CITY OF HUNTINGTON BEACH
COMMUNITY & LIBRARY SERVICES COMMISSION

REQUEST FOR ACTION

MEETING DATE: JUNE 12, 2024

SUBMITTED TO: COMMUNITY & LIBRARY SERVICES COMMISSION

SUBMITTED BY: ASHLEY WYSOCKI, DIRECTOR OF COMMUNITY & LIBRARY SERVICES

SUBJECT: CARR PARK REDESIGN – CONCEPTUAL PLAN

Statement of Issue:
Staff has worked with David Volz Design Landscape Architects, Inc. (DVD) to conduct a public input process and develop a conceptual master plan to make needed improvements at Carr Park. There is a need for the Community and Library Services Commission to review the conceptual plan and make a recommendation to City Council for approval.

Financial Impact:
Initial funding in the amount of $100,000 in FY 2021/22 and $325,000 in FY 2022/23 totaling $425,000 has been included in the City's Capital Improvement Program (CIP) for Carr Park conceptual design services, including the preparation of plans and specifications. To date, there is a remaining balance of $336,113 to continue into the next phase of design.

Recommended Action:
Approve the conceptual plan for Carr Park reconfiguration and forward to City Council for their consideration.

Alternative Action:
Do not approve the recommended action and direct staff on how to proceed.

Analysis:
Carr Park, located at 16532 Springdale Street, was constructed and opened to the public in 1972. Since that time, the 11.2-acre park has functioned as one of the City's largest passive neighborhood parks.

Development Background

Today, existing amenities at Carr Park include a 1.02-acre man-made lake with an island, playground structure, meandering sidewalks and picnic tables. Carr Park hosts the annual Huntington Beach Police Department "Fish with the Force" event and previously hosted the Community Services "Huck Finn Fishing Derby" for children with developmental disabilities.

To assess the current biological environment at Carr Park, the project team has consulted with MNS Engineers to complete a biological resources assessment (Attachment 1). The results of the biological study can be found beginning on page 12. In general, Carr Park contains no sensitive communities, no native natural communities and is predominately maintained as well-manicured parkland for recreational uses (page 19). The report explains no special status plants are known to occur or expect to occur at Carr Park due to the lack of natural habitats and surrounding development. Page 24 of the report explains the proposed project will not have significant direct, indirect or cumulative effects on candidate, sensitive or special status species or on riparian habitat or other sensitive natural communities.

Carr Park currently has 70 trees. The removal of the island and expansion of the lake will result in the loss of approximately 10 trees, however,125 new trees will be planted, resulting in 185 total trees at Carr Park. Depending on tree health, trees proposed for removal may be transplanted to other areas of the park.

There is currently an imbalance of wildlife and passive recreational use at the park. The island does not have a pedestrian path which has the effect of providing a protected habitat for waterfowl, safe from predators, such as coyotes, who can only reach them by swimming across the lake. The increase in protected waterfowl also contributes to a degradation of the lake water quality because of the increase in droppings that settle in the bottom of the lake. The lake cannot assimilate the volume of nutrients, which creates an abundance of algae. The lack of vegetation rooted into the soil of the lake plays a large part in the poor water quality.

Many visiting the park bring food to feed the waterfowl. While this is a behavior that is ingrained in our society, feeding the waterfowl a non-native diet, often full of carbohydrates, begins to change the waterfowl's natural behaviors of migration and hunting for food. As a result, the waterfowl have found a permanent home at Carr Park, leaving behind a high volume of droppings across the park's greenspace, often leaving visitors with an unpleasant experience.

Public Outreach

Through its contract with DVD, staff has conducted an extensive community outreach program, and met with critical stakeholder groups, in order to establish a partnership with the community in the development of the conceptual master plan. To generate

awareness of the project, 2,500 informational postcards were mailed to surrounding neighborhoods (Attachment 2) and large posters were displayed at the park. A project website (tinyurl.com/carr-park) was developed, which includes all of the project information, community meeting and virtual survey results, as well as the proposed conceptual designs. An email distribution list of 165 individuals has also been used to remind residents of upcoming community meetings, virtual surveys, and updates on the project.

Two in-person design charrettes were conducted with community members, which were each followed with a widely distributed virtual survey soliciting feedback on the concepts discussed during the in-person meetings. The first in-person meeting, held on May 17, 2023, involved approximately 50 community members and was hosted at Carr Park. Attendees were taken on a tour of the park and then divided into smaller teams to discuss current conditions and desired improvements. Following the break-out sessions, groups presented their ideas to their peer community members, and DVD noted the proposed concepts.

Virtual survey 1, which remained open from May 18 – June 1, 2023, was distributed to collect feedback from residents that were unable to attend the in-person community meeting. A total of 218 residents responded to the survey and listed tree preservation, maintain no restrooms at the site, provide educational signage on feeding wildlife, preserve the open grass areas, enlarge the lake, add walkways and move the playground away from the lake, as priority items.

Using both the in-person meeting and virtual survey results, three concept plans were developed and presented at a second in-person community meeting on July 20, 2023. About 50 community members attended this meeting, which consisted of a review of the input received at the first community meeting and virtual survey, followed by a presentation of two concept plans (Attachment 3). Feedback on the plans was noted, and a second virtual survey was sent out to allow comments from those not able to attend the meeting. This second survey was more open ended, allowing residents to indicate their preference on the concept plans and leave general comments. A total of 52 virtual surveys were collected from July 21 – August 4, 2023. While there was some concern expressed about the increased size of the lake, in-person participants were reminded that increasing the size was important for the health and quality of the lake. Participants expressed concern about the proximity of the playground to the lake and preferred the island in the lake be removed.

In addition to community input, staff and DVD also consulted with a series of stakeholders, including the Department of Fish & Wildlife, the Huntington Beach Fishing Club, Ryan Winkleman, an E-Bird Administrator and the Huntington Beach Police Department (HBPD). Each stakeholder has reviewed the proposed conceptual plan and appreciates the balance the plan will bring between wildlife and humans at the park and the natural

filtration enhancements to improve the lake's water quality. To preserve the balance of wildlife and human use, the Department of Fish & Wildlife recommends that the City provide extensive education on the impact of feeding wildlife and to provide enforcement, when necessary, to deter this behavior. HBPD applied Crime Prevention Through Environmental Design (CPTED) principals during their review of the plan, and do not see any design elements that would trigger further review.

Proposed Improvements

Based on the community input received and professional analysis, DVD has prepared a conceptual master plan (Attachment 4) that includes:

- Removal of the island
- Increasing the size and depth of the lake
- Replacement of the lake filtration system to a biological treatment system which will naturally improve water quality and remove the need for chemicals
- Piers for fishing
- A connected approximate 1-mile walking path surrounding the perimeter of the park
- Installation of fitness equipment
- A concrete walking path around the perimeter of the lake to increase accessibility
- A new playground relocated away from the lake edge

Most notable will be the improved water quality of the lake, which will be achieved through a wholistic standpoint and include design elements that create efficiencies (Attachment 5). The proposed updates to the lake were designed by civil engineering firm J. Smith & T. Muli. The most important element to upgrade is the aeration, which should pump enough oxygen into the lake to displace the volume of the lake seven times per day. A bio filter is the next most important element. The pump station will be upgraded to draw water in from the lake and pump it to the proposed biofilter/head pond. Water would be returned into the lake through small, decorative streams and water elements that naturally follow the park's topography. Like an aquarium filter, the biofilter would control nutrients in the lake water and thereby limit algae growth by controlling available nitrogen in the lake water. The biofilter would be designed to filter the volume of the lake a minimum of once every seven days and possibly as much as once every three days. Along the perimeter of the lake, it is recommended to create aesthetic aquatic vegetation planters. Specific species of aquatic plants help remove nutrients from the water column through root uptake. The plant's flowers attract dragonflies who eat mosquito larvae and mosquitoes. Lastly, similar to a pool filter, skimmers would be installed, allowing maintenance to easily empty the filters, as needed.

To promote the establishment of fish and build a healthy fishery in the lake, it is proposed to create fish habitat in the lake including artificial reefs. The artificial reefs can be made

out of upcycled materials from the demolition of the park, including concrete. Spawning habitats could also be created, allowing for targeted species of fish to thrive at the lake to support the intended fishery and game fish. The proposed improvements will reestablish a balance between wildlife and passive recreational park usage.

Project Development Process/Timeline

Pending approval by the Community & Library Services Commission and City Council, the next step in the process would be the development of detailed engineering plans and specifications, including preparation of a preliminary construction estimate. A remaining balance of $336,113 in Capital Improvement funds are available to continue into this next phase. Any unused funding will be carried over into future fiscal years. Additional funds will need to be identified and budgeted as the project proceeds into the construction phase.

Environmental Status:

The appropriate environmental process will be followed, as directed by the Planning Division of the Community Development Department once a conceptual plan is approved.

Attachment(s):

1. Biological Survey
2. Informational Postcard
3. Proposed Concept Plans Based Off Community Input Meeting # 1
4. Proposed Concept Option for Approval
5. Proposed Lake Filtration System Memo

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Biological Resources Assessment

Carr Park, City of Huntington Beach, Orange County, California

DRAFT

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Introduction

This Biological Resources Assessment ("Assessment") describes the known and potentially-occurring biological resources at Chris Carr Park ("Carr Park" or "Project Site"), located in the City of Huntington Beach, Orange County, California. As shown herein, while special status biological resources have been documented on the Project Site, the Project would not be expected to have significant effects on these biological resources.

Project Site Location

Carr Park is located on approximately 11.2 acres of land on the southeast corner of the intersection of Heil Avenue and Springdale Street in the City of Huntington Beach, Orange County, California. On the Public Land Survey System, Carr Park is located within the La Bolsa Chica Land Grant of the US Geological Survey's 7.5-minute *Seal Beach* quadrangle. Carr Park's location is shown below in **Figure 1**.

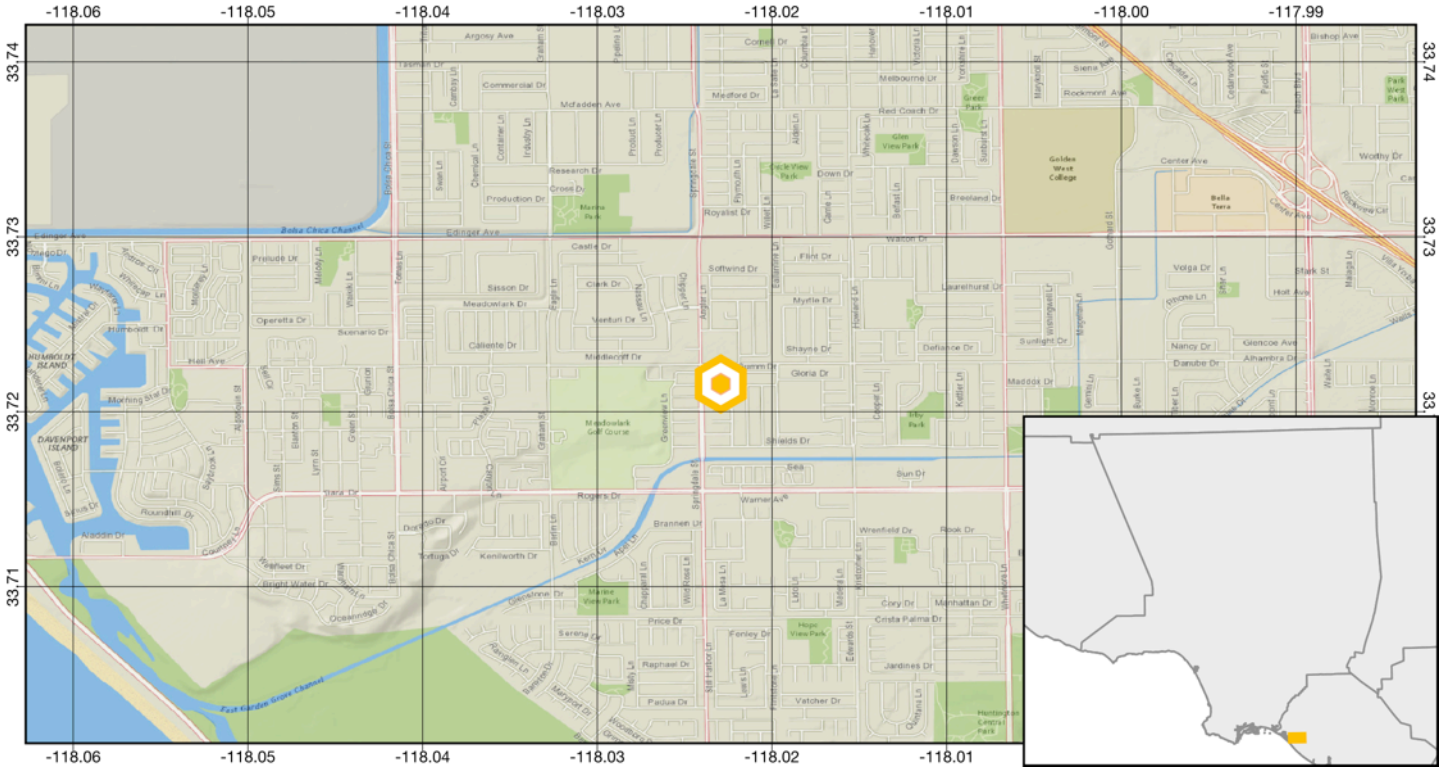


Figure 1. *Project Location Map*

Project Description

The proposed project involves the grading and construction of improvements to Carr Park, including reconstruction of the existing Carr Park Duck Pond, installation of new park landscaping and turf grass, and the construction of outdoor meeting space, fishing docks and decomposed granite walkways. The existing 1.02-acre duck pond would be drained to facilitate the grading and construction of a new approximately 3-acre duck pond. The proposed duck pond would incorporate water circulation and filtering design to improve and maintain pond water quality. Natural areas around the lake would be landscaped with aquatic and

wetland plant species. Artificial reefs would be installed in various locations around the lake bottom to provide habitat for fish. The park will be landscaped with turf grass and include more natural areas with meadow grasses and trees. Existing native and mature trees within Carr Park will be preserved and incorporated into the landscaping plan. A "green buffer" incorporating vegetation that benefits local wildlife and birds will be installed along the east and south park boundary. The pond would be improved for public use through the construction of fishing docks at various locations along the bank and a walking path/bridge. An outdoor meeting space with seating would be constructed within the northern portion of the park. The park amenities will be accessed via a meandering paved walkway, which will include several neighborhood sidewalk connections along the east, west and north park boundaries.

Definitions

The following are key areas referenced in this Assessment:

- **Project Site:** The Project Site is the 11.21 acres of Carr Park. The Project Site is also the Biological Study Area for this Assessment.

- **Regional Study Area:** The Regional Study Area is the area for which taxa and habitat records were pulled from most biological resource databases. It includes the 7.5-minute US Geological Survey quadrangle the Project Site is located in and all surrounding quadrangles: *Anaheim, Long Beach, Los Alamitos, Newport Beach*, and *Seal Beach*. The Regional Study Area is depicted in the Desktop Review Report provided as **Appendix B**.

Regulatory Setting

The following summarizes regulations and other resource protection mechanisms that are known to be or potentially are applicable to biological resources on the Project Site. Key species status terms and their abbreviations, used later in this report, are in bold text.

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) is the federal government's tool to protect rare and declining plant and wildlife species. It is implemented jointly by the US Fish and Wildlife Service (USFWS, terrestrial species) and the National Marine Fisheries Service. FESA protects species using the following status designations:

- An **endangered (FE)** species is a species of invertebrate, plant, or wildlife formally listed under FESA as facing extinction throughout all or a significant portion of its geographic range.

- A **threatened (FT)** species is a species of invertebrate, plant, or wildlife formally listed under FESA as likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

A **proposed threatened (FPT)** or **proposed endangered (FPE)** species is one officially proposed for addition to the federal threatened or endangered species lists. A **candidate (FC)** species is one under review for listing, often due to the submittal of a petition by an outside entity.

"Take" of a federally endangered or threatened species or its habitat is prohibited by federal law without a special permit. The term "take", under FESA, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. "Harm" is defined to encompass "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (50 CFR 17.3).

FESA also requires the USFWS to consider whether there are areas of habitat essential to conservation for each listed species. **Critical habitat (CH)** designations protect these areas, including habitat that is currently unoccupied but may be essential to the recovery of a species. An area is designated as critical habitat after the USFWS publishes a proposed Federal regulation in the Federal Register and then receives and considers public comments on the proposal. The final boundaries of critical habitat are officially designated when published in the Federal Register.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) is a federal law governing the taking, killing, possession, transportation, and importation of various birds, their eggs, parts, and nests. The take of any number of a bird species listed as protected on any one of four treaty lists is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes and requiring harvest to be limited to levels that prevent over utilization. The MBTA also prohibits taking, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, certain bird species, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11).

