Marina del Rey Annual Nesting Bird Survey

2020 Nesting Bird Survey Report

prepared for

County of Los Angeles Department of Beaches and Harbors
Jennifer Mongolo
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Marina del Rey, California 90292
Via email: JMongolo@bh.lacounty.gov

prepared with the assistance of

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012

July 2020

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1 Introduction

This report presents the results of the draft 2020 nesting bird 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 waterbirds and raptors that may nest in the trees within the unincorporated area of Marina del Rey. The nest surveys are an annual requirement in accordance with Tree Management Policies No. 23 and 34 from the Marina del Rey Land Use Plan (LUP; County of Los Angeles Department of Regional Planning, 2012) and have been conducted in 2009, 2011, 2012, and 2014-2019. These surveys are used to monitor trends in nesting behavior, recommend mitigation measures regarding new plantings or nest removals, and to provide information on potential public health, safety, and access concerns. This report provides colonial waterbird and raptor species background information, 2020 nest survey methodology and results, a discussion of colony trends, and recommendations on reducing potential conflicts between humans and birds.

1.1 Project Location

Marina del Rey is an unincorporated community 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 community is surrounded by development to the north and west, and the Ballona Wetlands Ecological Reserve to the east and south (Figure 1). The 804-acre community includes 401 acres of developed land and 403 acres of water, of which 292 acres of land and 148 acres of water are leased to private entities. Numerous ornamental trees and shrubs such as coast coral tree (*Erythrina caffra*), Tasmanian blue gum (*Eucalyptus globulus*), rubber fig (*Ficus elastica*), rusty fig (*Ficus rubiginosa*), broad-leaved paperback (*Melaleuca quinquenervia*), and Mexican fan palm (*Washingtonia robusta*) border roadways and pedestrian paths in Marina del Rey. Several areas within Marina del Rey have been restored or are currently undergoing restoration. These restoration areas include Oxford Retention Basin (10.27 acres of open water/marsh habitat), Wetland Park (1.46 acres of tidally influenced saltmarsh habitat at Parcel 9), and the margin of Ballona Wetlands Ecological Reserve Area A (non-native tree/shrub removal).

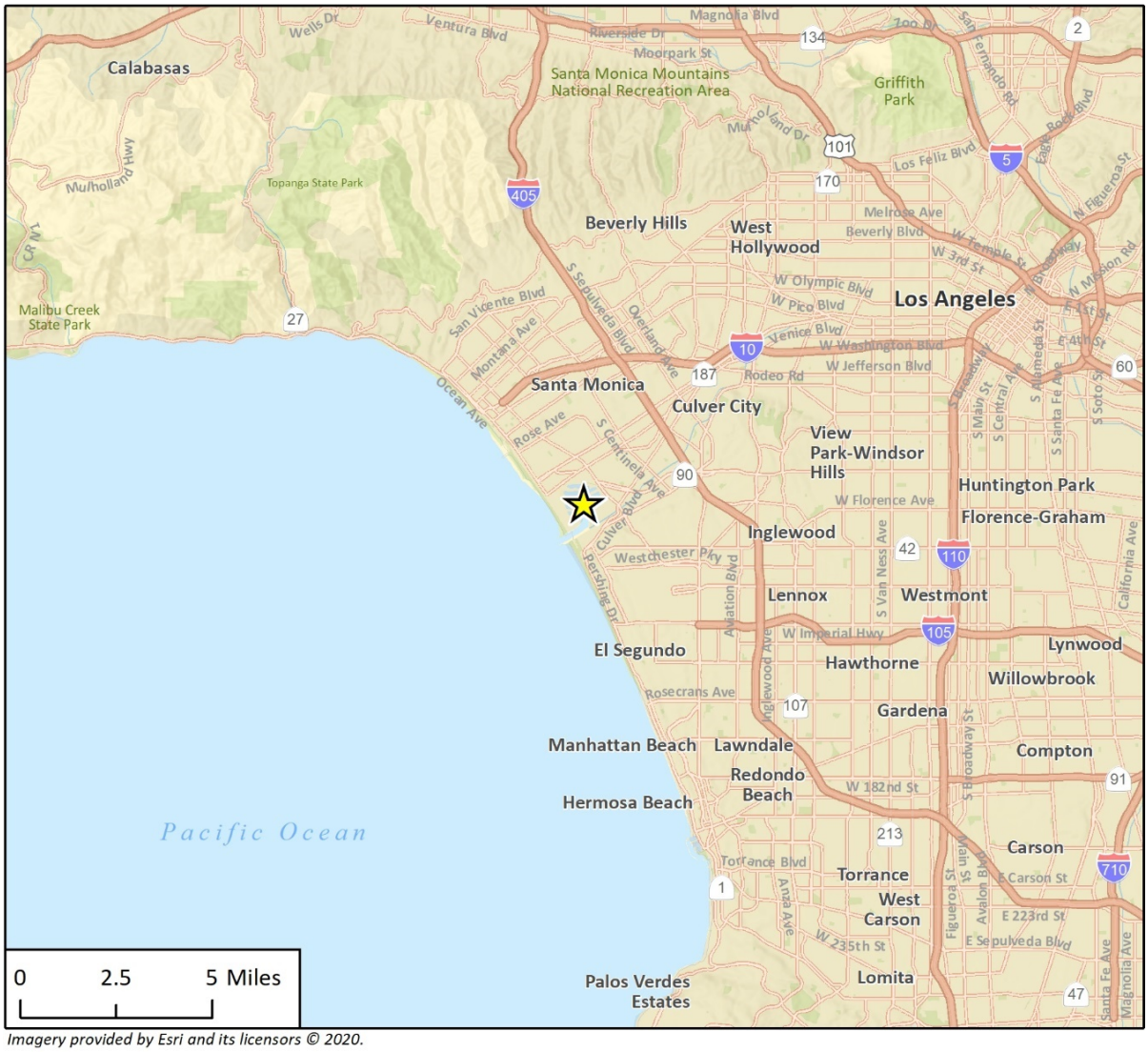
Biological Study Area

For the purpose of this report, the study area is defined as the unincorporated community of Marina del Rey. The study area is further separated into ten distinct nesting areas based on historical nesting data (Figure 2).

Admiralty Way

The Admiralty Way nesting area 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 area. The harbor is directly south of this area. This site has previously been documented primarily as a black-crowned night-heron (*Nycticorax nycticorax,* BCNH) colony.

Figure 1 Regional Location



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Project Location

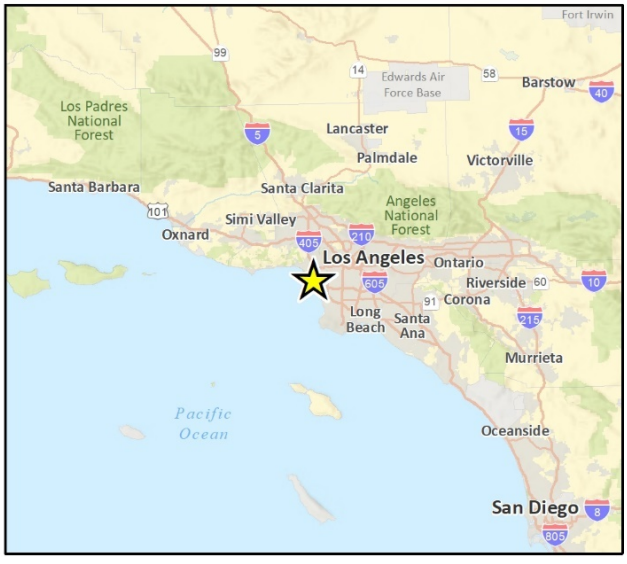


Figure 2 Study Area and Nesting Areas

Peregrine falcons (Falco peregrinus, PEFA) have also been documented nesting in this area. No nesting waterbird colonies have been documented within the Admiralty Way area since 2016.

