HAMILTON BIOLOGICAL

September 11, 2014

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Department of Beaches & Harbors
13837 Fiji Way
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SUBJECT: FINAL REPORT ON NESTING WATERBIRDS AND RAPTORS MARINA DEL REY, LOS ANGELES COUNTY, CA

Dear Michael,

This letter provides the results of surveys for nesting waterbirds and raptors that Hamilton Biological, Inc., has conducted in collaboration with Cooper Ecological Monitoring, Inc., at Marina del Rey in 2014. In summary, we found a total of 152 active nests of colonial waterbirds: Black-crowned Night-Heron (*Nycticorax nycticorax*, 40 nests), Double-crested Cormorant (*Phalacrocorax auritus*, 30 nests), Snowy Egret (*Egretta thula*, 18 nests), Great Blue Heron (*Ardea herodias*, 11 nests), as well as 41 "unknown small" active nests (presumed to belong to Black-crowned Night-Herons and/or Snowy Egrets) and 11 "unknown large" active nests (presumed to belong to Great Blue Herons or possibly Great Egrets *Ardea alba*). The 152 active nests were placed in 32 trees, located in three main areas, Admiralty Way (8 trees), Mariner's Village (11 trees), and Marquesas Way (13 trees). Fresh whitewash observed at several other locations provided evidence of roosting by waterbirds in additional trees not used for nesting. The single raptor nest found in 2014 belonged to a pair of Peregrine Falcons (*Falco peregrinus*), marking the first nesting of this species in Marina del Rey in modern times.

METHODS

Dan Cooper conducted an initial round of surveys in on 24 February and 7 March 2014, covering all parts of Marina del Rey accessible to the public. During this survey round, Cooper drove every accessible street and driveway in Marina del Rey searching for suitable nesting trees and whitewash on the vegetation and pavement. He recorded the locations of all trees with suspected waterbird and raptor nests using a GPS iPhone application. Cooper plotted these locations onto aerial photography using Google Earth, and Jennifer Mongolo (Streamscape, Inc.) transferred them to GIS layers using ArcView. Mr. Cooper conducted a second round of surveys on 5 May, and a final round on 18 August 2014, each time attempting to cover all areas containing actively nesting herons, egrets, or cormorants. In addition, Robert Hamilton made incidental observations during a field visit to Mariner's Village on 24 March.

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Nests were confirmed as active based upon observation of at least one adult constructing or attending (typically incubating) the nest, or at least one juvenile bird in the nest.

Nests were considered to have likely been active (in 2014) based upon freshness and quantity of whitewash in and below the nest, and often by the presence of an adult bird standing near (but not in) the nest. Some of these nests appeared to have been used prior to the start of the first nesting survey on 24 February whereas others appeared to have been used during the periods between survey rounds in 2014. The same methods of identifying "likely active" nests were used for the Marina-wide surveys in 2009, 2011, and 2012, allowing results to be compared from year to year.

Nests recorded as "unknown large" likely belonged to Great Blue Herons, but Great Egrets could not be ruled out. Nests recorded as "unknown small" were presumed to belong either to Black-crowned Night-Herons or Snowy Egrets. These smaller species often nest in the same trees and sometimes use the same nest in succession through the season.

Nomenclature of nesting locations follows the "Conservation & Management Plan for Marina del Rey" (Hamilton and Cooper 2010) unless otherwise noted. 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, Inc. 2011), and 2012 (Point Blue Conservation Science, unpublished data).

In August 2014, Cooper was contacted by Richard Erickson of LSA Associates to discuss findings at Mariner's Village, where LSA had been retained to map and monitor waterbird nests concurrently to our effort. This conversation resulted in refinement of a small number of nest locations that had been missed or mapped slightly incorrectly earlier in the season. However the specific outcomes for each nest as observed by LSA were not "transferred" to our report, due to the different levels of effort of the two surveys (LSA was conducting weekly surveys throughout the entire season, which included accessing rooftops and other vantage points to see into nests). Therefore, whereas the counts of successful nests for each species in this area may differ somewhat due to LSA's more intensive monitoring effort, the locations of nest trees found by the two surveys should match.