Bald and Golden Eagle Protection Act

The **Bald and Golden Eagle Protection Act (BGEPA)** (16 U.S.C. 668-668c), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." For purposes of the guidelines, "disturb" means: “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

Birds of Conservation Concern

The **Birds of Conservation Concern (BCC)** list “identifies the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent [the USFWS’s] highest conservation priorities. The list is based on an assessment of several factors, including population abundance and trends, threats on breeding and nonbreeding grounds and size of breeding and nonbreeding ranges. Bird species considered for the BCC include: nongame birds gamebirds without hunting seasons subsistence-hunted nongame birds in Alaska ESA candidate, proposed, and recently delisted species.[1]”

State of California

California Endangered Species Act

The California Endangered Species Act (CESA) is the State of California’s tool to protect rare and declining plant and wildlife species. Plant and animal species may be designated threatened or endangered under CESA after a formal listing process by the California Fish and Game Commission. Implementation of CESA is by the California Department of Fish and Wildlife (CDFW). CESA protects species using the following status designations:

- An **endangered (CE)** species is a species of plant or wildlife whose prospects of survival and reproduction are in immediate jeopardy.

- A **threatened (CT)** species is a species of plant or wildlife present in such small numbers throughout its range that it is considered likely to become an endangered species in the near future in the absence of special protection or management.

A **candidate (CC)** species is one formally under review for listing. Candidates species are protected from take by CESA during the review process.

[1] https://fws.gov/media/birds-conservation-concern-2021pdf

Fully Protected Animals

CDFW describes the **Fully Protected (FP)** animals list as "the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians, reptiles, birds and mammals. 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, relocation of the bird species for the protection of livestock, or if they are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan.[2]"

Species of Special Concern

Species of special concern (SSC) is an informal designation used by the CDFW for some declining wildlife species that are not officially listed as endangered, threatened, or rare. This designation does not provide legal protection, but signifies that these species are recognized as vulnerable by CDFW.

California Rare Plant Ranks

While not a government agency, the California Native Plant Society (CNPS) is a statewide resource conservation organization that has developed an inventory of California's special-status plant species that is highly regarded by the agencies and biologists. This inventory is a summary of information on the distribution, rarity, and endangerment of California's vascular plants. Rare or potentially rare plant species are ranked using the following system **(CRPR)**:

- **1A:** Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere.
- **1B:** Plants Rare, Threatened, or Endangered in California and Elsewhere
- **2A:** Plants Presumed Extirpated in California, But Common Elsewhere
- **2B:** Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
- **3:** Plants About Which More Information is Needed - A Review List
- **4:** Plants of Limited Distribution - A Watch List

After each rarity ranking, there is also a threat ranking:

- **0.1:** Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- **0.2:** Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- **0.3:** Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

[2] https://wildlife.ca.gov/Conservation/Fully-Protected

California Fish and Game Code Sections 3503, 3503.5, 3513

These California Fish and Game Code sections protect all birds, birds of prey, and all nongame birds, as well as their eggs and nests, for species that are not already listed as fully protected and that occur naturally within the state. Sections 3503 and 3503.5 of the CFGC stipulate the following regarding eggs and nests: 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 California Fish and Game Code or any regulation made pursuant thereto; and Section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by CFGC or any regulation adopted pursuant thereto. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

California Environmental Quality Act

Appendix G of the CEQA Guidelines is used by public agencies to determine whether a project may have a significant impact on biological resources. Under Appendix G (Section IV), a project may have a significant impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the CDFW or USFWS.

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, or regulations by the CDFW or USFWS.

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

- Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands).

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

In addition, Section 15065(a) of the CEQA Guidelines establishes that a significant impact may occur if "[t]he project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, [or] reduce the number or restrict the range of an endangered, rare or threatened species."

Methods

This Assessment is informed by data from an expansive desktop review and a field survey, the methods for which are described below. From this section forward, the more biologically accurate terms *taxon* and *taxa* are used in place of the term *species* used in most regulations because of the fluid nature of modern taxonomy, with special status assignments often being made for subspecies and populations instead of entire species. The term *species* is only used where applicable to the discussion.

Definitions

Resource Status Designations Considered

A variety of agencies and respected non-profit organizations assess the conservation status of plant and wildlife taxa and habitats, however, not all are applicable to this report. The following special status designations were considered when determining special status taxa and habitats to be discussed:

- **Federal Status:** Taxa listed as **Endangered (FE)** or **Threatened (FT)**, as well as taxa **Proposed as Endangered (FPE)**, **Proposed as Threatened (FPT)**, **Proposed for Delisting (FPD)**, and **Candidates (FC)** for listing under the Federal Endangered Species Act. Bald and Golden Eagles protected by the **Bald and Golden Eagle Protection Act (BGEPA)** and **USFWS-listed Birds of Conservation Concern** are also included.

- **California Status:** Taxa listed as **Endangered (CE)** or **Threatened (CT)**, as well as taxa that are **Candidates for Endangered (CCE)** status, **Threatened (CCT)** status, or **Delisting (CCD)** under the California Endangered Species Act. Also considered are taxa listed as **Fully Protected (FP)** and **Species of Special Concern (SSC)**.

- **CNPS Status:** California Rare Plant Ranks (CRPR) 1, 2, and 3.

- **NatureServe Element Ranks:** NatureServe element state ranks were only considered for taxa when other criteria did not apply. Taxa were included with ranks of **S1 (Critically Imperiled)**, **S2 (Imperiled)**, and **S3 (Vulnerable)**.

- **Vegetation Communities:** All vegetation communities mapped by the CNDDB.

Desktop Review

England|Ecology conducted a review of literature and data sources to characterize biological conditions and to compile records of special status biological resources that could potentially occur on the Project Site. The resources used for this analysis are described below.

- **Soils:** Soils on and in the vicinity of the Project Site were assessed using the Web Soil Survey tools provided by the US Department of Agriculture[3].

[3] https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

- **Water:** Potential water resources were examined using the US Geological Survey's National Hydrography Dataset[4] and the USFWS National Wetlands Inventory[5].

- **Vegetation Communities:** potentially-occurring sensitive vegetation community records were pulled from the California Natural Diversity Database (CNDDB)[6] for the Regional Study Area.

- **Flora and Fauna:** potentially-occurring special status flora and fauna records were pulled from the following data sources:

    - Designated and proposed critical habitat layers from the US Fish & Wildlife Service[7]. Taxa were included if critical habitat was proposed or designated within the Regional Study Area.

    - CNDDB records from within the Regional Study Area.

    - The California Native Plant Society (CNPS) Rare Plant Inventory[8] records from within the Regional Study Area.

    - The USFWS-managed Information for Planning and Consultation (IPaC) database[9] for records returned when uploading the boundary of the Project Site.

In addition, records were searched locally within eBird[10] and iNaturalist[11].

Occurrence Potential

England|Ecology assessed the potential for occurrence of special status plant and wildlife taxa and habitats based on data provided by the desktop review and observations made during the field survey. For taxa for which field observations could not definitively determine occurrence, the following information was considered:

- **Range:** The Regional Study Area—from which records were gathered—is a large area capturing many taxa that would not be expected to occur in the Biological Study Area. In general, range determinations were made as follows:

    - **Flora:** The range of the taxon is based on an export of point records of that taxon from Calflora[12] with each record provided a buffer of 10km. If the Biological Study Area was within that mapped

[4] https://www.usgs.gov/national-hydrography/national-hydrography-dataset

[5] https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper

[6] California Natural Diversity Database (CNDDB). March 30, 2024. State and Federally Listed Endangered, Threatened, and Rare Plants of California. California Department of Fish and Wildlife. Sacramento, CA.

7 https://ecos.fws.gov/ecp/report/critical-habitat

[8] https://rareplants.cnps.org

[9] https://ipac.ecosphere.fws.gov/

[10] https://ebird.org

[11] https://inaturalist.org

[12] https://www.calflora.org/

range, it could be considered outside of range if the elevations in the Biological Study Area were more than ten percent outside of the known elevation range of the taxon. If alternative sources are used they are included in the notes.

- **Fauna:** The range of the taxon was determined differently based on the taxonomic group:
  - **Invertebrates and Fish:** An export of records of that taxon from the Global Biodiversity Information Facility[13] with each record provided a buffer of 10km. If alternative sources are used they are included in the notes.
  - **Amphibians, Reptiles, Birds, and Mammals:** California Wildlife Habitat Relationships[14] range data from the California Department of Fish and Wildlife. If alternative sources are used they are included in the notes.

- **Habitat:** If the Biological Study Area was determined to be outside of the taxon's range, habitat was not assessed and is labeled "N/A". If the Biological Study Area was determined to be within the taxon's range, the quality of the habitats in the Biological Study Area to support any portion of that taxon's life cycle was assessed and labeled as "Low", "Medium", or "High". The rational for that determination is provided in the Notes of the desktop review report.

These occurrence potential assignments are defined below:

- **Present:** Taxa or habitat/vegetation community is known to occur on the Project Site based on recent surveys, CNDDB (within 10 years), or other records.
- **High:** Taxa with known recent recorded occurrences/populations near the Project Site and highly suitable habitat occurs within the Project Site. Highly suitable habitat includes all necessary elements to support the taxon (e.g., elevation, hydrology, soils, cover, habitat type, food resources).
- **Moderate:** Taxa with known recent recorded occurrences/populations near the Project Site; however, habitat within the Project Site has been moderately disturbed, fragmented, or is small in extent. Moderately suitable habitat includes several elements to support the taxon (e.g., elevation, hydrology, soils, cover, habitat type, food resources). Furthermore, moderately suitable habitat may also be located at the edge of the taxon's range, or there are no reported occurrences nearby.
- **Low:** Taxa with few known recent recorded occurrences/populations near the Project Site and habitat within the Project Site is highly disturbed or extremely limited. A low potential is assigned to annual or perennial plant taxa that may have been detectable during a focused survey in the appropriate blooming period but was not found; however, small populations or scattered individuals are still considered to have a low potential to occur. Additionally, taxa for which poor-quality habitat may support the taxon within the Project Site, but the reported extant range is far outside the Project Site and/or any species observations would anticipate being migratory (i.e., not likely to reproduce within the Project Site).

[13] https://gbif.org

[14] https://wildlife.ca.gov/Data/CWHR

- **None:** Taxa or habitat/vegetation community are not expected to be present because focused surveys were conducted and the taxon or habitat/vegetation community was not detected, or the taxon was found in the desktop review, but suitable habitat (soil, vegetation, elevational range) was not found on the Project Site, or the Project Site is not within the known geographic range of the species.

The potential for bird species were further distinguished into those that may: 1) nest within or near the Project Site; 2) forage within or near the Project Site; and/or 3) occur on or near the Project Site only as transients during migratory flights or other dispersal events.

Field Survey

England|Ecology principal biologist Marcus C. England conducted a reconnaissance-level biological survey on the Project Site on February 13, 2024 from 0845 to 1330h. Weather conditions were mild and appropriate for such a survey to be conducted and are summarized below in **Table 1**. The survey focused on documenting the presence/absence and condition of water resources, vegetation communities and habitats, and flora and fauna.

The Project Site, being small, was easily covered on foot walking transects of convenience to examine biological resources. Where necessary, observations were made with Leica Noctivid 8x42 binoculars and documented with a Nikon D500 camera paired with a Sigma 150-600mm lens. All other observations were documented using various applications and functions on an iPhone 15 Pro, including the Solocator[15] app for photographic documentation of site conditions and the QField[16] app for collecting spatial (e.g., photo and resource locations) and non-spatial (e.g., floral and faunal lists) tabular data. After the survey was completed, data in QField was synchronized to a geospatial database using QGIS[17] 3.36.

In addition to the biological work completed specifically for this report, MNS Engineers completed work on the Project Site for a jurisdictional delineation. While the results of that report are summarized herein relative to water resources, we refer you to the jurisdictional delineation report for detailed information about methods and results.

Table 1. *Survey Dates, Times, and Weather Conditions*

Date	Biologist	Time	Start Conditions			End Conditions		
			Temp	Clouds	Wind	Temp	Clouds	Wind
2/13/24	Marcus England	0845-1330h	62°F	Clear	N/A	67°F	Clear	N/A

Geospatial & Tabular Data Storage

All GIS-based resource analysis was conducted in QGIS 3.36, with either local data copies stored in a GeoPackage database or using a web service provided by the organization housing the data. Data specific to the Project Site is stored in a statewide GeoPackage database file.

[15] https://solocator.com/

[16] https://qfield.org/

[17] https://www.qgis.org/en/site/

Taxonomy & Nomenclature

It is important within a given report to use a consistent taxonomy for clarity in communication, especially as the various sources used in the research for a report may not use the same taxonomy and nomenclature. The taxonomic database underpinning England|Ecology's work is updated monthly from NatureServe[18]. NatureServe's taxonomy includes an Element Code for each taxon. These same Element Codes are used by a variety of agencies and organizations, including the California Department of Fish and Wildlife in the CNDDB and the California Native Plant Society in their Rare Plant Inventory. The Element Code provides a basis for linking records from disparate data sources. In all cases in this report, the taxonomic order and nomenclature are NatureServe's[19], with the exception of the special status flora discussion which is linked to a monthly export of the Rare Plant Inventory. As such, while this report largely capitalizes common names consistent with the NatureServe taxonomy, tabular data exported for special status floral analysis does *not* use this convention, as it is not used by the California Native Plant Society.

[18] https://www.natureserve.org/classifying-biodiversity

[19] The author does not always agree with NatureServe's taxonomy (such as where it varies from that of the American Ornithological Society), but it provides a consistent basis for discussion across taxonomic groups.

Results

This section discusses in detail what is known about biological resources in the Biological Study Area based on information from a field survey, 318 CNDDB records, 37 CNPS records, 29 IPaC records, and four critical habitat determinations in the Regional Study Area. It begins with a discussion of the Project's biological setting and habitats, and ends with a discussion of the floral and faunal taxa that are known to occur or potentially occur in the Biological Study Area. Photographs of site conditions during the survey are provided in the Photo Log attached as **Appendix C**.

Biological Setting

Modern Carr Park is a green space located within an urban setting. Of course, the region was not historically so heavily-urbanized. Based on historic aerial photography available from the UC Santa Barbara FrameFinder [20]site, the area appeared to be predominantly agricultural in 1927 (**Figure 2**).

Figure 2. *Aerial showing Project Site and surroundings in 1927. The approximate location of modern Carr Park is highlighted with an orange rectangle.*

[20] https://mil.library.ucsb.edu/ap_indexes/FrameFinder/

By 1962 (**Figure 3**), agricultural land uses were still dominant, but several canals had been constructed and residential development had commenced to the northwest.

Figure 3. *Aerial showing Project Site and surroundings in 1962. The approximate location of modern Carr Park is highlighted with an orange rectangle.*

Only 15 years later, in 1977 (**Figure 4**), residential development has filled out the imagery. Carr Park is now evident, and appears much the same as it does now with its current manmade pond, island, and walking paths.

Figure 4. *Aerial showing Project Site and surroundings in 1977. The location of Carr Park is highlighted with an orange rectangle.*

Soils

According to the Natural Resources Conservation Service Web Soil Survey[21], all soils on the Project Site are Omni clay, drained. This soil has a parent material of mixed alluvium with a typical profile of clay or silty clay to 60 inches.

Aquatic Resources

The jurisdictional delineation prepared by MNS Engineers has identified 1.02 acres of state and federal jurisdictional non-wetland waters on the Project Site. These waters are associated with Carr Park's lake. The are no wetland or riparian habitats or other non-jurisdictional water features at Carr Park.

Vegetation Communities & Habitats

The following section discusses vegetation communities and habitats in the Biological Study Area, including known resources and the potential for occurrence of special status resources.

