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April 16, 2007

Mr. Rick Ware

COASTAL RESOURCES MANAGEMENT

PMB 327, 3334 East Coast Highway

Corona del Mar, CA 92625

Subject: Dana Point Harbor Bird Survey

Dear Rick,

On March 24, Robb Hamilton, ornithologist with Keane Biological Consulting, completed a nesting bird survey at Dana Point Harbor in southern Orange County, California. This survey was conducted as a component of mitigation measures specified in the Dana Point Harbor Revitalization Project Program EIR (PEIR) prepared for the County of Orange by Robert Bein, William Frost, and Associates (RBF) in 2006. This letter report describes the methods and provides the results of our survey.

Methods

Before starting the survey, Mr. Hamilton reviewed the relevant sections of the PEIR, including Appendix C, the "Marine Biological and Oceanographic Assessment" prepared by RBF and MBC Applied Environmental Sciences. He also read Section 4.7 of the PEIR, "Biological Resources." The survey extended from 9:15 a.m. to 2:15 p.m. under partly cloudy skies, with temperatures between 66 and 74° F and winds of up to three miles per hour. Mr. Hamilton searched all portions of the harbor, as specified on Exhibit 4.7-1, the "Map of Native Trees and Sensitive Bird Areas" from the PEIR. Mr. Hamilton searched for all types of birds, recorded every bird he encountered, and took note of any indications that a bird may have been nesting at the harbor (e.g., courtship behavior, singing). Mr. Hamilton specifically searched for Black-crowned Night-Herons (*Nycticorax nycticorax*) that are known to nest in eucalyptus trees located at the end of Puerto Place at the harbor's eastern end. He also searched for and Snowy Egrets (*Egretta thula*), which reportedly nest "in trees on the east side of the Harbor" (Page 4.7-33 of the PEIR). He used a GPS unit accurate to approximately 12 feet in order to plot the locations of birds that showed signs of nesting or potential nesting (see Figure 1). A list of all bird species detected during the survey is included at the end of this report.

