



Environmental
Intelligence, LLC

FINAL NESTING BIRD SURVEY REPORT

MARINA DEL REY

LOS ANGELES COUNTY, CALIFORNIA

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1.0 INTRODUCTION

Environmental Intelligence, LLC (EI) was retained by the Los Angeles County Department of Beaches and Harbors (DBH) to conduct a colonial waterbird and raptor nest survey within the unincorporated community of Marina del Rey, Los Angeles County, California. The nest survey is 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). This report provides colonial waterbird and raptor species background information, 2019 nest survey methodology and results, a discussion of colony trends, and recommendations on easing potential conflicts between humans and birds.

1.1 Project Location and Description

Marina del Rey is an unincorporated community in Los Angeles County, bound by development to the north, Ballona Wetlands Ecological Reserve to the east and south, and development and Venice City Beach to the west (Appendix A: Exhibit 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 the private sector. Numerous non-native trees line the streets, medians, and pedestrian pathways of Marina del Rey; species include *Erythrina caffra*, *Eucalyptus globulus*, *Ficus elastica*, *Ficus rubiginosa*, *Melaleuca quinquenervia*, and *Washingtonia robusta*. Several areas within Marina del Rey have been or will be restored: 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).

1.2 Purpose and Need

The purpose of the annual nesting bird survey is to comply with Tree Management Policies No. 23 and 34 of the 2012 Marina del Rey LUP, which are based on recommendations from the Conservation and Management Plan for Marina del Rey (Hamilton Biological, Inc. 2010). Tree Management Policies No. 23 and 34 propose to establish guidelines within Marina del Rey for the pruning and removal of trees in accordance with the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (FGC), and to ensure the long-term protection of breeding, roosting, and nesting habitats of federal and state-listed species, California Species of Special Concern, and colonial waterbirds. The Policies also provide County staff with guidelines and procedures for tree pruning and/or tree removal within Marina del Rey in consideration of the colonial waterbird species and raptor species and the desire to reduce or eliminate impacts to their nesting habitats.

2.0 REGULATORY SETTING

2.1 Federal

2.1.1 MIGRATORY BIRD TREATY ACT

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA). Any activity, intentional or unintentional, resulting in take of migratory birds is prohibited unless otherwise permitted by the USFWS (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668[a]). The MBTA makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. The migratory bird species protected by the MBTA are listed in 50 CFR 10.13.

2.2 State

2.2.1 CALIFORNIA ENDANGERED SPECIES ACT

The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. CESA prohibits the take (defined as to hunt, pursue, catch, capture, or kill) of any species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species. The California Department of Fish and Wildlife (CDFW) works with all interested persons, agencies and organizations to protect and preserve such sensitive resources and their habitats. CDFW may authorize the take of any such species if certain conditions are met.

The classification of Fully Protected was the State's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Fully Protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

2.2.2 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE SPECIAL ANIMALS

CDFW maintains a list of Special Animals, which refers to all the animal taxa tracked by the CDFW California Natural Diversity Database (CNDDDB), regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special-status species.” Species of Special Concern (SSC) is a designation applied to species with declining population levels, limited ranges, and/or continuing threats causing them to be vulnerable to extinction. The goal of designating species as SSC is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability. Watch List species consist of taxa that were previously designated as SSC but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

2.2.3 CALIFORNIA FISH AND GAME CODE

California Fish and Game Code (FGC) Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Code or any associated regulation. Section 3503.5 makes it unlawful to take, possess, or destroy birds of prey or their nests or eggs.

2.3 Local

2.3.1 LOS ANGELES COUNTY

The 2012 Marina del Rey LUP indicates the kind, location, and intensity of land uses; the applicable resource protection and development policies; and a listing of implementing actions. The LUP provides direction for development while conserving natural resources.

3.0 EXISTING CONDITIONS

Marina del Rey has been separated into ten potential colonial waterbird nesting areas (Appendix A: Exhibit 2). A description of each area is provided below.

3.1 Admiralty Way

Admiralty Way runs in a general east-west direction along the northern edge of Marina del Rey. The western portion dead ends into Via Marina and includes Marina Beach, Oxford Retention Basin, and the Marina City Club. The central portion includes Yvonne B. Burke Park, Marvin Braude Bike Path, hotels, and restaurants. The eastern portion dead ends into Fiji Way and includes commercial buildings and ongoing construction. Suitable nesting/roosting trees line the central portion of Admiralty Way. Prior to 2019, historic nesting by colonial waterbirds (2009, 2011-2012, 2014-2016), peregrine falcons (*Falco peregrinus*; on Ritz-Carlton hotel, 2014-2016), and Cooper's hawks (*Accipiter cooperii*; 2018) have occurred in this area.

3.2 Palawan Way

Palawan Way runs 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. Prior to 2019, no historic nesting by colonial waterbirds or raptors has been documented in this area.

3.3 Panay Way

Panay Way runs south of Marina Beach and provides access to numerous residential complexes and Basins C and D. Suitable nesting/roosting trees line Panay Way. Prior to 2019, historic nesting by colonial waterbirds (2009) has occurred in this area.

3.4 Marquesas Way

Marquesas Way provides access to numerous residential complexes and Basins B and C. Active construction is currently occurring on the south side of the western half of Marquesas Way. Suitable nesting/roosting trees line Marquesas Way. Prior to 2019, historic nesting by colonial waterbirds (2011-2012, 2014-2018) has occurred in this area.

3.5 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. Prior to 2019, historic nesting by colonial waterbirds (2018) has occurred in this area.

3.6 Bora Bora Way

Bora Bora Way provides access to numerous residential complexes and Basin A. Suitable nesting/roosting trees are incorporated into the residential complexes' landscape. Prior to 2019, historic nesting by colonial waterbirds (2014, 2016) has occurred in this area.

3.7 Mariner's Village

Mariner's Village is a large residential complex located in the southwest corner of Marina del Rey. Suitable nesting/roosting trees are incorporated into the Mariner's Village's landscape. Prior to 2019, historic nesting by colonial waterbirds (2011-2012, 2014-2018) has occurred in this area.

3.8 Bali Way

Bali Way provides access to the Marina del Rey Hotel and Basins F and G. Suitable nesting/roosting trees line Bali Way. Prior to 2019, no historic nesting by colonial waterbirds or raptors has been documented in this area.

3.9 Mindanao Way

Mindanao Way provides access to Burton Chace Park and Basins G and H. Suitable nesting/roosting trees line Mindanao Way and are incorporated into the Park's landscape. Prior to 2019, historic nesting by colonial waterbirds (2012, 2017-2018) and Cooper's hawks (2018) has occurred in this area.

3.10 Fiji Way

Fiji Way runs from the northeast corner to the southeast corner of Marina del Rey, providing access to boatyards, commercial areas, the DBH Headquarters, and the Breakwater Apartment Community. The Ballona Wetlands Ecological Reserve Area A is located adjacent to Fiji Way to the south and east. Prior to 2019, historic nesting by colonial waterbirds (2012) has occurred in this area.

4.0 TARGET SPECIES

4.1 Colonial Waterbirds

The 2012 Marina del Rey LUP defines colonial waterbirds as the following five species: double-crested cormorant (*Phalacrocorax auritus*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*), snowy egret (*Egretta thula*), and black-crowned night-heron (*Nycticorax nycticorax*). These species have likely been nesting in Marina del Rey since the mid-1990s (Hamilton Biological, Inc. 2010).

4.1.1 DOUBLE-CRESTED CORMORANT (*PHALACROCORAX AURITUS*)

Nesting colonies of double-crested cormorants are on the CDFW Watch List. Double-crested cormorants occur in a variety of aquatic habitats, including ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open coastlines. Colonies are established at sites safe from ground predators and close to feeding areas (feeding areas are typically less than 6 miles away and within 1.5 miles of shore). When nesting (or roosting) in trees, the trees are usually standing in or near water, on islands, in swamps, or at tree-lined lakes; nesting activity often kills the trees within 3 to 10 years (Dorr et al. 2014).

4.1.2 GREAT BLUE HERON (*ARDEA HERODIAS*)

Great blue herons occur in marine and fresh water habitats. Colony sites, located in habitats from pristine wetlands and woodlands to highly developed areas such as urban centers, are typically located between 1.5 to 4 miles from their primary foraging location. They usually nest near water in trees, bushes, on the ground, and on artificial structures. Nests located in trees can be up to 100 feet or more above ground and can be found with other species of herons and waterbirds (Vennesland and Butler 2011).

4.1.3 GREAT EGRET (*ARDEA ALBA*)

Great egrets nest in colonies with other great egrets or other waterbirds. Colony sites are located in lakes, ponds, marshes, estuaries, human-made impoundments, and on natural and dredge-material islands. Their nests are usually located on or near the top of trees or woody vegetation, and occasionally on the ground or on artificial nest platforms. Great egrets feed in a wide variety

of wetland habitats, including marshes, swamps, streams, rivers, ponds, lakes, impoundments, lagoons, tidal flats, canals, ditches, and fish-rearing ponds (McCrimmon Jr. et al. 2011).