[21] https://websoilsurvey.sc.egov.usda.gov/app/WebSoilSurvey.aspx

Extant Vegetation Communities

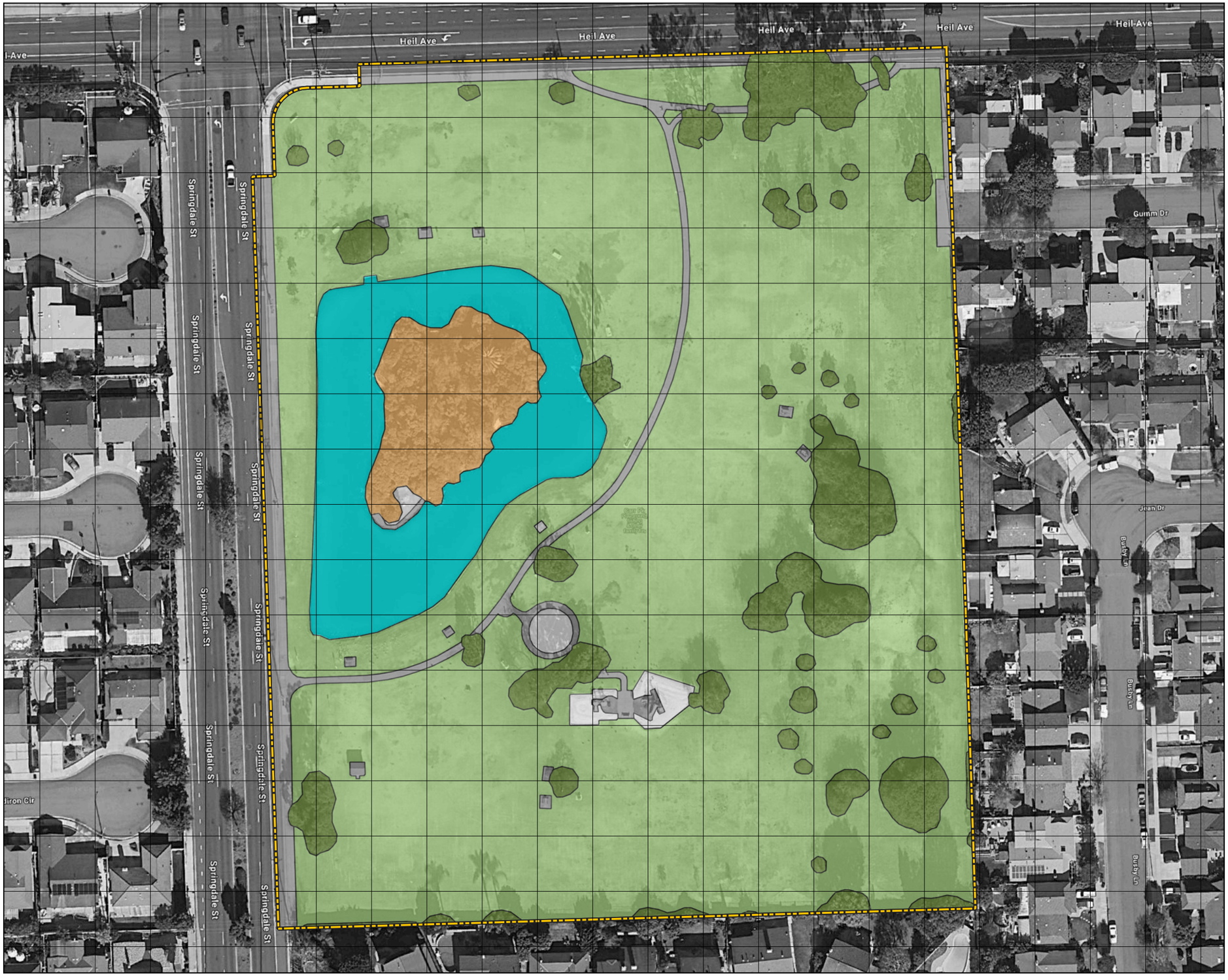
England|Ecology mapped vegetation communities and land cover types on the Project Site based upon recent aerial photography and field observations. This resulted in the classification/mapping of six community/land cover types in the Biological Study Area. These are discussed below and shown in **Exhibit 1**.

Artificial Water Feature
Artificial Water Feature comprises approximately 1.02 acres (9.1%) of the Biological Study Area. On the Project Site it measures approximately 1.02 acres in extent, or 9.1% of the site. Artificial Water Feature is not an official Manual of California Vegetation alliance. Artificial water features are man-made, typically small bodies of water. In the area covered by this Assessment, the only area mapped as Artificial Water Feature is Carr Park Lake.

Disturbed - Impermeable Surface
Disturbed - Impermeable Surface comprises approximately 0.68 acres (6%) of the Biological Study Area. On the Project Site it measures approximately 0.68 acres in extent, or 6% of the site. Disturbed - Impermeable Surface is not an official Manual of California Vegetation alliance. Impermeable Surfaces are parts of the built environment, including paved roads, sidewalks, walkways, and buildings. In general, areas mapped as this land cover type have little value for wildlife and are not considered habitat.

Disturbed - Permeable Surface
Disturbed - Permeable Surface comprises approximately 0.1 acres (0.9%) of the Biological Study Area. On the Project Site it measures approximately 0.1 acres in extent, or 0.9% of the site. Disturbed - Permeable Surface is not an official Manual of California Vegetation alliance. Permeable Surfaces are parts of the built environment, including compacted but unpaved areas devoid of vegetation, gravel, and unimproved roads. In general, areas mapped as this land cover type have little value for wildlife and are not considered habitat, though in some cases—such as unimproved roads—they may occur within habitat

Landscape - Forb
Landscape - Forb comprises approximately 8 acres (71.4%) of the Biological Study Area. On the Project Site it measures approximately 8 acres in extent, or 71.4% of the site. Landscape - Forb is not an official Manual of California Vegetation alliance. The “forb” landscape type includes all managed but typically artificially-planted areas of vegetation that are shorter than shrubs. This land cover type includes lawns. These areas have some value for wildlife, as landscape flowers provide food for hummingbirds and butterflies, and lawns can provide foraging areas for some birds and small mammals. Their overall habitat value, however, is significantly lower than any natural habitat they may have replaced. This land cover type is also typically dominated by non-native and often invasive plant species.



Community/Land Cover	Project Site Acres	Percent
Landscape - Forb	8	71.4
Artificial Water Feature	1.02	9.1
Landscape - Tree & Shrub	0.97	8.7
Disturbed - Impermeable Surface	0.68	6
Pepper tree or Myoporum groves (Schinus (molle, terebinthifolius) – Myoporum laetum Tree Semi-Natural Alliance)	0.44	3.9
Disturbed - Permeable Surface	0.1	0.9

Project Site/Parcel Boundary

Map Scale 1:1,080

Reference Grid Overlay: 50 feet
Coordinate System: EPSG 3310
Base Map: Google

Vegetation Communities: Biological Study Area

Carr Park

Landscape - Tree & Shrub
Landscape - Tree & Shrub comprises approximately 0.97 acres (8.7%) of the Biological Study Area. On the Project Site it measures approximately 0.97 acres in extent, or 8.7% of the site. Landscape - Tree & Shrub is not an official Manual of California Vegetation alliance. The "tree & shrub" landscape type is a mix of taller vegetation dominated by non-native trees and typically set in a managed landscape environment. In some cases, native trees are included in this land cover type when part of landscaping and not a functional natural community. Habitat value of this land cover type varies significantly, however, urban environments with significant tall tree cover often harbor a large number of wildlife. This is particularly true of birds.

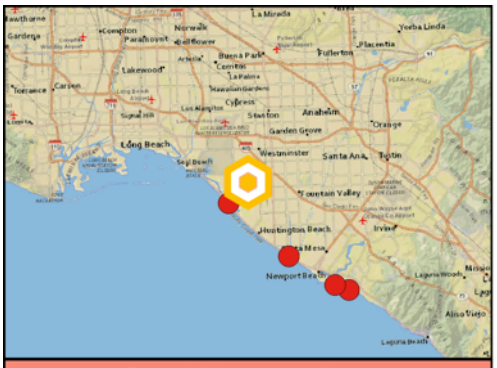
Pepper Tree or Myoporum Groves (*Schinus* (*molle, terebinthifolius*) – *Myoporum laetum* Tree Semi-Natural Alliance)
Pepper Tree or Myoporum Groves (*Schinus* (*molle, terebinthifolius*) – *Myoporum laetum* Tree Semi-Natural Alliance) comprises approximately 0.44 acres (3.9%) of the Biological Study Area. On the Project Site it measures approximately 0.44 acres in extent, or 3.9% of the site. The CDFW code for this alliance is 79.200.00. It has a Global Rank of GNA and a State Rank of SNA. It is described in the Manual of California Vegetation as follows:

> Species: *Myoporum laetum, Schinus molle* or *Schinus terebinthifolius* is dominant in the tree canopy .
>
> Layers: Trees < 18 m tall; canopy is open to continuous. Shrubs are infrequent or common. Herbaceous layer is simple to diverse.
>
> Habitats: Coastal canyons, washes, slopes, riparian areas, roadsides.
>
> Holland (1986) Crosswalk: Southern riparian forest, Southern riparian scrub

The only alliance mapped on the Project Site, this community is found on the artificial island in the center of Carr Park Lake. While it is dominated by *Myoporum*, native willows (*Salix* sp.) are also present.

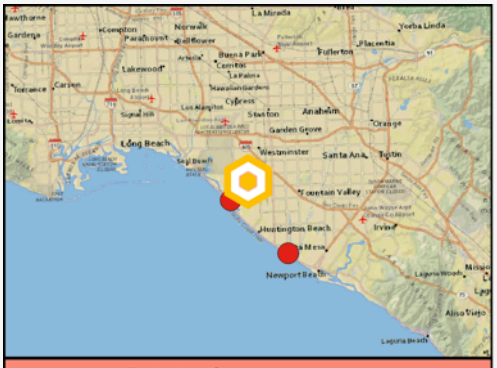
Sensitive Vegetation Communities

The four sensitive vegetation communities mapped by the CNDDB as occurring within the Regional Study Area are shown below. The maps show the centroids of the CNDDB records in order to spatially depict the occurrences relative to the Project Site. The accounts highlight determinations of their potential occurrence on the Project Site as well as their potential to be adversely affected by the Project based on field observations.



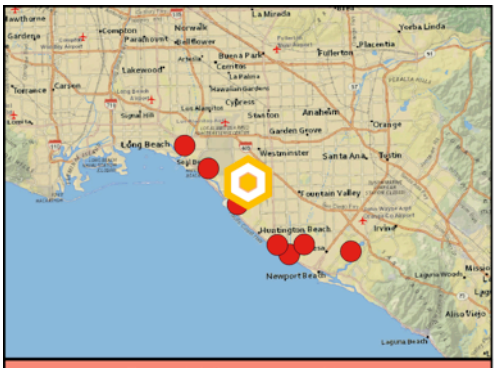
Southern Foredunes

Global Rank:	G2
State Rank:	S2.1
Taxon Code:	CTT21230CA
CNDDB Records:	3
Taxon Group:	Dune
Habitats:	Coastal dunes
Notes:	—



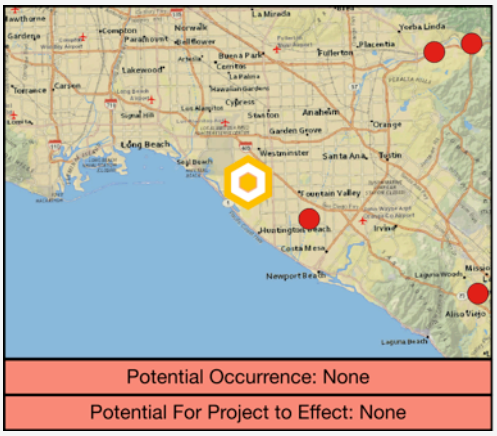
Southern Dune Scrub

Global Rank:	G1
State Rank:	S1.1
Taxon Code:	CTT21330CA
CNDDB Records:	2
Taxon Group:	Dune
Habitats:	Coastal dunes
Notes:	—



Southern Coastal Salt Marsh

Global Rank:	G2
State Rank:	S2.1
Taxon Code:	CTT52120CA
CNDDB Records:	7
Taxon Group:	Marsh
Habitats:	Marsh & swamp; Wetland
Notes:	—



Southern Cottonwood Willow Riparian Forest

Global Rank:	G3
State Rank:	S3.2
Taxon Code:	CTT61330CA
CNDDB Records:	1
Taxon Group:	Riparian
Habitats:	Riparian forest
Notes:	—

General Conclusions

The Project Site contains no sensitive communities, no native natural communities, and is predominantly maintained as well-manicured parkland for recreational uses.

Flora

The following section discusses flora in the Biological Study Area, including known resources and the potential for occurrence of special status resources.

Floral Diversity

The list of ten floral taxa detected by England|Ecology is provided in the Floral & Faunal Compendium provided as **Appendix A**. No special status floral taxa from the Desktop Review were detected. The known or expected status of all special status flora analyzed for this report are described in the next section.

Special Status Flora

The floral literature review identified 37 special status taxa to be considered for their potential occurrence. This was based on records from the following sources:

- **CNDDB:** 109 occurrences of 27 floral taxa in the CNDDB for the Regional Study Area.
- **CNPS:** 37 floral taxa in the CNPS Rare Plant Inventory for the Regional Study Area.
- **IPaC:** two floral taxa recommended for consideration by IPaC based on an upload of the Project Site boundary.
- **Critical Habitat:** 0 floral taxa with proposed or designated critical habitat in the Regional Study Area.

Because of the heavily-managed landscape of the park, no special status flora are expected to occur. As such, they are not discussed in detailed herein. All special status flora considered for this report are discussed in the Desktop Review Report provided as **Appendix B**.

General Conclusions

No special status plants are known to occur or expected to occur on the Project Site due to the lack of natural habitats and surrounding development.

Fauna

The following section discusses fauna in the Biological Study Area, including known resources and the potential for occurrence of special status resources.

Faunal Diversity

The list of 25 faunal taxa detected by England|Ecology is provided in the Floral & Faunal Compendium provided as **Appendix A**. This list includes 0 amphibian, 0 reptile, 25 bird, and 0 mammal detections during fieldwork conducted on the Project Site. The most commonly observed taxa were American Wigeon (*Mareca americana*), Mallard (*Anas platyrhynchos*), and American Coot (*Fulica americana*). A total of two special status faunal taxa were detected. The known or expected status of all special status fauna analyzed for this report are described in the next section.

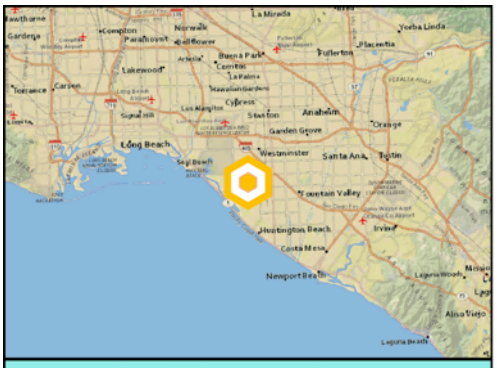
A single site visit, however, does not capture the full scope of the fauna that occur at a site. Carr Park's status as an eBird hotspot provides a comprehensive understanding of the avifauna that occur there. Most commonly occurring taxa are those associated with urbanized areas and ponds. The list of 158 avian taxa and their abundance estimations, as exported from eBird, is provided as **Appendix B**.

Special Status Fauna

The faunal literature review identified 71 special status taxa to be considered for their potential occurrence. This was based on records from the following sources:

- **CNDDB:** 196 occurrences of 54 faunal taxa in the CNDDB for the Regional Study Area.
- **IPaC:** 26 faunal taxa recommended for consideration by IPaC based on an upload of the Project Site boundary.
- **Critical Habitat:** Four faunal taxa with proposed or designated critical habitat in the Regional Study Area.

Of the 71 special status faunal taxa analyzed for this report, two were determined to be Present, 0 were determined to have a High potential for occurrence, one was determined to have a Moderate potential for occurrence, 14 were determined to have a Low potential for occurrence, and 54 were determined to have no potential for occurrence. Single occurrences of unexpected special status birds in eBird records were not treated as "Present". These data are summarized in the Desktop Review Report provided in **Appendix D**. The accounts below summarize taxa determined to have moderate or higher occurrence potential. The maps show the centroids of the CNDDB records in order to spatially depict the occurrences relative to the Project Site (for taxa that are in the CNDDB). All data, including habitat descriptions, is directly from the CNDDB.

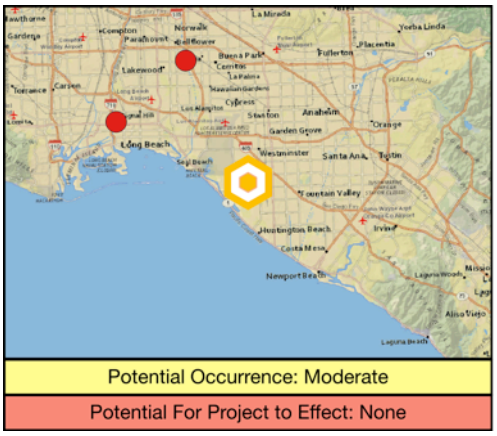


California Gull
Larus californicus

Legal Status:	WL, S4, BCC
Source(s):	IPaC
Taxon Code:	ABNNM03110
Natural History:	LITTORAL WATERS, SANDY BEACHES, WATERS AND SHORELINES OF BAYS, TIDAL MUD-FLATS, MARSHES, LAKES, ETC. COLONIAL NESTER ON ISLETS IN LARGE INTERIOR LAKES, EITHER FRESH OR STRONGLY ALKALINE.
Range Notes:	—
Habitat Quality:	Medium
Notes:	Occurs in the park during the winter months, even if inconsistently. Project effects would be limited to temporary habitat loss.