Palawan Way

Palawan Way is north of Marina Beach and provides access to Wayfarer Apartments and Basins D and E. Suitable nesting/roosting trees line Palawan Way and are incorporated into the Wayfarer Apartments landscape. No historic nesting by colonial waterbirds or raptors has been documented in this area.

Panay Way

The Panay Way nesting area is south of Admiralty Way, bordered by residential areas with commercial areas interspersed between residences and parking areas for the Marina. There is a public beach north of this area and harbor waters to the north, east, and south. No nesting waterbird colonies have been documented within the Panay Way area since 2009.

Marquesas Way

The Marquesas Way nesting area 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 and within newly constructed apartment buildings on the west end of the street. Construction activities were observed during all four surveys. Colonial waterbirds have been observed nesting in this area since 2009.

Tahiti Way

Tahiti Way provides access to numerous residential complexes and Basins A and B. The 1.46-acre Wetland Park is located on the northeast corner of Tahiti Way and Via Marina. Few suitable nesting/roosting trees are located on Tahiti Way; most of the trees are palms. Nesting by colonial waterbirds last occurred in this area in 2018.

Bora Bora Way

The Bora Bora Way nesting area is south of Tahiti Way along Via Marina. The area is primarily residential with a nesting colony located in the Mariner's Village nesting area which borders the Del Rey Landing parking lot to the south along the NW Passage path. Harbor waters are located to the north and east. No active nest colonies have been documented within the Bora Bora Way nesting area since 2016.

Mariner's Village

The Mariner's Village nesting area is a primarily residential area with some commercial uses interspersed between apartment complexes. Harbor waters are located to the east. Historically, this area has been dominated by great blue heron (*Ardea herodias*, GBHE) and double-crested cormorant (*Phalacrocorax auritus*, DCCO) nest colonies. Colonial waterbird nests have been observed in the area since 2009.

Bali Way

Bali Way is located southwest of Admiralty Way one street east of Mindanao Way and provides access to the Marina del Rey Hotel and Basins F and G. Suitable nesting/roosting trees line Bali Way; however, no nesting by colonial waterbirds or raptors has been documented in this area to date.

Mindanao Way (Burton Chace Park)

The Burton Chace Park nesting area 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. Construction within the north western parking lot and adjacent Santa Monica Windjammers Yacht Club was observed during all four surveys. Colonial waterbird nesting has occurred in this area in 2011, 2012, and 2017 through 2019.

Fiji Way

Fiji Way 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 active since 2012.

2 Methodology

2.1 Literature Review

The literature review included information on the target species as defined by DBH. The LUP defines colonial waterbirds as the following five species: double-crested cormorant, great blue heron, great egret (*Ardea alba*, GREG), snowy egret (*Egretta thula*, SNEG), and black-crowned night-heron. These species have likely been nesting in Marina del Rey since the mid-1990s (Hamilton Biological, 2010).

Annual nesting reports for the study area from previous years were also reviewed:

- Final Report on Nesting Waterbirds and Raptors, Marina Del Rey, Los Angeles County, CA (Hamilton Biological, 2014)
- Final Report on Nesting Waterbirds and Raptors, Marina Del Rey, Los Angeles County, CA (Hamilton Biological, 2015)
- Final 2016 Report on Nesting Colonial Waterbird and Raptor Survey Results for Marina del Rey, Los Angeles County, California (Rincon Consultants, 2016)
- Final 2017 Report on Nesting Colonial Waterbird and Raptor Survey Results for Marina del Rey, Los Angeles County, California (Rincon Consultants, 2017)
- Final Nesting Bird Survey Report Marina del Rey, Los Angeles County, California (Environmental Intelligence, 2018)
- Final Nesting Bird Survey Report Marina del Rey, Los Angeles County, California (Environmental Intelligence, 2019).

2.2 Nesting Surveys

The nesting bird surveys for colonial waterbirds and raptors were conducted by Rincon Biologist Gayle Bufo between March 30 – July 23, 2020. Table 1 provides specific details on the timing of and environmental conditions during the surveys.

Table 1 Survey Details

Survey Date	Time	Observers	Weather
March 30, 2020	0700-1900	Gayle Bufo	52-67°F, 3-5 mph, 0% cloud cover AM – 10% cloud cover PM
May 07, 2020	0700-1815	Gayle Bufo	65-81°F, 0-5 mph, 25% cloud cover AM – 10% cloud cover PM
June 16, 2020	0730-1430	Gayle Bufo	66-79°F, 3-5 mph, 100% cloud cover AM – 20% cloud cover PM
July 23, 2020	0800-1400	Gayle Bufo	68-80°F, 0-5 mph, 25% cloud cover AM – 10% cloud cover PM

The study area included all parts of Marina del Rey (Figure 2).The biologist surveyed for both active and inactive colonial waterbird and raptor nests using accepted industry standard methods and in accordance with the requirements outlined in Policies #23 and #34 in the Marina Del Rey LCP. All suitable and historic nesting sites in Marina del Rey were closely examined. The biologist made observations from the ground, surveying for existing nest structures, whitewash, birds exhibiting breeding/nesting behavior (i.e., 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 birds and other wildlife. Inaccessible areas (i.e. fenced construction zones) were also surveyed with the aid of binoculars and a spotting scope. The locations of all trees containing waterbird and raptor nests were recorded using a Lenovo Tablet Geographic Information System (GIS) tracker and Collector application.

Nests were identified as active 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 methods documented in the 2009, 2011, 2012, and 2014 - 2019 reports of determining "active" or "likely active" nests were used for the study area in 2020 to compare the resulting trends from 2009. For the purposes of this report, "active" and "likely active" nests are collectively referred to as "active" unless otherwise noted.

Where possible, nests observed during the surveys were identified by avian species. Birds are referred to by their four-letter species acronym throughout the report. Table 2 provides a key 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 were compared with those from similar waterbird nesting surveys conducted at Marina del Rey, including: 2009 (Hamilton Biological, 2010), 2014 (Hamilton Biological, 2014), 2015 (Hamilton Biological, 2015), 2016 (Rincon Consultants, 2016), 2017 (Rincon Consultants, 2017), 2018 (Environmental Intelligence, 2018), and 2019 (Environmental Intelligence, 2019).

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
Song sparrow	SOSP
dark-eyed junco	DEJU
Cooper's hawk	COHA
peregrine falcon	PAFA
small colonial waterbird	SNEG/BCNH
large colonial waterbird	GBHE/GREG

3 Existing Conditions and Survey Results

3.1 Existing Conditions

Overall, study area conditions were similar to previous years' surveys. Large construction projects occurred along Via Marina, Marquesas Way, Admiralty Way, and Mindanao Way during all four surveys. These construction projects required traffic controls, installation of tall fencing with noise barriers, and the use of large equipment including cranes and excavators which may have contributed to the decrease in avian activity. Additionally, COVID-19 stay at home orders began in Los Angeles County the week before the first survey with social restrictions still in effect through the last survey. These measures contributed to an overall increase in human activity within the parks and sidewalks throughout Marina del Rey.