4.1.4 SNOWY EGRET (*EGRETTA THULA*)

Snowy egrets nest in mixed-species colonies. Colony sites are typically located in irrigation channels, estuarine habitats, marshes, and river courses. Their nests are typically placed on stable branches away from the trunk. Snowy egrets prefer to forage in relatively shallow water in saltmarsh pools, tidal channels/flats, freshwater marshes/swamps, ocean inlets, and lake margins (Parsons and Master 2000).

4.1.5 BLACK-CROWNED NIGHT-HERON (*NYCTICORAX NYCTICORAX*)

Black-crowned night-herons are known to nest in non-native trees with other colonial waterbirds. Nests in trees have variable locations; they can be near the trunk or in distal forks of branches, in the open, or deep in foliage. They nest in areas that provide good cover with nearby freshwater, saltwater, or brackish foraging areas. Their preferred foraging habitat includes swamps, streams, rivers, margins of pools, ponds, lakes, lagoons, tidal mudflats, salt marsh, freshwater marshes, man-made ditches, canals, ponds, reservoirs, and wet agricultural fields. While some black-crowned night-herons are known to return to their natal colony to breed, others have been known to disperse to new breeding grounds (Hothem et al. 2010).

4.2 Raptors

Some raptor species are tolerant to disturbance and are able to adapt to urban landscapes, nesting in trees, on transmission poles/towers, and on ledges of buildings. The following accipiters and falcons have the potential to occur and nest in and around Marina del Rey:

- osprey (*Pandion haliaetus*) – CDFW Watch List
- white-tailed kite (*Elanus leucurus*) – CDFW Fully Protected
- northern harrier (*Circus hudsonius*) – CDFW SSC
- Cooper’s hawk (*Accipiter cooperii*) – CDFW Watch List
- red-shouldered hawk (*Buteo lineatus*)
- red-tailed hawk (*Buteo jamaicensis*)
- barn owl (*Tyto alba*)
- American kestrel (*Falco sparverius*)
- peregrine falcon (*Falco peregrinus*) – CDFW Fully Protected

4.3 Passerines

Although colonial waterbirds and raptors were the focus of the nesting bird survey, incidental observations of other nesting birds were recorded during the survey. Many passerine species are adapted to nesting in urban landscapes. The following native species, although not a comprehensive list, have the potential to occur and nest in and around Marina del Rey:

- mourning dove (*Zenaida macroura*)
- Anna’s hummingbird (*Calypse anna*)
- Cassin’s kingbird (*Tyrannus vociferans*)

- black phoebe (*Sayornis nigricans*)
- American crow (*Corvus brachyrhynchos*)
- barn swallow (*Hirundo rustica*)
- bushtit (*Psaltirparus minimus*)
- house wren (*Troglodytes aedon*)
- northern mockingbird (*Mimus polyglottos*)
- house finch (*Haemorhous mexicanus*)
- lesser goldfinch (*Spinus psaltria*)
- dark-eyed junco (*Junco hyemalis*)
- orange-crowned warbler (*Oreothlypis celata*)

5.0 METHODOLOGY

EI Qualified Avian Biologists Matt Amalong, Curtis Marantz, and Sean Wolfe conducted nesting bird surveys, focusing on colonial waterbirds and raptors and in accordance with the annual nesting bird survey requirements of the 2012 Marina del Rey LUP, on March 26, April 22, May 13, and June 25, 2019 (Table 1).

TABLE 1. SURVEY TIMING AND CONDITIONS

Date (2019)	Time	Avian Biologists*	Weather Conditions
March 26	0700-1500	MA, SW	56-62°F, mostly cloudy, winds 0-5 mph
April 22	0700-1500	CM, SW	57-72°F, partly cloudy, winds 0-5 mph
May 13	0700-1500	CM, SW	62-65°F, overcast, winds 0-10 mph
June 25	0700-1500	CM, SW	58-64°F, overcast, winds 0-5 mph

*Avian Biologists: MA = Matt Amalong; CM = Curtis Marantz; SW = Sean Wolfe

The Avian Biologists conducted pedestrian surveys throughout all accessible areas of the Marina del Rey nesting areas, recording colonial waterbird and raptor nests (active and inactive) and colonial waterbird roost locations (identified by whitewash on vegetation and ground) using Collector for ArcGIS (3-meter accuracy). Historic nest locations were checked during surveys. Passerine nests incidentally identified during the surveys were also recorded. Active nests are defined as (1) nests with adults and/or young observed in the nest; or (2) adults and/or young observed near the nest, and the nest appears to have been used in 2019 (whitewash, feathers, and/or fresh nesting material present). Inactive nests are defined as nests without adults and/or young in or near the nest, and the nest does not appear to have been used in 2019.

6.0 RESULTS

The 2019 survey was initiated in late March; colonial waterbird nesting had already been initiated, with nest building, laying/incubation, and one black-crowned night-heron chick observed. EI identified 132 colonial waterbird nests (98 active, 34 inactive) and 3 Cooper's hawk nests (1 active, 2 inactive) during the 2019 nesting bird surveys. Table 2 presents the colonial waterbird nest numbers by species and location. Exhibit 2 (Appendix A) displays all the nest locations by area and includes historic nest data (most recent year active). Appendix B contains the nest data table

showing the nesting history by species from 2009-2019 for each nesting area location and tree number (species-specific data for 2009, 2011, and 2012 is unknown). Appendix C presents site photographs from 2019 surveys. Appendix D lists all avian species identified during 2019 surveys.

TABLE 2. COLONIAL WATERBIRD/RAPTOR NESTS (2019)

Location ¹	Species ²							
	GBHE	Large Unknown	BCNH	SNEG	Small Unknown	DCCO	Total (Colonial Waterbird)	COHA
Panay Way	0	0	0	0	1*	0	1*	0
Marquesas Way	0	0	48	14	30*	0	62+30*	0
Mariner's Village	19	1*	0	0	1*	15	34+2*	0
Bali Way	0	0	0	0	1*	0	1*	0
Mindanao Way	0	0	0	0	0	2	2	1+2*
Total	19	1*	48	14	33*	17	98+34*	1+2*

¹ No colonial waterbird nests present in Admiralty Way, Palawan Way, Tahiti Way, Bora Bora Way, and Fiji Way.

² GBHE = great blue heron; Large Unknown = great blue heron or great egret; BCNH = black-crowned night-heron; SNEG = snowy egret; Small Unknown = black-crowned night-heron or snowy egret; DCCO = double-crested cormorant; COHA = Cooper's hawk

* Indicates inactive nest.

6.1 Admiralty Way

No colonial waterbird nests were observed in the Admiralty Way nesting area in 2019. Historic nesting in this area is shown in Appendix A: Exhibit 2A. The peregrine falcons that nested in 2014-2016 were not observed. Three juvenile Cooper's hawks were observed in the eucalyptus trees at the east edge of the Oxford Retention Basin, where a presumed Cooper's hawk nest was located in 2018. Incidental passerine nests observed during surveys included two American crow nests (both inactive) located in eucalyptus trees at the east edge of the Oxford Retention Basin (Appendix A: Exhibit 2I).

6.2 Palawan Way

No nests were observed in the Palawan Way nesting area in 2019. No historic nesting has occurred in this area.

6.3 Panay Way

One small unknown colonial waterbird nest was observed in the Panay Way nesting area in 2019 (Appendix A: Exhibit 2B). No activity was observed at the nest, but two black-crowned night-herons were observed roosting in the same tree on March 26, 2019 (not observed on subsequent surveys).

6.4 Marquesas Way

The eastern portion of Marquesas Way contained 48 black-crowned night-heron nests and 14 snowy egret nests, all considered active due to the presence of adults, young, and fresh sign on and around the nests. These active nests were located in 17 trees (number of nests per tree ranged from 1 to 7), situated in the median of Marquesas Way as well as along the north side of the road (Appendix A: Exhibit 2C). An additional 30 small unknown colonial waterbird nests, all

considered inactive due to a lack of adults, young, and fresh sign on and around the nests, were identified in 14 trees, 10 of which also contained active nests. The eastern portion of Marquesas Way appears to be preferred over the western portion due to one or more of the following reasons: (1) closer to the water; (2) more sheltered by the buildings; (3) more densely vegetated and more shaded; and/or (4) less disturbance (construction activity). One dead black-crowned night-heron was observed hanging in a tree (MQ-11), and another was observed on the ground below MQ-4. Two incidental passerine nests, one active American crow nest and one inactive unknown passerine nest, were identified in the Marquesas Way nesting area (Appendix A: Exhibit 2I).