RESULTS

As summarized in Table 1, on the following page, we confirmed 101 active colonial waterbird nests, and 51 additional nests likely to have been active, for a total of 152 nests found during our four Marina-wide visits in 2014.

More than 30 nests found were deemed to have been likely inactive during 2014 or appeared to be nests of American Crows (*Corvus brachyrhynchos*) or Eastern Fox Squirrels (*Sciurus niger*); some were partial or degraded nests. These nests are not discussed further in this report, but are included in the attached Excel spreadsheet.

TABLE 1: SUMMARY OF ACTIVE & "LIKELY ACTIVE" NESTS

This table lists the numbers of active and "likely active" nests observed at each site; nests considered "likely active" are marked with an asterisk (*). Please refer to the following discussions, and to the attached Excel spreadsheet, for additional details.

BCNH = Black-crowned Night-Heron
SNEG = Snowy Egret
GBHE = Great Blue Heron
GREG = Great Egret
DCCO = Double-crested Cormorant

Location	BCNH	SNEG	BCNH/SNEG	GBHE	GBHE/GREG	DCCO	Total
Admiralty Way	10	0	22*	0	1*	0	**33**
Marquesas Way	30	18	18*	0	0	0	**66**
Panay Way	0	0	0	0	0	0	**0**
Mariner's Village	0	0	0	13	9*	19	**41**
Bora Bora Way	0	0	0	0	1*	11	**12**
Fiji Way	0	0	0	0	0	0	**0**
Chace Park	0	0	0	0	0	0	**0**
Total	**40**	**18**	**40**	**13**	**11**	**30**	**152**

The following sections discuss the results from each of the current/former colony locations in Marina del Rey.

Admiralty Way

See Figure 1, attached. We detected a total of 33 active or likely active waterbird nests (and five inactive nests) in three main areas along Admiralty Way: Yvonne Brathwaite Burke Park ("Burke Park"; County Parcel Q), along the bicycle path on the east side of Oxford Basin (County Parcel P), and along the edge of the Ritz-Carlton Hotel facing Admiralty Way (Leaseholder Parcel 125). Ten nests were confirmed as being used by Black-crowned Night-Herons (all but one on 5 May); 22 were recorded as "unknown small" (heron/egret species) and "likely active" based on large quantities of whitewash in and around the nests; and one large nest considered "likely active" at Burke Park was consistent with that of a Great Egret, a species that has nested at this location – possibly in the same nest – in prior years. Based on results from previous surveys (Hamilton and Cooper 2010, Hamilton 2011), most or all of the "unknown small" nests belonged to Black-crowned Night-Herons or Snowy Egrets. Tree species utilized by the colonial waterbirds at this site were gums (*Eucalyptus* spp.) at Burke Park and Oxford Basin, and figs (*Ficus* sp.) near the Ritz-Carlton. In addition, on 7 March a Peregrine Falcon nest was found on a ledge at the Ritz-Carlton Hotel. The falcon pair was heard calling to each other and observed exchanging food at the nest, indicating that the nest was active.

Marquesas Way

See Figure 2, attached. We detected a total of 66 active nests (and two apparently inactive nests) in several trees along the road median toward the end of Marquesas Way. Five nests were active in late February/early March, increasing to 66 on the early May visit. By the final visit in August, 30 nests were confirmed as having been used by Black-crowned Night-Herons, 18 nests by Snowy Egrets, and 18 "unknown small" nests were presumed to have been used by either of these two species (or both), based on their placement within the colony and the amount of whitewash in and under the nests. Sixty nests in this colony were placed in paperbark trees and the rest were in small fig trees at the east end of the street.

Panay Way

Note: this colony, located close to the Marquesas Way colony, was not detected during suryeys conducted in prior years. No active nests were found here in 2014.

See Figure 2, attached. Eight nests, all believed to be inactive in 2014, were detected in several paperbark trees at the end of Panay Way on 7 March (includes Leaseholder Parcel 20). Nests were placed in trees within the road median and around a small parking lot adjacent to the road. Based on size/shape and placement, they appeared to have been built by Black-crowned Night-Herons and/or Snowy Egrets.