3.2 Results

During the 2020 breeding season, 136 active colonial waterbird and 34 incidental passerine species nests were detected (Figure 3 depicts all incidental nest locations). The following species were observed: BCNH (64 nests), SNEG (32 nests), DCCO (26 nests), GBHE (12 nests), and small colonial waterbird (2 nests). As described above, small colonial nests were presumed to belong to BCNH and/or SNEG. The biologist was able to positively identify all large colonial waterbird nests. The 136 active nests were located in 27 trees within three main areas: Marquesas Way (17 trees), Mariner's Village (9 trees), and Mindanao Way (Burton Chace Park) (one tree) (Table 3). No active nests were found within the Admiralty Way, Palawan Way, Panay Way, Tahiti Way, Bora Bora Way, Bali Way, or Fiji Way nesting areas in 2020. No raptor nests or, nesting great egrets (Ardea alba) were observed during the 2020 surveys. In addition, the peregrine falcon nest that was previously found during the 2014-2016 surveys at the Ritz-Carlton Hotel building at the Admiralty Way nesting area was no longer present. See Appendix B for nest photos and Appendix C for tree numbers, locations, and descriptions.

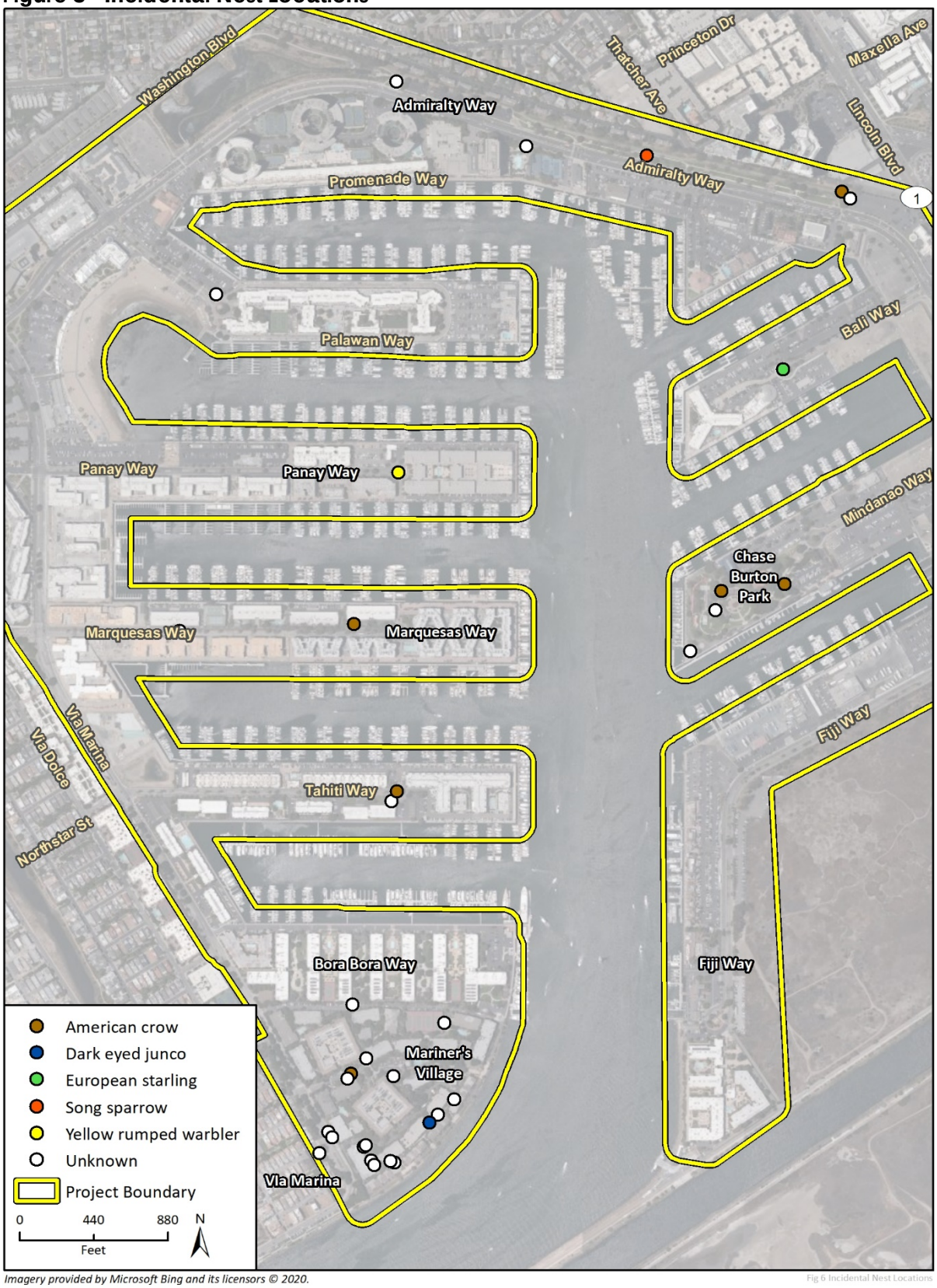
Table 3 Active Colonial Waterbird Nests

Location	GBHE	Large Unknown	BCNH	SNEG	Small Unknown	DCCO	Total
Marquesas Way	0	0	62	32	1	0	95
Mariner's Village	12	0	2	0	0	18	32
Mindanao Way (Burton Chace Park)	0	0	0	0	1	8	9
Total	**12**	**0**	**64**	**32**	**2**	**26**	**136**

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 within adjacent private property. The biologist determined that 62 of these nests belonged to BCNH and 32 belonged to SNEG. One nest was presumed to have been used by either BCNH or SNEG. A majority of nests were found in paperbark melaleucas, six nests were found in fig trees, and three nests were found in pine trees (*Pinus* sp.).

Figure 3 Incidental Nest Locations



Mariner's Village

A total of 32 active nests were detected in the Mariner's Village nesting area in 2020 (Figure 5). Of these 32 nests, 12 were confirmed to be GBHE nests, 18 were confirmed to be DCCO nests, and two were confirmed to be BCNH nests. The 12 GBHE nests were located within five different trees, two of which were eucalyptus, and three of which were pines. The 18 DCCO nests were located within two different eucalyptus trees and two BCNH nests were discovered in one pine tree.

Mindanao Way (Burton Chace Park)

Eight DCCO nests were observed in a single eucalyptus tree on the east side of Burton Chace Park, northeast of the Boathouse building at 13640 Mindanao Way. A single nest of an unknown small colonial waterbird was also observed in a fig tree near the center of the park but was determined to be inactive (Figure 6). Construction within the northwestern parking lot and adjacent Santa Monica Windjammers Yacht Club was observed during all four surveys. Additionally, a single American crow nest was identified within the park along with several inactive passerine nests. In 2019 two Cooper's hawk nests were observed within a rubber fig and coastal coral tree on the southern side and northeast corner of the park (respectively). These nests were no longer active in 2020 and no Cooper's hawks were observed in the vicinity of Burton Chase Park during any of the surveys. During the fourth and final survey of the 2020 season, a single black-crowned night heron was observed roosting in tree CP111 where the Cooper's hawk nest was in 2019. No nests were present in the tree and no other colonial waterbirds or raptors were seen at this location.