6.5 Tahiti Way

No nests were observed in the Tahiti Way nesting area in 2019. Historic nesting in this area is shown in Appendix A: Exhibit 2D.

6.6 Bora Bora Way

No nests were observed in the Bora Bora Way nesting area in 2019. Historic nesting in this area is shown in Appendix A: Exhibit 2E.

6.7 Mariner's Village

Mariner's Village contained 19 great blue heron nests (all considered active) in 4 trees, 1 inactive unknown large colonial waterbird nest, 1 inactive unknown small colonial waterbird nest, 15 active double-crested cormorant nests in 3 trees (one of which contained 12 nests), and 2 black-crowned night-heron roost areas (Mariner's Village pond area and one tree; Appendix A: Exhibit 2F). Three incidental passerine nests (2 inactive American crow nests and 1 active Anna's hummingbird nest) were identified throughout Mariner's Village (Appendix A: Exhibit 2I).

6.8 Bali Way

One inactive unknown small colonial waterbird nest was observed in the Bali Way nesting area in 2019 (Appendix A: Exhibit 2G).

6.9 Mindanao Way

Two double-crested cormorant nests in two eucalyptus trees (one of which went missing between surveys 3 and 4), numerous double-crested cormorant roost trees (all eucalyptus), two juvenile Cooper's hawks being fed by an adult at a nest, and two inactive Cooper's hawks nests (identified in 2018) were observed in the Mindanao Way nesting area in 2019 (Appendix A: Exhibit 2H). Four inactive American crow nests were identified in Chace Park (Appendix A: Exhibit 2I).

6.10 Fiji Way

No colonial waterbird or raptor nests were observed in the Fiji Way nesting area in 2019. Historic nesting occurred in 2012, but species-specific data are unknown. Two incidental passerine nests (1 active hooded oriole nest and 1 active bushtit nest) were identified at the southern end of the Fiji Way nesting area (Appendix A: Exhibit 2I).

7.0 DISCUSSION AND RECOMMENDATIONS

7.1 Population Trends

Table 3 presents a 5-year population trend by colonial waterbird species.

TABLE 3. 5-YEAR POPULATION TREND BY SPECIES, BASED ON NUMBERS OF ACTIVE NESTS

Species	Year					Trend
	2015	2016	2017	2018	2019	
Black-crowned night-heron	73	57	56	41	48	Decrease
Snowy egret	25	26	18	33	14	Decrease
Great blue heron	14	16	17	13	19	Stable
Double-crested cormorant	19	22	20	26	17	Stable
Subtotal	131	121	111	113	98	Decrease
Small unknown, potentially active nests ¹	16	14	24	0	0	
Large unknown, potentially active nests ¹	2	0	0	0	0	
Total	149	135	135	113	98	

¹ These nests were presumed active, but could not be attributed to a specific species.

The number of active black-crowned night-heron nests in 2019 (48), all located within the Marquesas Way nesting area, was slightly higher than nest numbers observed during 2018, but still lower than 2015-2017 (range 56-73). The number of trees containing an active nest in 2019 was 17, compared with 16 trees in 2018. The decline in nest numbers from 2015-2017 could be the result of a number of potential factors, including active construction along Marquesas Way to the west; nests falling out of trees; a reduction in the amount of prey available for adults (if the amount of prey in a given year is lower than average, due to climate patterns or some other influence(s), some birds may not nest because there is not enough prey to raise chicks); and/or individuals choosing to nest elsewhere (outside of Marina del Rey). Regardless, the Marquesas Way black-crowned night-heron nesting population continues to be productive in this heavily populated area. When construction activities to the west conclude, birds may spread out and utilize the trees on the western half of Marquesas Way as well, potentially resulting in an increase in nest numbers.

The number of active snowy egret nests in 2019 (14), all located within the Marquesas Way nesting area, was less than the nest numbers observed during each of the previous four years (range 18-33). This decrease could be due to the same factors listed above for black-crowned night-herons; however, it may not represent a significant decrease. In 2018, the survey start date was delayed, so more hatchlings/juveniles were observed outside of their nests on the first survey. This made it difficult to determine active verse inactive nests around where the hatchlings/juveniles were perched, and it may have resulted in some nests that were inactive being recorded as active. The number of trees containing an active nest in 2019 was 8, compared with 7 trees in 2018. As with the black-crowned night-heron nesting population, the Marquesas Way snowy egret nesting population continues to be productive in this heavily populated area and may expand when construction concludes.

The number of active great blue heron nests in 2019 (19), all located within the Mariner's Village nesting area, was similar to nest numbers observed during each of the previous four years (range 13-17). Four trees contained nests (same as 2018), with two trees containing 17 of the 19 nests. The Mariner's village great blue heron nesting population appears to be stable.

Great egrets have not been observed nesting in Marina del Rey since 2012 (Rincon 2017). It is unknown why great egrets have stopped nesting in Marina del Rey. Their absence could be a result of a number of factors, including nest site competition with great blue herons, and/or a preference for nesting habitat located elsewhere (e.g., Ballona Wetlands Ecological Reserve).

The number of double-crested cormorant nests in 2019 (17), all but two located within the Mariner’s Village nesting area, was a slight decrease from the previous four years (range 19-26). The number of nest trees from 2018 to 2019 remained consistent at 5 trees; however, tree 24 at Mariner’s Village decreased from 21 nests in 2018 to 12 nests in 2019, possibly due to low prey availability causing a reduced nesting effort and/or individuals choosing to nest elsewhere (outside of Marina del Rey). The colony site at Mariner’s Village is well-established and has persisted over the years.

Table 4 presents a 5-year population trend by nesting area. Selection of nesting areas by colonial waterbirds from year-to-year is unpredictable and variable. A persistent colony can relocate for a variety of reasons, including human disturbance, predation, severe weather events, and competition for nesting habitat (Parnell et al. 1988).

TABLE 4. 5-YEAR POPULATION TREND BY NESTING AREA, BASED ON NUMBERS OF ACTIVE AND PRESUMED ACTIVE NESTS

Location	Year					Trend
	2015	2016	2017	2018	2019	
Admiralty Way	17	2	0	0	0	Decrease
Marquesas Way	97	96	85	74	62	Decrease
Bora Bora Way	0	1	0	0	0	n/a
Mariner’s Village	35	37	49	38	34	Stable
Mindanao Way	0	0	1	1	2	n/a
Total	149	136	135	113	98	Decrease

Nesting in the Admiralty Way nesting area by black-crowned night-herons and snowy egrets has been decreasing since 2009, shifting to the Marquesas Way nesting area, where it has remained a productive nesting area. Likewise, nesting in the Fiji Way nesting area by double-crested cormorants and great blue herons shifted in 2012 to the Mariner’s Village nesting area, where it has remained stable. The double-crested cormorant nest tree in the Bora Bora nesting area was removed following the 2014 nesting season for health and safety issues, and the cormorants have not returned to that area. Two double-crested cormorant nests were observed in the Mindanao Way nesting area in 2019; however, one nest went missing (possibly blown out of tree by wind). Double-crested cormorants roost in numerous trees in the Mindanao Way and Chace Park nesting area (Appendix A: Exhibit 2H), so this area could experience an increase in nesting in future years. Overall, there was a decrease in active nests, but that decrease is likely attributable to one or more of the reasons mentioned above.

7.2 Potential Conflicts

This section makes recommendations for how potential conflicts might be resolved in ways that best respond to the 2010 Conservation and Management Plan. Consultation with the County of Los Angeles Department of Regional Planning, USFWS, and CDFW should occur before any actions are implemented. Hamilton (2010) identified five sources of potential conflict, each described below.

7.2.1 NUISANCES AND COSTS TO RESIDENTS, WORKERS, LESSEES, AND THE LANDOWNER

Considerable amounts of waste (guano, feathers, decomposing eggs and food, and other debris) from colonial waterbirds result in foul smells, stains on property, and health risks. Costs are incurred by public and private landowners to clean and maintain these areas. Noise from the nesting colonies can also be a nuisance.

Currently, this potential conflict occurs in the Marquesas Way and Mariner's Village nesting areas. In the Marquesas Way nesting area, numerous black-crowned night-heron and snowy egret nests are densely packed into an approximately 700-foot long stretch of Marquesas Way and surrounded by residential complexes. In addition to the noise, smell, and potential health risks, some young birds fall from trees into Marquesas Way and are run over by automobiles; there is the potential an automobile could swerve or brake to avoid hitting a bird and could cause an accident resulting in human injury and/or property damage. At Mariner's Village, nest tree 24 has contained 12-22 double-crested cormorant nests over each of the past 5 years. This nest tree is adjacent to a residential complex, so noise, smell, and health risks exist, and there are parking spaces under the tree that are coated with guano.