Allen's Hummingbird
Selasphorus sasin

Legal Status:	BCC
Source(s):	IPaC
Taxon Code:	ABNUC51030
Natural History:	No CNDDB habitat description available
Range Notes:	—
Habitat Quality:	High
Notes:	Potential effects include temporary loss of foraging habitat and potential impacts to nests if work occurs during the nesting season.



Silver-haired Bat
Lasionycteris noctivagans

Legal Status:	S3S4
Source(s):	CNDDB(2)
Taxon Code:	AMACC02010
Natural History:	PRIMARILY A COASTAL AND MONTANE FOREST DWELLER, FEEDING OVER STREAMS, PONDS AND OPEN BRUSHY AREAS. ROOSTS IN HOLLOW TREES, BENEATH EXFOLIATING BARK, ABANDONED WOODPECKER HOLES, AND RARELY UNDER ROCKS. NEEDS DRINKING WATER.
Range Notes:	—
Habitat Quality:	Medium
Notes:	Value of area as foraging habitat may be increased by project.

General Conclusions

The Project Site provides or has potential to provide habitat to the following special status faunal resources:

- Two fauna taxa determined to be Present: Allen's Hummingbird, and California Gull;
- One fauna taxa determined to have a Moderate potential for occurrence: Silver-haired Bat;
- Nesting birds protected by the Migratory Bird Treaty Act and California Fish and Game Code.

Other Considerations

Nesting Birds

Birds – including native species protected by the Migratory Bird Treaty Act and California Fish and Game Code – have the potential to nest in nearly any environment, including those heavily altered by anthropogenic activity. On the Project Site, trees and shrubs provide ample locations for potential nesting of many species that are regularly present at Carr Park. Publicly-available data do not provide any definitive information on nesting bird species in Carr Park, including birds associated with the lake.

Wildlife Movement

Wildlife movement corridors are important for maintaining population levels and genetic diversity. As such, effects on wildlife movement are an important consideration when discussing the natural resources of any area. At a small enough scale, any project or activity can potentially affect the movement of wildlife if any wildlife are present at all. In general, however, the term “wildlife movement corridor” means an area of habitat that is important for the movement of wildlife between larger habitat areas or cores. As a relatively small block of green space in a large urban area, Carr Park would not be expected to be important to wildlife movement or function as a part of a wildlife movement corridor.

Effects and Minimization Measures

CEQA describes three types of potential project effects that are pertinent to biological resources and are considered in this report:

- **Direct Effects:** Section 15064(d)(1) of the CEQA Guidelines describes a direct effect as "a physical change in the environment which is caused by and immediately related to the project." In the context of the proposed project described in this report, direct effects include adverse effects that would occur to plants, wildlife, and vegetation communities within or immediately adjacent to the proposed Project footprint and other work areas.

- **Indirect Effects:** Section 15064(d)(2) of the CEQA Guidelines describes an indirect effect as any "physical change in the environment, which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment, in turn, causes another change in the environment, then the other change is an indirect physical change in the environment." Indirect effects, also known as secondary effects, are reasonably foreseeable and caused by a project but occur at a different time or place. Examples of indirect effects pertinent to many development projects could include a change in drainage patterns that ultimately affect vegetation communities not otherwise affected by the project or a reduction in native wildlife species resulting from a decrease in habitat.

- **Cumulative Effects:** Section 15355 of the CEQA Guidelines describe a cumulative effect as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." The CEQA Guidelines further state the following regarding cumulative effects:

    - The individual effects may be changes resulting from a single project or a number of separate projects.

    - The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

    - Section 15064 (h)(1) of CEQA Guidelines states that "the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable." 'Cumulatively considerable' means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects". Section 15064 (h)(2) states that "a lead agency may determine…that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant."

Spatial Extent of Effects

Ultimately, implementation of the Project will affect most of the area of Carr Park. The expansion of the lake is the most significant portion of the Project in spatial extent and its biological effects, with the large numbers of birds that attracted to the existing lake. No aspect of Project implementation, however, would be expected to have significant adverse effects on sensitive communities or special status flora or fauna.

Effects on Candidate, Sensitive, or Special Status Species

The CEQA Guidelines require an assessment of whether the Project *will have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the CDFW or USFWS*.

As discussed previously, of the 71 special status faunal taxa analyzed for this report, two were determined to be Present, 0 were determined to have a High potential for occurrence, one was determined to have a Moderate potential for occurrence, 14 were determined to have a Low potential for occurrence, and 54 were determined to have no potential for occurrence. No special status flora are expected to occur. The fauna that were determined to occur or potentially occur are reviewed below:

- California Gull - California Gull is a US Fish and Wildlife Service Bird of Conservation Concern. A mobile species, it does not breed locally. Project effects would be restricted to temporary foraging and roosting habitat impacts. This is not a significant adverse effect and no minimization measures are required. Upon project completion, the value of Carr Park to this species as foraging and roosting habitat is likely to increase.

- Allen's Hummingbird - Allen's Hummingbird is a US Fish and Wildlife Service Bird of Conservation Concern. This species likely breeds in the park and surrounding residential areas. Project effects include potential temporary adverse effects on foraging and nesting habitat, as well potential effects that could occur generally to active bird nests if work occurs during the nesting season. The latter of these is the only potentially significant effect of the Project. A measure to avoid impacts to nesting birds is provided below in the *Effects on Wildlife Movement and Nursery Sites* section.

- Silver-haired Bat - Silver-haired Bat is an S3S4 species. While it is unknown if this species is present at Carr Park, if it is present Project implementation could cause temporary impacts to foraging habitat. This is not a significant adverse effect and no minimization measures are required. Upon project completion, the value of Carr Park to this species as foraging habitat is likely to increase.

The proposed Project will not have significant direct, indirect, or cumulative effects on candidate, sensitive, or special status species.

Effects on Riparian Habitat or Other Sensitive Natural Communities

The CEQA Guidelines require an assessment of whether the Project *will have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS*.

The proposed Project will not have significant direct, indirect, or cumulative effects on riparian habitat or other sensitive natural communities.

The jurisdictional delineation prepared by MNS Engineers has identified 1.02 acres of state and federal jurisdictional non-wetland waters on the Carr Park site. These waters are associated with Carr Park's lake. The are no wetland or riparian habitats or other non-jurisdictional water features at Carr Park.

Effects on State or Federally Protected Wetlands

The CEQA Guidelines require an assessment of whether the Project *will have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means*.

The proposed Project will not have significant direct, indirect, or cumulative effects on state or federally protected wetlands.

The jurisdictional delineation prepared by MNS Engineers has identified 1.02 acres of state and federal jurisdictional non-wetland waters on the Carr Park site. These waters are associated with Carr Park's lake. The are no wetland or riparian habitats or other non-jurisdictional water features at Carr Park.

Effects on Wildlife Movement and Nursery Sites

The CEQA Guidelines require an assessment of whether the Project *will interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites*.

As discussed previously, the Project Site almost certainly has no value for wildlife movement at any level of consideration. As such, the proposed Project will not have significant direct, indirect, or cumulative effects on wildlife movement.

To comply with the Migratory Bird Treaty Act, it is recommended that pre-construction surveys for nesting birds by a qualified biologist take place within 300 feet of all project work areas within one week of the commencement of project infrastructure construction if work occurs during the nesting bird season, which is generally accepted as February 1 to August 31. To avoid potential take under the Migratory Bird Treaty Act, construction activities should not take place in the vicinity of any active bird nests. The recommended construction buffer zone around active bird nests varies by species and would need to be determined on an individual basis based on the opinion of the surveying biologist as agreed upon by the California Department of Fish and Wildlife. With the implementation of this measure, the proposed Project will not have significant direct, indirect, or cumulative effects on nesting birds or other wildlife nursery sites.

Effects on Local Policies or Ordinances Protecting Biological Resources

The CEQA Guidelines require an assessment of whether the Project *will conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance*.

There are no policies or ordinances within the City of Huntington Beach specific to biological resources. As such, the proposed Project will not conflict with local policies or ordinances protecting biological resources.

Effects on the Provisions of an Adopted Habitat Conservation Plan

The CEQA Guidelines require an assessment of whether the Project *will conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan*.

There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans within which the Project Site is located. As such, the proposed Project will not conflict with an adopted habitat conservation plan.

Appendix A. Floral & Faunal Compendia

Inserted after this cover page is a database-generated report summarizing floral and faunal observations.

Floral and Faunal Compendia

Carr Park

This database-generated report summarizes the plant and wildlife taxa detected during the survey conducted on February 13, 2024 by England|Ecology. Documented during the survey was the presence of 10 plant taxa and 25 wildlife taxa, the latter including 0 amphibian, 0 reptile, 25 bird, and 0 mammal detections. Landscape plantings are not included unless of potential biological importance.

The data presented here were collected in the field using the QField app on an iPhone 15 Pro. After fieldwork was completed, data were synced to QGIS desktop. All taxonomy and nomenclature follows NatureServe. The reference taxonomy from NatureServe was last updated in February 2024. This report was generated using QGIS 3.36.

Flora

Group	Common Name	Scientific Name	Abundance	Phenology	Notes
Dicots	Peruvian Peppertree	Schinus molle	Common	Active Growth	—
Dicots	Jersey Cudweed	Pseudognaphalium luteoalbum	Uncommon	Active Growth	—
Dicots	Prickly Lettuce	Lactuca serriola	Common	Active Growth	—
Dicots	Small Whorled Cheeseweed	Malva parviflora	Common	Active Growth	—
Dicots	Chinese Elm	Ulmus parvifolia	Common	Active Growth	—
Monocots	Kikuyu Grass	Pennisetum clandestinum	Common	Active Growth	—
Other	Other	Other	Common	Senescent	Celtis sp.
Other	Other	Other	Uncommon	Active Growth	Fraxinus sp.
Other	Other	Other	Common	Active Growth	Eucalyptus sp.
Other	Other	Other	Common	Active Growth	Amaranthus sp.

Fauna

Group	Common Name	Scientific Name	Count	Type	Notes
Birds	Double-crested Cormorant	Nannopterum auritum	2	Observed	—
Birds	Black-crowned Night-Heron	Nycticorax nycticorax	12	Observed	—
Birds	White-faced Ibis	Plegadis chihi	10	Observed	—
Birds	Canada Goose	Branta canadensis	20	Observed	—
Birds	American Wigeon	Mareca americana	60	Observed	—
Birds	Mallard	Anas platyrhynchos	40	Observed	—
Birds	Ruddy Duck	Oxyura jamaicensis	4	Observed	—
Birds	Cooper's Hawk	Accipiter cooperii	1	Observed	—
Birds	American Coot	Fulica americana	20	Observed	—
Birds	Long-billed Curlew	Numenius americanus	1	Observed	—
Birds	Ring-billed Gull	Larus delawarensis	10	Observed	—
Birds	Western Gull	Larus occidentalis	1	Observed	—
Birds	Rock Pigeon	Columba livia	1	Observed	—
Birds	Allen's Hummingbird	Selasphorus sasin	1	Observed	—
Birds	Black Phoebe	Sayornis nigricans	2	Observed	—
Birds	Say's Phoebe	Sayornis saya	1	Observed	—
Birds	American Crow	Corvus brachyrhynchos	6	Observed	—
Birds	Bushtit	Psaltriparus minimus	10	Observed	—
Birds	Ruby-crowned Kinglet	Corthylio calendula	1	Heard Only	—
Birds	Western Bluebird	Sialia mexicana	2	Observed	—
Birds	Yellow-rumped Warbler	Setophaga coronata	8	Observed	—
Birds	Wilson's Warbler	Cardellina pusilla	1	Observed	—
Birds	Red-winged Blackbird	Agelaius phoeniceus	12	Observed	—
Birds	House Finch	Haemorhous mexicanus	10	Observed	—
Birds	House Sparrow	Passer domesticus	6	Observed	—

Appendix B. Desktop Review of Special Status Biological Resources

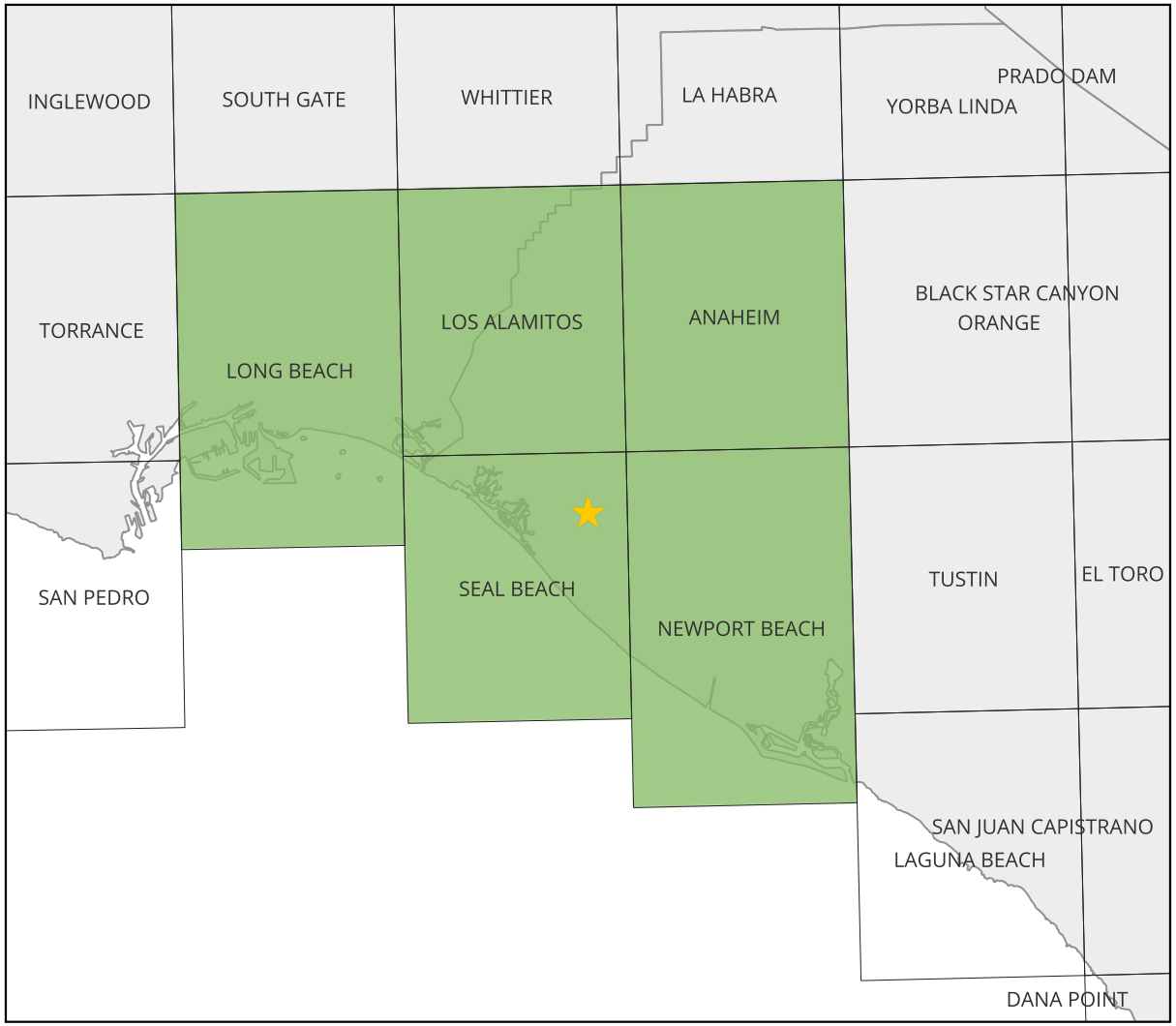
Inserted after this cover page is a database-generated report summarizing the results of England|Ecology's desktop review of special status biological resources.

Desktop Review of Special Status Biological Resources

Carr Park

This database-generated report summarizes the potential for occurrence of sensitive vegetation communities and special status flora and fauna based on known occurrences within a Regional Study Area that includes the Anaheim, Long Beach, Los Alamitos, Newport Beach, and Seal Beach USGS 7.5-minute quadrangles. A map of the Regional Study Area is provided below.

The desktop analysis resulted in 318 records from the California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB), 37 records from the California Native Plant Society's Rare Plant Inventory, 4 records of critical habitat designated under the Federal Endangered Species Act, and 29 records from the US Fish & Wildlife Service's Information for Planning and Consultation (IPaC) database. This report was generated using QGIS 3.36.