Mariner's Village

Note: nests along the northern fence-line overhang onto the parking lot at the end of Bora Bora Way. Some nests along the fence-line were treated as part of the Bora Bora Way/Fuel-Bait Dock colony in 2010.

See Figure 3, attached. During the 2014 survey, 22 nests known or likely to belong to Great Blue Herons were observed within Mariner's Village (Leaseholder Parcel 113). Of these, 13 were confirmed as active and belonging to Great Blue Heron, and the other nine most likely belonged to Great Blue Herons and were likely active in 2014, but this could not be confirmed (these were coded "unknown large"). In addition, two inactive large nests appeared degraded/partial (one of which was not found after late February); these may have been active in 2013 or were simply never finished. During Hamilton's site visit with County representatives on 24 March, he recorded 13 active Double-crested Cormorant nests, most of them still under construction, along the fence-line with Parcel 112; this nest tree ultimately held at least 19 active cormorant nests, most with nestlings, on 5 May. Out of the total of 41 nests at Mariner's Village, 30 were in gums (including *Eucalyptus globulus* and *E. citriodora*), 10 were in Italian stone pines (*Pinus pinea*), and one was in a fig. Several additional trees at Mariner's Village apparently serve as roosting, but not nesting, sites for colonial waterbirds. A dense grove of low pines near the eastern edge of the complex associated with a cascading water feature was observed to support a variable number of roosting Black-crowned Night-Herons, with at least 10 birds, mainly adults, on 24 February (fewer seen on subsequent visits).

Bora Bora Way

Note: this site is directly adjacent to the following one (Mariner's Village), and several nests in trees located on Mariner's Village overhang onto the Bora Bora Way parcel. Some of these nests, along the fenceline, were treated as part of the Bora Bora Way/Fuel-Bait Dock colony in the 2009 survey and in subsequent years.

See Figure 3, attached. A colony of Double-crested Cormorants, with 11 active nests on 5 May 2014, was located at the head of boat channel A (Leaseholder Parcel 111). This colony was apparently initiated in 2012 or 2013 (D.S. Cooper pers. obs.), after which netting was placed over the tree, presumably to discourage nesting (which proved unsuccessful, as the birds built nests atop the netting).

At the end of Bora Bora Way, a single large nest was detected in a pine tree adjacent to the parking lot (Leaseholder Parcel 112). On 7 March an adult Great Blue Heron was perched just above the nest in the same pine, suggesting that this is/was a nest of that species; however, we did not observe juveniles or an incubating adult in the nest itself, so have coded it as "unknown large" (likely active in 2014). Subsequent searches later in the season failed to relocate the nest, and it was either obscured by dense foliage that grew thicker during the summer, or was dismantled/disintegrated. Several additional trees nearby appear to serve as roosting sites for colonial waterbirds, but not nesting, including at least four pine and ficus trees around the parking lot at the end of Bora Bora Way. Despite finding copious whitewash in and under these trees, no other nests were detected during our survey.

Fiji Way

Note: this site was called "Villa Venetia" by Hamilton and Cooper (2010)

See Figure 4, attached. Three nests were observed in late February/early March. On 7 March, Cooper observed a Great Blue Heron dismantling one of these nests, which was placed in a palm (*Washingtonia* sp.) near Shanghai Red's restaurant (Leaseholder Parcel 61) and carrying the sticks across the marina to a nest under construction at Mariner's Village. The other two nests appeared to belong to American Crows and were not active during the survey round; these nests were placed in gum trees over the California Department of Fish and Wildlife parking lot. Thus, no active or "likely active" nests of waterbirds or raptors were detected in this area during 2014.

Sites at the end of Fiji Way appeared to be particularly heavily-used by roosting (but not nesting) colonial waterbirds; two paperbark trees in the parking lot of Fisherman's Village (County Parcel W) apparently served as roost trees, likely for Black-crowned Night-Herons and/or Snowy Egrets, based on their relatively short stature and the type and amount of whitewash in and beneath the trees (observed on 7 March 2014).

A row of trees between the old Villa Venetia apartment complex and Ballona Creek Channel (Leaseholder Parcel 64) appeared even more heavily used by roosting colonial waterbirds, based on whitewash on the ground (noted on both 7 March and 5 May 2014); as with the above site, no nests were detected at this location.