Figure 4 Marquesas Way Nesting Area

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Fig 3 Marquesas Way Nest Locations_20200820

Figure 5 Mariner's Village Nesting Area

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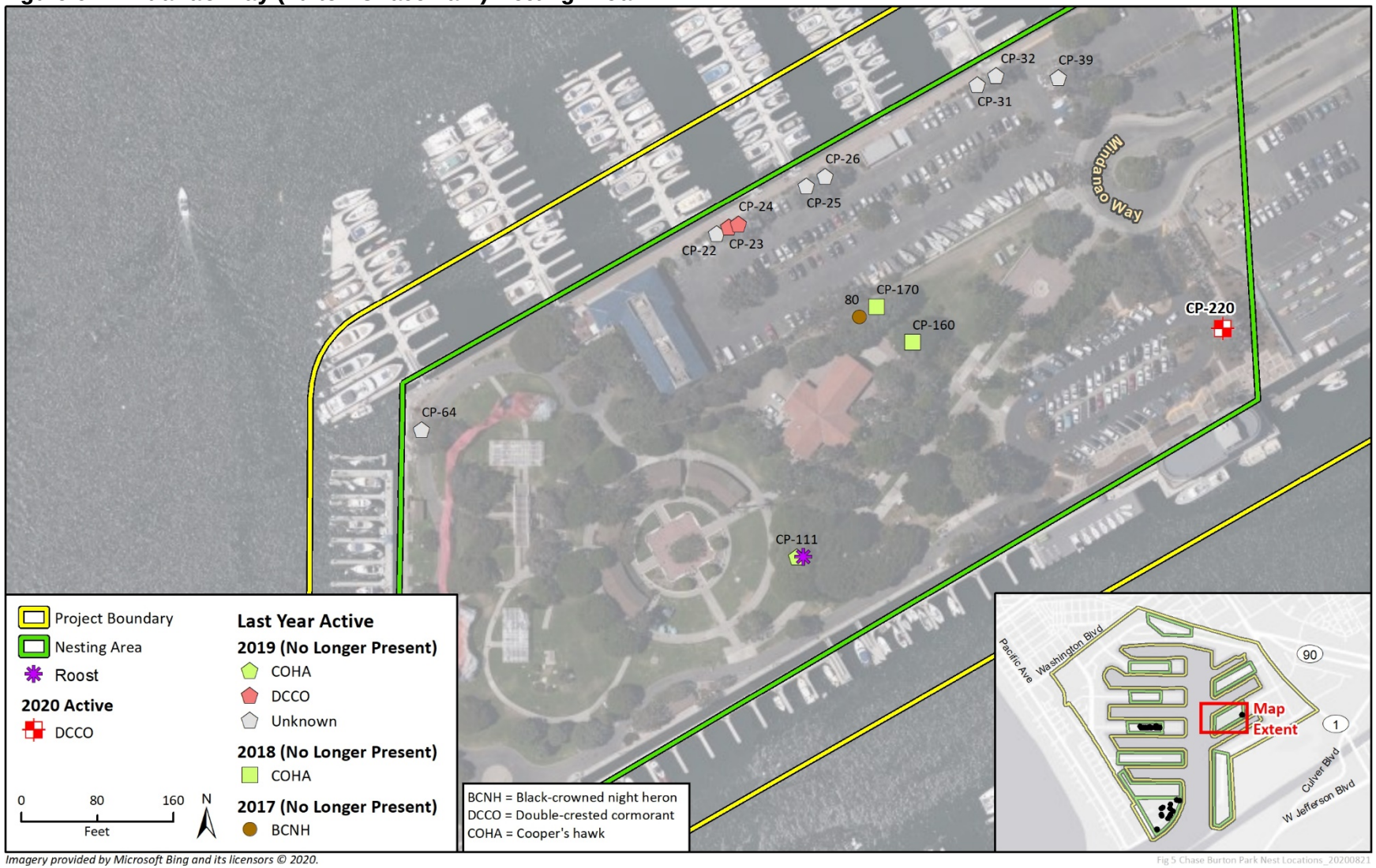
Fig 4 Mariners Village Nest Locations_20200821

Figure 6 Mindanao Way (Burton Chase Park) Nesting Area



4 Conclusions

4.1 Nesting Bird Surveys

Similar to previous years, three nesting areas provided the most suitable habitat for the 2020 nesting season: Marquesas Way, Mariners Village, and Mindanao Way (Burton Chase Park). Avian activity during all four surveys was moderate and compared to the 2019 nesting season, DCCO/GBHE nesting appeared to slightly decrease while SNEG nesting increased. Table 3 provides waterbird population trends by species between 2009 and 2020. BCNH populations generally increased from 2009 to 2015, then declined from 2017 to 2020. Although they have increased slightly in the last year, BCNH numbers have remained relatively stable. Populations of SNEG have continued to fluctuate. GREGs have not nested in any areas since 2012, after a decline from an already low population. GBHE have shown a slight decline since 2012. DCCO populations appear to be increasing since 2016 with a slight dip in population during the 2019 surveys. The study area supported more nesting waterbirds than in 2018 and 2019; although, overall waterbird nesting has decreased since 2015.

Table 4 Population Trends by Species, Based on Number of Active Nests[1]

Species	2009	2011	2012[3]	2014	2015	2016	2017	2018	2019	2020	Trend
Black-crowned night-heron (BCNH)[2]	43	81	64	81	73	57	56	41	48	64	Increase, then decrease and relatively stable
Snowy egret (SNEG)	35	24	10	18	25	26	18	33	14	32	Mixed
Great blue heron (GBHE)	32	25	28	22	14	16	17	13	19	12	Decrease, then relatively stable
Great egret (GREG)[4]	5	1	1	0	0	0	0	0	0	0	Decrease, then consistent
Double-crested cormorant (DCCO)	19	22	24	30	19	22	20	26	17	26	Increase, then decrease and relatively stable
Small Unknown	N/A	N/A	N/A	N/A	16	14	24	0	0	2	Increased, then consistently low
Large Unknown	N/A	N/A	N/A	N/A	2	0	0	0	0	0	Decreased, then stable
Total	**134**	**153**	**127**	**151**	**149**	**135**	**135**	**113**	**98**	**136**	

[1] This data does not include 2010 and 2013 because surveys were not conducted in those years

[2] Consistent with previous year's surveys, this data includes small colonial waterbird nests (SNEG/BCNH)

[3] 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

[4] Includes large colonial waterbird nests (GBHE/GREG)

Table 5 provides waterbird population trends at each nesting area between 2009 and 2020. 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; although, the nesting tree near Burton Chase Park did contain more nests in

2020 than in previous years. A description of nesting activity in each of the ten nesting areas are described in detail below.

Table 5 Population Trends by Nesting Area, based on Number of Active Nests[1]

Location[1]	2009	2011	2012	2014	2015	2016	2017	2018	2019	2020	Trend
Admiralty Way	71	64	25	33	17	2	0	0	0	0	Decrease
Bora Bora Way[2]	NA	NA	NA	11	0	1	0	0	0	0	Decrease
Fiji Way	25	29	12	0	0	0	0	0	0	0	Decrease
Mariners Village	29	18	41	53	35	37	49	38	34	32	Mixed, then stable
Marquesas Way	9	38	49	66	97	96	85	74	62	95	Increase, stable, then slight increase
Mindanao Way (Burton Chace Park)	0	4	0	0	0	0	1	1	2	9	Relatively stable, then slight increase
Total	**134**	**153**	**127**	**163**	**149**	**136**	**135**	**113**	**98**	**136**	

[1] Bali Way, Palawan Way, Panay Way, and Tahiti 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 colonial waterbird nests were observed in the Admiralty Way nest area in 2020. The peregrine falcons that nested in 2014-2016 were not observed. A singe Cooper's hawk (*Accipiter cooperii*, COHA) was observed on an electrical pole near the west edge of the Oxford Retention Basin, but no nest was identified. Incidental passerine nests observed during surveys included one active American crow nest and one inactive nest of an unknown species located on the eastern end of the park. An active song sparrow (*Melospiza melodia*, SOSP) nest was also observed near the center of Admiralty Park.

Marquesas Way

The Marquesas Way nest area continues to be the most active SNEG and BCNH nesting area within the study area. The total number of nests in 2020 was similar to previous years. However, survival rates of fledglings on Marquesas Way may still be affected by the amount of traffic-related fledgling mortalities. Fledgling carcasses were observed on the 3rd and 4th surveys along Marquesas Way and several residents and nearby construction workers have reported witnessing birds being run over by local traffic once they have fallen out of or left the trees.