Vegetation Communities

The section of the report summarizes the potential for occurrence on the Project Site of 4 sensitive vegetation communities documented within the CNDDB as occurring in the Regional Study Area. The locations of CNDDB records are shown on the map at right (note: the CNDDB license agreement expressly forbids showing records at scales where occurrences can be refound in the field based on the map). The columns in the table that follows this page are defined as follows:

Group

A logical grouping of vegetation community types applied by the CNDDB.

Community

The vegetation community or wildlife habitat mapped by the CNDDB. Currently, the CNDDB uses Holland (1986) for communities, which is considered an out-of-date classification system not otherwise used by CDFW.

State Rank

A numbered sensitivity standard created by NatureServe and adopted by most state agencies, including CDFW. Most important are S1 (Critically Imperiled), S2 (Imperiled), and S3 (Vulnerable).

CNDDB

The number of CNDDB records for that vegetation community or habitat in the Regional Study Area.

Occurrence

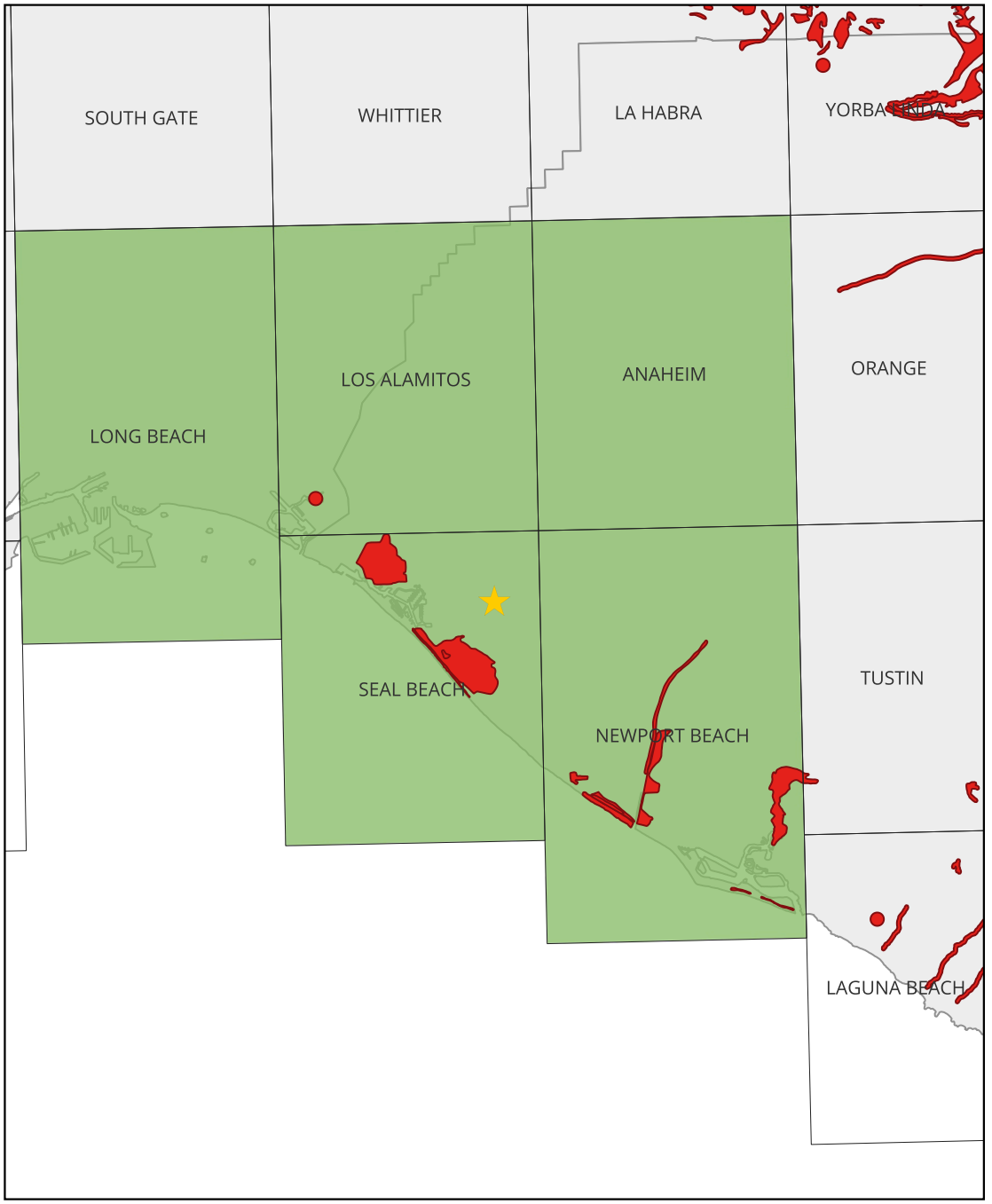
The expectation that community could occur on the Project Site. This is usually either "Present" or "None" if a survey has been completed, as communities are observable.

Impact

The potential that implementation of the Project would impact that community.

Notes

Clarifying notes, if any are needed.



Group	Community	State Rank	CNDDB	Occurrence	Impact	Notes
Dune	Southern Foredunes	S2.1	3	None	None	—
Dune	Southern Dune Scrub	S1.1	2	None	None	—
Marsh	Southern Coastal Salt Marsh	S2.1	7	None	None	—
Riparian	Southern Cottonwood Willow Riparian Forest	S3.2	1	None	None	—

Flora

The section of the report summarizes the potential for occurrence on the Project Site of 37 special status flora taxa documented by various resource databases as occurring in the Regional Study Area. The locations of CNDDB records are shown on the map at right (note: the CNDDB license agreement expressly forbids showing records at scales where occurrences can be refound in the field based on the map). The columns in the table that follows this page are defined as follows:

Taxon

The common and scientific names of the taxon. For special status plants, the taxonomy is consistent with that used by the California Native Plant Society (CNPS).

Source(s)

The database sources prompting the inclusion of the taxon. Options are: CNDDB (numbers in parentheses are the number of CNDDB records in the Regional Study Area), CNPS (CNPS Rare Plant Inventory), CH (Critical Habitat is designated for the taxon in the Regional Study Area), and IPaC (the US Fish & Wildlife Service's Information for Planning and Consultation database).

Status

The protected status of the taxon, which for plants includes its California Rare Plant Rank (CRPR) from CNPS, status - if any - under the federal and state Endangered Species Acts, and NatureServe state rank. The abbreviations used are defined in the Methods section of the report.

About

The habitat and blooming period of the taxon directly from the CNPS database.

Range

Whether or not the Biological Study Area is within the expected range of the taxon. "Range" includes the distribution of modern records (e.g., iNaturalist and Calflora) and elevation. Options are Yes or No.

Habitat

The suitability of the habitat in the Biological Study Area to support the taxon. Options are None, Low, Medium, and High. If the Biological Study Area is not within the taxon's range, habitat is not considered and is listed as N/A.

Occurrence

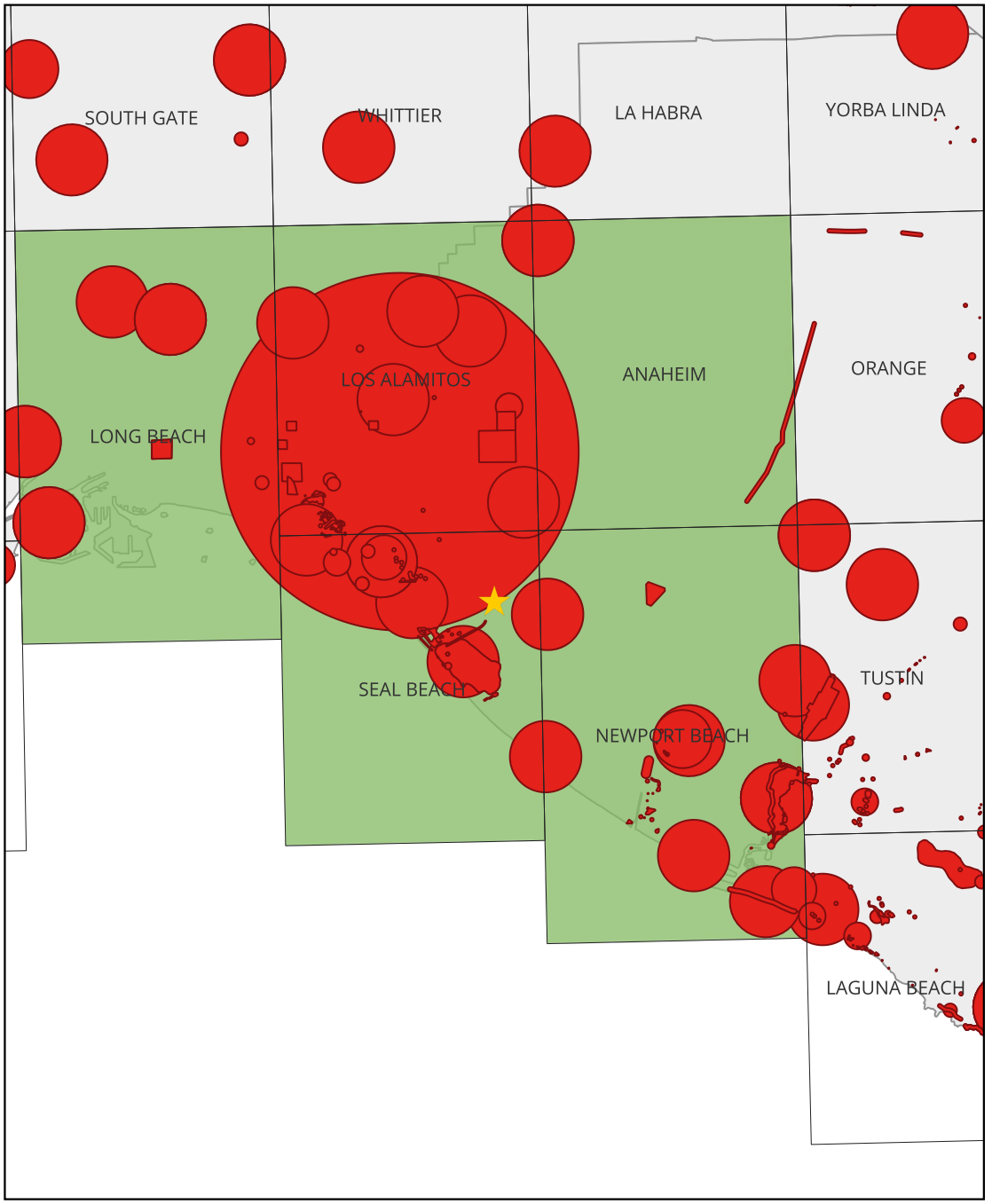
The potential for the taxon to occur in the Biological Study Area based on habitat and range. Options are None, Low, Moderate, High, and Present.

Impact

The potential for Project implementation to impact the taxon, considering its occurrence potential and the scope of the Project. Options are None, Low, Moderate, and High.

Notes

Clarifying notes, if needed.



Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
San Diego Button-celery (Eryngium aristulatum var. parishii)	CNDDB(1), CNPS	CRPR 1B.1, FE, CE, S1	Coastal scrub, Valley and foothill grassland, Vernal pools (Mesic) from 65-2035ft. Blooms Apr-Jun.	No	N/A	None	None	Range based on 164 Calflora records.
Los Angeles Sunflower (Helianthus nuttallii ssp. parishii)	CNDDB(2), CNPS	CRPR 1A, SX	Marshes and swamps (freshwater, coastal salt) from 35-5005ft. Blooms Aug-Oct.	No	N/A	None	None	Considered extirpated.
Southern Tarplant (Centromadia parryi ssp. australis)	CNDDB(27), CNPS	CRPR 1B.1, S2	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools from 0-1575ft. Blooms May-Nov.	Yes	None	None	None	Range based on 166 Calflora records.
Decumbent Goldenbush (Isocoma menziesii var. decumbens)	CNDDB(2), CNPS	CRPR 1B.2, S2	Chaparral, Coastal scrub (often disturbed areas, sandy) from 35-820ft. Blooms Apr-Nov.	No	N/A	None	None	Range based on 112 Calflora records.
Coulter's Goldfields (Lasthenia glabrata ssp. coulteri)	CNDDB(10), CNPS	CRPR 1B.1, S2	Marshes and swamps (coastal salt), Playas, Vernal pools from 5-4005ft. Blooms Feb-Jun.	Yes	None	None	None	Range based on 217 Calflora records.
Lyon's Pentachaeta (Pentachaeta lyonii)	CNDDB(1), CNPS	CRPR 1B.1, FE, CE, S1	Chaparral (openings), Coastal scrub, Valley and foothill grassland (Clay, Rocky) from 100-2265ft. Blooms (Feb)Mar-Aug.	No	N/A	None	None	Eliminated based on elevation.
San Bernardino Aster (Symphyotrichum defoliatum)	CNDDB(7), CNPS	CRPR 1B.2, S2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Valley and foothill grassland (vernally mesic) (Streambanks) from 5-6695ft. Blooms Jul-Nov.	Yes	None	None	None	Range based on 166 Calflora records.
Gambel's Water Cress (Nasturtium gambelii)	CNDDB(2), CNPS	CRPR 1B.1, FE, CT, S1	Marshes and swamps (brackish, freshwater) from 15-1085ft. Blooms Apr-Oct.	No	N/A	None	None	Range based on 51 Calflora records.
Aphanisma (Aphanisma blitoides)	CNDDB(2), CNPS	CRPR 1B.2, S2	Coastal bluff scrub, Coastal dunes, Coastal scrub (Gravelly (sometimes), Sandy (sometimes)) from 5-1000ft. Blooms Feb-Jun.	No	N/A	None	None	Range based on 75 Calflora records.
Coulter's Saltbush (Atriplex coulteri)	CNDDB(2), CNPS	CRPR 1B.2, S1S2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland (Alkaline (sometimes), Clay (sometimes)) from 10-1510ft. Blooms Mar-Oct.	No	N/A	None	None	Range based on 100 Calflora records.
South Coast Saltscale (Atriplex pacifica)	CNDDB(1), CNPS	CRPR 1B.2, S2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas from 0-460ft. Blooms Mar-Oct.	No	N/A	None	None	Range based on 183 Calflora records.
Parish's Brittlescale (Atriplex parishii)	CNDDB(2), CNPS	CRPR 1B.1, S1	Chenopod scrub, Playas, Vernal pools (Alkaline) from 80-6235ft. Blooms Jun-Oct.	No	N/A	None	None	Eliminated based on elevation.
Davidson's Saltscale (Atriplex serenana var. davidsonii)	CNDDB(3), CNPS	CRPR 1B.2, S1	Coastal bluff scrub, Coastal scrub (Alkaline) from 35-655ft. Blooms Apr-Oct.	No	N/A	None	None	Range based on 30 Calflora records.
Estuary Seablite (Suaeda esteroa)	CNDDB(15), CNPS	CRPR 1B.2, S2	Marshes and swamps (coastal salt) from 0-15ft. Blooms (Jan-May)Jul-Oct.	Yes	None	None	None	Range based on 199 Calflora records.
Woolly Seablite (Suaeda taxifolia)	CNPS	CRPR 4.2, S4	Coastal bluff scrub, Coastal dunes, Marshes and swamps (coastal margins) from 0-165ft. Blooms Jan-Dec.	Yes	None	None	None	Range based on 549 Calflora records.

Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
Lucky Morning-glory (Calystegia felix)	CNDDB(1), CNPS	CRPR 1B.1, S1	Meadows and seeps (sometimes alkaline), Riparian scrub (alluvial) (Alkaline (sometimes), Loam (sometimes)) from 100-705ft. Blooms Mar-Sep.	No	N/A	None	None	Eliminated based on elevation.
Many-stemmed Dudleya (Dudleya multicaulis)	CNDDB(2), CNPS	CRPR 1B.2, S2	Chaparral, Coastal scrub, Valley and foothill grassland (Clay (often)) from 50-2590ft. Blooms Apr-Jul.	No	N/A	None	None	Range based on 73 Calflora records.
Horn's Milk-vetch (Astragalus hornii var. hornii)	CNDDB(1), CNPS	CRPR 1B.1, S1	Meadows and seeps, Playas (Alkaline, Lake Margins) from 195-2790ft. Blooms May-Oct.	No	N/A	None	None	Eliminated based on elevation.
Ventura Marsh Milk-vetch (Astragalus pycnostachyus var. lanosissimus)	CNDDB(1), CNPS, IPaC	CRPR 1B.1, FE, CE, S1	Coastal dunes, Coastal scrub, Marshes and swamps (edges, coastal salt, brackish) from 5-115ft. Blooms (Jun)Aug-Oct.	No	N/A	None	None	Range based on 17 Calflora records.
Mud Nama (Nama stenocarpa)	CNDDB(2), CNPS	CRPR 2B.2, S1S2	Marshes and swamps (lake margins, riverbanks) from 15-1640ft. Blooms Jan-Jul.	Yes	None	None	None	Range based on 73 Calflora records.
South Coast Branching Phacelia (Phacelia ramosissima var. austrolitoralis)	CNPS	CRPR 3.2, S3	Chaparral, Coastal dunes, Coastal scrub, Marshes and swamps (coastal salt) (Rocky (sometimes), Sandy) from 15-985ft. Blooms Mar-Aug.	No	N/A	None	None	Range based on 119 Calflora records.
Brand's Star Phacelia (Phacelia stellaris)	CNDDB(1), CNPS	CRPR 1B.1, S1	Coastal dunes, Coastal scrub from 5-1310ft. Blooms Mar-Jun.	No	N/A	None	None	Range based on 53 Calflora records.
Southern California Black Walnut (Juglans californica)	CNPS	CRPR 4.2, S4	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland from 165-2955ft. Blooms Mar-Aug.	No	N/A	None	None	Eliminated based on elevation.
Salt Spring Checkerbloom (Sidalcea neomexicana)	CNDDB(3), CNPS	CRPR 2B.2, S2	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas (Alkaline, Mesic) from 50-5020ft. Blooms Mar-Jun.	Yes	None	None	None	Range based on 81 Calflora records.
Red Sand-verbena (Abronia maritima)	CNPS	CRPR 4.2, S3?	Coastal dunes from 0-330ft. Blooms Feb-Nov.	Yes	None	None	None	Range based on 42 Calflora records.
Chaparral Sand-verbena (Abronia villosa var. aurita)	CNDDB(3), CNPS	CRPR 1B.1, S2	Chaparral, Coastal scrub, Desert dunes (Sandy) from 245-5250ft. Blooms (Jan)Mar-Sep.	No	N/A	None	None	Eliminated based on elevation.
Lewis' Evening-primrose (Camissoniopsis lewisii)	CNPS	CRPR 3, S4	Cismontane woodland, Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland (Clay (sometimes), Sandy (sometimes)) from 0-985ft. Blooms Mar-May(Jun).	Yes	None	None	None	Range based on 212 Calflora records.
Coast Woolly-heads (Nemacaulis denudata var. denudata)	CNDDB(7), CNPS	CRPR 1B.2, S2	Coastal dunes from 0-330ft. Blooms Apr-Sep.	Yes	None	None	None	Range based on 153 Calflora records.
Prostrate Vernal Pool Navarretia (Navarretia prostrata)	CNDDB(2), CNPS	CRPR 1B.2, S2	Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools (Mesic) from 10-3970ft. Blooms Apr-Jul.	No	N/A	None	None	Range based on 79 Calflora records.
Seaside Cistanthe (Cistanthe maritima)	CNPS	CRPR 4.2, S3	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland (Sandy) from 15-985ft. Blooms (Feb)Mar-Jun(Aug).	No	N/A	None	None	Range based on 72 Calflora records.

Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
Salt Marsh Bird's-beak (Chloropyron maritimum ssp. maritimum)	CNDDB(6), CNPS, IPaC	CRPR 1B.2, FE, CE, S1	Coastal dunes, Marshes and swamps (coastal salt) from 0-100ft. Blooms May-Oct(Nov).	No	N/A	None	None	Range based on 27 Calflora records.
California Box-thorn (Lycium californicum)	CNPS	CRPR 4.2, S4	Coastal bluff scrub, Coastal scrub from 15-490ft. Blooms Mar-Aug(Dec).	Yes	None	None	None	Range based on 39 Calflora records.Occurs in coastal scrub.
Sanford's Arrowhead (Sagittaria sanfordii)	CNDDB(1), CNPS	CRPR 1B.2, S3	Marshes and swamps (shallow freshwater) from 0-2135ft. Blooms May-Oct(Nov).	No	N/A	None	None	Range based on 72 Calflora records.
Small Spikerush (Eleocharis parvula)	CNPS	CRPR 4.3, S3	Marshes and swamps from 5-9910ft. Blooms (Apr)Jun-Aug(Sep).	No	N/A	None	None	Range based on 147 Calflora records.
Southwestern Spiny Rush (Juncus acutus ssp. leopoldii)	CNPS	CRPR 4.2, S4	Coastal dunes (mesic), Coastal scrub, Marshes and swamps (coastal salt), Meadows and seeps (alkaline seeps) from 10-2955ft. Blooms (Mar)May-Jun.	Yes	None	None	None	Range based on 209 Calflora records.
Vernal Barley (Hordeum intercedens)	CNPS	CRPR 3.2, S3S4	Coastal dunes, Coastal scrub, Valley and foothill grassland (depressions, saline flats), Vernal pools from 15-3280ft. Blooms Mar-Jun.	Yes	None	None	None	Range based on 434 Calflora records.
California Orcutt Grass (Orcuttia californica)	CNDDB(2), CNPS	CRPR 1B.1, FE, CE, S1	Vernal pools from 50-2165ft. Blooms Apr-Aug.	No	N/A	None	None	Range based on 124 Calflora records.

Invertebrates

The section of the report summarizes the potential for occurrence on the Project Site of 16 special status invertebrate taxa documented by various resource databases as occurring in the Regional Study Area. The locations of CNDDB records are shown on the map at right (note: the CNDDB license agreement expressly forbids showing records at scales where occurrences can be refound in the field based on the map). The columns in the table that follows this page are defined as follows:

Taxon

The common and scientific names of the taxon. Taxonomy is based upon NatureServe and is updated monthly.

Source(s)

The database sources prompting the inclusion of the taxon. Options are: CNDDB (numbers in parentheses are the number of CNDDB records in the Regional Study Area), CH (Critical Habitat is designated for the taxon in the Regional Study Area), and IPaC (the US Fish & Wildlife Service's Information for Planning and Consultation database).

Status

The protected status of the taxon, which for wildlife includes its status - if any - under the federal and state Endangered Species Acts, Species of Special Concern status, Fully Protected status, and NatureServe state rank. The abbreviations used are defined in the Methods section of the report.

About

The habitat of the taxon directly from the Element Info table in the CNDDB.

Range

Whether or not the Biological Study Area is within the expected range of the taxon. Options are Yes or No. Range includes the known modern distribution of the taxon and elevation limits of the taxon (if any) relative to the Biological Study Area.

Habitat

The suitability of the habitat in the Biological Study Area to support the taxon. Options are None, Low, Medium, and High. If the Biological Study Area is not within the taxon's range, habitat is not considered and is listed as N/A.

Occurrence

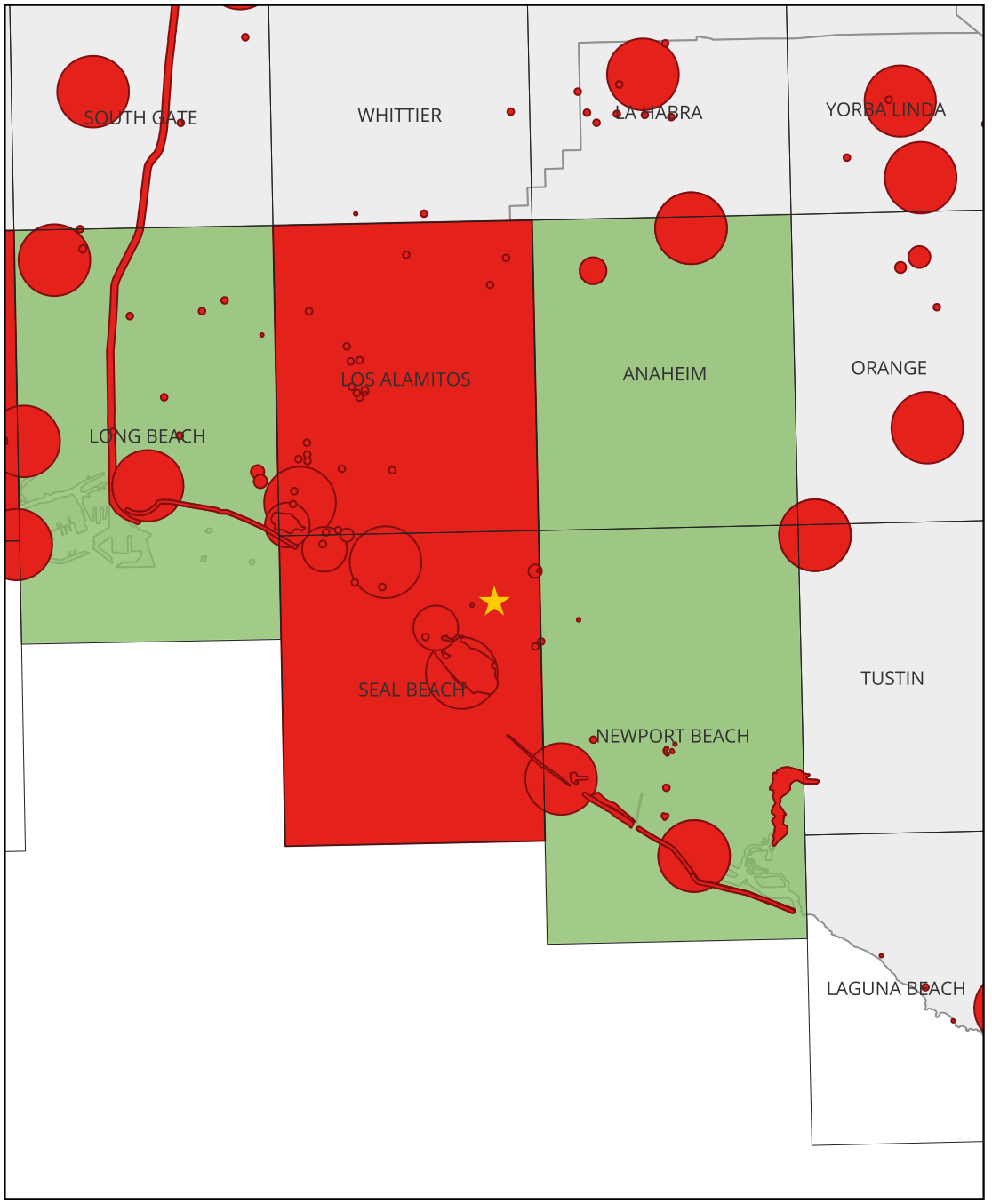
The potential for the taxon to occur in the Biological Study Area based on habitat and range. Options are None, Low, Moderate, High, and Present.

Impact

The potential for Project implementation to impact the taxon, considering its occurrence potential and the scope of the Project. Options are None, Low, Moderate, and High.

Notes

Clarifying notes, if needed.



Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
San Diego Fairy Shrimp (Branchinecta sandiegonensis)	CNDDB(2), CH	FE, S1	ENDEMIC TO SAN DIEGO AND ORANGE COUNTY MESAS. VERNAL POOLS.	Yes	None	None	None	Range based on 101 GBIF records.
Riverside Fairy Shrimp (Streptocephalus woottoni)	CNDDB(1)	FE, S2	ENDEMIC TO WESTERN RIVERSIDE, ORANGE, AND SAN DIEGO COUNTIES IN AREAS OF TECTONIC SWALES/EARTH SLUMP BASINS IN GRASSLAND AND COASTAL SAGE SCRUB. INHABIT SEASONALLY ASTATIC POOLS FILLED BY WINTER/SPRING RAINS. HATCH IN WARM WATER LATER IN THE SEASON.	No	N/A	None	None	Range based on 24 GBIF records.
Western Tidal Flat Tiger Beetle (Eunota gabbii)	CNDDB(6)	S1	INHABITS ESTUARIES AND MUDFLATS ALONG THE COAST OF SOUTHERN CALIFORNIA. GENERALLY FOUND ON DARK-COLORED MUD IN THE LOWER ZONE; OCCASIONALLY FOUND ON DRY SALINE FLATS OF ESTUARIES.	Yes	None	None	None	Range based on 71 GBIF records.Only found in coastal estuaries and mudflats.
Pacific Hairy-necked Tiger Beetle (Cicindela hirticollis gravida)	CNDDB(4)	S2	INHABITS AREAS ADJACENT TO NON-BRACKISH WATER ALONG THE COAST OF CALIFORNIA FROM SAN FRANCISCO BAY TO NORTHERN MEXICO. CLEAN, DRY, LIGHT-COLORED SAND IN THE UPPER ZONE. SUBTERRANEAN LARVAE PREFER MOIST SAND NOT AFFECTED BY WAVE ACTION.	No	N/A	None	None	Range based on 201 GBIF records.
Western Beach Tiger Beetle (Cicindela latesignata)	CNDDB(7)	S1	MUDFLATS AND BEACHES OF COASTAL ESTUARIES FROM SAN DIEGO COUNTY TO LOS ANGELES COUNTY. TYPICALLY INHABIT WET OR DRY SANDY BEACHES AND MUD, SAND, OR SALT FLATS.	Yes	None	None	None	Range based on 491 GBIF records.Only found in coastal estuaries and mudflats.Need to download records
Globose Dune Beetle (Coelus globosus)	CNDDB(2)	S1S2	INHABITANT OF COASTAL SAND DUNE HABITAT; ERRATICALLY DISTRIBUTED FROM TEN MILE CREEK IN MENDOCINO COUNTY SOUTH TO ENSENADA, MEXICO. INHABITS FOREDUNES AND SAND HUMMOCKS; IT BURROWS BENEATH THE SAND SURFACE AND IS MOST COMMON BENEATH DUNE VEGETATION.	No	N/A	None	None	Range based on 300 GBIF records.
Dorothy's el Segundo Dune Weevil (Trigonoscuta dorothea dorothea)	CNDDB(2)	S1	COASTAL SAND DUNES IN LOS ANGELES COUNTY.	No	N/A	None	None	No spatial GBIF records. Range based on CNDDB. Only occurrences near Ballona and Bolsa Chica.
American Bumble Bee (Bombus pensylvanicus)	CNDDB(29)	S2	LONG-TONGUED; FORAGES ON A WIDE VARIETY OF FLOWERS INCLUDING VETCHES (VICIA), CLOVERS (TRIFOLIUM), THISTLES (CIRSIUM), SUNFLOWERS (HELIANTHUS), ETC. NESTS ABOVE GROUND UNDER LONG GRASS OR UNDERGROUND. QUEENS OVERWINTER IN ROTTEN WOOD OR UNDERGROUND.	Yes	None	None	None	No natural grassland habitats present for wildflowers. Lawn areas of park are maintained and low cut.
Crotch's Bumble Bee (Bombus crotchii)	CNDDB(7)	CCE, S2	COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO. FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.	Yes	None	None	None	No natural grassland habitats present for wildflowers. Lawn areas of park are maintained and low cut.

Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
Wandering Skipper (Panoquina errans)	CNDDB(5)	S2	SOUTHERN CALIFORNIA COASTAL SALT MARSHES. REQUIRES MOIST SALTGRASS FOR LARVAL DEVELOPMENT.	Yes	None	None	None	Found in coastal marshlands.
Palos Verdes Blue (Glaucopsyche lygdamus palosverdesensis)	CNDDB(1)	FE, S1	RESTRICTED TO THE COOL, FOG-SHROUDED, SEAWARD SIDE OF PALOS VERDES HILLS, LOS ANGELES COUNTY. HOST PLANT IS ASTRAGALUS TRICHOPODUS VAR. LONCHUS (LOCOWEED).	No	N/A	None	None	Range based on 48 GBIF records.
Quino Checkerspot (Euphydryas editha quino)	CNDDB(1)	FE, S1S2	SUNNY OPENINGS WITHIN CHAPARRAL AND COASTAL SAGE SHRUBLANDS IN PARTS OF RIVERSIDE AND SAN DIEGO COUNTIES. HILLS AND MESAS NEAR THE COAST. NEED HIGH DENSITIES OF FOOD PLANTS PLANTAGO ERECTA, P. INSULARIS, AND ORTHOCARPUS PURPURESCENS.	No	N/A	None	None	Range based on 452 GBIF records.
Monarch - California Overwintering Population (Danaus plexippus pop. 1)	CNDDB(9), IPaC	FC, S2	WINTER ROOST SITES EXTEND ALONG THE COAST FROM NORTHERN MENDOCINO TO BAJA CALIFORNIA, MEXICO. ROOSTS LOCATED IN WIND-PROTECTED TREE GROVES (EUCALYPTUS, MONTEREY PINE, CYPRESS), WITH NECTAR AND WATER SOURCES NEARBY.	No	None	None	None	Range based on coastal zone limits.
Western Ridged Mussel (Gonidea angulata)	CNDDB(1)	S2	PRIMARILY CREEKS AND RIVERS AND LESS OFTEN LAKES. ORIGINALLY IN MOST OF STATE, NOW EXTIRPATED FROM CENTRAL AND SOUTHERN CALIFORNIA.	No	N/A	None	None	Originally found in most of state. Now extirpated from central and southern California.
San Gabriel Chestnut (Glyptostoma gabrielense)	CNDDB(1)	S3	TERRESTRIAL.	No	N/A	None	None	Range based on 285 GIF records.
Mimic Tryonia (Tryonia imitator)	CNDDB(2)	S2	INHABITS COASTAL LAGOONS, ESTUARIES AND SALT MARSHES, FROM SONOMA COUNTY SOUTH TO SAN DIEGO COUNTY. FOUND ONLY IN PERMANENTLY SUBMERGED AREAS IN A VARIETY OF SEDIMENT TYPES; ABLE TO WITHSTAND A WIDE RANGE OF SALINITIES.	No	N/A	None	None	Range based on 46 GBIF records.

