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Rincon Job No. 16-02558

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

Subject: **Final 2016 Report on Nesting Colonial Waterbird and Raptor Survey Results for Marina del Rey, Los Angeles County, California**

Dear Ms. Joness,

This report presents the results of the final 2016 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 through 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 within 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 approximately 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 cormorant (*Phalacrocorax auritus*), great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), and black-crowned night-heron (*Nycticorax nycticorax*). The Study Area is further broken down into seven (7) different nesting areas (see Figure 1).

Admiralty Way
The Admiralty Way (see Figure 2) 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 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.

Panay Way
The Panay Way nesting area (see Figure 3) 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 active nest colonies have been documented within the Panay Way area since 2009.

Marquesas Way
The Marquesas Way nesting area (see Figure 4) is south of Panay Way. It is primarily a residential area, with several apartment complexes bordering the area with harbor waters to the north, east, and south. Historically, this area has primarily been utilized by black-crowned night-heron and snowy egret.

Bora Bora Way
The Bora Bora Way nesting area (see Figure 5) is south of Marquesas Way. The area is primarily a residential with the Mariner's Village nesting colony bordering the south. Harbor waters are located to the north and east. This area hasn't had any nesting activity since 2014.

Mariner's Village
The Mariner's Village nesting area (see 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 large great blue heron and double-crested cormorant nest colonies.

Burton Chace Park
The Burton Chace Park nesting area (see Figure 7) is located east and across the main channel from Marquesas Way. The area is dominated by 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. This site has not contained an active nesting colony since 2011.

Fiji Way
Fiji Way (see 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 active since 2012.

METHODOLOGY

Nesting Bird Surveys

The nesting bird surveys for colonial waterbirds and raptors were conducted by Rincon biologists Andrew Keller and Stephanie McLaughlin from April 20 – August 3, 2016. On two of the four visits, DBH intern Carey Skinner, accompanied the biologist on the surveys. Table 1 provides specific detail on the timing of and environmental conditions during the surveys.

Table 1: Survey Details

Survey Date	Time	Observers	Weather
20 April, 2016	0800 - 1530	Stephanie McLaughlin (Rincon), Andrew Keller (Rincon)	66 – 75 °F, 3 mph WSW, 0% cloud cover AM-PM
24 May, 2016	0800 - 1430	Stephanie McLaughlin (Rincon) Carey Skinner (DBH intern)	60 – 65 °F, 4 mph WSW, 100% cloud cover AM – 40% cloud cover PM
6 July, 2016	0600 - 1330	Stephanie McLaughlin (Rincon) Carey Skinner (DBH intern)	66 – 72 °F, 5 mph SW, 100% cloud cover AM – 0% cloud cover PM
3 August, 2016	0700 - 1630	Stephanie McLaughlin (Rincon)	69 – 75 °F, 3 mph SW, 0% cloud cover AM – 20% cloud cover PM

The Study Area included all the 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 in accordance with the requirements outlined in Policies #23 and #34 in the Marina Del Rey LCP. All appropriate nesting sites in Marina del Rey were closely examined searching for suitable nesting trees and whitewash on the vegetation and ground. The biologists made observations from the ground, surveying for existing nests and breeding/nesting behavior such as courtship displays, copulation, vegetation or food carries, presence of fledglings, and territorial displays. Where nests or young were suspected, physical inspection of the tree was conducted to confirm presence or absence of nests or birds. Binoculars (7x35) 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. The locations of all trees with waterbird and raptor nests were recorded using a Trimble Geo 7X handheld with Rangefinder.

Nests were confirmed as active based upon observation of at least one adult constructing (as categorized in previous surveys, Hamilton Biological, Inc. 2014, 2015) or attending to the nest, including incubation and nest cleaning. Nests with at least one juvenile in the nest were also considered active. The same methods documented in the 2014 and 2015 reports of determining "likely active" nests were used for the Study Area in 2016 to compare the resulting trends from 2009. In

general, we have combined "active" and "likely active" in this report unless otherwise noted.

Nomenclature of nesting locations follows the "Conservation & Management Plan for Marina del Rey" (Hamilton and Cooper 2010), unless otherwise noted. Birds are referred to by their four letter species code throughout the report. In the event that a nest could not be assigned to a specific species, a likely species was assigned. Small colonial waterbird nests were presumed to belong to black-crowned night heron and/or snowy egret, and large colonial waterbird nests were presumed to belong to great blue heron or great egret. Table 2 provides a guide for these acronyms.

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

Nest counts may be compared with those from similar waterbird nesting surveys conducted at Marina del Rey in 2009 (Hamilton and Cooper 2010), 2011 (Hamilton Biological 2011), 2012 (Point Blue Conservation Science, unpublished data), 2014 (Hamilton Biological 2014), and 2015 (Hamilton Biological 2015).

RESULTS

During the 2016 breeding season 135 active colonial waterbird nests were detected. The following species were observed: black-crowned night-heron (57 nests), double-crested cormorant (22 nests), snowy egret (26 nests), great blue heron (16 nests), as well as 14 active small colonial waterbird nests (presumed to belong to black-crowned night-heron and/or snowy egret). We were able to positively identify all large colonial waterbird nests, and did not document any nesting by the great egret (*Ardea alba*) in 2016. The 135 active nests were spread within 29 trees, located in three main areas, Admiralty Way (two trees), Mariner's Village (nine trees), and Marquesas Way (16 trees). See Appendix B for Tree numbers and descriptions. A single raptor nest was found in 2016, which belonged to a pair of peregrine falcon (*Falco peregrinus*). Although there were no birds present, signs of occupancy was observed (i.e. fresh whitewash and intact nest materials), and therefore presumed active during the season. This marks the third nesting attempt of this species in Marina del Rey in recent years (the first, likely involving the same pair, was in 2014). Table 3 displays the results of the colonial waterbird survey, broken down by nesting area.

