are removed (or netted, which would effectively render the tree unusable) for construction or safety reasons, it may be possible to mitigate for the loss of nesting habitat by planting suitable trees in an area more suitable and desirable. Pursuant with the 2012 Marina del Rey Land Use Plan, Section 5.1.11, removal of any tree shall require mitigation at a 1:1 ratio of similar trees of the same age and height. Replacement trees are to consist of native or non-native, non-invasive tree species. As noted above, consultation with the appropriate regulatory agencies may also be necessary prior to removal of a tree supporting nesting waterbirds or raptors, regardless of whether the tree is removed during or outside of the nesting season.

Based on observations made in the field by the surveying biologist, previous year's reports, and the Marina del Rey Conservation and Management Plan (Hamilton Biological, Inc. 2010), waterbirds tend to prefer tall trees in secluded stands located near shallow water for both roosting and nesting. Nests are generally located higher up in the trees. Per information included in the Management Plan, historically colonial waterbirds did not start colonizing Marina del Rey until large, mature trees were available. In 2017 in the Study Area, the biologist observed that colonial waterbird nests were primarily found in areas that have tall, mature (non-native) trees that are fairly protected or partitioned by tall buildings, such as in the Marquesas Way and Mariner's Village nesting areas.

If replacement trees are not intended to be utilized by nesting or roosting waterbirds, then shorter trees with thick canopies/foliage should be planted. Non-invasive, non-native trees such as Jacaranda (*Jacaranda mimosifolia*), olive trees (*Olea europaea*), *Arbutus* 'Marina', or Orchid Tree (*Bauhinia* var.) are recommended as potential nest tree options. If trees are to be replaced with the intent of attracting



large colonial waterbirds, tall trees with minimal canopies such as sycamores or gum trees within protected stands near a shallow source of water are recommended. The smaller colonial waterbirds seem to have a tendency to prefer dense, protected stands of trees such as New Zealand Christmas trees, Melaleucas, and ficus trees. These recommendations are based on data gathered from the 2009 – 2017 surveys and trees already occurring in the Study Area. There is no conclusive data on which species of trees the colonial waterbirds prefer to use but these recommendations are based on the general tree shape and its potential to be suitable habitat for colonial waterbirds based on prior observations within this Study Area. Based on the most recent observation data, the colonial waterbirds appear to prefer roosting and nesting in non-native tree species, however, this may be due to the abundance on non-native trees versus native trees within the Study Area. Both native and non-native recommendations have been made but it is unknown whether there is a definitive preference. There is potential for creating more habitats to attract colonial waterbirds at Burke Park and Burton Chace Park. It may be beneficial to add denser stands of trees that may be more attractive habitat. Further studies regarding the fledgling success at each of the Potential Nesting Areas should be conducted to determine where suitable nest trees should be added to increase population numbers.



Thank you for selecting Rincon Consultants for this important project. If you have any questions about the surveys or report, please contact Leslie Yen at 760/918-9444 ext. 214.

Sincerely,
Rincon Consultants, Inc.

Lily Sam
Associate Biologist

Steven J. Hongola
Principal/ Senior Ecologist

Attachments

Appendix A: Figures 1 – 8

Appendix B: Data Tables

Appendix C: Site Photographs



References

County of Los Angeles, Department of Regional Planning 2012. Marina del Rey Land Use Plan. Plan dated February 8, 2012.

Harkinezhad, T., Geens, T., and Vanrompay, D. 2009. *Chlamydophila psittaci infections in birds: A review with emphasis on zoonotic consequences*. Veterinary Microbiology 135:68–77.

Hamilton Biological, Inc. 2010. Conservation and Management Plan for Marina del Rey, Los Angeles County, CA. Report dated September 16, 2010. Prepared for County of Los Angeles, Dept. of beaches & Harbors, Marina del Rey, CA.

Hamilton Biological, Inc. 2014. Surveys of nesting colonial waterbirds, Marina Del Rey, Los Angeles County, CA. Report dated September 11, 2014. Prepared for County of Los Angeles, Dept. of Beaches & Harbors, Marina del Rey, CA.