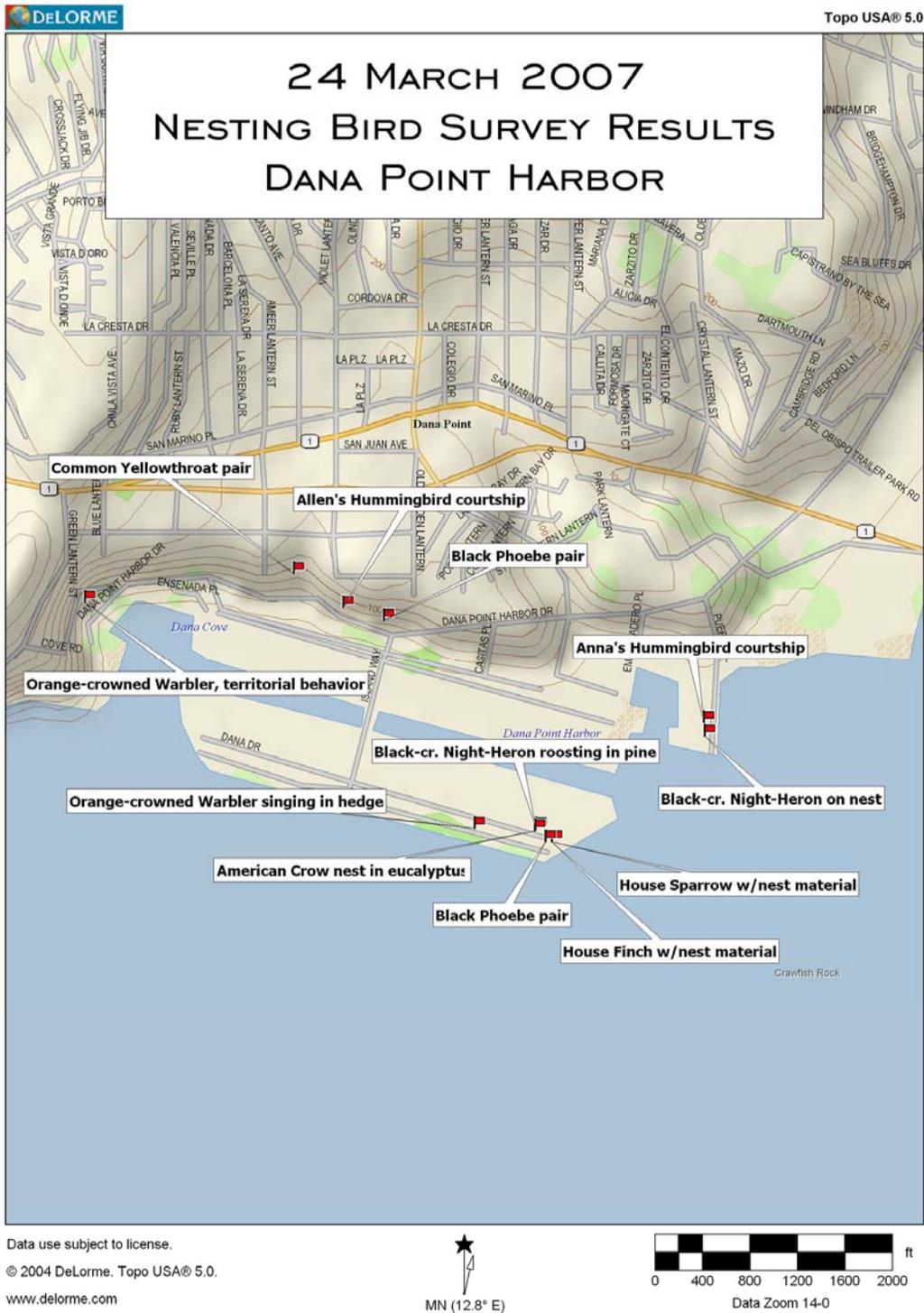


Figure 1. Evidence of definite or potential bird nesting (and heron roosting) detected during the March 24 survey (each point was mapped with a GPS unit accurate to approximately 12 feet)

Results

As detailed below and in the attached species list, Mr. Hamilton detected 34 native and three non-native bird species during the survey. The following discussions are not meant to identify all species that potentially nest within the harbor study area, but only to provide basic information on the known or likely nesting status of each species that he observed during the one-day survey. Within the study area, Mr. Hamilton considered 14 of the observed species to be known or likely breeders, eight to be potential breeders, and the remaining 15 species to be non-breeding winter visitors or migrants passing through the area.

Species Known or Likely to Nest in the Harbor Study Area

In eucalyptus trees at the end of Puerto Place, Mr. Hamilton observed approximately 20 nests of **Black-crowned Night-Herons** and/or **Snowy Egrets** (see Figure 1). Page 4.7-33 of the PEIR states that Snowy Egrets nest “in trees on the east side of the Harbor” and are “subject to construction disturbance that may disrupt nesting,” although Page 4.7-14 of the same document states, with reference to this species, “There is no suitable nesting habitat present in the Harbor or Off-Site areas.” Mr. Hamilton’s survey was not intended to conclusively answer the question of whether both species nest in these trees, but only to record the species that were nesting within the study area at the time of his survey. Mr. Hamilton saw two adult Black-crowned Night-Herons in one of the trees—one on a nest and the other calling from beside a nest—suggesting that at least the Black-crowned Night-Herons had initiated nesting at this location. In his opinion, these trees provide potentially suitable habitat for Snowy Egrets, as well, and some of the unoccupied nests may have belonged to Snowy Egrets. If it is important to determine whether Snowy Egrets nest at this location, Mr. Hamilton recommends that a follow-up survey be conducted between late May and the end of June. In a parking lot off Dana Drive, one adult Black-crowned Night-Heron was observed roosting in a 20-foot tall pine tree (see Figure 1).

Mr. Hamilton observed courtship flights by males of both **Anna’s** and **Allen’s Hummingbirds** (*Calypte anna*, *Selasphorus sasin*), and it is to be expected that both of these species nest in the harbor study area, with Allen’s Hummingbird being about three times more numerous. Most of the Allen’s Hummingbirds were along Dana Point Harbor Drive, where coastal scrub on the adjacent hillside to the north provides appropriate nesting habitat.

Mr. Hamilton observed two pairs of **Black Phoebes** (*Sayornis nigricans*), one near the eastern end of Dana Drive and the other along Dana Point Harbor Drive (see Figure 1). This is a very adaptable species, and Mr. Hamilton assumes that both pairs will nest within the study area. They often choose locations under bridges, in culverts, or under the eaves of structures, typically close to water.

Mr. Hamilton found **American Crows** (*Corvus brachyrhynchos*) to be common in the harbor, including about 20 birds in and around the eucalyptus trees at the end of Puerto Place, where the herons are nesting. Mr. Hamilton expects that many crows nest in the harbor’s various tall trees but observed only one pair at a nest, in a eucalyptus tree growing in a parking lot toward the eastern end of Dana Drive (see Figure 1).