Fish

The section of the report summarizes the potential for occurrence on the Project Site of 1 special status fish taxa documented by various resource databases as occurring in the Regional Study Area. The locations of CNDDB records are shown on the map at right (note: the CNDDB license agreement expressly forbids showing records at scales where occurrences can be refound in the field based on the map). The columns in the table that follows this page are defined as follows:

Taxon

The common and scientific names of the taxon. Taxonomy is based upon NatureServe and is updated monthly.

Source(s)

The database sources prompting the inclusion of the taxon. Options are: CNDDB (numbers in parentheses are the number of CNDDB records in the Regional Study Area), CH (Critical Habitat is designated for the taxon in the Regional Study Area), and IPaC (the US Fish & Wildlife Service's Information for Planning and Consultation database).

Status

The protected status of the taxon, which for wildlife includes its status - if any - under the federal and state Endangered Species Acts, Species of Special Concern status, Fully Protected status, and NatureServe state rank. The abbreviations used are defined in the Methods section of the report.

About

The habitat of the taxon directly from the Element Info table in the CNDDB.

Range

Whether or not the Biological Study Area is within the expected range of the taxon. Options are Yes or No. Range includes the known modern distribution of the taxon and elevation limits of the taxon (if any) relative to the Biological Study Area.

Habitat

The suitability of the habitat in the Biological Study Area to support the taxon. Options are None, Low, Medium, and High. If the Biological Study Area is not within the taxon's range, habitat is not considered and is listed as N/A.

Occurrence

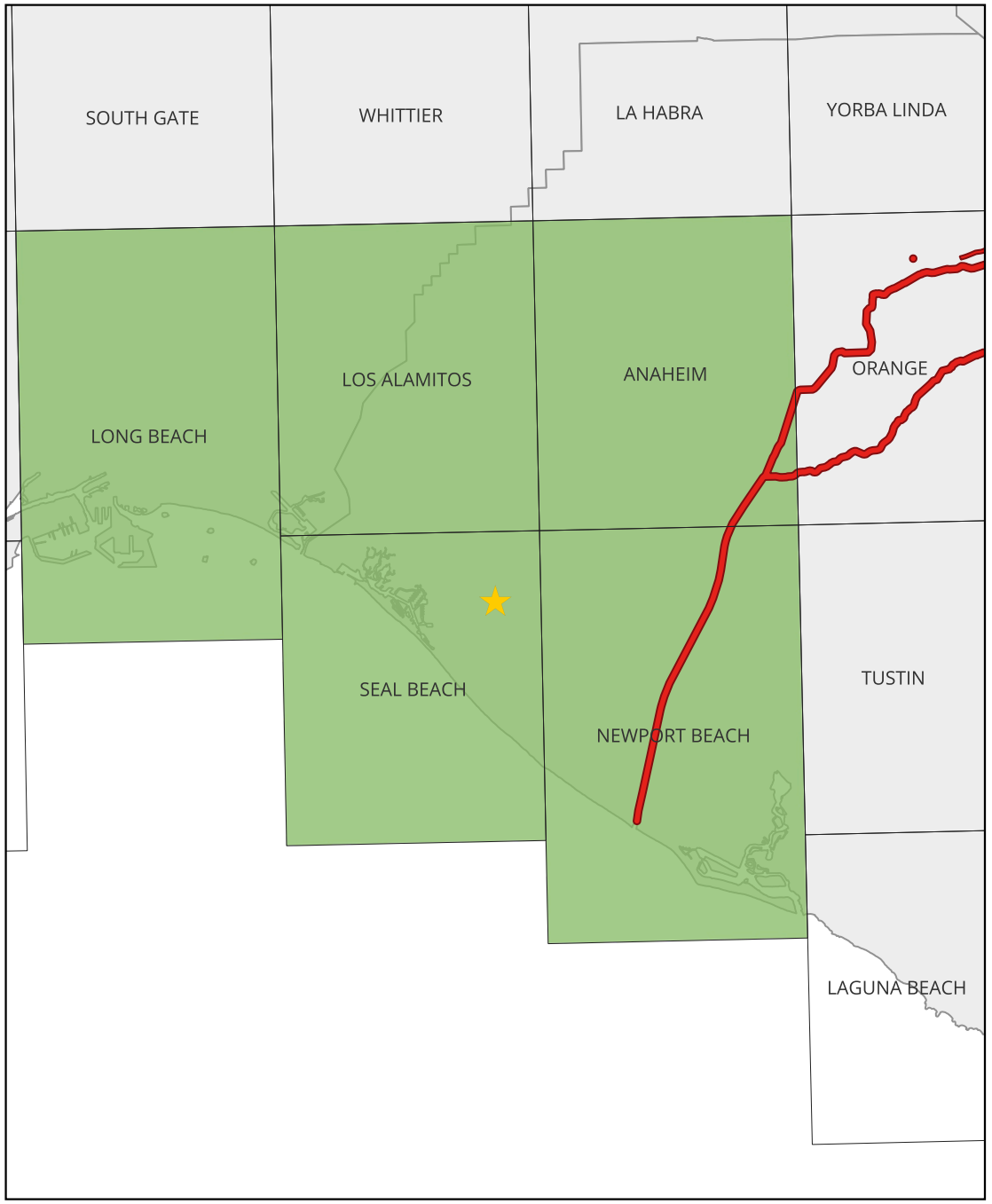
The potential for the taxon to occur in the Biological Study Area based on habitat and range. Options are None, Low, Moderate, High, and Present.

Impact

The potential for Project implementation to impact the taxon, considering its occurrence potential and the scope of the Project. Options are None, Low, Moderate, and High.

Notes

Clarifying notes, if needed.



Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
Steelhead - Southern California Distinct Population Segment (Oncorhynchus mykiss pop. 10)	CNDDB(1)	FE, CCE, S1	FEDERAL LISTING REFERS TO POPULATIONS FROM SANTA MARIA RIVER SOUTH TO SOUTHERN EXTENT OF RANGE (SAN MATEO CREEK IN SAN DIEGO COUNTY). SOUTHERN STEELHEAD LIKELY HAVE GREATER PHYSIOLOGICAL TOLERANCES TO WARMER WATER AND MORE VARIABLE CONDITIONS.	No	N/A	None	None	—

Amphibians

The section of the report summarizes the potential for occurrence on the Project Site of 1 special status amphibian taxa documented by various resource databases as occurring in the Regional Study Area. The locations of CNDDB records are shown on the map at right (note: the CNDDB license agreement expressly forbids showing records at scales where occurrences can be refound in the field based on the map). The columns in the table that follows this page are defined as follows:

Taxon
The common and scientific names of the taxon. Taxonomy is based upon NatureServe and is updated monthly.

Source(s)
The database sources prompting the inclusion of the taxon. Options are: CNDDB (numbers in parentheses are the number of CNDDB records in the Regional Study Area), CH (Critical Habitat is designated for the taxon in the Regional Study Area), and IPaC (the US Fish & Wildlife Service's Information for Planning and Consultation database).

Status
The protected status of the taxon, which for wildlife includes its status - if any - under the federal and state Endangered Species Acts, Species of Special Concern status, Fully Protected status, and NatureServe state rank. The abbreviations used are defined in the Methods section of the report.

About
The habitat of the taxon directly from the Element Info table in the CNDDB.

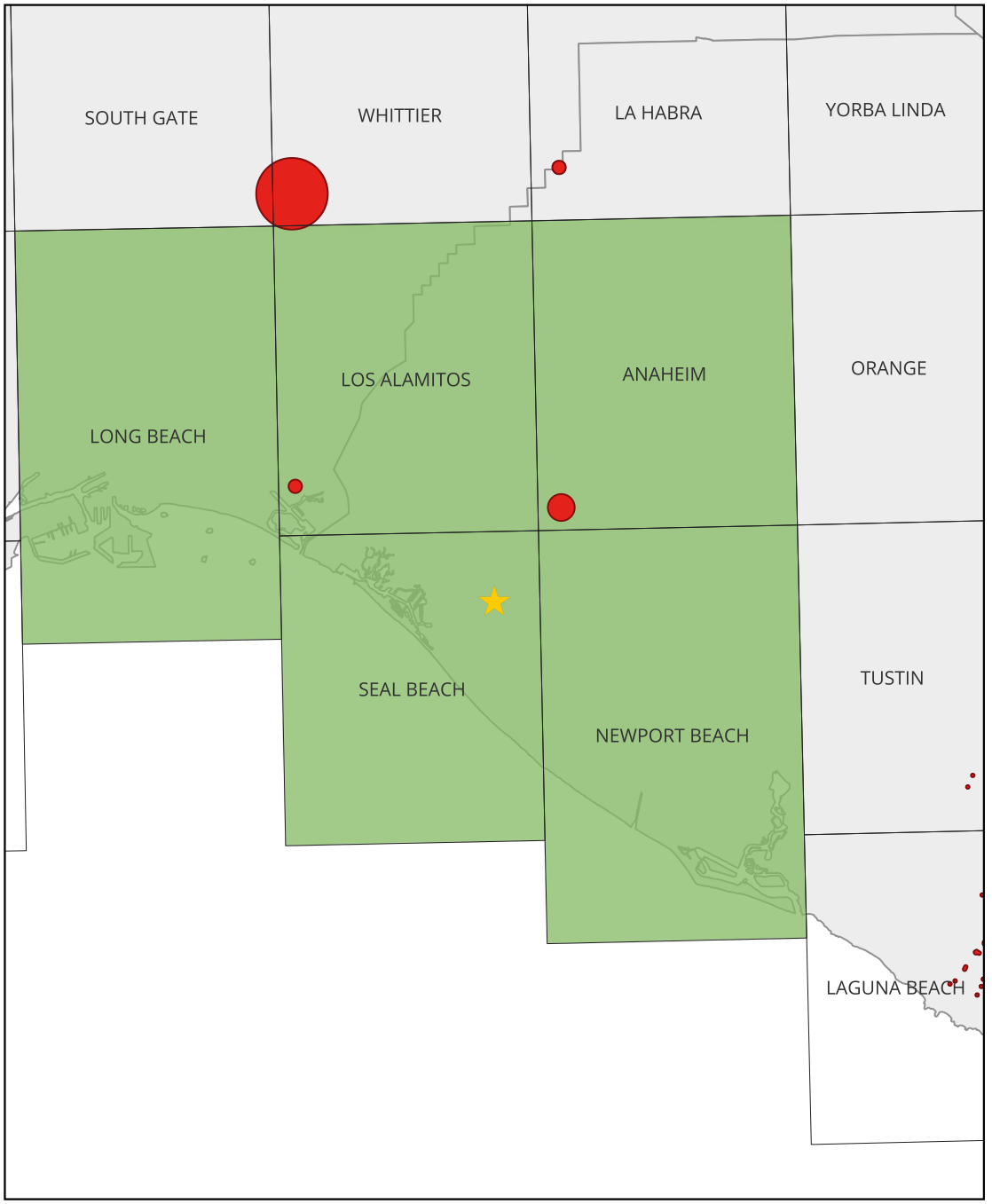
Range
Whether or not the Biological Study Area is within the expected range of the taxon. Options are Yes or No. Range includes the known modern distribution of the taxon and elevation limits of the taxon (if any) relative to the Biological Study Area.

Habitat
The suitability of the habitat in the Biological Study Area to support the taxon. Options are None, Low, Medium, and High. If the Biological Study Area is not within the taxon's range, habitat is not considered and is listed as N/A.

Occurrence
The potential for the taxon to occur in the Biological Study Area based on habitat and range. Options are None, Low, Moderate, High, and Present.

Impact
The potential for Project implementation to impact the taxon, considering its occurrence potential and the scope of the Project. Options are None, Low, Moderate, and High.

Notes
Clarifying notes, if needed.



Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
Western Spadefoot (Spea hammondii)	CNDDB(3)	SSC, S3S4	OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS. VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.	Yes	None	None	None	—

Reptiles

The section of the report summarizes the potential for occurrence on the Project Site of 5 special status reptile taxa documented by various resource databases as occurring in the Regional Study Area. The locations of CNDDB records are shown on the map at right (note: the CNDDB license agreement expressly forbids showing records at scales where occurrences can be refound in the field based on the map). The columns in the table that follows this page are defined as follows:

Taxon

The common and scientific names of the taxon. Taxonomy is based upon NatureServe and is updated monthly.

Source(s)

The database sources prompting the inclusion of the taxon. Options are: CNDDB (numbers in parentheses are the number of CNDDB records in the Regional Study Area), CH (Critical Habitat is designated for the taxon in the Regional Study Area), and IPaC (the US Fish & Wildlife Service's Information for Planning and Consultation database).

Status

The protected status of the taxon, which for wildlife includes its status - if any - under the federal and state Endangered Species Acts, Species of Special Concern status, Fully Protected status, and NatureServe state rank. The abbreviations used are defined in the Methods section of the report.

About

The habitat of the taxon directly from the Element Info table in the CNDDB.

Range

Whether or not the Biological Study Area is within the expected range of the taxon. Options are Yes or No. Range includes the known modern distribution of the taxon and elevation limits of the taxon (if any) relative to the Biological Study Area.

Habitat

The suitability of the habitat in the Biological Study Area to support the taxon. Options are None, Low, Medium, and High. If the Biological Study Area is not within the taxon's range, habitat is not considered and is listed as N/A.

Occurrence

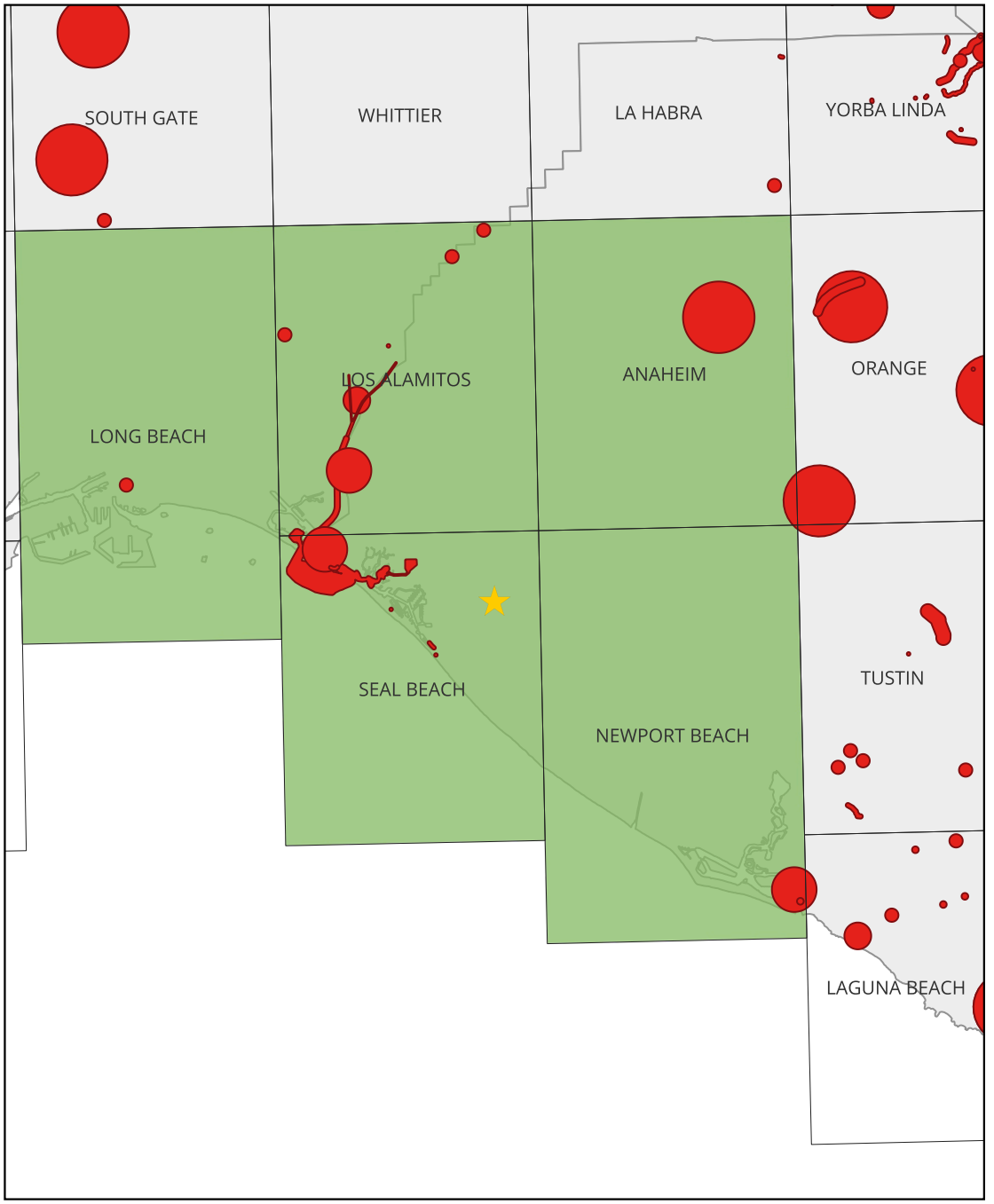
The potential for the taxon to occur in the Biological Study Area based on habitat and range. Options are None, Low, Moderate, High, and Present.