Hamilton Biological, Inc. 2015. Surveys of nesting colonial waterbirds, Marina Del Rey, Los Angeles County, CA. Report dated August 31, 2015. Prepared for County of Los Angeles, Dept. of Beaches & Harbors, Marina del Rey, CA.

Rincon Consultants, Inc. 2016. Report on Nesting Colonial Waterbird and Raptor Survey Results for Marina del Rey, Los Angeles County, California. Report dated August 15, 2016. Prepared for County of Los Angeles, Dept. of Beaches & Harbors, Marina del Rey, CA.

Appendix A

Maps, Figures 1-8

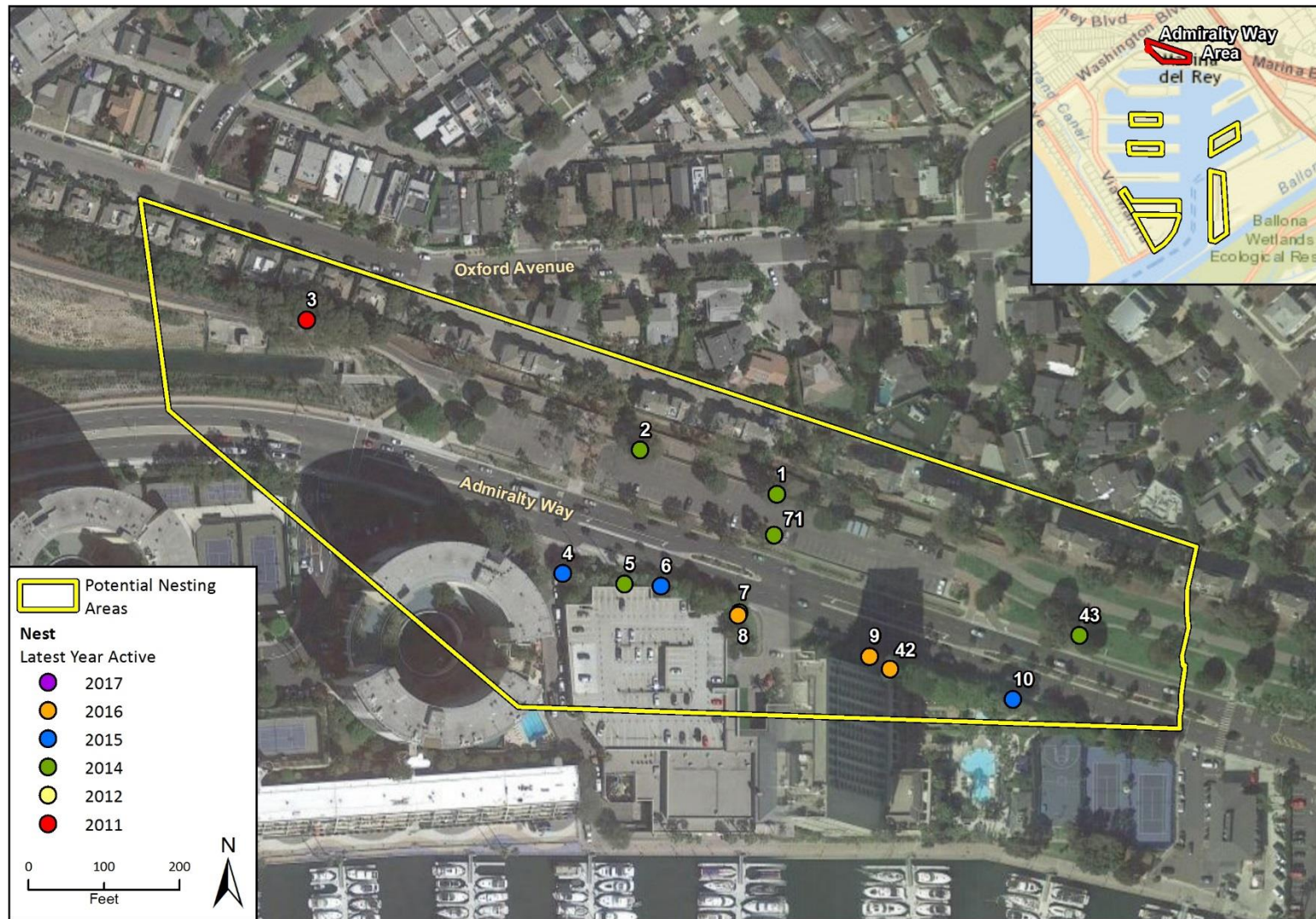


Figure 1. Nest Colony Locations and Survey Area





Figure 2. Admiralty Way Area



Imagery provided by Google and its licensors © 2017.



Figure 3. Panay Way Area





Figure 4. Marquesas Way Area



Imagery provided by Google and its licensors © 2017.



Figure 5. Bora Bora Way Area





Figure 6. Mariner's Village Area



Imagery provided by Google and its licensors © 2017.