Table 3: Active Colonial Waterbird Nests[1]

Location	GBHE	BCNH	SNEG	BCNH/SNEG	DCCO	Total
Admiralty Way	0	2	0	0	0	2
Marquesas Way	0	56	26	14	0	96
Mariner's Village	15	0	0	0	22	37
Bora Bora Way	1	0	0	0	0	1
Total	16	57	26	14	22	135

[1] Fiji Way, Burton Chace Park and Panay Way are not included as no active colonial waterbird nests were found in these areas.

Admiralty Way
A total of two active waterbird nests and a peregrine falcon (*Falco peregrinus*) nest were detected in the Admiralty Way area (see Figure 2). The two waterbird nests were located on the southern side of Admiralty Way. Both nests were in fig trees (*Ficus* sp.) and confirmed to belong to black-crowned night-herons. As in 2014 and 2015, a pair of peregrine falcon nested on the northern side of the Ritz-Carlton Hotel. There was no evidence of any other active waterbird or raptor nesting on the northern side of Admiralty Way, including in Yvonne B. Burke Park and the Oxford Basin.

Panay Way
No active nests were found within the Panay Way nesting area in 2016.

Marquesas Way
A total of 96 active waterbird nests were detected in the Marquesas Way nesting area (see Figure 3). 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 56 of these nests belonged to black-crowned night-herons and 26 belonged to snowy egrets. Fourteen nests were presumed to have been used by either black-crowned night-herons or snowy egrets. A majority of nests (76 nests) were found in paperbark melaleucas (*Melaleuca quinquenervia*); three nests were found in pine trees (*Pinus* sp.) and 16 nests were found in fig trees. One of the pine trees had no previous history, as of 2009, of nesting activity. The new nesting tree (Tree 76, BCNH nest) was located on the adjacent Villa del Mar property (Lease Parcel 13).

Bora Bora Way
One nest was recorded within the Bora Bora Way nesting area in 2016. On the May 24, 2016 survey, a pair of great blue herons was observed building a nest in Tree 77 (pine tree); however, during the July 6 survey, the same nest was only partially built and determined to be inactive. It is unlikely that this nest was successful in producing young.

Mariner's Village
A total of 37 active nests were detected in the Mariner's Village nesting area in 2016 (see Figure 5). Of these 37 nests, 15 were confirmed to be great blue heron nests. The 15 great blue heron nests in Mariner's Village were dispersed across eight different trees, four of which were gums (*Eucalyptus globulus*), three of which were pine, and one fig. Tree 24, a eucalyptus containing the double-crested cormorant colony held the remaining 22 nests.

Chace Burton Park
No active waterbird or raptor nests were found in the Burton Chace Park nesting area in 2016

Fiji Way
No active waterbird or raptor nests were found within the Fiji Way nesting area in 2016.

CONCLUSIONS

Nesting Bird Survey
The overall total of 136 active nests (including the PEFA) is a slight decline in comparison to the 2015 total of 149, and 2014 total of 152 active nests. However, viewing this number against the totals from 2009 (134 nests), 2011 (133 nests) and 2012 (127) indicates that the population has recently varied around an average of 138 nests.

Table 4 displays waterbird population trends by species, between 2009 and 2016. Black-crowned night heron populations showed a significant increase between 2009 and 2015. Data from 2016 indicates a 20% decrease in active black-crowned night-heron nests from 2015, most likely in correlation to decreases in population in the Admiralty Way area (Table 5). Populations of both snowy egret and double-crested cormorants have shown a slight increase in 2016. Great egrets have not nested in any areas since 2012, after a decline from an already low population. Great blue heron populations appear to be stabilizing after a decline.

Table 4: Population trends by species, based on number of active nests

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

[1] 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/SNEG)

Table 5 displays waterbird population trends at each nesting area, between 2009 and 2016. Survey results from 2016 indicate that great blue heron and double crested cormorant nest colonies have continued their trend in shifting away from nesting areas along Fiji Ways to Mariner's Village. Trends in black-crowned night heron and snowy egret populations show a shift away from the Admiralty Way area to the Marquesas Way area.

Table 5: Population trends by nesting area, based on number of active nests

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

Admiralty Way

This year's data shows a decrease in nest colony size, in line with previous years' data. The 2016 decline in total number black-crown night heron nests can mostly be attributed to decreases in this nesting area. It is possible that restoration work at the Oxford Basin may have disturbed nest colonies; however, the census data shows this area has been decreasing in size since 2009 and construction on the Oxford Basin began in 2014. Now that restoration is complete at the Oxford Basin, it may provide additional habitat, potentially leading to revitalization in the Admiralty Way area.

Marquesas Way
Marquesas Way is the most active snowy egret and black-crowned night-heron (small nest) nesting area within the Study Area. The total number of nests in 2016 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. The conditions of these carcasses were poor, having been run over by the frequent traffic in the road. Several residents have reported to the biologists that they witnessed birds being run over by local traffic.

These fledglings may have potentially fallen out of nests due to illness or other reasons, and then been run over by vehicles. If pesticides, fungicides, or any other chemicals are applied to the trees in this area, they should be compared to the list of chemicals potentially used in the other nest areas to eliminate potential poisoning. However, at this time the main cause of death still 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 look out for birds to prevent vehicle strikes.

Bora Bora Way
No active nests were detected in the Bora Bora Way nesting area in 2015 or 2016. In 2014, 11 active double-crested cormorant nests were observed. However, the nest tree was subsequently removed, as documented in the 2015 survey, due to health and safety concerns. The removal of that tree may have reduced the amount of suitable nesting habitat in this area for double-crested cormorants.

On the 24 May, 2016 survey, a pair of great blue heron was observed building a nest in Tree 77; however, the nest was only partially built and inactive on the July 6 survey. This nest was abandoned and it is unlikely that this nest successfully produced any young. It is uncertain at this time if this abandonment was due to an inexperienced breeding pair, or if it was due to unsuitable nesting habitat, or other external impacts.

Mariner's Village
Mariner's Village continues to be the most active great blue heron and double-crested cormorant (large nest) nesting area within the Study Area. Populations appear stable. The number of nests for 2016 is similar to previous years. 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.