Burton Chace Park

See Figure 5, attached. Eight nests were detected in several trees in the park (County Parcel EE), none deemed active or potentially active in 2014. Based primarily on the sparse amounts of whitewash below the nests and in the nest structures themselves, it was concluded that the nests likely belonged to American Crows or even Eastern Fox Squirrels and not colonial waterbirds. Thus, no active nests of waterbirds or raptors were identified in this area during 2014.

SUMMARY AND CONCLUSION

The 152 active and "likely active" nests reported herein is an overall total comparable with the total nests (active and "likely active") recorded during surveys conducted by Hamilton Biological and Cooper Ecological Monitoring throughout Marina del Rey in 2009 (total = 134 nests), 2011 (total = 151 nests), and 2012 (total = 127 nests in a reduced survey effort). The Peregrine Falcon nest found in March represented the first nesting of this species in Marina del Rey in modern times.

The 2014 results indicate that nesting waterbirds continue their trend in recent years of a wholesale shift of Great Blue Heron and Double-crested Cormorant colonies away from locations along Fiji Way, on the eastern side of the marina, to Mariner's Village/Boat Basin A, and an incremental shift of Black-crowned Night-Herons and Snowy Egrets from Admiralty Way south to Marquesas Way and other areas on the western side of the marina. The decline in the number of pairs nesting along Fiji Way and Admiralty Way appears to be the result of a combination of factors, including:

- Defoliation and disease/loss of several trees along Admiralty Way and at the southern end of Fiji Way, apparently due to poisoning by guano accumulation beneath waterbird nesting colonies.

- Changes in tree management practices along Admiralty Way and at the southern end of Fiji Way, including removal of dead/dying trees and more severe trimming (outside of the nesting season and consistent with the Conservation and Management Plan) of some trees located over restaurants, parking lots, and other areas of regular human use.

- Netting of trees at the Ritz-Carlton Hotel (although many pairs have managed to nest there anyway).

However, the rapid shift to new colonies on the west side of the Marina, and the fact that both numbers of pairs and species diversity appear to be stable, suggest that colonial waterbirds are exhibiting flexibility in nest-site selection and continued successful nesting as Marina del Rey's character continues to evolve over time.

If you have any questions, please call me at (562) 477-2181 or send e-mail to robb@hamiltonbiological.com.

Sincerely,

Robert A. Hamilton
President, Hamilton Biological, Inc.
http://hamiltonbiological.com

LITERATURE CITED

Hamilton, R. A., and Cooper, D. S. 2010. Conservation & Management Plan for Marina del Rey, Los Angeles County, California. Report dated 16 September 16 2010 prepared for County of Los Angeles, Dept. of Beaches & Harbors and Dept. of Regional Planning.

Hamilton Biological, Inc. 2011. Surveys of nesting colonial waterbirds, Marina Del Rey, Los Angeles County, CA. Report dated 30 August 2011 prepared for County of Los Angeles, Dept. of Beaches & Harbors, Marina del Rey, CA.

Point Blue Conservation Science. 2012. Unpublished data from surveys of colonial waterbirds nesting in Marina del Ray conducted in May and June 2012 by Daniel S. Cooper.

Attachments: Figures 1–5 showing locations of observed nests
Excel spreadsheet with details of observations at each location

cc: Dan Cooper, Cooper Ecological Monitoring, Inc.

Figure 1, Admiralty Way Colony. Numbers next to symbols correlate with the "record number" in the attached Excel file. Ten active nests were confirmed as being used by Black-crowned Night-Herons, 22 small nests (heron/egret species) were judged to be likely active, and one large nest consistent with that of a Great Egret was also judged to be likely active. In addition, an active Peregrine Falcon nest was found on a high ledge of the Ritz-Carlton Hotel.