The **Barn Swallow** (*Petrochelidon rustica*) tends to nest in areas comparable to those described above for the Black Phoebe, usually near the coast. Mr. Hamilton observed eight of these birds foraging low over the study area during the survey and expects that this species routinely nests at the harbor.

Bushtits (*Psaltriparius minimus*) are abundant residents of the region that nest in a variety of dense trees and shrubs, often in developed areas. Mr. Hamilton observed approximately 16 of these birds along Dana Point Harbor Drive, and expects that several pairs nest in this part of the study area.

The non-native **European Starling** (*Sturnus vulgaris*) is an abundant and ubiquitous species in Orange County. They nest in a great variety of cavities, often in artificial situations such as traffic signals, telephone poles, and in structures. Mr. Hamilton made a rough count of 60 of these birds during our survey and assumes that many nest within the harbor study area.

The **Common Yellowthroat** (*Geothlypis trichas*) is found commonly in the local area, often in wet areas with dense understory. The harbor study area includes only one such area—the hidden dripping spring located north of Dana Point Harbor Drive (see Figure 1). Mr. Hamilton saw a pair of these birds at this spring and presumes that they nest there.

Toward the end of the survey Mr. Hamilton observed a single male **Hooded Oriole** (*Icterus cucullatus*), a migratory species that starts arriving back in southern California around mid-March. This species nests most commonly in palm trees, but will also use sycamores and eucalyptus, both of which occur in the harbor study area.

The **House Finch** (*Carpodacus mexicanus*) is one of southern California's commonest and most human-tolerant native species. Mr. Hamilton made an approximate count of 80 of these birds during the survey, including a pair that was carrying nesting material at the Beach House restaurant near the eastern end of Dana Drive (see Figure 1). Mr. Hamilton expects that this is among the most abundant breeding species within the harbor study area.

Another common resident is the **Lesser Goldfinch** (*Carduelis psaltria*). Mr. Hamilton observed approximately 16 birds in tall pine and eucalyptus trees along Dana Point Harbor Drive, and the birds almost certainly nest in these trees.

Mr. Hamilton found eight non-native **House Sparrows** (*Passer domesticus*) during the survey, which is a modest number for this ubiquitous species. A pair of them was building a nest at the Beach House restaurant near the eastern end of Dana Drive (see Figure 1).

Other Species that Potentially Nest in the Harbor Study Area

The non-native **Rock Pigeon** (*Columba livia*) occurs commonly throughout developed portions of Orange County, including cities and agricultural areas. These birds nest on natural cliffs, under bridges, and in buildings. Mr. Hamilton estimated a count of roughly 25 Rock Pigeons in the harbor study area. He did not see any obvious nesting sites during his survey, but these pigeons are very adaptable and there is potential for them to nest in the study area.

Nuttall's Woodpecker (*Picoides nuttallii*) is a non-migratory species that usually occupies native oak and willow-riparian woodlands. Mr. Hamilton heard a single bird calling from non-native trees along Dana Point Harbor Drive. It seems unlikely, but not impossible, that the harbor supports a breeding pair of this species.

Mr. Hamilton observed a single **Cassin's Kingbird** (*Tyrannus vociferans*) in eucalyptus trees in the pay parking lot adjacent to Doheny State Beach. Mr. Hamilton expects that this species nests in tall trees either within the harbor study area or at Doheny State Beach.

In a parking lot near the western end of Dana Point Harbor Drive, Mr. Hamilton observed single individuals of the following resident species: **Western Scrub-Jay** (*Aphelocoma californica*), **Northern Mockingbird** (*Mimus polyglottos*), and **California Towhee** (*Pipilo crissalis*). It is likely these birds nest in scrubby habitat just west of there, outside of the harbor study area.

Mr. Hamilton observed one **Common Raven** (*Corvus corax*) flying over the study area. This species prefers to nest on cliffs or tall structures, or in tall trees. They tend to be found in more open areas, but some nest in urban settings and may breed in the harbor area.

The "Dusky" subspecies of the **Orange-crowned Warbler** (*Vermivora celata sordida*) breeds in low vegetation on the Channel Islands and along the adjacent coast of southern California. Other subspecies occur as regular migrants and winter visitors along the coast. Mr. Hamilton observed seven Orange-crowned Warblers during the survey, at least a two of which appeared to be the local breeders. As shown on Figure 1, one of these birds was singing and another exhibited territorial behavior, chipping excitedly and aggressively flying out toward Mr. Hamilton when he "pished" in its direction. Either of these birds may have been on breeding territories, as both were in the type of low, dense vegetation preferred by this species. This species can, however, sing and respond aggressively to pishing even during migration or on the wintering grounds.