Fiji Way
No active nests were observed in 2016. This nesting area has not been active since 2012 (great blue heron nests), when several dying cypress trees were removed for public health and safety reasons. Additionally, construction began at a nearby apartment complex. In 2015, Hamilton Biological theorized that the nest colony may have moved to Mariner's Village, which previous year's data appears to support. With the removal of the cypress trees, there may not be enough suitable nesting habitats for great blue herons.

All active nests in each of the nesting areas were at least 100 feet away from public restaurants, swimming pools, and residences. No public safety concerns were observed during any of the surveys. Marquesas Way had the most amount of bird guano on the streets, due to the highest density of nests, but only street staining effects were observed. No other safety concerns were observed.

Additional Observations
The County's emergency tree trimming activities in 2016 had no significant effect on nesting colonial waterbird populations. The first trimming event, bracing the dead branch on Tree 19 on Marquesas Way on 28 May 2016, had no effect on the nesting snowy egrets and black-crowned night herons. The birds continued roosting, incubating and feeding young. Second trimming events, the trimming of DBH Tree Tag ID, FJ-11 (no nests have historically been recorded for this tree and therefore has no tree number) on Fiji Way and the branch removal on Tree 19 on Marquesas Way occurring on 17 June 2016, also had no observable effects. There were no active nests in FJ-11 or neighboring trees, thus there was little risk of disturbance, and the biologist observed no effect on any roosting or foraging birds. The nesting waterbirds in Marquesas Way Trees 19 and 20 appeared minimally disturbed by the construction activity; however, behavior returned to normal within 30 minutes of construction being completed.

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.

Leslie Yen
Biologist

Steven J. Hongola
Principal/ Senior Ecologist

REFERENCES

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

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.

Attachments

Appendix A: Figures 1 – 8
Appendix B: Data Tables
Appendix C: Site Photographs

Appendix A

Maps, Figures 1-7

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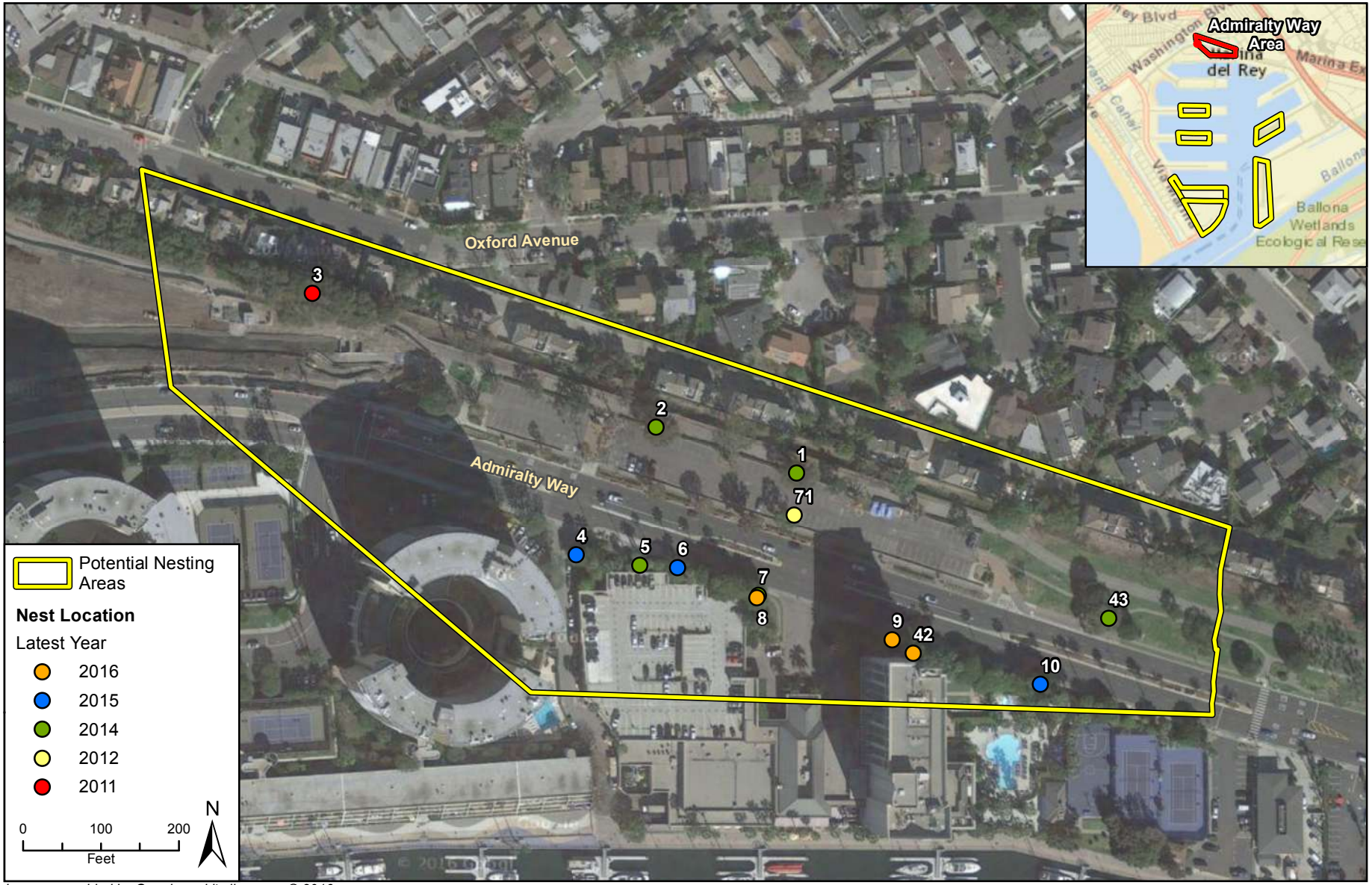
Nest Colony Locations and Survey Area