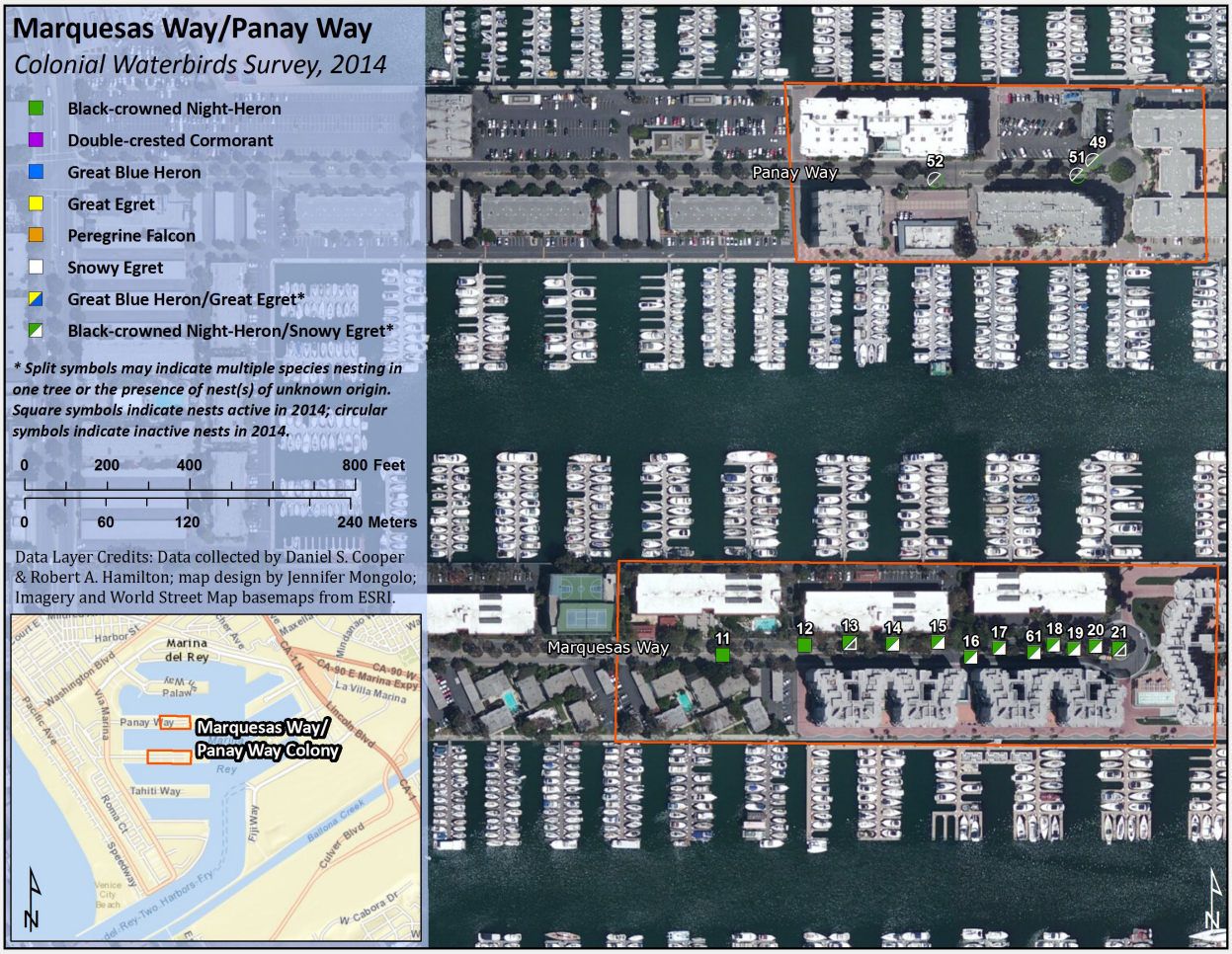

Figure 2. Marquesas Way/Panay Way Colony. Numbers next to symbols correlate with the "record number" in the attached Excel file. The 66 active nests, all on Marquesas Way, included 30 belonging to Black-crowned Night-Herons, 18 belonging to Snowy Egrets, and 18 "unknown small" nests likely used by either of these two species (or both). The Panay Way colony, which did not appear to be active in 2014, is not shown here.