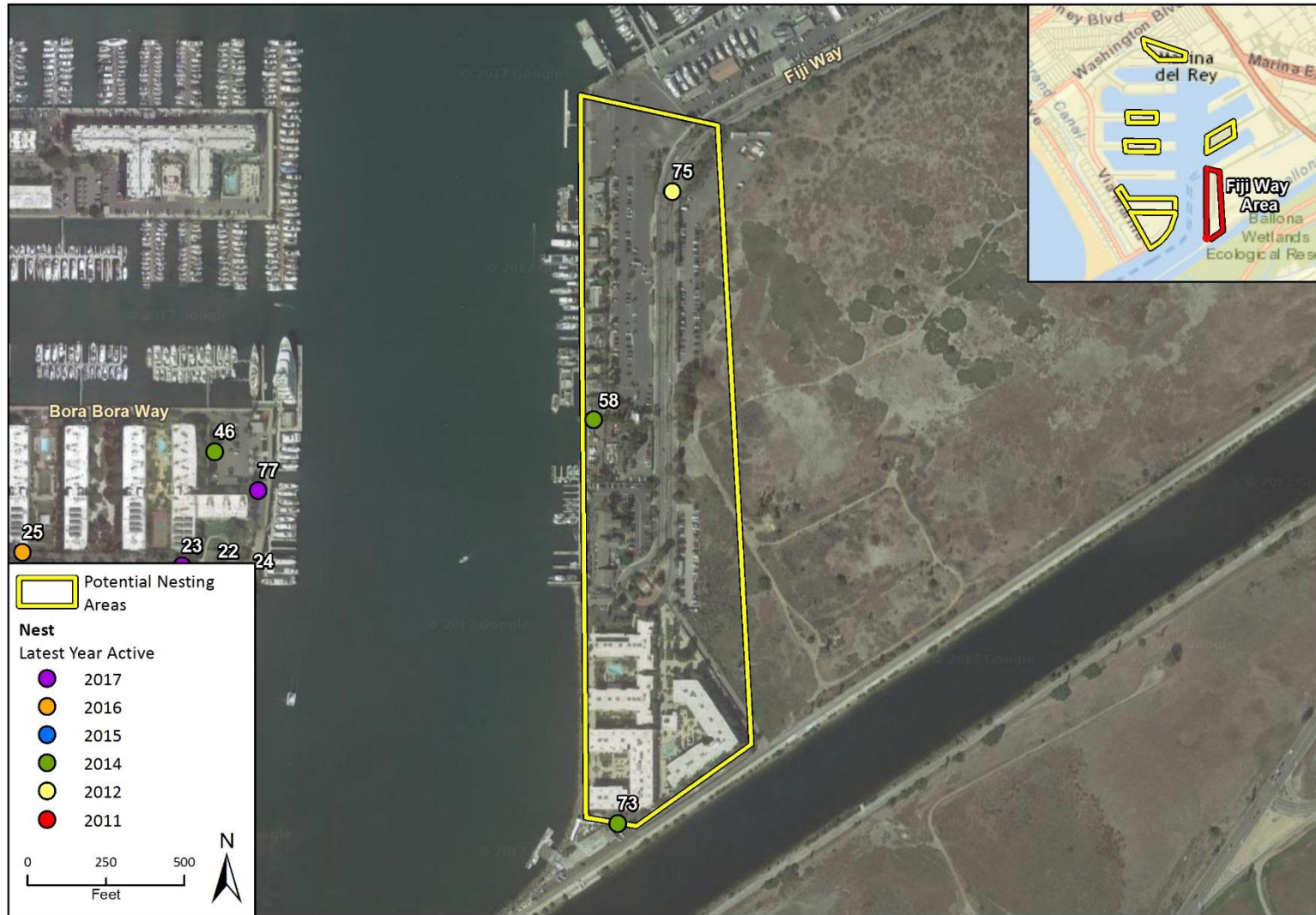


Figure 7. Burton Chace Park Area





Figure 8. Fiji Way Area



Imagery provided by Google and its licensors © 2017.

Appendix B

Data Tables



Marina del Rey Annual Nesting Bird Survey
Final 2017 Report on Nesting Colonial Waterbirds and Raptors

Table B-1: Nest Activity by Tree, 2017.

Tree	Colony name ¹	Parcel	Active	GBHE	BCNH	SNEG	DCCO	Large Unk	Small Unk	2017 Total	2016 Total	2015 Total	Potential New ²	Potential Reuse ²
1	AW	q	0	0	0	0	0	0	0	0	0	0	0	0
2	AW	q	0	0	0	0	0	0	0	0	0	0	0	0
3	AW	p	0	0	0	0	0	0	0	0	0	0	0	0
4	AW	125	0	0	0	0	0	0	0	0	0	4	0	0
5	AW	125	0	0	0	0	0	0	0	0	0	0	0	0
6	AW	125	0	0	0	0	0	0	0	0	0	1	0	0
7	AW	125	0	0	0	0	0	0	0	0	0	0	0	0
8	AW	125	0	0	0	0	0	0	0	0	1	3	0	1
9	AW	125	0	0	0	0	0	0	0	0	1	3	0	1
10	AW	125	0	0	0	0	0	0	0	0	0	2	0	0