Conflict in the Marquesas Way nesting area could be resolved by (1) removing nests during the non-breeding/non-nesting season; (2) pruning the trees during the non-breeding/non-nesting season to make them unsuitable as nest trees (e.g., trim/reduce the canopy, which in turn reduces the amount of shade and protection from predators, wind, and rain; trim/reduce the amount of branching, which in turn reduces the amount of nesting space and the amount of potential nesting materials from within the tree); (3) removing the trees entirely (root systems are causing problems in the street as well); or (4) relocating the entire colony. If nest removal and/or tree pruning is implemented, there are numerous trees in the immediate vicinity (i.e., north side of Marquesas Way) suitable for these two species to relocate to and nest; however, it is impossible to predict where the birds will relocate. The trees selected as nesting sites can and do change from year-to-year, or even within the same year (Hamilton 2010). Should nesting occur in other trees along Marquesas Way, similar conflicts may persist. If tree removal is implemented, replacement trees are required at a 1:1 ratio, as described in the 2012 LUP. Black-crowned night-heron and snowy egrets tend to prefer smaller and more densely vegetated trees, so new tree species (e.g., natives such as *Platanus racemosa*, *Aesculus californica*, and *Lyonothamnus floribundus* var. *asplenifolius*; non-natives such as *Lophostemon confertus*, *Platanus x acerifolia*, *Eucalyptus nicholii*, *Callistemon viminalis*, and *Washingtonia robusta*) could be selected to avoid future conflict. Great blue herons and double-crested cormorants seem to prefer large trees (often large *Eucalyptus*) with relatively open vegetation, so if this type of tree is selected for replacement, there is the possibility of other colonial waterbird species moving into the area.

Relocating the entire colony would be a significant undertaking, but it is possible. In 1999, the Port of Long Beach relocated a black-crowned night-heron colony (approximately 500 pairs) to a park approximately 1 mile away by transplanting 50 *Ficus*, *Olea*, and *Melaleuca* trees to the new site to supplement existing vegetation. To attract nesting night-herons to the site, night-heron decoys were placed in the trees, heron vocalizations were played, and public access to the site was limited. Early results showed the colony relocation was successful, with nest and chick numbers similar to pre-relocation numbers; however, due to disturbances from Navy cleanup operations, the colony has since dispersed to other locations in southern California (Crouch et al 2002). To conduct a successful colony relocation, an area with existing suitable nest trees would be required to supplement the transplanted trees. Section 7.3 below discusses potential restoration areas that may be suitable for relocation.



Conflict in the Mariner's Village nest tree 24 would be best resolved by removing the nest tree (and possibly the adjacent suitable trees). This tree will likely die soon, as double-crested cormorant nest trees typically die within 10 years. Double-crested cormorants prefer nest trees as close to the water as possible, so if nest tree 24 were removed, they would likely relocate to the adjacent trees (e.g., nest tree 22 or 23).

7.2.2 DEATH OF TREES THROUGH GUANOTROPHY

The deposition of guano on leaves and under trees can cause defoliation and impact the soils to a level that causes the tree to die, which can ultimately result in limbs or the entire tree falling and injuring people or damaging property.

This conflict tends to be more evident with double-crested cormorant nest trees. Current double-crested cormorant nest trees include nest trees 22, 23, 24 (Mariner's Village) and MN-23 and MN-24 (Mindanao Way); current double-crested cormorant roost trees include CP-64, CP-220, MN-22, MN-25, MN-26, MN-31, MN-32, and MN-39 (Mindanao Way/Chace Park). If trees are removed, replacement trees are required at a 1:1 ratio. Certain species of trees may be more susceptible to guanotrophy than others, so an arborist should be consulted to identify at-risk trees.

7.2.3 POTENTIAL HEALTH RISKS

Airborne particles from guano can cause bacterial infections and other health problems. Currently, this potential conflict occurs in the Marquesas Way and Mariner's Village nesting areas. See Section 7.2.1 for possible resolutions.

7.2.4 POTENTIAL CONFLICTS WITH NATURAL RESOURCE MANAGEMENT

Some colonial waterbirds (e.g., great blue heron and black-crowned night-heron) prey upon smaller birds. The federal and state endangered California least tern (*Sternula antillarum browni*) and the federal threatened western snowy plover (*Charadrius alexandrinus nivosus*) nest on nearby beaches, so propagating colonial waterbird nesting populations could conflict with conservation and management efforts of other listed species in the vicinity.

This potential conflict addresses the Marina del Rey colonial waterbird population as a whole, and more specifically the great blue heron and black-crowned night-heron populations. The population appears to be relatively stable over the past 5 years, so maintaining the current local population is preferred rather than increasing the local population. Hamilton (2010) recommends against modifying what little natural habitat remains in the area to create still more tree nesting sites for colonial waterbirds that have been thriving in the area since the latter half of the 1990s. Therefore, except for mitigated replacement trees, no new trees should be planted in Marina del Rey that would allow for a noticeable increase in population size.

7.2.5 POTENTIAL CONFLICTS WITH PLANNED HUMAN LAND USES

Marina del Rey is an urban landscape. The additional burden of managing colonial waterbird colonies conflicts with the constant need of community maintenance, upgrades, and planning. The colonial waterbird population has adapted to the urban landscape, so they will likely adapt to ongoing community activities and redevelopment. The LUP provides a balance between development and natural resources.

7.3 Compensatory Mitigation Measures

As stated above, replacement trees must be mitigated at a 1:1 ratio. The location of the replacement trees can be anywhere within Marina del Rey. Potential mitigation sites would require the creation of suitable nesting, foraging, and/or roosting habitat. To encourage nesting in an area, a mitigation

area should be created that satisfies the following criteria: (1) large trees suitable for nesting; (2) close to the water and/or suitable foraging habitat; (3) minimal disturbance (at least to begin with, until the new colony is established); and (4) as close as possible to the current colony location. However, even if an ideal site is created, it may be difficult to get the birds to move there, and it will be very unpredictable. As discussed above, relocation efforts (e.g., transplanted trees, decoys, vocalizations) can help attract birds to new locations.

7.3.1 POTENTIAL MITIGATION AREAS WITHIN MARINA DEL REY

The Oxford Retention Basin was designed primarily for flood protection and water quality improvement, and the Oxford Retention Basin Multiuse Enhancement Project emphasized removal of non-native species and restoration of salt-marsh, coastal sage scrub, and willow scrub habitats. As an area with little potential for human/bird conflict, the Oxford Basin offers some opportunity for enhancing colonial waterbird nesting and roosting habitat; however, the LUP requires that any new vegetation planted in Oxford Basin must be locally-native.

The primary focus of the Wetland Park restoration project at Parcel 9 is to establish coastal salt marsh habitat typical of this region of southern California, with a native buffer of coastal prairie and coastal sage scrub. As such, the restored Wetland Park is expected to provide foraging opportunities for shorebirds, herons, egrets, and other waterfowl; however, it does not represent a viable area for planting of mitigation trees for colonial waterbird nesting habitat.

Other areas within Marina del Rey available for enhancement of their biological value include Yvonne B. Burke Park and Burton W. Chace Park. However, these areas are high-use pedestrian areas and could succumb to the potential conflicts discussed in Section 7.2.

7.3.2 POTENTIAL MITIGATION AREAS OUTSIDE MARINA DEL REY

The eastern shoulder of Fiji Way adjacent to Ballona Wetlands Ecological Reserve Area A contains non-native trees and shrubs, including *Nerium oleander*, *Juniperus* sp., and *Eucalyptus* sp. It has been proposed to remove these non-native trees and shrubs to promote the natural, open features along the northern margin of Area A. This area is approximately 0.5 mile east of the Marquesas Way and Mariner's Village nesting areas and likely serves as a corridor from current nesting areas to foraging grounds within Ballona Wetlands Ecological Reserve. If Area A can be restored to more natural conditions (in coordination with CDFW), colonial waterbirds may be attracted to this area that is closer to preferred foraging grounds and has less disturbance. This could potentially result in colonial waterbirds choosing to nest in trees within the Fiji Way nesting area to be nearer the Area A foraging areas.

Other areas outside Marina del Rey, but in the immediate vicinity, that could be enhanced include Ballona Lagoon, Del Rey Lagoon, Ballona Wetlands Ecological Reserve Area B, Ballona Freshwater Marsh, and Ballona Creek. Restoration efforts in these “off-site” areas would need to be in concert with other municipal and/or state agencies. Also, some of these areas are densely populated urban areas, so potential conflicts could occur.