Figure 3. Mariner's Village/Bora Bora Way Colony. Numbers next to symbols correlate with the "record number" in the attached Excel file. Out of 22 large nests observed within Mariner's Village, 13 were confirmed as active and belonging to Great Blue Heron; the other nine also probably belonged to Great Blue Herons and were likely active in 2014, but this could not be confirmed. A total of 30 active Double-crested Cormorant nests were found in this area, occupying two large gum trees.

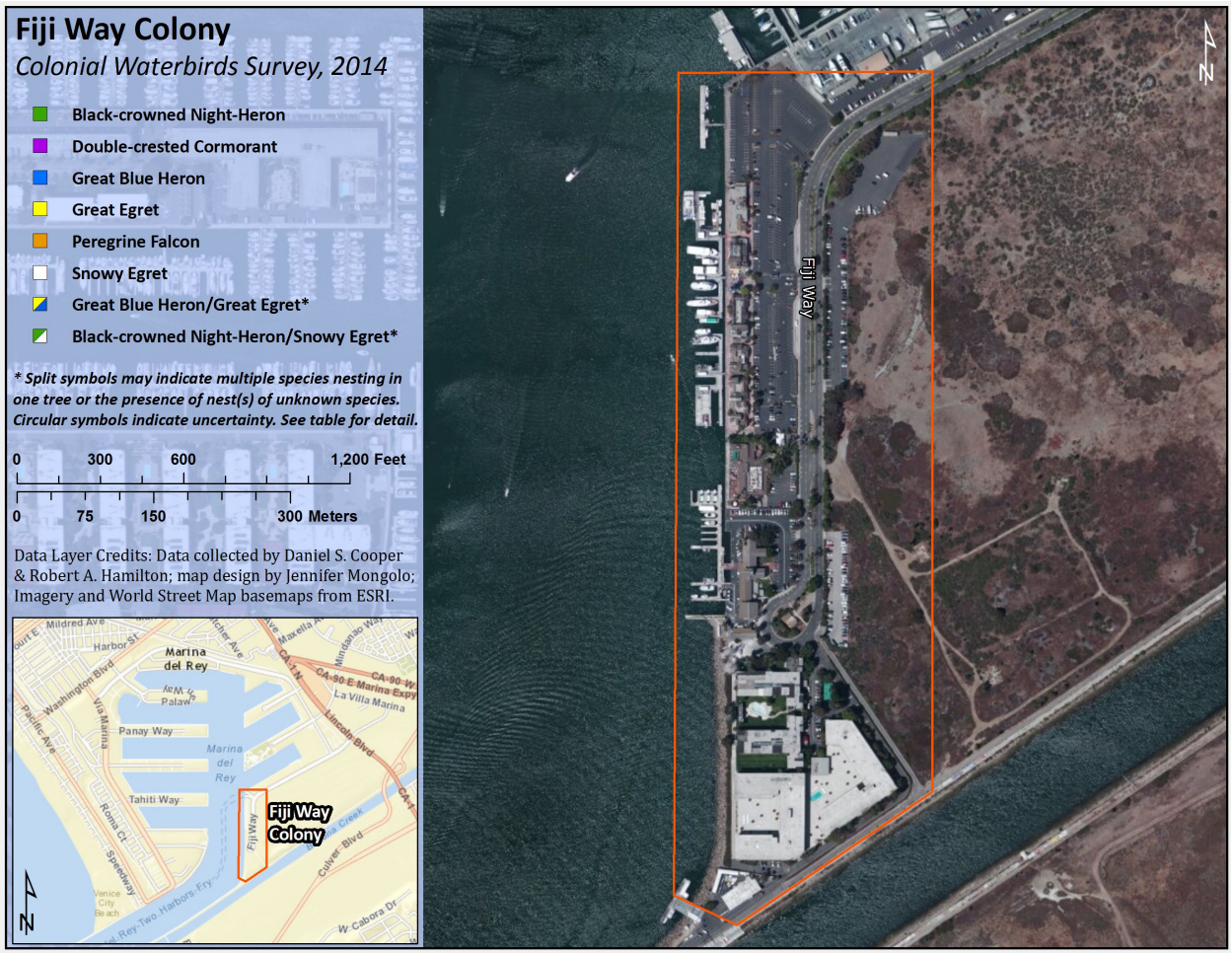

Figure 4. Fiji Way Colony. No active nests of colonial waterbirds or raptors were found near Fiji Way in 2014.