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 old (Hothem et.al, 2010). Likewise, SNEG young are capable of leaving the nest as early as ten days of age when disturbed, although they typically return to the nest if feasible (Parsons and Terry, 2000). SNEG fledglings typically remain near the colony for approximately 7-8 weeks. The behavior of these two species presents a challenge at this particular nesting area due to the high level of vehicle and pedestrian traffic. Although 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.

To reduce vehicle strikes, the County installed traffic caution signs in early July 2016 along Marquesas Way to inform drivers to slow down and watch for birds. Further enforcement of the speed limits and general community education/outreach may help decrease the death toll of young birds in this area.

Bora Bora Way

No nests were observed in the Bora Bora Way nesting area in 2020. Historically, DCCOs have previously nested here but have not been observed in the area since 2014. The last documented nesting waterbird was a single GBHE 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 2020 was similar to previous years and while the number of GBHE decreased from 2019 to 2020, the populations appear to be relatively stable. A grove of pines at the eastern end of the apartment complex, along with decorative water features, serve as active roosting and foraging habitat. This nesting area supports larger waterbird species which likely benefit from the proximity of roosting and foraging habitat. The decrease in GBHE nests from 2019 to 2020 may be attributed to the increased disturbance caused by construction activities on Via Marina. Trash in the nesting and surrounding areas may also present challenges to the adult birds; two large DCCO's (one older nestling and one adult) were observed to be deceased and hanging by what appeared to be fishing line/plastic during the fourth survey.

Mindanao Way (Burton Chace Park)

Eight double crested cormorant nests were observed in one eucalyptus tree during all four surveys. The nesting tree is located on the east side of the park adjacent to a busy parking lot. Previous nesting trees identified in the 2011, 2012, and 2017-2019 surveys located northwest of the active tree were all unoccupied in 2020. BCNH adults were observed roosting in a fig tree within the park; however, no nests were found nearby. The Cooper's hawks' nests identified in 2018 and 2019 were still intact, however, no activity was observed on the nests. This reduction in avian activity/nesting could be attributed to the construction observed during all four surveys as noted above. Fencing and scaffolding placed near the 2017-2019 nesting trees may have contributed to the lack of nests in 2020 due to the high amount of traffic and noise in the area.

Fiji Way

No active nests were observed. 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. Fig and eucalyptus trees lining the southernmost point of Fiji Way between the Ballona Creek Bike Path and the Archstone Breakwater Apartments provide nesting habitat, but no waterbirds were observed.

5 Potential Conflicts and Solutions

5.1 Human Health and Safety

Some areas, such as the Marquesas Way nesting area, Mariner's Village nesting area, and a roosting location (noted in the 2019 report) just outside of the Burton Chace Park nesting area, have been and continue to be subject to deposits of large amounts waterbird guano and other nest debris. The large accumulation of debris from nests such as guano, feathers, eggs, fledglings, and/or food can pose a threat to human health. This issue is particularly prevalent along Marquesas Way where the majority of the waterbird nests are concentrated in a small area. Large deposits of guano and seven dead fledglings were observed in 2020 within the planter containing the nesting trees and within the roadway. Fledglings that have fallen out of the nest could pose a safety risk via car accidents and the high levels of guano may be a source for disease spread.

Since colonial waterbirds gather in large groups, guano rapidly builds up underneath nesting and roosting areas. The buildup of guano may also be a source of offensive odors. 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 2020, a Rincon biologist observed a blower being used near the Mariner's Village GBHE nesting area to blow dust and debris from the street medians and the sidewalks (also observed during Rincon's 2017 survey). Another landscaper was observed trimming bushes and blowing leaves along Marquesas Way during the June survey. These activities may disturb nesting birds as well as pose a health concern given the proximity to guano deposits and the potential to 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 (Hamilton Biological, 2010), guanotrophy can also 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.

5.2 Nesting Modification Possibilities

The Marina del Rey Conservation and Management Plan (Hamilton Biological, 2010) concludes that waterbirds tend to prefer tall trees in secluded stands located near shallow water; however, observations made in the field by the surveying biologist and previous year's reports suggest that waterbirds in Marina del Rey prefer tall stands of non-native trees between tall buildings not necessarily next to water sources. Consistent with these findings, in the 2020 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. Nests are generally located higher up in the trees where canopies are less dense. BCNH were observed nesting in a dense rubber fig and pine tree, but the majority of BCNH nests were observed in paper bark trees along with SNEG nests. Alternatively, GBHE observed during 2020 appeared to prefer tall pine trees that are open near the ground with a dense cap-like canopy similar to the trees used by some BCNH. The colonial waterbirds appear to

prefer roosting and nesting in non-native tree species; however, this may be due to the abundance of non-native trees versus native trees within the study area.

As noted above, high densities of colonial waterbird nesting can pose threats to human health and safety especially when the colonies are located directly next to residential buildings and public walkways (as seen in the 2020 surveys). All of the colonial waterbird nesting trees during the 2020 survey were in close proximity to residential and commercial buildings. It is likely that these trees provide additional protection from wind and possibly predation for the waterbirds which increases the health and safety risk caused by human interactions. Due to the adaptability of the waterbird population to the urban landscape, as noted in the LUP and previous reports, it is likely waterbirds will continue to adapt to ongoing human activities and redevelopment.

To address this apparent preference for proximity to tall buildings and alleviate the health and safety risk, plantings of more desirable nesting locations could attract colonial waterbirds away from the residents of Marina del Rey. These plantings would need to occur prior to removal of any nesting trees to determine if they are effective at attracting colonial waterbirds. Studies regarding waterbird preferences at each of the nesting areas should be conducted to determine what tree species will attract or deter nesting. These species could then be planted in mitigation areas away from the dense neighborhoods in Marina del Rey in an effort to deter colonial waterbird populations away from human activity. Potential options for native trees that may attract colonial waterbird nesting include box elder (*Acer negundo*), western sycamore (*Platanus racemosa*), cypress trees (*Cupressus macnabiana, sargentii, macrocarpa*), coast live oak (*Quercus agrifolia*), California buckeye (*Aesculus californica*), and/or pine trees (*Pinus radiata, torreyana*) (Crouch et al., 2002). Non-native non-invasive trees that may attract colonial waterbird nesting include Indian laurel (*Ficus macrocarpa*), olive trees (*Olia europaea*), strawberry tree (*Arbutus unedo*), and/or orchid tree (*Bauhihia sp*.). If trees are to be planted with the intent of attracting large colonial waterbirds outside of Marina del Rey, tall trees with minimal canopies such as sycamores (native) or gum trees (non-native) within protected stands near a shallow source of water and tall buildings or hillsides are recommended.

Previous reports have noted nearby potential mitigation areas including: the Oxford Retention Basin, Wetland Park, Burton Chase Park, and the Ballona Wetlands. While these areas provide open space where new nesting trees could be planted, they each have restrictions. The Oxford Retention Basin serves as a space away from human interactions, but only native species are allowed to be planted (due to LUP requirements). Wetland Park provides foraging habitat for a wide variety of avian species including waterbirds. However, large non-native tree species desirable for nesting would not be able to be planted here also inhibiting the potential for waterbirds to nest.

In Mariner's Village, it may be possible to plant new trees likely to be used for nesting adjacent to covered car ports or gazebos. This would provide protection from falling guano, lessen the human health risk, and enable easy assessment of mitigation success. Burton Chase Park also has some space for planting additional nesting trees. This is still a viable option even though heavy amounts of pedestrian traffic and construction disturbances during the 2020 surveys may have caused a drop in nest numbers. In previous years, more colonial waterbirds have nested here and the area provides tall, open trees near water. However, there are not as many buildings in this area to provide wind protection.