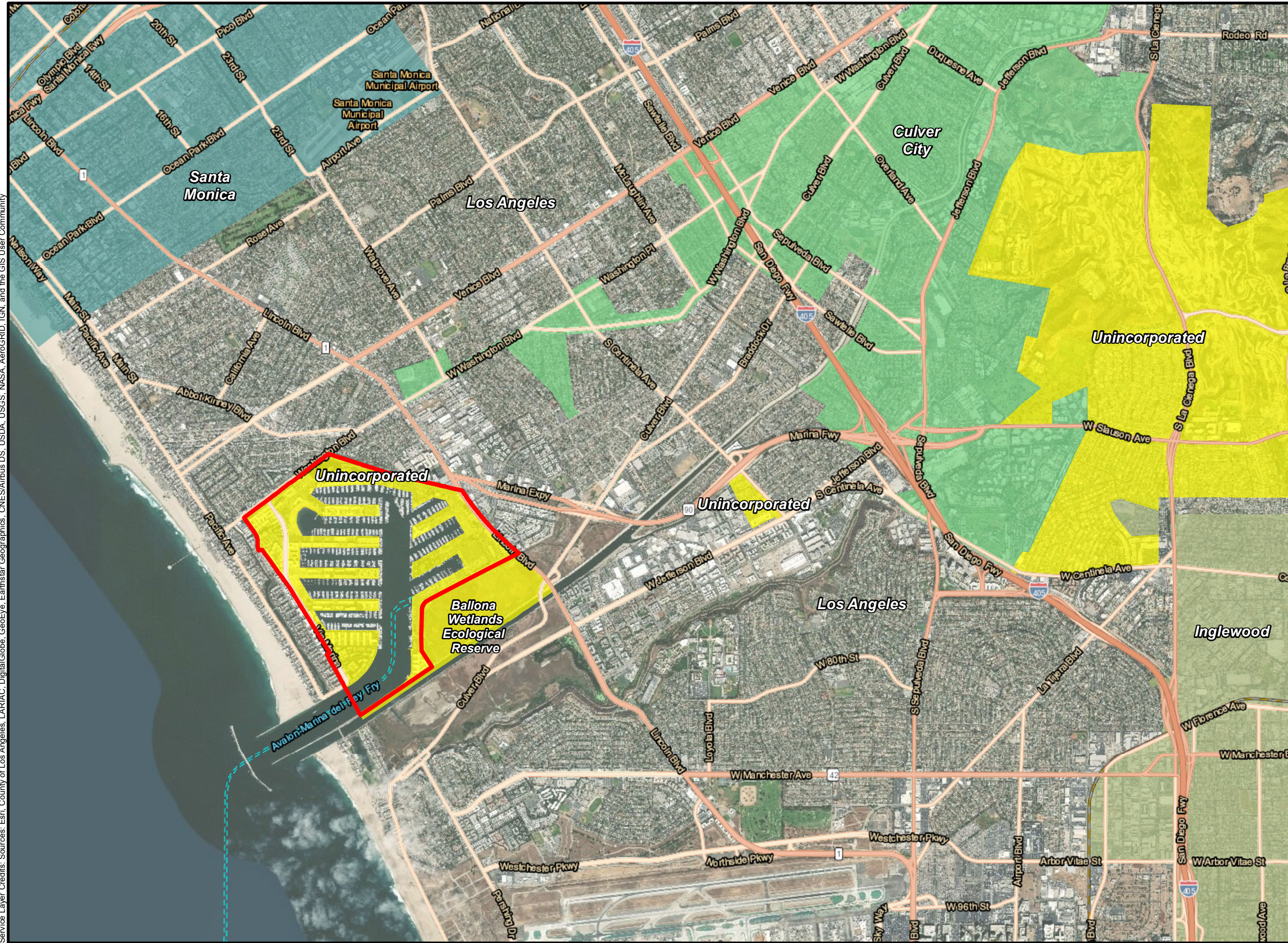
8.0 REFERENCES

- County of Los Angeles Department of Regional Planning. 2012. Marina del Rey Land Use Plan. Certified by the California Coastal Commission, February 8, 2012.
- Crouch, S., C. Paquette, and D. Vilas. 2002. Relocation of a large Black-crowned Night Heron colony in southern California. *Waterbirds*, no. 25 (4):474-478.
- Dorr, B.S., J.J. Hatch, and D.V. Weseloh. 2014. Double-crested Cormorant (*Phalacrocorax auritus*), version 2.0. In *The Birds of North America* (A.F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bna.441>
- Hamilton Biological, Inc. (Hamilton). 2010. Conservation and Management Plan for Marina del Rey, Los Angeles County, California. Prepared for County of Los Angeles Department of Beaches and Harbors and Department of Regional Planning. September 16, 2010.
- Hothem, R.L., B.E. Brussee, and W.E. Davis Jr. 2010. Black-crowned Night-Heron (*Nycticorax nycticorax*), version 2.0. In *The Birds of North America* (A.F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bna.74>
- McCrimmon Jr., D.A., J.C. Ogden, and G.T. Bancroft. 2011. Great Egret (*Ardea alba*), version 2.0. In *The Birds of North America* (A.F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bna.570>
- Parnell, J.F., D.G. Ainley, H. Blokpoel, B. Cain, T.W. Custer, J.L. Dusi, S. Kress, J.A. Kushlan, W.E. Southern, L.E. Stenzel, and B.C. Thompson. 1988. Colonial Waterbird Management in North America. *Journal of the Colonial Waterbird Society*, vol. 11 (2):129-169.
- Parsons, K.C. and T.L. Master. 2000. Snowy Egret (*Egretta thula*), version 2.0. In *The Birds of North America* (A.F. Poole and F.B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bna.489>
- Rincon Consultants, Inc. (Rincon). 2017. Final 2017 Report on Nesting Colonial Waterbird and Raptor Survey Results for Marina del Rey, Los Angeles County, California. Prepared for County of Los Angeles Department of Beaches and Harbors.
- Vennesland, R.G. and R.W. Butler. 2011. Great Blue Heron (*Ardea herodias*), version 2.0. In *The Birds of North America* (A.F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bna.25>

Appendix A:
EXHIBITS

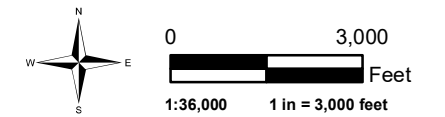
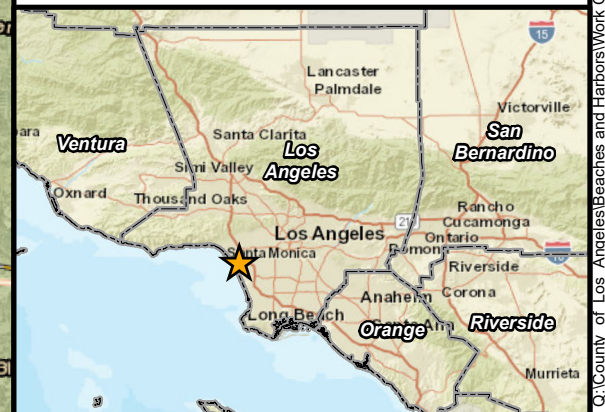


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Legend

Marina del Rey



NAD 1983 StatePlane California V FIPS 0405 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983



EXHIBIT 1: REGIONAL VICINITY MARINA DEL REY NESTING BIRD SURVEY REPORT | LOS ANGELES COUNTY, CA



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Projection: Lambert Conformal Conic
Datum: North American 1983

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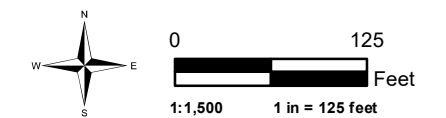
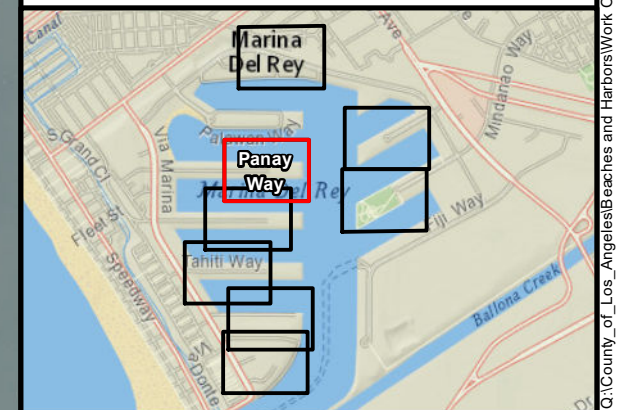


2019 Results and Historic Nests (Last Year Active)

2019 (Inactive Nest Trees)

 Black-crowned night-heron/Snowy egret

Symbology may include multiple years
of nesting. See Appendix B for yearly
nest data.