Brewer's Blackbirds (*Euphagus cyanocephalus*) nest in dense shrubbery, often close to water and sometimes in urban or suburban settings. Mr. Hamilton observed two males of this species during the survey and considers it possible that they nest in the harbor study area.

Additional Comments

During the course of the survey, Mr. Hamilton observed a few scattered bulky stick nests built high in eucalyptus trees. These may have been old nests of American Crows or possibly Black-crowned Night-Herons, but Mr. Hamilton did not see any birds currently associated with them.

Mr. Hamilton observed a single Great Blue Heron (*Ardea herodias*) foraging within the harbor study area. Page 9 of PEIR Appendix C states, "Although nesting seems likely, great blue heron (*Ardea herodias*) nests have not been observed in the area." From the end of Puerto Place Mr. Hamilton could see a large, flat-topped pine tree a short distance inland to the northwest where it appears that a few pairs of this species do currently nest (see Figure 2). He did not go off site to inspect this tree but believes it is located at the northwestern end of Heritage Park, at the end of Old Golden Lantern. Great Blue Herons in coastal southern California utilize a great variety of nesting substrates, including many exotic tree species and man-made structures. Proximity to human activity does not seem to deter these

birds once they decide to nest in a certain area. Although Mr. Hamilton did not observe any nests of this species during his survey, and it appeared to him that the species had chosen to nest in the nearby pine tree shown in Figure 2, he concluded that the harbor study area includes numerous tall trees that constitute potentially suitable habitat for Great Blue Herons.

Conclusion

Attachment A to this letter lists all bird species detected during the survey, including breeders, non-breeding winter visitors, and migrants. Please note that Mr. Hamilton's single-day survey was not intended to identify all bird species that potentially nest within the harbor study area, and that additional species not detected during Mr. Hamilton's survey could nest there.

During his survey, Mr. Hamilton confirmed nesting by three native and one non-native bird species in the Dana Point Harbor study area:

Black-crowned Night-Heron
American Crow
House Finch
House Sparrow (non-native)

Mr. Hamilton observed an additional nine native and one non-native species that he considers likely to nest in the harbor study area:

Snowy Egret
Anna's Hummingbird
Allen's Hummingbird
Black Phoebe
Barn Swallow
Bushtit
European Starling (non-native)
Common Yellowthroat
Hooded Oriole
Lesser Goldfinch

Another ten native and one non-native species observed during Mr. Hamilton's survey could potentially nest in the harbor study area, because this area lies within their ranges and potentially suitable nesting habitat exists there, but he considered the likelihood of nesting to be less than 50%:

Great Blue Heron
Rock Pigeon (non-native)
Nuttall's Woodpecker
Cassin's Kingbird
Western Scrub-Jay
Northern Mockingbird
California Towhee
Common Raven

Orange-crowned Warbler
Brewer's Blackbird

The remaining bird species observed during Mr. Hamilton's survey, such as the Brown Pelican (*Pelecanus occidentalis*), Double-crested Cormorant (*Phalacrocorax auratus*), Western Gull (*Larus occidentalis*), Ruby-crowned Kinglet (*Regulus calendula*), and White-crowned Sparrow (*Zonotrichia leucophrys*), do not include Dana Point within their breeding ranges and/or require nesting habitat that is absent from the harbor study area. Thus, they are considered very unlikely to nest within the harbor study area.

Recommendations

- 1) Depending on project timing, construction may destroy one or more nests of native birds, thus violating the MBTA and/or related provisions of the California Fish and Game Code. Limiting project grubbing and other construction activities to the non-breeding season for most birds (approximately September 1 through March 1) would avoid this impact. If grubbing and grading cannot be limited to this period, a survey of the construction zone by a qualified ornithologist prior to the initiation of grubbing/grading activity shall be conducted. If the ornithologist detects any occupied nests of native birds within the construction zone, a minimum buffer of 100 feet between the nest and limits of construction shall be established, and the construction crew shall be instructed to avoid all activities in this zone until the nest(s) is/are no longer occupied, per a subsequent survey by the qualified ornithologist.
- 2) In order to avoid potential removal of, disturbance to, or abandonment of, heron or egret nests, if any project construction activities are to occur during the period from January 1 through July 30, a survey of the project site and areas within 100 feet shall be conducted by a qualified ornithologist to determine if active heron or egret nests are present within 100 feet of the construction zone. If any heron or egret nests are present within the construction zone, a buffer of 100 feet around the nest shall be flagged and maintained until construction is complete or until the nest is no longer active, per a subsequent survey by the qualified ornithologist. If any heron or egret nests are located outside the project site but within 100 feet of the project site, and any construction activities will occur within 100 feet of the nest(s), a qualified ornithologist shall monitor the nest(s) for 2 hours per day while construction activities are within 100 feet of the nest, following a "control" period of monitoring a minimum of two hours when no construction is occurring within 100 feet of the nest(s). If after five days of monitoring, no observable differences between heron or egret behavior before and during construction are noted, monitoring of the nest(s) need not continue.