Ballona Wetlands Ecological Reserve approximately 0.5 mile east of the Marquesas Way and Mariner's Village nesting areas already has a small stand of non-native gum trees lining its southern edge. Additionally, the area near the Ballona Freshwater Marsh located south of Jefferson Boulevard could provide desirable nesting habitat for waterbirds due to its proximity to freshwater

and lack of human disturbances. Both of these spaces in Ballona Wetlands are adjacent to a tall hillside and are closest to residential neighborhoods which could provide planted trees with wind/predation protection desirable to colonial waterbirds. Other areas outside Marina del Rey that could be enhanced include Ballona Lagoon, Del Rey Lagoon, and Ballona Creek. However, restoration efforts in these areas would require cooperation with other municipal and/or state agencies.

If these planting sites are successful, nesting trees from Marquesas Way or Mariner's Village could be removed or netted to prevent further nesting. Replacement trees intended to deter nesting or roosting waterbirds could include shorter trees with thick canopies/foliage. However, additional plantings of trees that attract nesting colonial waterbirds may still be required to comply with federal, state, and local regulations including the California Fish and Game Code, Migratory Bird Treaty Act, 2012 Marina del Rey LCP, and the Marina del Rey LUP.

Pursuant to the LUP, 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 shall consist of native or non-native, non-invasive tree species. Additionally, 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.

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Appendix A

Regulatory Setting

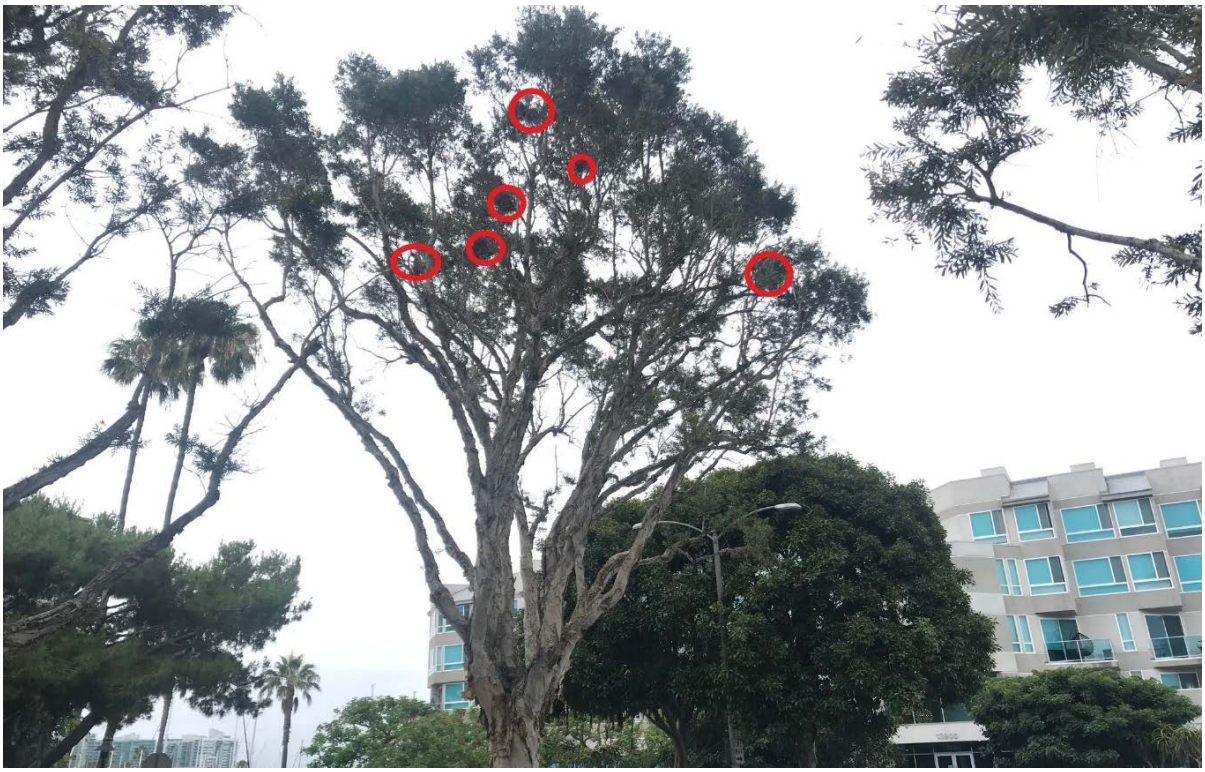
Regulatory Setting

Local Jurisdiction

The Marina del Rey Land Use Plan (LUP) is a component of the Marina del Rey Local Coastal Program (LCP), which was adopted in 1996, and amended in 2012. The LUP guides development in the 804-acre County-owned marina. The LUP was developed to address future land use, new access, recreation and resource protection areas, and improvement of existing facilities. The implementation program for the LUP is the Marina del Rey Specific Plan, which is contained in County Code Title 22 (Planning and Zoning Code). According to the LUP, despite the area being completely urbanized and man-made, colonial waterbirds and their nests exist within the bounds of Marina del Rey which require policy protection as coastal resources per Coastal Act sections 30230, 30231, 30233, and 30250. This protection is also intended to be consistent with the California Environmental Quality Act. Marina del Rey is also bordered by several Environmentally Sensitive Habitat Areas (ESHA) including the Ballona Wetlands, Ballona Lagoon, and the least tern roosting area on Venice Beach. As such, Tree Management Policies 23 and 34 from the LUP of the LCP require an annual survey of breeding and nesting for federal and state-listed species, California Species of Special Concern and waterbirds on all properties (including private leasehold properties) within the unincorporated area of Marina del Rey that are covered by the LCP.

Appendix B

Site Photographs



Photograph 1. Tree MQ-4 with nesting BNCH and SNEG on Marquesas Way facing east.

Photograph 2. Tree MQ-11 with nesting BCNH and SNEG facing west.

Photograph 3. Trees MQ-3-9 with nesting BCNH and SNEG along Marquesas Way facing northeast.

Photograph 4. BCNH nest in tree 201 along Marquesas Way facing north.

Photograph 5. BCNH fledgling in ornamental shrub near apartment entranceway on Marquesas Way facing north.

Photograph 6. Adult BCNH on the ground along Marquesas Way facing north.

Photograph 7. Tree CP-220 in Mindanao Way (Burton Chase Park) with DCCO nests facing northeast.

Photograph 8. DCCO nests in tree 22 in Mariner's Village adjacent to nesting tree 24 facing east.

Photograph 9. DCCO nesting in tree 24 at eastern edge of Mariner's Village facing northwest.

Photograph 10. Single GBHE nest in Eucalyptus tree adjacent to pool in Mariner's Village on tree 59.

Photograph 11. Nesting GBHE in pine tree near Mariner's Village entrance on tree 28 facing north.

Photograph 12. Pine tree near Mariner's Village pool with nesting GBHE in tree 29 facing south.