Figure 1



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Admiralty Way Area

Figure 2

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Panay Way Area

Figure 3

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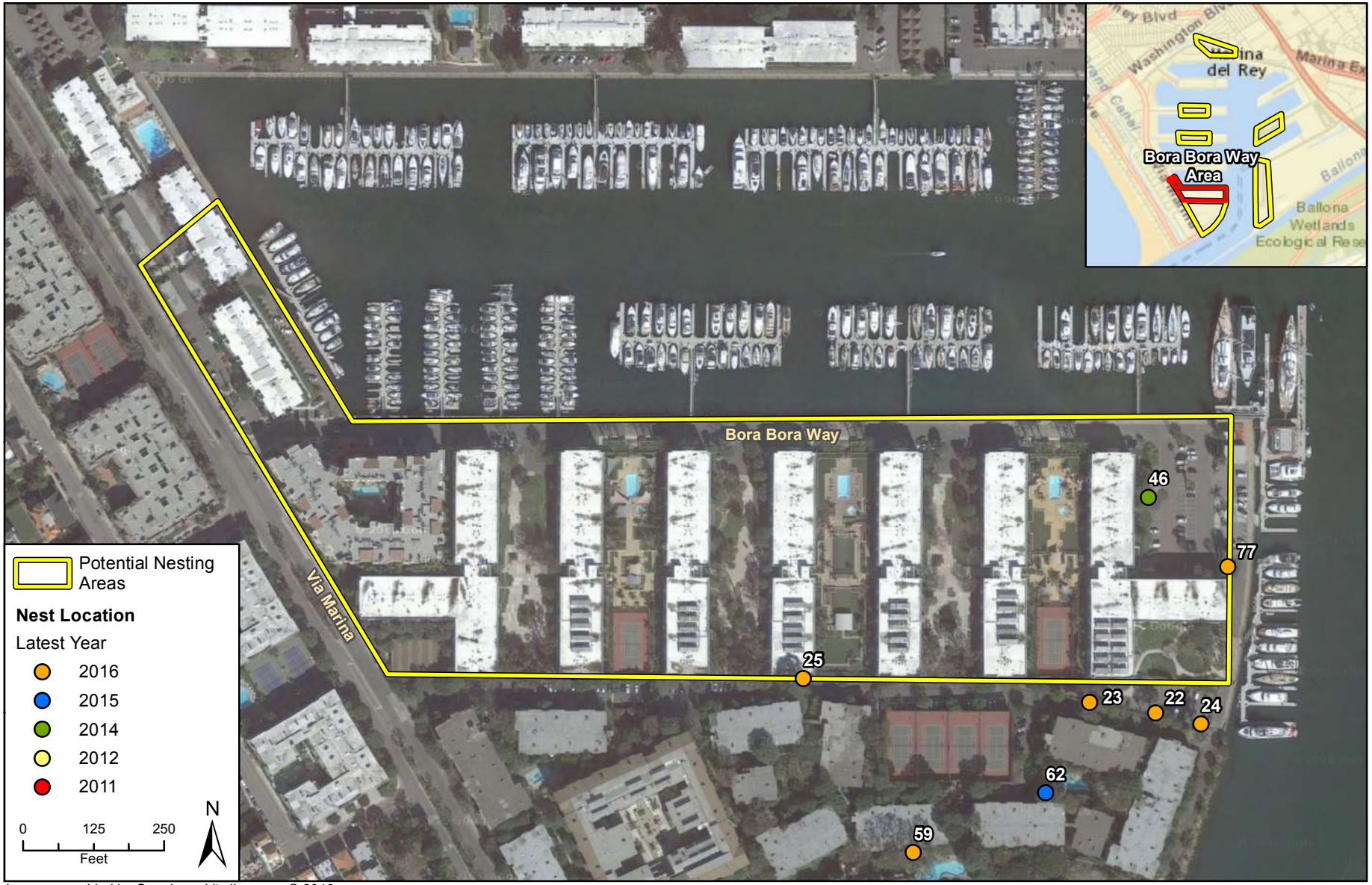
Marquesas Way Area