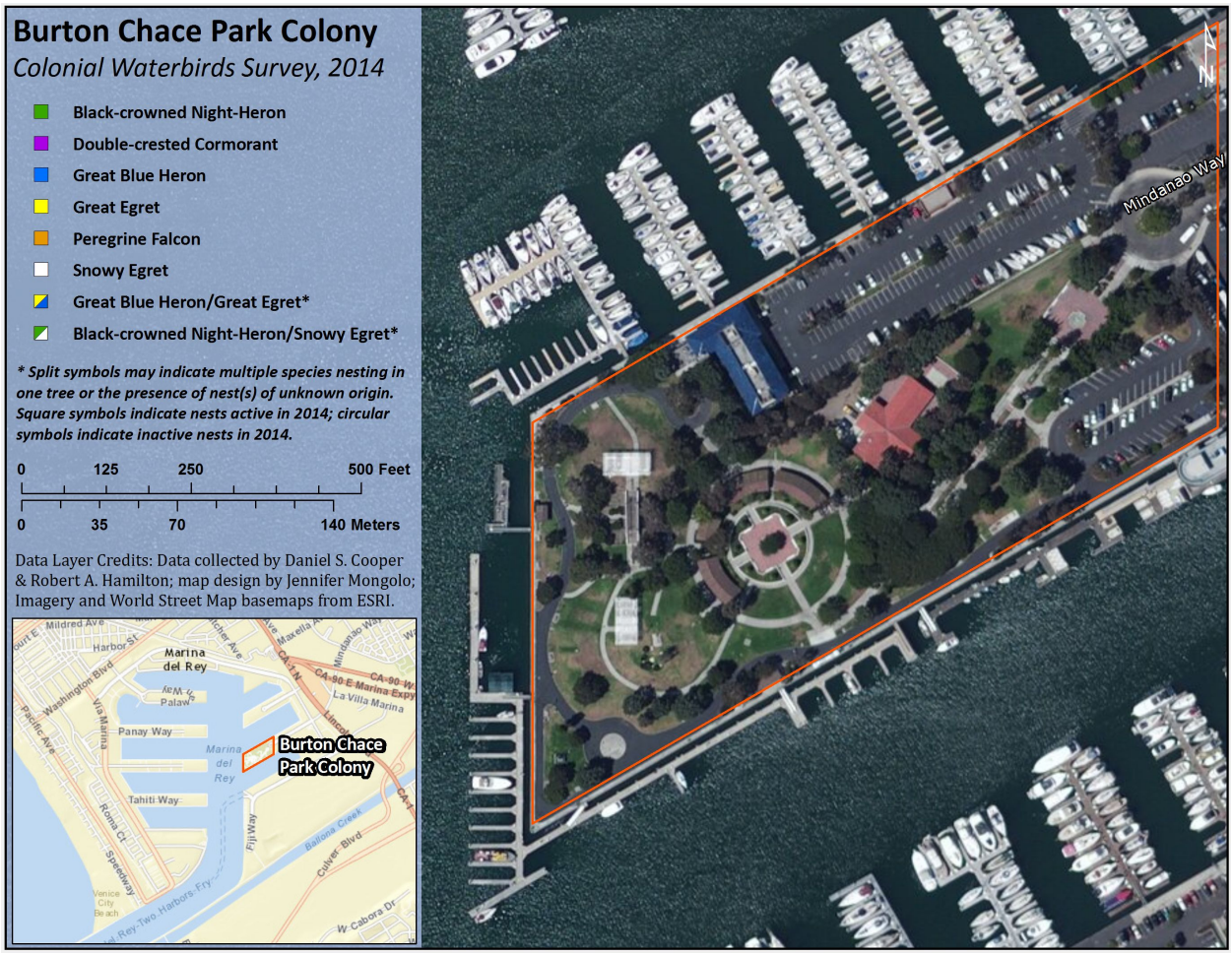

Figure 5. Burton Chace Park Colony. No active nests of colonial waterbirds or raptors were found at Burton Chace Park in 2014.