Appendix C

Nest Data Table 2009-2020

Location	Tree Name	Tree Species	Year	Great Blue Heron	Large Unknown (Great Blue Heron or Great Egret)	Black-crowned Night-heron	Snowy Egret	Small Unknown (Black-crowned Night-heron or Snowy Egret)	Double-crested Cormorant	Peregrine Falcon	Cooper's Hawk
Admiralty Way	4	Ficus	2014	0	0	0	0	4	0	0	0
			2015	0	0	1	0	3	0	0	0
	5	Ficus	2011 2012 2014	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	1	0	0	0	0	0
	6	Ficus	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	1	0	2	0	0	0
			2015	0	0	0	0	1	0	0	0
	7	Ficus	2009	x	x	x	x	x	x	x	x
			2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	1	0	0	0	0	0
	8	Ficus	2009	x	x	x	x	x	x	x	x
			2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	2	0	0	0	0	0
			2015	0	0	3	0	3	0	0	0
			2016	0	0	1	0	0	0	0	0
	9	Ficus	2009	x	x	x	x	x	x	x	x
			2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	1	0	3	0	0	0
			2015	0	0	1	0	3	0	0	0
			2016	0	0	1	0	0	0	0	0
	10	Ficus	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	2	0	0	0	0	0
			2015	0	0	0	0	2	0	0	0
	42	N/A	2014	0	0	0	0	0	0	1	0
			2015	0	0	0	0	0	0	1	0
			2016	0	0	0	0	0	0	1	0
	43	Eucalyptus	2014	0	0	0	0	1	0	0	0
	BP-147	Ficus	2012	x	x	x	x	x	x	x	x
	BP-148	Eucalyptus sp.	2011 2012 2014	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	1	0	1	0	0	0
	BP-150	Eucalyptus sp.	2012 2014	x	x	x	x	x	x	x	x
			2014	0	0	1	0	11	0	0	0
	OX-10	Eucalyptus	2011	x	x	x	x	x	x	x	x
	OX-17	Eucalyptus sp.	2018	0	0	0	0	0	0	0	1
Bali Way	BA-1	Erythrina caffra	2019	0	0	0	0	1	0	0	0
Bora Bora Way	46	Pinus	2014	0	1	0	0	0	0	0	0
	77	Pinus	2016	1	0	0	0	0	0	0	0
Fiji Way	73	Washingtonia	2012	x	x	x	x	x	x	x	x
	FJ-209	Washingtonia robusta	2012	x	x	x	x	x	x	x	x
Mariner's Village	22	Eucalyptus	2014	2	0	0	0	0	0	0	0
			2015	2	0	0	0	0	0	0	0
			2016	2	0	0	0	0	0	0	0
	22	Eucalyptus	2017	2	0	0	0	0	0	0	0
			2018	0	0	0	0	0	2	0	0
			2019	0	0	0	0	0	1	0	0
			2020	0	0	0	0	0	2	0	0
	23	Eucalyptus	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	2	1	0	0	0	0	0	0
			2015	3	0	0	0	0	0	0	0
			2016	3	0	0	0	0	0	0	0
			2017	2	0	0	0	0	0	0	0
			2018	0	0	0	0	0	1	0	0
			2019	0	0	0	0	0	2	0	0
	24	Eucalyptus	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x

Location	Tree Name	Tree Species	Year	Great Blue Heron	Large Unknown (Great Blue Heron or Great Egret)	Black-crowned Night-heron	Snowy Egret	Small Unknown (Black-crowned Night-heron or Snowy Egret)	Double-crested Cormorant	Peregrine Falcon	Cooper's Hawk
			2014	0	0	0	0	0	19	0	0
			2015	0	0	0	0	0	19	0	0
			2016	0	0	0	0	0	22	0	0
			2017	0	0	0	0	0	20	0	0
			2018	0	0	0	0	0	21	0	0
			2019	0	0	0	0	0	12	0	0
			2020	0	0	0	0	0	16	0	0
	25	Eucalyptus	2014	1	1	0	0	0	0	0	0
			2015	2	0	0	0	0	0	0	0
			2016	1	0	0	0	0	0	0	0
			2018	0	1	0	0	0	0	0	0
	28	Pinus	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	4	1	0	0	0	0	0	0
			2015	1	0	0	0	0	0	0	0
			2016	1	0	0	0	0	0	0	0
			2017	2	1	0	0	0	0	0	0
			2018	4	0	0	0	0	0	0	0
			2019	5	0	0	0	0	0	0	0
			2020	5	0	0	0	0	0	0	0
	29	Pinus	2014	3	1	0	0	0	0	0	0
			2015	2	2	0	0	0	0	0	0
			2016	5	0	0	0	0	0	0	0
			2017	5	0	0	0	0	0	0	0
			2018	8	0	0	0	0	0	0	0
			2019	12	0	0	0	0	0	0	0
			2020	2	0	0	0	0	0	0	0
	30	Eucalyptus	2014	1	0	0	0	0	0	0	0
			2017	0	1	0	0	0	0	0	0
			2020	0	1	0	0	0	0	0	0
	59	Eucalyptus	2014	0	2	0	0	0	0	0	0
			2015	1	0	0	0	0	0	0	0
			2016	1	0	0	0	0	0	0	0
			2017	1	0	0	0	0	0	0	0
			2018	1	0	0	0	0	0	0	0
			2019	0	1	0	0	0	0	0	0
			2020	1	0	0	0	0	0	0	0
	62	Ficus	2014	0	1	0	0	0	0	0	0
			2015	1	0	0	0	0	0	0	0
			2017	0	0	0	0	1	0	0	0
			2018	0	0	1	0	0	0	0	0
			2019	0	0	0	0	1	0	0	0
	63	Pinus	2014	0	1	0	0	0	0	0	0
			2015	1	0	0	0	0	0	0	0
			2016	1	0	0	0	0	0	0	0
			2017	2	0	0	0	0	0	0	0
			2018	1	0	0	0	0	0	0	0
			2019	1	0	0	0	0	0	0	0
			2020	4	0	0	0	0	0	0	0
	64	Eucalyptus	2015	1	0	0	0	0	0	0	0
			2016	1	0	0	0	0	0	0	0
			2017	1	0	0	0	0	0	0	0
			2018	0	0	0	0	0	1	0	0
	86	Eucalyptus	2019	1	0	0	0	0	0	0	0
	100	Eucalyptus	2020	0	0	0	0	3	0	0	0
	101	Eucalyptus	2020	0	0	0	0	4	0	0	0
	102	Eucalyptus	2020	0	0	0	0	2	0	0	0
	103	Eucalyptus	2020	1	0	0	0	0	0	0	0
	119	Pinus	2020	0	0	2	0	0	0	0	0