NAD 1983 StatePlane California V FIPS 0405 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

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EXHIBIT 2B: PANAY WAY COLONIAL WATERBIRD AND RAPTOR NESTS MARINA DEL REY NESTING BIRD SURVEY REPORT | LOS ANGELES COUNTY, CA



Service Layer Credits: Sources: Esri, County of Los Angeles, LARIAC, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, NASA, AeroGRID, IGN, and the GIS User Community



2019 Results and Historic Nests (Last Year Active)

2019 (Inactive Nest Trees)

Black-crowned night-heron/Snowy egret

2019 (Active Nest/Roost Trees)

Black-crowned night-heron

Black-crowned night-heron/Snowy egret

2018 (Nest No Longer Present)

Black-crowned night-heron

2017 (Nest No Longer Present)

Black-crowned night-heron

Black-crowned night-heron/Snowy egret

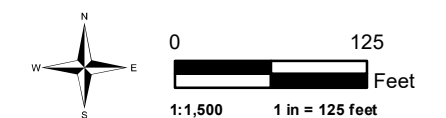
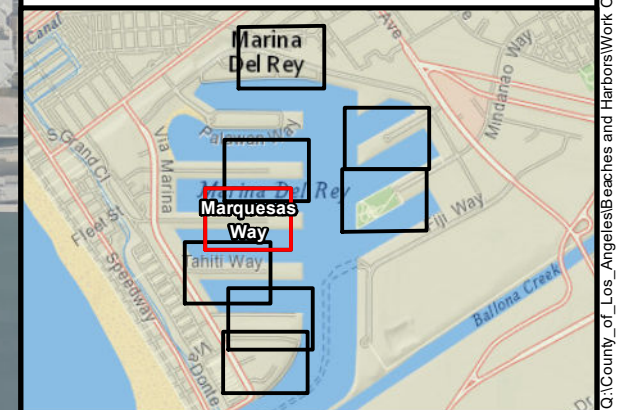
2016 (Nest No Longer Present)

Black-crowned night-heron

2015 (Nest No Longer Present)

Black-crowned night-heron

Symbology may include multiple years of nesting. See Appendix B for yearly nest data.



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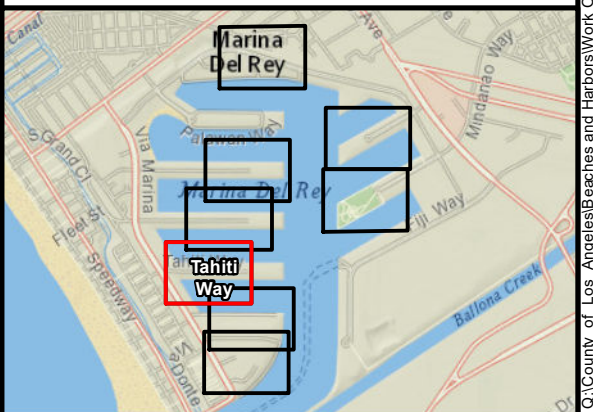


EXHIBIT 2C: MARQUESAS WAY COLONIAL WATERBIRD AND RAPTOR NESTS MARINA DEL REY NESTING BIRD SURVEY REPORT | LOS ANGELES COUNTY, CA



Black-crowned night-heron/Snowy egret

Symbology may include multiple years of nesting. See Appendix B for yearly nest data.



NAD 1983 StatePlane California V FIPS 0405 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

Service Layer Credits: Sources: Esri, County of Los Angeles, LARIAC, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, NASA, AeroGRID, IGN, and the GIS User Community

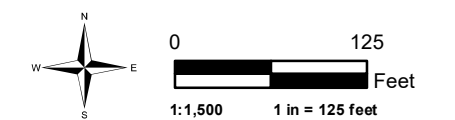
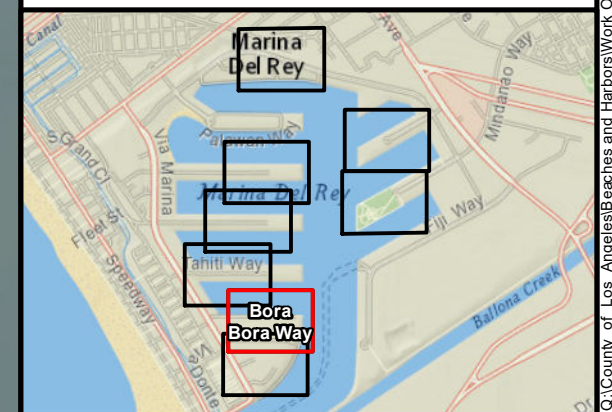


2019 Results and Historic Nests (Last Year Active)

2016 (Nest No Longer Present)

▲ Great blue heron

Symbology may include multiple years of nesting. See Appendix B for yearly nest data.



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Datum: North American 1983

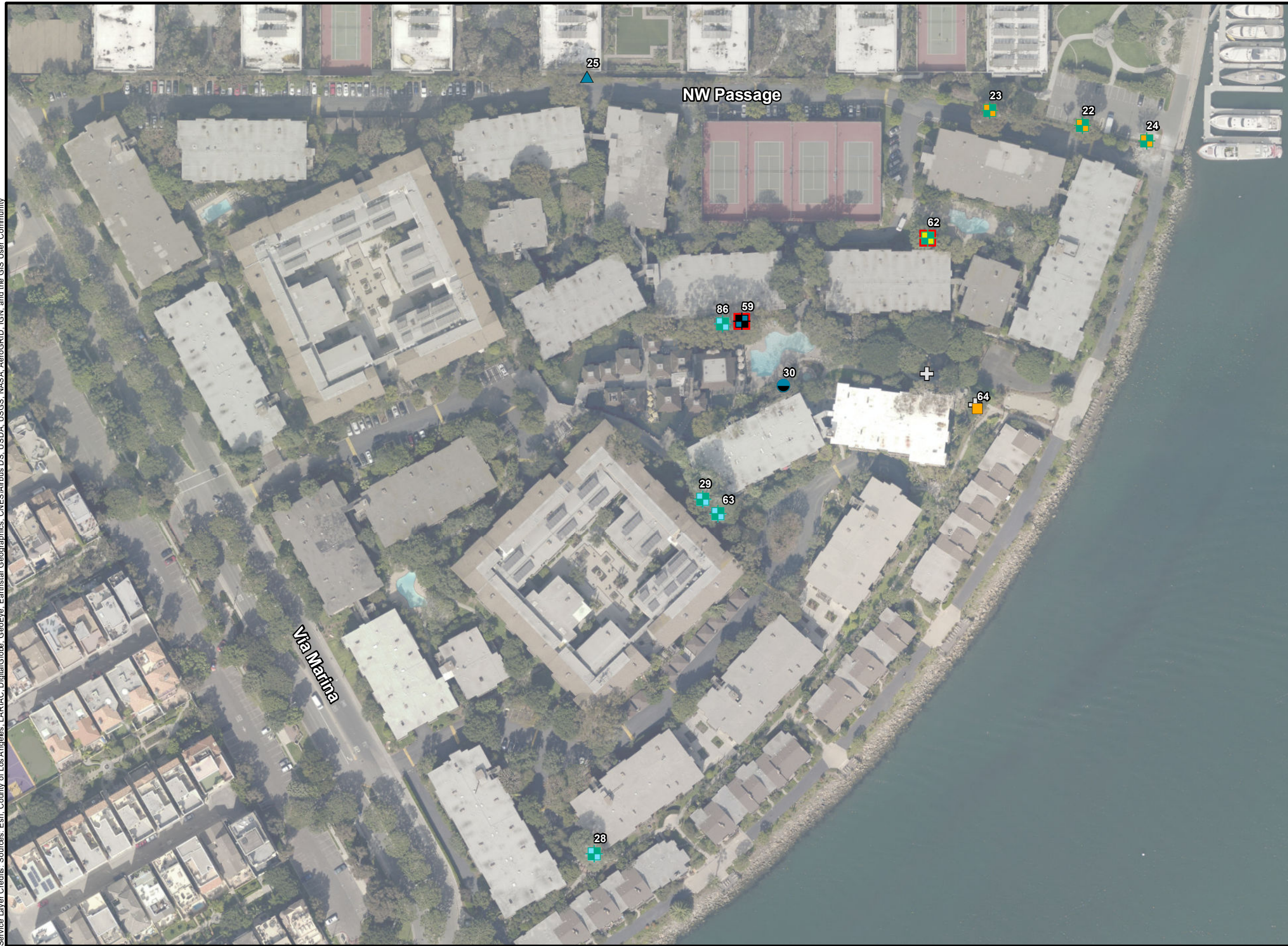
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EXHIBIT 2E: BORA BORA WAY COLONIAL WATERBIRD AND RAPTOR NESTS MARINA DEL REY NESTING BIRD SURVEY REPORT | LOS ANGELES COUNTY, CA



Service Layer Credits: Sources: Esri, County of Los Angeles, LARAC, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, NASA, AeroGRID, IGN, and the GIS User Community



2019 Results and Historic Nests (Last Year Active)

2019 (Inactive Nest Trees)