11	MW	10	0	0	0	0	0	0	0	0	0	0	0	0
12	MW	road median	1	0	0	0	0	0	1	1	2	2	0	2
13	MW	road median	1	0	4	0	0	0	2	6	6	11	0	6
14	MW	road median	1	0	4	0	0	0	1	5	6	7	0	6
15	MW	road median	1	0	3	2	0	0	4	9	7	8	0	7
16	MW	road median	1	0	9	1	0	0	1	11	8	10	2	6
17	MW	road median	1	0	2	2	0	0	1	5	7	4	3	4
18	MW	road median	1	0	6	0	0	0	1	7	9	7	3	6
19	MW	road median	1	0	2	2	0	0	0	4	6	7	4	2
20	MW	road median	1	0	0	10	0	0	4	14	13	13	11	2
21	MV	113	1	0	11	0	0	0	0	11	14	8	6	8
22	MV	113	1	2	0	0	0	0	0	2	2	2	0	2
23	MV	113	1	2	0	0	0	0	0	2	3	3	0	3
24	MV	113	1	0	0	0	20	0	0	20	22	19	3	19
25	MV	113	0	0	0	0	0	0	0	0	1	2	0	1
28	MV	113	1	2	0	0	0	1	0	3	1	1	0	1
29	MV	113	1	5	0	0	0	0	0	5	5	4	1	4



Marina del Rey Annual Nesting Bird Survey
Final 2017 Report on Nesting Colonial Waterbirds and Raptors