Location	Tree Name	Tree Species	Year	Great Blue Heron	Large Unknown (Great Blue Heron or Great Egret)	Black-crowned Night-heron	Snowy Egret	Small Unknown (Black-crowned Night-heron or Snowy Egret)	Double-crested Cormorant	Peregrine Falcon	Cooper's Hawk
Marquesas Way	65	Pinus	2015	0	0	2	0	0	0	0	0
			2016	0	0	1	0	0	0	0	0
			2017	0	0	0	0	1	0	0	0
	66	Pinus	2015	0	0	2	0	0	0	0	0
			2016	0	0	0	1	0	0	0	0
			2017	0	0	1	0	0	0	0	0
	68	Pinus	2015	0	0	0	0	1	0	0	0
			2016	0	0	2	0	0	0	0	0
			2017	0	0	1	0	2	0	0	0
			2018	0	0	4	0	0	0	0	0
			2019	0	0	1	0	4	0	0	0
	69	Ficus	2015	0	0	3	0	0	0	0	0
	70	Melaleuca quinquenervia	2015	0	0	1	0	0	0	0	0
			2016	0	0	1	0	0	0	0	0
	76	Pinus	2016	0	0	1	0	0	0	0	0
			2017	0	0	1	0	1	0	0	0
			2019	0	0	0	0	1	0	0	0
			2020	0	0	1	0	0	0	0	0
	78	Pinus	2017	0	0	2	0	0	0	0	0
	79	Pinus	2017	0	0	2	0	0	0	0	0
	81	Olea europaea	2018	0	0	1	0	0	0	0	0
			2019	0	0	0	0	1	0	0	0
			2020	0	0	1	0	0	0	0	0
	82	Olea europaea	2018	0	0	1	0	0	0	0	0
	84	Eucalyptus	2019	0	0	0	0	1	0	0	0
	87	Pinus	2019	0	0	1	0	0	0	0	0
	88	Pinus	2019	0	0	1	0	0	0	0	0
	89	Pinus	2019	0	0	0	0	1	0	0	0
	90	Pinus	2019	0	0	1	0	0	0	0	0
	91	Ficus	2019	0	0	2	0	2	0	0	0
	200	Melaleuca quinquenervia	2020	0	0	1	0	0	0	0	0
	201	Pinus	2020	0	0	1	0	0	0	0	0
	203	Melaleuca quinquenervia	2020	0	0	1	0	0	0	0	0
	MQ-1	Ficus elastica	2018	0	0	4	0	0	0	0	0
	MQ-2	Ficus elastica	2018	0	0	4	0	0	0	0	0
			2019	0	0	2	0	2	0	0	0
	MQ-3	Ficus elastica	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	2	0	4	0	0	0
			2015	0	0	6	1	1	0	0	0
			2016	0	0	14	0	0	0	0	0
			2017	0	0	11	0	0	0	0	0
			2018	0	0	4	0	0	0	0	0
			2019	0	0	4	0	1	0	0	0
			2020	0	0	6	0	0	0	0	0
	MQ-4	Melaleuca quinquenervia	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	4	5	1	0	0	0
			2015	0	0	7	6	0	0	0	0
			2016	0	0	4	6	3	0	0	0
			2017	0	0	0	10	4	0	0	0
			2018	0	0	1	7	0	0	0	0
			2019	0	0	4	3	4	0	0	0
			2020	0	0	5	4	0	0	0	0
	MQ-5	Melaleuca quinquenervia	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	2	2	1	0	0	0
			2015	0	0	3	4	0	0	0	0
			2016	0	0	2	4	0	0	0	0
			2017	0	0	2	2	0	0	0	0
			2018	0	0	1	4	0	0	0	0
			2019	0	0	5	1	0	0	0	0
			2020	0	0	2	4	0	0	0	0
	MQ-6	Melaleuca quinquenervia	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	2	3	1	0	0	0
			2015	0	0	4	3	0	0	0	0

Location	Tree Name	Tree Species	Year	Great Blue Heron	Large Unknown (Great Blue Heron or Great Egret)	Black-crowned Night-heron	Snowy Egret	Small Unknown (Black-crowned Night-heron or Snowy Egret)	Double-crested Cormorant	Peregrine Falcon	Cooper's Hawk
			2016	0	0	4	4	1	0	0	0
			2017	0	0	6	0	1	0	0	0
			2018	0	0	1	4	0	0	0	0
			2019	0	0	3	3	0	0	0	0
			2020	0	0	5	4	0	0	0	0
	MQ-7	Melaleuca quinquenervia	2012	x	x	x	x	x	x	x	x
			2014	0	0	2	3	1	0	0	0
			2015	0	0	5	5	1	0	0	0
			2020	0	0	4	6	0	0	0	0
	MQ-7	Melaleuca quinquenervia	2016	0	0	4	4	2	0	0	0
			2017	0	0	8	1	3	0	0	0
			2018	0	0	1	6	0	0	0	0
			2019	0	0	3	3	3	0	0	0
	MQ-8	Melaleuca quinquenervia	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	0	1	0	0	0	0
			2015	0	0	3	1	0	0	0	0
			2016	0	0	3	2	2	0	0	0
			2017	0	0	2	2	1	0	0	0
			2018	0	0	3	0	0	0	0	0
			2019	0	0	4	1	0	0	0	0
			2020	0	0	4	2	0	0	0	0
	MQ-9	Melaleuca quinquenervia	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	6	0	0	0	0	0
			2015	0	0	8	2	0	0	0	0
			2016	0	0	4	2	3	0	0	0
			2017	0	0	9	1	1	0	0	0
			2018	0	0	2	6	0	0	0	0
			2019	0	0	5	1	0	0	0	0
			2020	0	0	3	5	0	0	0	0
	MQ-10	Melaleuca quinquenervia	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	3	2	1	0	0	0
			2015	0	0	4	3	1	0	0	0
			2016	0	0	4	1	2	0	0	0
			2017	0	0	3	2	4	0	0	0
			2018	0	0	3	2	0	0	0	0
			2019	0	0	3	1	5	0	0	0
			2020	0	0	8	2	0	0	0	0
	MQ-11	Melaleuca quinquenervia	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	3	1	3	0	0	0
			2015	0	0	7	0	0	0	0	0
			2016	0	0	5	1	0	0	0	0
			2017	0	0	4	0	1	0	0	0
			2018	0	0	7	0	0	0	0	0
			2019	0	0	3	0	1	0	0	0
			2020	0	0	5	3	0	0	0	0
	MQ-12	Melaleuca quinquenervia	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	6	0	2	0	0	0
			2015	0	0	11	0	0	0	0	0
			2016	0	0	4	1	1	0	0	0
			2017	0	0	4	0	2	0	0	0
			2018	0	0	2	4	0	0	0	0
			2019	0	0	4	1	2	0	0	0
			2020	0	0	3	2	0	0	0	0
	MQ-13	Melaleuca quinquenervia	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	1	0	0	0	0	0
			2015	0	0	2	0	0	0	0	0
			2016	0	0	2	0	0	0	0	0
			2017	0	0	0	0	1	0	0	0
			2018	0	0	2	0	0	0	0	0
			2019	0	0	2	0	2	0	0	0

Location	Tree Name	Tree Species	Year	Great Blue Heron	Large Unknown (Great Blue Heron or Great Egret)	Black-crowned Night-heron	Snowy Egret	Small Unknown (Black-crowned Night-heron or Snowy Egret)	Double-crested Cormorant	Peregrine Falcon	Cooper's Hawk
			2020	0	0	3	0	0	0	0	0
	MQ-16	Melaleuca quinquenervia	2011	x	x	x	x	x	x	x	x
			2012	x	x	x	x	x	x	x	x
			2014	0	0	0	0	1	0	0	0
	MQ-new	Melaleuca quinquenervia	2020	0	0	2	0	0	0	0	0
Mindanao Way	80	Metrosideros	2017	0	0	1	0	0	0	0	0
	CP-8	Metrosideros excelsa	2012	x	x	x	x	x	x	x	x
	CP-66	Pinus	2012	x	x	x	x	x	x	x	x
	CP-111	Ficus rubiginosa	2019	0	0	0	0	0	0	0	1
			2020	0	0	1	0	0	0	0	0
	CP-113	Pinus pinea	2012	x	x	x	x	x	x	x	x
	CP-160	Erythrina caffra	2018	0	0	0	0	0	0	0	1
			2019	0	0	0	0	0	0	0	1
	CP-170	Metrosideros excelsa	2018	0	0	0	0	0	0	0	1
			2019	0	0	0	0	0	0	0	1
	CP-220	Eucalyptus sideroxylon	2020	0	0	0	0	0	12	0	0
	MN-23	Eucalyptus polyanthemos	2019	0	0	0	0	0	1	0	0
	MN-24	Eucalyptus sideroxylon	2018	0	0	0	0	0	1	0	0
			2019	0	0	0	0	0	1	0	0
Panay Way	49	Melaleuca	2009	x	x	x	x	x	x	x	x
	51	Melaleuca	2009	x	x	x	x	x	x	x	x
	52	Melaleuca	2009	x	x	x	x	x	x	x	x
	PN-1	Ficus elastica	2019	0	0	0	0	1	0	0	0
	PN-6	Melaleuca quinquenervia	2020	0	0	0	0	3	0	0	0
Tahiti Way	58	Washingtonia	2012	x	x	x	x	x	x	x	x
	83	Eucalyptus	2018	0	0	0	0	1	0	0	0

x = species and number of nests undetermined

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