Figure 4



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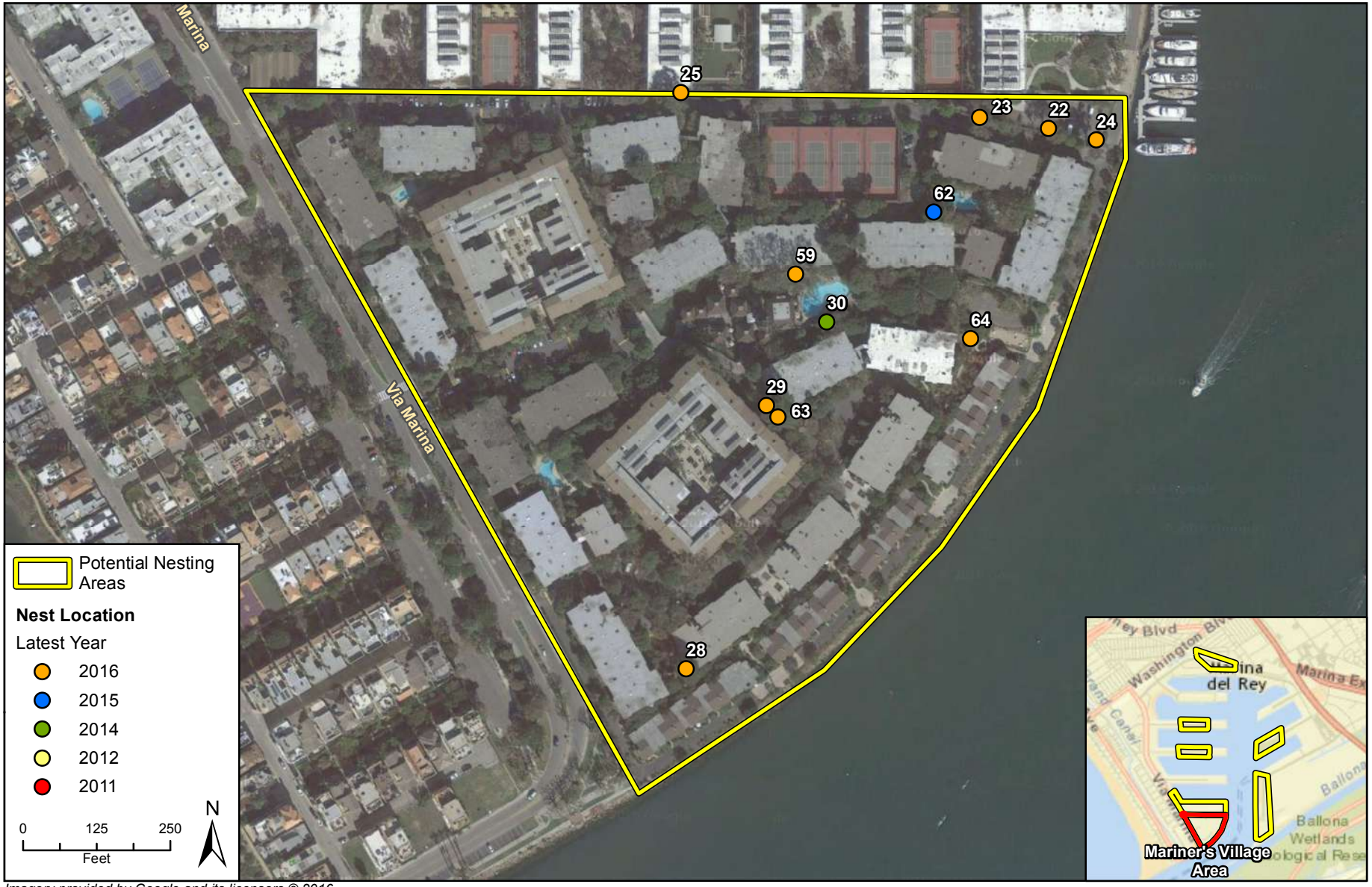
Bora Bora Way Area

Figure 5



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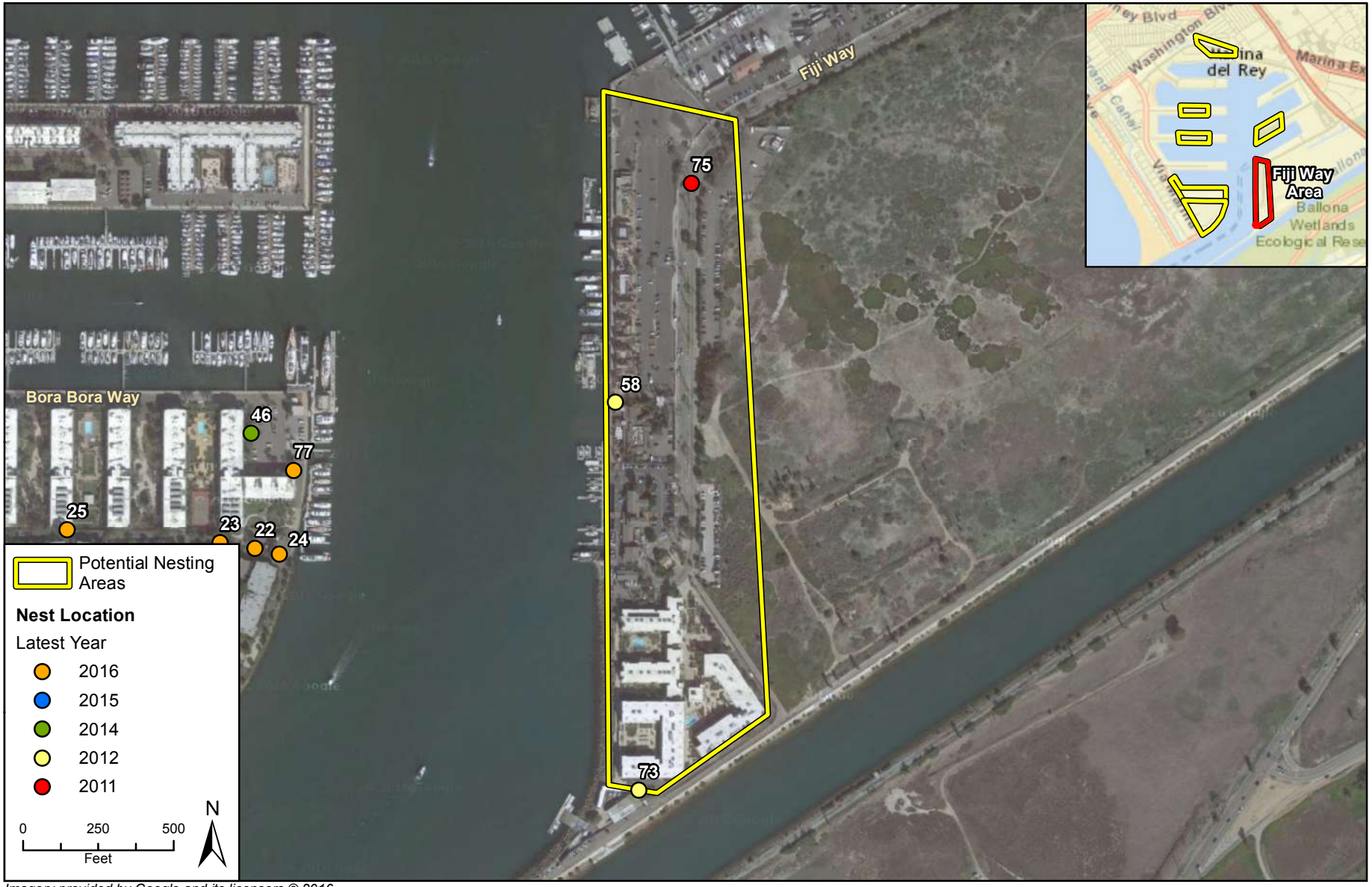
Mariner's Village Area

Figure 6



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Fiji Way Area

Figure 7

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Burton Chace Park Area

Figure 8

Appendix B

Data Tables

Table B- 1: Nest Activity by Tree, 2016.