Tree	Colony name ¹	Parcel	Active	GBHE	BCNH	SNEG	DCCO	Large Unk	Small Unk	2017 Total	2016 Total	2015 Total	Potential New ²	Potential Reuse ²
30	MV	113	1	0	0	0	0	1	0	1	0	0	0	0
37	BC	ee	0	0	0	0	0	0	0	0	0	0	0	0
42	AW	125	0	0	0	0	0	0	0	0	1	1	0	1
43	AW	q	0	0	0	0	0	0	0	0	0	0	0	0
46	BB	112	0	0	0	0	0	0	0	0	0	0	0	0
58	FJ	61	0	0	0	0	0	0	0	0	0	0	0	0
59	MV	113	1	1	0	0	0	0	0	1	1	1	0	1
61	MW	road median	1	0	8	1	0	0	3	12	10	11	3	7
62	MV	113	0	0	0	0	0	0	1	1	0	1	0	0
63	MV	113	1	2	0	0	0	0	0	2	1	1	0	1
64	MV	113	1	1	0	0	0	0	0	1	1	1	0	1
65	MW	13	1	0	0	0	0	0	1	1	1	2	0	1
66	MW	13	1	0	1	0	0	0	0	1	1	1	0	1
69	MW	13	1	0	1	0	0	0	2	3	2	3	0	2
70	MW	road median	0	0	0	0	0	0	0	0	1	1	0	1
71	AW	q	0	0	0	0	0	0	0	0	0	0	0	0
73	FJ	65	0	0	0	0	0	0	0	0	0	0	0	0
74	BC	ee	0	0	0	0	0	0	0	0	0	0	0	0
75	FJ	tbd	0	0	0	0	0	0	0	0	0	0	0	0
76	MW	na	1	0	1	0	0	0	1	2	1	0	1	0
77	BB	na	1	0	0	0	0	0	0	0	1	0	1	0
78	MW	na	1	0	2	0	0	0	0	2	-	-	2	-
79	MW	na	1	0	2	0	0	0	0	2	-	-	2	0
80	BCP	na	1	0	1	0	0	0	0	1	-	-	1	0
Totals			27	15	55	18	20	2	23	135	136	149	38	97

¹ AW – Admiralty Way, MW – Marquesas Way, MV – Mariner’s Village, BC – Burton Chase, BB – Bora Bora Way, PW – Panay Way, FJ – Fiji Way,

² Colonial waterbirds (particularly snowy egrets and black-crowned night herons) frequently deconstruct their nest after a breeding season. It is assumed that nests left remaining after a breeding season is relatively stable, thus the data for Potential Reused and Potential New was derived from the number of remaining nests found on the 3 August 2016 survey as compared to the 2015 nest totals.



Table B-2: Nest activity by year, 2011-2017

Tree	DBH Tree Tag ID	Species	Colony Name ¹	Parcel	Active 2009 ²	Active 2011	Active 2012	Active 2014	Active 2015	Active 2016	Active 2017	Last Active	Notes
1	BP-148	Eucalyptus	AW	Q	0	1	1	1	0	0	0	2014	
2	BP-250	Eucalyptus	AW	Q	0	0	1	1	0	0	0	2014	
3	OX-10	Eucalyptus	AW	P	0	1	0	0	0	0	0	2011	
4	N/A	Ficus	AW	125	0	0?	0?	0	1	0	0	2015	
5	N/A	Ficus	AW	125	0	1?	1?	1	0	0	0	2014	
6	N/A	Ficus	AW	125	0	1?	1?	1	1	0	0	2015	
7	N/A	Ficus	AW	125	1	1?	1?	1	0	0	0	2014	
8	N/A	Ficus	AW	125	1	1?	1?	1	1	1	0	2016	
9	N/A	Ficus	AW	125	1	1?	1?	1	1	1	0	2016	
10	N/A	Ficus	AW	125	0	1?	1?	1	1	0	0	2015	
11	MQ-16	Melaleuca	MW	road median	0	1?	1?	1	0	0	0	2014	
12	MQ-13	Melaleuca	MW	road median	0	1?	1?	1	1	1	1	2017	
13	MQ-12	Melaleuca	MW	road median	0	1?	1?	1	1	1	1	2017	
14	MQ-11	Melaleuca	MW	road median	0	1?	1?	1	1	1	1	2017	
15	MQ-10	Melaleuca	MW	road median	0	1?	1?	1	1	1	1	2017	
16	MQ-9	Melaleuca	MW	road median	0	1?	1?	1	1	1	1	2017	
17	MQ-8	Melaleuca	MW	road median	0	1?	1?	1	1	1	1	2017	
18	MQ-6	Melaleuca	MW	road median	0	1?	1?	1	1	1	1	2017	
19	MQ-5	Melaleuca	MW	road median	0	1?	1?	1	1	1	1	2017	
20	MQ-4	Melaleuca	MW	road median	0	1?	1?	1	1	1	1	2017	
21	MQ-3	Ficus	MW	road median	0	1?	1?	1	1	1	1	2017	
22	N/A	Eucalyptus	MV	113	0	0	0?	0	1	1	1	2017	
23	N/A	Eucalyptus	MV	113	0	1	1?	0	1	1	1	2017	
24	N/A	Eucalyptus	MV	113	0	1	1?	1	1	1	1	2017	
25	N/A	Eucalyptus	MV	113	0	0	0?	0	1	1	0	2016	
28	N/A	Pinus	MV	113	0	1	1?	1	1	1	1	2017	
29	N/A	Pinus	MV	113	0	0	0?	0	1	1	1	2017	