- Black-crowned night-heron/Snowy egret
- Great blue heron/Great egret

2019 (Active Nest/Roost Trees)

- Double-crested cormorant
- Great blue heron
- Roost

2018 (Nest No Longer Present)

- Double-crested cormorant

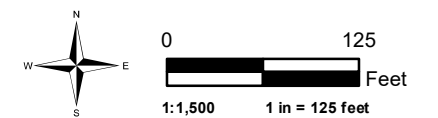
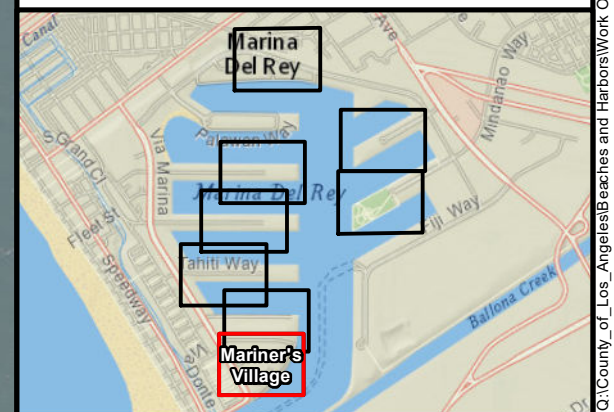
2017 (Nest No Longer Present)

- Great blue heron/Great egret

2016 (Nest No Longer Present)

- Great blue heron

Symbology may include multiple years of nesting. See Appendix B for yearly nest data.



NAD 1983 StatePlane California V FIPS 0405 Feet
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Datum: North American 1983

Environmental Intelligence. Date: 7/23/2019. Q:\County_of_Los_Angeles\Beaches and Harbors\Work Order 18-08 2019 Annual Bird Nest Survey\02_GIS\Maps\Ex_2_Results_EI01_20190722.mxd

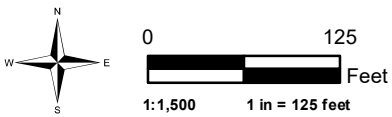


EXHIBIT 2F: MARINER'S VILLAGE COLONIAL WATERBIRD AND RAPTOR NESTS MARINA DEL REY NESTING BIRD SURVEY REPORT | LOS ANGELES COUNTY, CA



 Black-crowned night-heron/Snowy egret

A map of the Marina Del Rey area in Los Angeles. The map shows the harbor with several streets and landmarks. A red rectangle highlights the area around Ball Way. Other streets shown include Grand Canal, Via Marina, Payson Way, Miramar Way, and Ballona Creek. The map also shows the coastline and some surrounding areas.

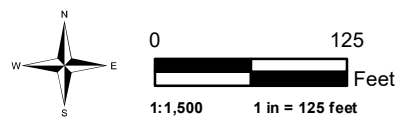
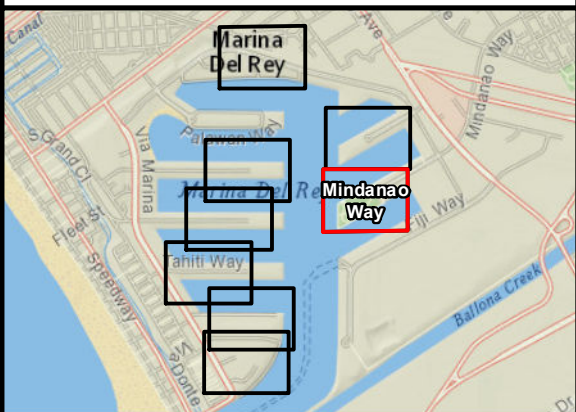


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Projection: Lambert Conformal Conic
Datum: North American 1983



● Black-crowned night-heron

Symbology may include multiple years of nesting. See Appendix B for yearly nest data.



NAD 1983 StatePlane California V FIPS 0405 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

Service Layer Credits: Sources: Esri, County of Los Angeles, LARIAC, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, NASA, AeroGRID, IGN, and the GIS User Community

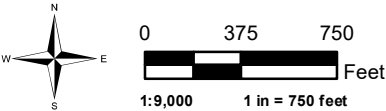
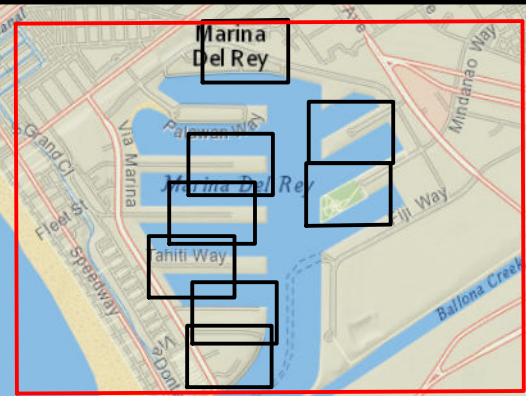


2019 Results and Historic Nests (Last Year Active)

2019 (Incidental Nests)

- American crow
- Anna's hummingbird
- Bushtit
- Hooded oriole
- Unknown passerine

Symbology may include multiple years of nesting. See Appendix B for yearly nest data.



NAD 1983 StatePlane California V FIPS 0405 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

Environmental Intelligence. Date: 7/23/2019. Q:\County_of_Los_Angeles\Beaches and Harbors\Work Order 18-08 2019 Annual Bird Nest Survey\02_GIS\Maps\Ex_2_Results_EI01_20190722.mxd



EXHIBIT 2I: INCIDENTAL PASSERINE NESTS MARINA DEL REY NESTING BIRD SURVEY REPORT | LOS ANGELES COUNTY, CA



Appendix B:
NEST DATA TABLE 2009-2019



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	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	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	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

x = species and number of nests undetermined

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
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
	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
			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
	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
	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
	30	Eucalyptus	2014	1	0	0	0	0	0	0	0
			2017	0	1	0	0	0	0	0	0

x = species and number of nests undetermined

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
Mariner's Village	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
	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
	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
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
	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
	82	Olea europaea	2018	0	0	1	0	0	0	0	0

x = species and number of nests undetermined

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	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
	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
	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
	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
	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
			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
	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

x = species and number of nests undetermined

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	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
	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
	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
	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
	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

x = species and number of nests undetermined

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	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
	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
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
	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
	MN-23	Eucalyptus polyanthemos	2019	0	0	0	0	0	1	0	0
Panay Way	MN-24	Eucalyptus sideroxylon	2018	0	0	0	0	0	1	0	0
			2019	0	0	0	0	0	1	0	0
	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
Tahiti Way	PN-1	Ficus elastica	2019	0	0	0	0	1	0	0	0
	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

Appendix C:
SITE PHOTOGRAPHS





PHOTO 1:

PANAY WAY
ONE INACTIVE SMALL COLONIAL WATERBIRD
NEST IN TREE PN-1.

PHOTO 2:

MARQUESAS WAY
2 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS AND 2 INACTIVE SMALL COLONIAL
WATERBIRD NESTS IN TREE MQ-2.



PHOTO 3:

MARQUESAS WAY
4 ACTIVE BLACK-CROWNED NIGHT-HERON NESTS
AND 1 INACTIVE SMALL COLONIAL WATERBIRD
NEST IN TREE MQ-3.

PHOTO 4:

MARQUESAS WAY
4 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS, 3 ACTIVE SNOWY EGRET NESTS, AND
4 INACTIVE SMALL COLONIAL WATERBIRD
NESTS IN TREE MQ-4.





PHOTO 5:

MARQUESAS WAY
5 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS AND 1 ACTIVE SNOWY EGRET NEST IN
TREE MQ-5.

PHOTO 6:

MARQUESAS WAY
3 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS AND 3 ACTIVE SNOWY EGRET NESTS IN
TREE MQ-6.



PHOTO 7:

MARQUESAS WAY
3 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS, 3 ACTIVE SNOWY EGRET NESTS, AND 3
INACTIVE SMALL COLONIAL WATERBIRD NESTS
IN TREE MQ-7.



PHOTO 8:

MARQUESAS WAY
4 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS AND 1 ACTIVE SNOWY EGRET NEST IN
TREE MQ-8.





PHOTO 9:

MARQUESAS WAY
5 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS AND 1 ACTIVE SNOWY EGRET NEST IN
TREE MQ-9.

PHOTO 10:

MARQUESAS WAY
3 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS, 1 ACTIVE SNOWY EGRET NEST, AND 5
INACTIVE SMALL COLONIAL WATERBIRD NESTS
IN TREE MQ-10.



PHOTO 11:

MARQUESAS WAY
3 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS AND 1 INACTIVE SMALL COLONIAL
WATERBIRD NEST IN TREE MQ-11.

PHOTO 12:

MARQUESAS WAY
4 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS, 1 ACTIVE SNOWY EGRET NEST, AND 2
INACTIVE SMALL COLONIAL WATERBIRD NESTS
IN TREE MQ-12.