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

30	MV	113	0	0	0	0	0	0	0	0	0	0	0
37	BC	ee	0	0	0	0	0	0	0	0	0	0	0
42	AW	125	1	0	0	0	0	0	PEFA	1	1	0	1
43	AW	q	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
58	FJ	61	0	0	0	0	0	0	0	0	0	0	0
59	MV	113	1	1	0	0	0	0	0	1	1	0	1
61	MW	road median	1	0	4	4	0	2	0	10	11	3	7
62	MV	113	0	0	0	0	0	0	0	0	1	0	0
63	MV	113	1	1	0	0	0	0	0	1	1	0	1
64	MV	113	1	1	0	0	0	0	0	1	1	0	1
65	MW	13	1	0	1	0	0	0	0	1	2	0	1
66	MW	13	1	0	0	1	0	0	0	1	1	0	1
69	MW	13	1	0	2	0	0	0	0	2	3	0	2
70	MW	road median	1	0	1	0	0	0	0	1	1	0	1
71	AW	q	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
74	BC	ee	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
76	MW	na	1	0	1	0	0	0	0	1	0	1	0
77	BB	na	1	1	0	0	0	0	0	1	0	1	0
Totals			**29**	**16**	**57**	**26**	**22**	**14**	**1**	**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

[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, 2011-2016

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

22	N/A	Eucalyptus	MV	113	0	0	0?	0	1	1	2016	On 7.6.16 GBHE carcass observed in nest
23	N/A	Eucalyptus	MV	113	0	1	1?	0	1	1	2016	
24	N/A	Eucalyptus	MV	113	0	1	1?	1	1	1	2016	
25	N/A	Eucalyptus	MV	113	0	0	0?	0	1	1	2016	
28	N/A	Pinus	MV	113	0	1	1?	1	1	1	2016	
29	N/A	Pinus	MV	113	0	0	0?	0	1	1	2016	
30	N/A	Euc	MV	113	0	0	0?	0	1	0	2015	
37	CP-109	Pinus	BC	EE	0	0	1	0	0	0	2012	
43	N/A	Euc	AW	Q	0	0	0	0	0	0	pre-2009	
46	N/A	Pinus	BB	112	0	0	0	0	0	0	pre-2009	
49	N/A	Melaleuca	PW	road median	1	0	0	0	0	0	2009	
51	N/A	Melaleuca	PW	road median	1	0	0	0	0	0	2009	
52	N/A	Melaleuca	PW	road median	1	0	0	0	0	0	2009	
58	N/A	Washingtonia	FJ	61	0	0	1	1	0	0	2014	Incl. more than 1 tree (cluster)
59	N/A	Euc	MV	113	0	0	0?	0	1	1	2016	
60	N/A	Euc	BB	111	0	0	0	1	0	NA	2014	Tree removed in 2014
61	MQ-7	Melaleuca	MW	road median	0	0	1?	1?	1	1	2016	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	2015	
63	N/A	Pinus	MV	113	0	0	0?	0	1	1	2016	
64	N/A	Euc	MV	113	0	0	0	0	0	1	2016	On 7.6.16 adult GBHE carcass observed in nest
65	N/A	Pinus	MW	13	0	0	0	0	0	1	2016	
66	N/A	Pinus	MW	13	0	0	0	0	0	1	2016	
68	N/A	Pinus	MW	13	0	0	0	0	0	0	pre-2009	
69	N/A	Ficus	MW	13	0	0	0	0	0	1	2016	
70	N/A	Melaleuca	MW	10	0	0	0	0	0	1	2016	

71	BP-147	Ficus	AW	Q	0	0	1	1	0	0	2014	
72	N/A	Cupressus	FJ	64	0	0	1	1	0	NA	2014	Trees removed by 2014
73	N/A	Washingtonia	FJ	65	0	0	1	1	0	0	2014	
74	CP-66	Pinus	BC	EE	0	0	1	0	0	0	2012	
75	FJ-209	Washingtonia	FJ	TBD	0	0	1	0	0	0	2012	
76	N/A	Pinus	MW	NA	0	0	0	0	0	1	2016	
77	N/A	Pinus	BB	NA	0	0	0	0	0	1	2016	Attempt at nesting by GBHE. No successful nest.

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

Appendix C. Photographs of all active and inactive colonial waterbird and raptor nests in Marina del Rey as of August 3, 2016

Photo 1: Admiralty Way, Tree 2. Seven small colonial waterbird nests (snowy egret/black-crowned night-heron; SNEG/BCNH), last active 2014. Photo of nest A. Photo taken facing south.

Photo 2: Admiralty Way, Tree 2. Seven small colonial waterbird nests (snowy egret/black-crowned night heron), last active 2014. Photo of nests B and C. Photo facing north, moving east to west.

Photo 3: Admiralty Way, Tree 2. Seven small colonial waterbird nests (snowy egret/black-crowned night heron), last active 2014. Photo of nests D through G. Photos facing north, moving east to west.

Photo 4: Admiralty Way, Tree 1. One black-crowned night heron (BCNH) nest, last active 2014. Photo from below, facing north.

Photo 5: Admiralty Way, Tree 10. One black-crowned night heron (BCNH) nest (A), one small colonial waterbird nest (snowy egret/black-crowned night heron) (B), active 2016. Photo facing north.