Marina del Rey Annual Nesting Bird Survey
Final 2017 Report on Nesting Colonial Waterbirds and Raptors

Tree	DBH Tree Tag ID	Species	Colony Name ¹	Parcel	Active 2009 ²	Active 2011	Active 2012	Active 2014	Active 2015	Active 2016	Active 2017	Last Active	Notes
30	N/A	Euc	MV	113	0	0	0?	0	1	0	1	2017	
37	CP-109	Pinus	BC	EE	0	0	1	0	0	0	0	2012	
43	N/A	Euc	AW	Q	0	0	0	0	0	0	0	pre-2009	
46	N/A	Pinus	BB	112	0	0	0	0	0	0	0	pre-2009	
49	N/A	Melaleuca	PW	road median	1	0	0	0	0	0	0	2009	
51	N/A	Melaleuca	PW	road median	1	0	0	0	0	0	0	2009	
52	N/A	Melaleuca	PW	road median	1	0	0	0	0	0	0	2009	
58	N/A	Washingtonia	FJ	61	0	0	1	1	0	0	0	2014	Incl. more than 1 tree (cluster)
59	N/A	Euc	MV	113	0	0	0?	0	1	1	1	2017	
60	N/A	Euc	BB	111	0	0	0	1	0	NA	NA	2014	Tree removed in 2014
61	MQ-7	Melaleuca	MW	road median	0	0	1?	1?	1	1	1	2017	On 8.3.16 two BCNH carcass observed in nest, one nestling and one adult
62	N/A	Ficus	MV	113	0	0	0?	0	1	0	0	2015	
63	N/A	Pinus	MV	113	0	0	0?	0	1	1	1	2017	
64	N/A	Euc	MV	113	0	0	0	0	0	1	1	2017	
65	N/A	Pinus	MW	13	0	0	0	0	0	1	1	2017	
66	N/A	Pinus	MW	13	0	0	0	0	0	1	1	2017	
68	N/A	Pinus	MW	13	0	0	0	0	0	0	0	pre-2009	
69	N/A	Ficus	MW	13	0	0	0	0	0	1	1	2017	
70	N/A	Melaleuca	MW	10	0	0	0	0	0	1	NA	2016	Tree removed in 2016
71	BP-147	Ficus	AW	Q	0	0	1	1	0	0	0	2014	
72	N/A	Cupressus	FJ	64	0	0	1	1	0	NA	NA	2014	Trees removed by 2014
73	N/A	Washingtonia	FJ	65	0	0	1	1	0	0	0	2014	



Farina del Rey Annual Nesting Bird Survey
Final 2017 Report on Nesting Colonial Waterbirds and Raptors