Thank you for requesting the services of Keane Biological Consulting. If we can be of further assistance in this matter, please do not hesitate to call.

Sincerely,

KEANE BIOLOGICAL CONSULTING



Kathleen M. Keane



Figure 2. View from the end of Puerto Place, facing northwest. Several Great Blue Herons appeared to be nesting in the top of the tall, flat-topped pine in the background of this image.

Attachment A BIRD SPECIES DETECTED

Mr. Hamilton detected the following birds at Dana Point Harbor on 24 March 2007. Presence may be noted if a species is seen or heard. The number of individuals detected, or a general indication of abundance, is denoted in parentheses after the common name.

*Introduced species

Aves

Podicipedidae

Aechmophorus occidentalis

Pelecanidae

Pelecanus occidentalis

Phalacrocoracidae

Phalacrocorax auritus

Ardeidae

Ardea herodias

Egretta thula

Nycticorax nycticorax

Rallidae

Fulica americana

Laridae

Larus heermanni

Larus delawarensis

Larus californicus

Larus occidentalis

Columbidae

* *Columba livia*

Trochilidae

Calypte anna

Selasphorus sasin

Picidae

Picoides nuttallii

Tyrannidae

Sayornis nigricans

Tyrannus vociferans

Birds

Grebes

Western Grebe (1)

Pelicans

Brown Pelican (69)

Cormorants

Double-crested Cormorant (7)

Hérons

Great Blue Heron (1)

Snowy Egret (3)

Black-crowned Night-Heron (3)

Rails, Gallinules

American Coot (1)

Gulls, Terns

Heermann's Gull (1)

Ring-billed Gull (many flying over)

California Gull (many flying over)

Western Gull (many flying over)

Pigeons, Doves

Rock Pigeon (~25)

Hummingbirds

Anna's Hummingbird (5)

Allen's Hummingbird (17)

Woodpeckers

Nuttall's Woodpecker (1)

Tyrant Flycatchers

Black Phoebe (4)

Cassin's Kingbird (1)

Corvidae

Aphelocoma californica
Corvus brachyrhynchos
Corvus corax

Hirundinidae

Petrochelidon rustica

Aegithalidae

Psaltriparus minimus

Regulidae

Regulus calendula

Mimidae

Mimus polyglottos

Sturnidae

* *Sturnus vulgaris*

Parulidae

Vermivora celata
Dendroica petechia
Dendroica coronata
Geothlypis trichas

Emberizidae

Pipilo crissalis
Zonotrichia leucophrys
Junco hyemalis

Icteridae

Euphagus cyanocephalus
Icterus cucullatus

Fringillidae

Carpodacus mexicanus
Carduelis psaltria

Passeridae

* *Passer domesticus*

References

American Ornithologists' Union. 1998. *Check-list of North American Birds*. Seventh ed. Washington, D.C. plus supplements.

Jays, Crows

Western Scrub-Jay (1)
 American Crow (~40)
 Common Raven (1)

Swallows

Barn Swallow (8)

Bushtits

Bushtit (~16)

Kinglets, Gnatcatchers, Thrushes, Babblers

Ruby-crowned Kinglet (2)

Thrashers

Northern Mockingbird (1)

Starlings

European Starling (~60)

Wood Warblers

Orange-crowned Warbler (7)
 Yellow Warbler (1)
 Yellow-rumped Warbler (~50)
 Common Yellowthroat (2)

Sparrows and Buntings

California Towhee (1)
 White-crowned Sparrow (15)
 Dark-eyed Junco (1)

Meadowlarks, Blackbirds and Orioles

Brewer's Blackbird (2)
 Hooded Oriole (1)

Finches

House Finch (~80)
 Lesser Goldfinch (~14)

Old World Sparrows

House Sparrow (8)