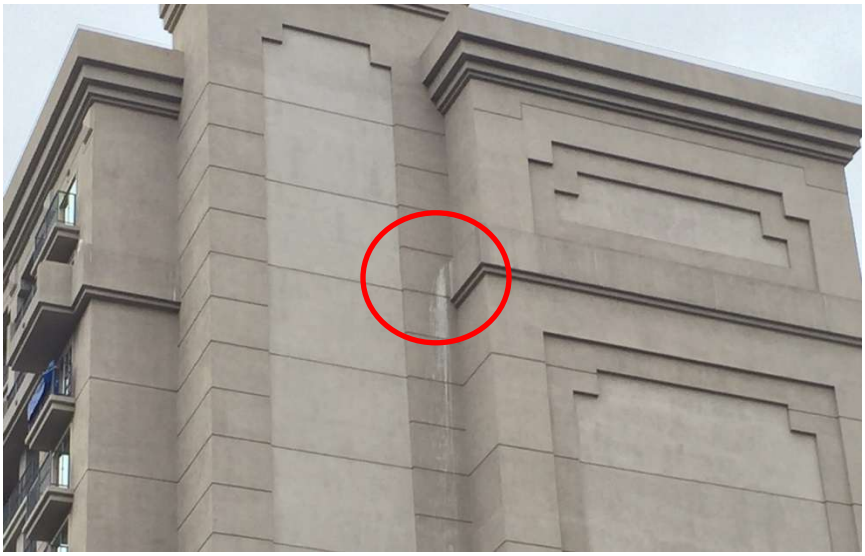

Photo 6: Admiralty Way, "Tree" 42 – Ritz Carlton Hotel. One peregrine falcon (PEFA) nest, active 2016. Photo facing north.

Photo 7: Admiralty Way, Tree 9. One black-crowned night heron (BCNH) nest (A), two small colonial waterbird nest (SNEG/BCNH) nests. Nest A active 2016, nests B and C last active 2015. Photo facing north.

Photo 8: Admiralty Way, Tree 9. More detailed photo of nest A, BCNH active in 2016. Photo facing north.

Photo 9: Admiralty Way, Tree 8. Two BCNH nests, active 2016. Photo facing west.

Photo 10: Admiralty Way, Tree 7. One BCNH nest, last active 2014. Photo facing east.

Photo 11: Admiralty Way, Tree 4. Three BCNH, last active 2015. Photo facing south.

Photo 12: Marquesas Way, Tree 70. One BCNH nest, active 2016. Photo facing north.

Photo 13: Marquesas Way, Tree 12. Two BCNH nests, active 2016. Photo facing east.

Photo 14: Marquesas Way, Tree 13. Six nests – Two BCNH, one SNEG, three small colonial waterbird nest (SNEG/BCNH). Nests were active 2016. Photo of nests A, B and C; nests A and B are small colonial waterbird nest (SNEG/BCNH), nest C is BCNH. Photo facing north.

Photo 15: Marquesas Way, Tree 13. Six nests – Two BCNH, One SNEG, Three SNEG/BCNH. Nests were active 2016. Photo of nest D, a BCNH nest. Photo facing north.

Photo 16: Marquesas Way, Tree 13. Six nests – Two BCNH, One SNEG, Three SNEG/BCNH. Nests were active 2016. Photo of nests E and F; nest E is SNEG/BCNH and nest F is SNEG. Photo facing north.

Photo 17: Marquesas Way, Tree 14. 8 nests – 3 BCNH, 5 BCNH/SNEG. Nests active 2016. A,B, D and E are SNEG/BCNH nests, C is a BCNH nest. Photo facing north.

Photo 18: Marquesas Way, Tree 14. Eight nests – three BCNH, five SNEG/BCNH. Nests active 2016. F is a SNEG/BCNH nest, G and H are BCNH nests. Photo facing west, taken from below.

Photo 19: Marquesas Way, Tree 15. Seven nests – four BCNH, one SNEG, two SNEG/BCNH. Nests active 2016. A is a BCNH nest, B and D are SNEG/BCNH nests, C is a SNEG nest. Photo facing north.

Photo 20: Marquesas Way, Tree 15. Seven nests – four BCNH, one SNEG, two SNEG/BCNH. Nests active 2016. All nests are BCNH. Photo facing west.

Photo 21: Marquesas Way, Tree 15. Adult BCNH near nest D (out of view). Photo facing north.

Photo 22: Marquesas Way, Tree 66. One SNEG nest, active 2016. Photo facing south.

Photo 23: Marquesas Way, Tree 16. Six nests – one BCNH, two SNEG, three SNEG/BCNH. Nests active 2016. A is a SNEG nest. Photo facing south.

Photo 24: Marquesas Way, Tree 16. Six nests – one BCNH, two SNEG, and three SNEG/BCNH. Nests active 2016. B is a SNEG/BCNH nest, C is a SNEG nest. Photo facing east.

Photo 25: Marquesas Way, Tree 16. 6 nests – 1BCNH, 2 SNEG, 3 SNEG/BCNH. Nests active 2016. D is a SNEG/BCNH nest, E is a BCNH nest. Photo facing west.

Photo 26: Marquesas Way, Tree 16. Six nests – one BCNH, two SNEG, and three SNEG/BCNH. Nests active 2016. F is a SNEG/BCNH nest. Photo facing west.

Photo 27: Marquesas Way, Tree 16. Two SNEG nestlings.

Photo 28: Marquesas Way, Tree 17. Four nests – two BCNH, one SNEG, and one SNEG/BCNH. Nests active 2016. A is a SNEG nest. Photo facing east.

Photo 29: Marquesas Way, Tree 17. Four nests – two BCNH, one SNEG, and one SNEG/BCNH. Nests active 2016. B and D are BCNH nests; C is a SNEG/BCNH nest. Photo facing west.

Photo 30: Marquesas Way, Tree 17. Adult SNEG near nest A.

Photo 31: Marquesas Way, Tree 61. Seven nests – two BCNH, one SNEG, and four SNEG/BCNH. Nests active 2016. A is a BCNH nest. Photo facing north.

Photo 32: Marquesas Way, Tree 61. Seven nests – two BCNH, one SNEG, and four SNEG/BCNH. Nests active 2016. B, C and D are all SNEG/BCNH nests. Photo facing east.

Photo 33: Marquesas Way, Tree 61. Seven nests – two BCNH, one SNEG, and four SNEG/BCNH. Nests active 2016. E is a BCNH nest, F is a SNEG/BCNH nest. Photo facing east.