Tree	DBH Tree Tag ID	Species	Colony Name ¹	Parcel	Active 2009 ²	Active 2011	Active 2012	Active 2014	Active 2015	Active 2016	Active 2017	Last Active	Notes
74	CP-66	Pinus	BC	EE	0	0	1	0	0	0	0	2012	
75	FJ-209	Washingtonia	FJ	TBD	0	0	1	0	0	0	0	2012	
76	N/A	Pinus	MW	NA	0	0	0	0	0	1	1	2017	
77	N/A	Pinus	BB	NA	0	0	0	0	0	1	1	2017	
78	N/A	Pinus	MW	NA	-	-	-	-	-	-	1	2017	
79	N/A	Pinus	MW	NA	-	-	-	-	-	-	1	2017	
80	N/A	Metrosideros	BC	NA	-	-	-	-	-	-	1	2017	

¹ AW – Admiralty Way, MW – Marquesas Way, MV- Mariner's Village, BC – Burton Chase, BB – Bora Bora Way, PW – Panay Way , FJ – Fiji Way

² 2009 data only listed as such for trees active in 2011, per Hamilton data.

³ Trees listed with question mark are assumed active in year indicated, per Hamilton data.

Appendix C

Nest Photos

Photographs of all active and inactive colonial waterbird and raptor nests in Marina del Rey as of July 27, 2017



Photo 1: Mariner's Village, Tree 29. Five GBHE nests, active 2017. Photo facing north.



Photo 2: Mariner's Village, Tree 63. Two GBHE nests, active 2017. Photo facing north.



Photo 3: Mariner's Village, Tree 59. One GBHE nest, active 2017. Photo facing west.



Photo 4: Mariner's Village, Tree 64. One GBHE nest, active 2017. Photo facing west.



Photo 5: Mariner's Village, Tree 62. One BCNH nest. Photo facing east.



Photo 6: Mariner's Village, Tree 23. Two GBHE nests . Photo facing north.



Photo 7: Mariner's Village, Tree 22. Two GBHE nests –Nests was active 2017. Photo facing north.



Photo 8: Mariner's Village, Tree 24. Twenty nests – DCCO. Nests were active 2017. Photo facing northwest.



Photo 9: Bora Bora Way, Tree 77. 1 GBHE. Nest active 2017. Photo facing north west.



Photo 10: Marquesas Way, Tree 21. Eleven nests BCNH. Nests active 2017. Photo facing west, taken from below.



Photo 11: Marquesas Way, Tree 21. Eleven nests BCNH. Three shown. Nests active 2017. Photo facing west, taken from below.



Photo 12: Marquesas Way, Tree 20. Fourteen BCNH/SNEG nests . Nests active 2017. Photo facing west, taken from below.



Photo 13: Marquesas Way, Tree 19. Four nests – BCNH and SNEG. Nests active 2017. Photo facing south.



Photo 14: Marquesas Way, Tree 18. Seven nests – BCNH and SNEG. Nests active 2017. Photo facing south.



Photo 15: Marquesas Way, Tree 78. Two BCNH . Photo facing west.



Photo 16: Marquesas Way, Tree 69. Four BCNH nest, active 2017. Photo facing north.



Photo 17: Marquesas Way, Tree 61. Twelve BCNH/SNEG nests Nests active 2017. Photo facing south.



Photo 18: Marquesas Way, Tree 76. Three nests – BCNH/SNEG. Nests active 2017. B is a SNEG/BCNH nest, C is a SNEG nest. Photo facing east.



Photo 19: Marquesas Way, Tree 16. 4 nests –SNEG/BCNH. Nests active 2017.. Photo facing south..



Photo 20: Marquesas Way, Tree 66. One BCNH nest. Active in 2017.



Photo 21: Marquesas Way, Tree 79. Two BCNH /SNEG. Active 2017. Facing west.



Photo 22: Marquesas Way, Tree 65. Eight BCNH/SNEG nests Nests active 2017. Photo facing south.



Photo 23: Marquesas Way, Tree 15. Seven BCNH/SNEG nests. Nests active 2017. Photo facing south.



Photo 24: Marquesas Way, Tree 14. Five BCNH/SNEG nests. Active 2017. Facing South



Photo 25: Marquesas Way, Tree 13. Two BCNH/SNEG nests . Nests active 2017. Photo facing south.



Photo 26: Burton Chace Park, Tree 80. One BCNH Nests active 2017. Photo facing southeast.