PHOTO 13:

MARQUESAS WAY
2 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS AND 2 INACTIVE SMALL COLONIAL
WATERBIRD NESTS IN TREE MQ-13.

PHOTO 14:

MARQUESAS WAY
1 ACTIVE BLACK-CROWNED NIGHT-HERON NEST
AND 4 INACTIVE SMALL COLONIAL WATERBIRD
NESTS IN TREE 68.



PHOTO 15:

MARQUESAS WAY
1 INACTIVE SMALL COLONIAL WATERBIRD NEST
IN TREE 76.

PHOTO 16:

MARQUESAS WAY
1 INACTIVE SMALL COLONIAL WATERBIRD NEST
IN TREE 81.





PHOTO 17:

MARQUESAS WAY
1 INACTIVE SMALL COLONIAL WATERBIRD NEST
IN TREE 84.

PHOTO 18:

MARQUESAS WAY
1 ACTIVE BLACK-CROWNED NIGHT-HERON NEST
IN TREE 87.



PHOTO 19:

MARQUESAS WAY
1 ACTIVE BLACK-CROWNED NIGHT-HERON NEST
IN TREE 88.

PHOTO 20:

MARQUESAS WAY
1 INACTIVE SMALL COLONIAL WATERBIRD NEST
IN TREE 89.





PHOTO 21:

MARQUESAS WAY

1 ACTIVE BLACK-CROWNED NIGHT-HERON NEST
IN TREE 90.

PHOTO 22:

MARQUESAS WAY

2 ACTIVE BLACK-CROWNED NIGHT-HERON
NESTS AND 2 INACTIVE SMALL COLONIAL
WATERBIRD NESTS IN TREE 91.



PHOTO 23:

MARINER'S VILLAGE

1 ACTIVE DOUBLE-CRESTED CORMORANT NEST
IN TREE 22.

PHOTO 24:

MARINER'S VILLAGE

2 ACTIVE DOUBLE-CRESTED CORMORANT
NESTS IN TREE 23.





PHOTO 25:

MARINER'S VILLAGE
12 ACTIVE DOUBLE-CRESTED CORMORANT
NESTS IN TREE 24.

PHOTO 26:

MARINER'S VILLAGE
5 ACTIVE GREAT BLUE HERON NESTS IN TREE
28.



PHOTO 27:

MARINER'S VILLAGE
12 ACTIVE GREAT BLUE HERON NESTS IN TREE
29 AND 1 ACTIVE GREAT BLUE HERON NEST IN
TREE 63.

PHOTO 28:

MARINER'S VILLAGE
1 INACTIVE LARGE COLONIAL WATERBIRD NEST
IN TREE 59 AND 1 ACTIVE GREAT BLUE HERON
NEST IN TREE 86.





PHOTO 29:

MARINER'S VILLAGE
1 INACTIVE SMALL COLONIAL WATERBIRD NEST
IN TREE 62.

PHOTO 30:

MARINER'S VILLAGE
BLACK-CROWNED NIGHT-HERON ROOST IN
TREE 85.



PHOTO 31:

MARINER'S VILLAGE
BLACK-CROWNED NIGHT-HERON ROOST AT
POND AREA.

PHOTO 32:

BALI WAY
1 INACTIVE SMALL COLONIAL WATERBIRD NEST
IN TREE BA-1.





PHOTO 33:

MINDANAO WAY
DOUBLE-CRESTED CORMORANT ROOST TREES
MN-22, MN-23, AND MN-24 (SURVEY 1).

PHOTO 34:

MINDANAO WAY
DOUBLE-CRESTED CORMORANT ROOST TREES
MN-25 AND MN-26.



PHOTO 35:

MINDANAO WAY
DOUBLE-CRESTED CORMORANT ROOST TREE
MN-39.

PHOTO 36:

MINDANAO WAY
1 ACTIVE DOUBLE-CRESTED CORMORANT NEST
IN TREE MN-23 (PRESENT ON SURVEY 3, BUT
MISSING ON SURVEY 4) AND 1 ACTIVE DOUBLE-
CRESTED CORMORANT NEST IN TREE MN-24.





PHOTO 37:

CHACE PARK
DOUBLE-CRESTED CORMORANT ROOST TREE
CP-64.

PHOTO 38:

CHACE PARK
DOUBLE-CRESTED CORMORANT ROOST TREE
CP-220.



PHOTO 39:

CHACE PARK
ADULT COOPER'S HAWK IN TREE CP-111 WITH
PREY FOR JUVENILES.

PHOTO 40:

CHACE PARK
JUVENILE COOPER'S HAWK IN CHACE PARK.



Appendix D:
AVIAN COMPENDIUM



SCREAMERS, SWANS, GEESE, AND DUCKS**Ducks, Geese, and Swans**

Mallard

GREBES**Grebes**

Western Grebe

PIGEONS AND DOVES**Pigeons and Doves**

Rock Pigeon

Band-tailed Pigeon

Eurasian Collared-Dove

Mourning Dove

Hummingbirds

Anna's Hummingbird

Allen's Hummingbird

RAILS, CRANES, AND ALLIES**Rails, Gallinules, and Coots**

American Coot

SHOREBIRDS, GULLS, AUKS, AND ALLIES**Lapwings and Plovers**

Killdeer

Sandpipers, Phalaropes, and Allies

Whimbrel

Willet

Gulls, Terns, and Skimmers

Western Gull

California Gull

Least Tern

Caspian Tern

Elegant Tern

**FRIGATEBIRDS, BOOBIES, CORMORANTS,
DARTERS, AND ALLIES****Cormorants**

Double-crested Cormorant

PELICANS, HERONS, IBISES, AND ALLIES**Pelicans**

Brown Pelican

Hérons, Bitterns, and Allies

Great Blue Heron

Snowy Egret

Black-crowned Night-Heron

HAWKS, KITES, EAGLES, AND ALLIES**Hawks, Kites, Eagles, and Allies**

Cooper's Hawk

ANSERIFORMES**Anatidae***Anas platyrhynchos***PODICIPEDIFORMES****Podicipedidae***Aechmophorus occidentalis***COLUMBIFORMES****Columbidae***Columba livia**Patagioenas fasciata**Streptopelia decaocto**Zenaidura macroura***Trochilidae***Calypte anna**Selasphorus sasin***GRUIFORMES****Rallidae***Fulica americana***CHARADRIIFORMES****Charadriidae***Charadrius vociferus***Scolopacidae***Numenius phaeopus**Tringa semipalmata***Laridae***Larus occidentalis**Larus californicus**Sternula antillarum**Hydroprogne caspia**Thalasseus elegans***SULIFORMES****Phalacrocoracidae***Phalacrocorax auritus***PELECANIFORMES****Pelecanidae***Pelecanus occidentalis***Ardeidae***Ardea herodias**Egretta thula**Nycticorax nycticorax***ACCIPITRIFORMES****Accipitridae***Accipiter cooperii*

PASSERINE BIRDS**Tyrant Flycatchers**

Cassin's Kingbird
Western Wood-Pewee
Pacific-slope Flycatcher
Black Phoebe

Crows and Jays

American Crow

Swallows

Northern Rough-winged Swallow
Barn Swallow

Long-tailed Tits and Bushtits

Bushtit

Thrushes

Swainson's Thrush

Mockingbirds and Thrashers

Northern Mockingbird

Starlings

European Starling

Waxwings

Cedar Waxwing

Old World Sparrows

House Sparrow

Fringilline and Cardueline Finches and Allies

House Finch

New World Sparrows

California Towhee
Savannah Sparrow
Song Sparrow
Dark-eyed Junco

Blackbirds

Hooded Oriole

Wood-Warblers

Orange-crowned Warbler
Common Yellowthroat
Yellow Warbler
Wilson's Warbler

Cardinals and Allies

Western Tanager
Black-headed Grosbeak

PASSERIFORMES**Tyrannidae**

Tyrannus vociferans
Contopus sordidulus
Empidonax difficilis
Sayornis nigricans

Corvidae

Corvus brachyrhynchos

Hirundinidae

Stelgidopteryx serripennis
Hirundo rustica

Aegithalidae

Psaltiriparus minimus

Turdidae

Catharus ustulatus

Mimidae

Mimus polyglottos

Sturnidae

Sturnus vulgaris

Bombycillidae

Bombycilla cedrorum

Passeridae

Passer domesticus

Fringillidae

Haemorhous mexicanus

Passerellidae

Melospiza crissalis
Passerculus sandwichensis
Melospiza melodia
Junco hyemalis

Icteridae

Icterus cucullatus

Parulidae

Oreothlypis celata
Geothlypis trichas
Setophaga petechia
Cardellina pusilla

Cardinalidae

Piranga ludoviciana
Pheucticus melanocephalus