Photo 34: Marquesas Way, Tree 61. Seven nests – two BCNH, one SNEG, four SNEG/BCNH. Nests active 2016. G is a SNEG nest. Photo facing south.

Photo 35: Marquesas Way, Tree 69. 2 nests – one BCNH, one SNEG/BCNH. Nests were last active 2016. A is a BCNH nest. Photo facing west.

Photo 36: Marquesas Way, Tree 69. Two nests – one BCNH, two SNEG/BCNH. Nests active 2016. B is a SNEG/BCNH nest. Photo facing west.

Photo 37: Marquesas Way, Tree 18. Six nests – one SNEG, two BCNH, and five SNEG/BCNH. Nests active 2016. D is a SNEG nest; A, B, C and E are SNEG/BCNH. Photo facing east.

Photo 38: Marquesas Way, Tree 18. Six nests – one SNEG, one BCNH, and five SNEG/BCNH. Nests active 2016. F is a BCNH nest. Photo facing west.

Photo 39: Marquesas Way, Tree 19. Two nests – both SNEG. Nests active 2016. Photo facing north.

Photo 40: Marquesas Way, Tree 19. SNEG fledgling in nest.

Photo 41: Marquesas Way, Tree 20. Eleven nests – two SNEG, four BCNH, and five SNEG/BCNH. Nests active 2016. A is a SNEG nest; B, E and F are BCNH nests; C, D, G, H and I are SNEG/BCNH nest. Photo facing northeast.

Photo 42: Marquesas Way, Tree 20. Eleven nests – two SNEG, four BCNH, and five SNEG/BCNH. Nests active 2016. J is a SNEG nest. Photo facing west.

Photo 43: Marquesas Way, Tree 20. Eleven nests – two SNEG, four BCNH, and five SNEG/BCNH. Nests active 2016. K is a BCNH nest. Photo facing west.

Photo 44: Marquesas Way, Tree 21. Eleven nests – six BCNH, five SNEG/BCNH. Nests active 2016. A is a SNEG/BCNH nest; B and C are BCNH nests. Photo facing south.

Photo 45: Marquesas Way, Tree 21. Eleven nests – six BCNH, five SNEG/BCNH. Nests active 2016. D, E and G are SNEG/BCNH nests; F is a BCNH nest. Photo facing west.

Photo 46: Marquesas Way, Tree 21. Eleven nests – six BCNH, five SNEG/BCNH. Nests active 2016. J is a SNEG/BCNH nest; H, I and K are BCNH nests. Photo facing southwest.

Photo 47: Mariner's Village, Tree 24. Nineteen nests – All nests are double-crested cormorant (DCCO) nests. Nests were active 2016. Photo facing north.

Photo 48: Mariner's Village, Tree 22. Two nests – both nests are great blue heron (GBHE) nests. Nests active 2016. Photo facing north.

Photo 49: Mariner's Village, Tree 23. Three nests – all great blue heron (GBHE) nests. Nests active 2016. Photo facing northeast.

Photo 50: Mariner's Village, Tree 25. One great blue heron (GBHE) nest. Nest active 2016. Photo facing northeast.

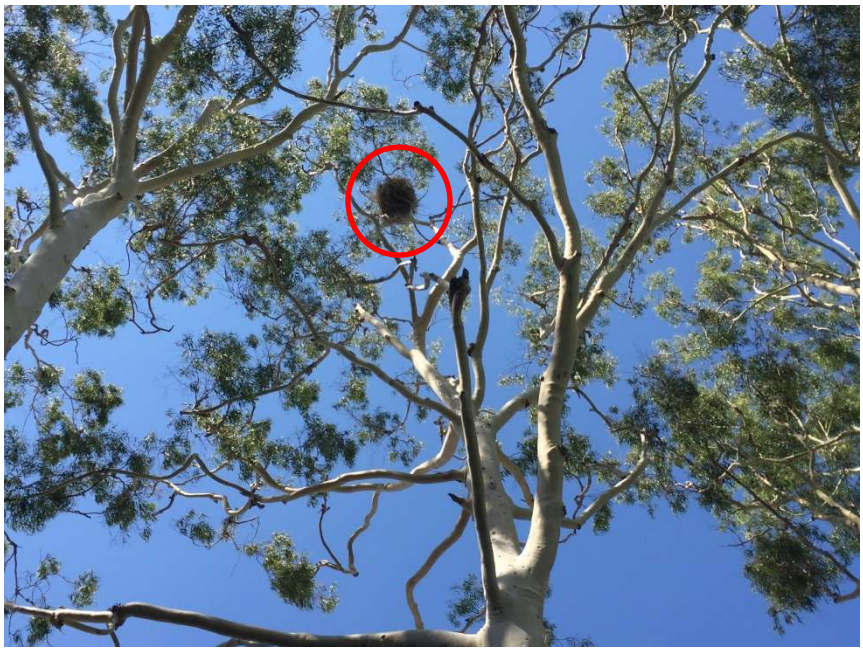

Photo 51: Mariner's Village, Tree 59. One great blue heron (GBHE) nest. Nest active 2016. Photo facing south.

Photo 52: Mariner's Village, Tree 62. One great blue heron (GBHE) nest. Nest active 2015. Photo facing north.

Photo 53: Mariner's Village, Tree 64. One great blue heron (GBHE) nest. Nest active 2016. Photo facing west.

Photo 54: Mariner's Village, Tree 29. Three great blue heron (GBHE) nests. Nests active 2016. Photo facing east.

Photo 55: Mariner's Village, Tree 63. One great blue heron (GBHE) nest. Nest active 2016. Photo facing east.

Photo 56: Mariner's Village, Tree 28. Two great blue heron (GBHE) nests. Nests active 2016. Photo facing north.

Photo 57: Mariner's Village, Tree 28. Two great blue heron (GBHE) nests. Nests active 2016. Photo facing north

Photo 58: New caution sign installed in July by DBH on Marquesas Way.