Impact

The potential for Project implementation to impact the taxon, considering its occurrence potential and the scope of the Project. Options are None, Low, Moderate, and High.

Notes

Clarifying notes, if needed.



Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
Green Sea Turtle (Chelonia mydas)	CNDDB(1), CH	S1	MARINE. COMPLETELY HERBIVOROUS; NEEDS ADQUATE SUPPLY OF SEAGRASSES AND ALGAE.	No	None	None	None	—
Southwestern Pond Turtle (Actinemys pallida)	CNDDB(3), IPaC		No CNDDB habitat description available	Yes	High	None	None	While the lake could serve as habitat, this species gets displaced by Red-eared Sliders, which are abundant in the park's lake.
San Diegan Legless Lizard (Anniella stebbinsi)	CNDDB(7)	SSC, S3	GENERALLY SOUTH OF THE TRANSVERSE RANGE, EXTENDING TO NORTHWESTERN BAJA CALIFORNIA. OCCURS IN SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION. DISJUNCT POPULATIONS IN THE TEHACHAPI AND PIUTE MOUNTAINS IN KERN COUNTY. VARIETY OF HABITATS; GENERALLY IN MOIST, LOOSE SOIL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.	Yes	None	None	None	No predicted habitat mapped in area by CWHR.
Blainville's Horned Lizard (Phrynosoma blainvillii)	CNDDB(6)	SSC, S4	FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES. OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.	Yes	None	None	None	No predicted habitat mapped in area by CWHR.
Orange-throated Whiptail (Aspidoscelis hyperythrus)	CNDDB(1)	WL, S2S3	INHABITS LOW-ELEVATION COASTAL SCRUB, CHAPARRAL, AND VALLEY-FOOTHILL HARDWOOD HABITATS. PREFERS WASHES AND OTHER SANDY AREAS WITH PATCHES OF BRUSH AND ROCKS. PERENNIAL PLANTS NECESSARY FOR ITS MAJOR FOOD: TERMITES.	No	None	None	None	—

Birds

The section of the report summarizes the potential for occurrence on the Project Site of 39 special status bird taxa documented by various resource databases as occurring in the Regional Study Area. The locations of CNDDB records are shown on the map at right (note: the CNDDB license agreement expressly forbids showing records at scales where occurrences can be refound in the field based on the map). The columns in the table that follows this page are defined as follows:

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Source(s)

The database sources prompting the inclusion of the taxon. Options are: CNDDB (numbers in parentheses are the number of CNDDB records in the Regional Study Area), CH (Critical Habitat is designated for the taxon in the Regional Study Area), and IPaC (the US Fish & Wildlife Service's Information for Planning and Consultation database).

Status

The protected status of the taxon, which for wildlife includes its status - if any - under the federal and state Endangered Species Acts, Species of Special Concern status, Fully Protected status, and NatureServe state rank. The abbreviations used are defined in the Methods section of the report.

About

The habitat of the taxon directly from the Element Info table in the CNDDB.

Range

Whether or not the Biological Study Area is within the expected range of the taxon. Options are Yes or No. Range includes the known modern distribution of the taxon and elevation limits of the taxon (if any) relative to the Biological Study Area.

Habitat

The suitability of the habitat in the Biological Study Area to support the taxon. Options are None, Low, Medium, and High. If the Biological Study Area is not within the taxon's range, habitat is not considered and is listed as N/A.

Occurrence

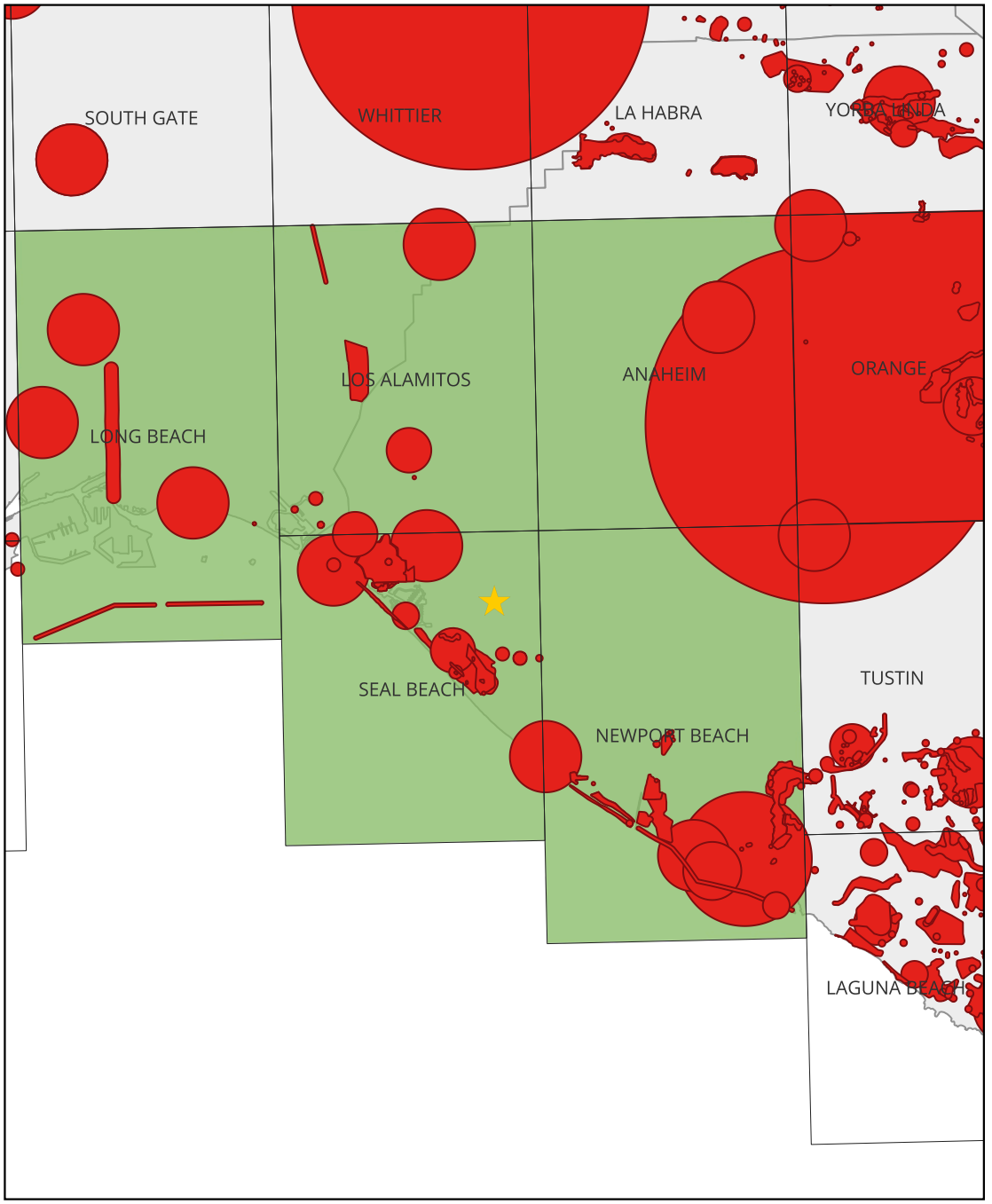
The potential for the taxon to occur in the Biological Study Area based on habitat and range. Options are None, Low, Moderate, High, and Present.

Impact

The potential for Project implementation to impact the taxon, considering its occurrence potential and the scope of the Project. Options are None, Low, Moderate, and High.

Notes

Clarifying notes, if needed.



Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
Western Grebe (Aechmophorus occidentalis)	IPaC	BCC	No CNDDB habitat description available	Yes	Low	Low	None	Has not been recorded in park per eBird.
Clark's Grebe (Aechmophorus clarkii)	IPaC	BCC	No CNDDB habitat description available	Yes	Low	Low	None	Has not been recorded in park per eBird.
California Brown Pelican (Pelecanus occidentalis californicus)	CNDDB(1)	FD, CD, S3	COLONIAL NESTER ON COASTAL ISLANDS JUST OUTSIDE THE SURF LINE. NESTS ON COASTAL ISLANDS OF SMALL TO MODERATE SIZE WHICH AFFORD IMMUNITY FROM ATTACK BY GROUND-DWELLING PREDATORS. ROOSTS COMMUNALLY.	No	N/A	None	None	Has been recorded once, likely as a flyover, per eBird.
Osprey (Pandion haliaetus)	CNDDB(1)	WL, S4	OCEAN SHORE, BAYS, FRESHWATER LAKES, AND LARGER STREAMS. LARGE NESTS BUILT IN TREE-TOPS WITHIN 15 MILES OF A GOOD FISH-PRODUCING BODY OF WATER.	Yes	Low	Low	None	Has been recorded in the park a few times per eBird, but does not occur regularly.
White-tailed Kite (Elanus leucurus)	CNDDB(1)	FP, S3S4	ROLLING FOOTHILLS AND VALLEY MARGINS WITH SCATTERED OAKS AND RIVER BOTTOMLANDS OR MARSHES NEXT TO DECIDUOUS WOODLAND. OPEN GRASSLANDS, MEADOWS, OR MARSHES FOR FORAGING CLOSE TO ISOLATED, DENSE-TOPPED TREES FOR NESTING AND PERCHING.	Yes	None	None	None	Has not been recorded in the park per eBird.
Bald Eagle (Haliaeetus leucocephalus)		FD, CE, FP, S3	OCEAN SHORE, LAKE MARGINS, AND RIVERS FOR BOTH NESTING AND WINTERING. MOST NESTS WITHIN 1 MILE OF WATER. NESTS IN LARGE, OLD-GROWTH, OR DOMINANT LIVE TREE WITH OPEN BRANCHES, ESPECIALLY PONDEROSA PINE. ROOSTS COMMUNALLY IN WINTER.	Yes	None	Low	None	Has been recorded, apparently as a flyover, on one occasion per eBird.
Swainson's Hawk (Buteo swainsoni)	CNDDB(2)	S4	BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES. REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.	No	N/A	None	None	—
Ferruginous Hawk (Buteo regalis)	CNDDB(1)	WL, S3S4	OPEN GRASSLANDS, SAGEBRUSH FLATS, DESERT SCRUB, LOW FOOTHILLS AND FRINGES OF PINYON AND JUNIPER HABITATS. EATS MOSTLY LAGOMORPHS, GROUND SQUIRRELS, AND MICE. POPULATION TRENDS MAY FOLLOW LAGOMORPH POPULATION CYCLES.	Yes	Low	Low	None	Has been recorded in the park once per eBird. Not expected to occur regularly because of lack of appropriate habitat.
American Peregrine Falcon (Falco peregrinus anatum)	CNDDB(1)	FD, CD, S3S4	NEAR WETLANDS, LAKES, RIVERS, OR OTHER WATER; ON CLIFFS, BANKS, DUNES, MOUNDS; ALSO, HUMAN-MADE STRUCTURES. NEST CONSISTS OF A SCRAPE OR A DEPRESSION OR LEDGE IN AN OPEN SITE.	Yes	Low	None	None	Recorded at Carr Park, primarily during the winter months. Likely uses the park on occasion for hunting.

Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
Yellow Rail (Coturnicops noveboracensis)	CNDDB(1)	SSC, S2	SUMMER RESIDENT IN EASTERN SIERRA NEVADA IN MONO COUNTY. FRESHWATER MARSHLANDS.	No	N/A	None	None	—
California Black Rail (Laterallus jamaicensis coturniculus)	CNDDB(2)	FP, S2	INHABITS FRESHWATER MARSHES, WET MEADOWS AND SHALLOW MARGINS OF SALTWATER MARSHES BORDERING LARGER BAYS. NEEDS WATER DEPTHS OF ABOUT 1 INCH THAT DO NOT FLUCTUATE DURING THE YEAR AND DENSE VEGETATION FOR NESTING HABITAT.	Yes	None	None	None	—
Light-footed Ridgway's Rail (Rallus obsoletus levipes)	CNDDB(4), IPaC	FE, CE, FP, S1	FOUND IN SALT MARSHES TRAVERSED BY TIDAL SLOUGHS, WHERE CORDGRASS AND PICKLEWEED ARE THE DOMINANT VEGETATION. REQUIRES DENSE GROWTH OF EITHER PICKLEWEED OR CORDGRASS FOR NESTING OR ESCAPE COVER; FEEDS ON MOLLUSCS AND CRUSTACEANS.	Yes	None	None	None	—
Snowy Plover (Charadrius nivosus nivosus)	CNDDB(8), CH, IPaC	SSC, S3	SANDY BEACHES, SALT POND LEVEES AND SHORES OF LARGE ALKALI LAKES. NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.	Yes	Low	Low	None	Has never been recorded in the park per eBird.
Mountain Plover (Charadrius montanus)	IPaC	SSC, S2, BCC	SHORT GRASSLANDS, FRESHLY PLOWED FIELDS, NEWLY SPROUTING GRAIN FIELDS, AND SOMETIMES SOD FARMS. SHORT VEGETATION, BARE GROUND, AND FLAT TOPOGRAPHY. PREFERS GRAZED AREAS AND AREAS WITH BURROWING RODENTS.	No	N/A	None	None	—
Black Oystercatcher (Haematopus bachmani)	IPaC	BCC	No CNDDB habitat description available	No	N/A	None	None	—
Willet (Tringa semipalmata)	IPaC	BCC	No CNDDB habitat description available	Yes	Low	Low	None	Has not been recorded in the park per eBird.
Marbled Godwit (Limosa fedoa)	IPaC	BCC	No CNDDB habitat description available	Yes	Low	Low	None	Has been recorded in the park a handful of times in February per eBird.
Black Turnstone (Arenaria melanocephala)	IPaC	BCC	No CNDDB habitat description available	No	N/A	None	None	—
Short-billed Dowitcher (Limnodromus griseus)	IPaC	BCC	No CNDDB habitat description available	No	N/A	None	None	—
California Gull (Larus californicus)	IPaC	WL, S4, BCC	LITTORAL WATERS, SANDY BEACHES, WATERS AND SHORELINES OF BAYS, TIDAL MUD-FLATS, MARSHES, LAKES, ETC. COLONIAL NESTER ON ISLETS IN LARGE INTERIOR LAKES, EITHER FRESH OR STRONGLY ALKALINE.	Yes	Medium	Present	Low	Occurs in the park during the winter months, even if inconsistently. Project effects would be limited to temporary habitat loss.
Gull-billed Tern (Gelochelidon nilotica)	IPaC	SSC, S1, BCC	ONLY KNOWN BREEDING COLONIES AT SAN DIEGO BAY AND THE SALTON SEA. NESTS ON LOW, SANDY ISLETS. KNOWN TO FEED ON FISHES AT MOUTH OF COLORADO RIVER AND ON GRASSHOPPERS IN ALFALFA FIELDS.	No	N/A	None	None	—

Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
California Least Tern (Sternula antillarum browni)	CNDDB(12), IPaC	FE, CE, FP, S2	NESTS ALONG THE COAST FROM SAN FRANCISCO BAY SOUTH TO NORTHERN BAJA CALIFORNIA. COLONIAL BREEDER ON BARE OR SPARSELY VEGETATED, FLAT SUBSTRATES: SAND BEACHES, ALKALI FLATS, LAND FILLS, OR PAVED AREAS.	Yes	Low	Low	None	Has been recorded once per eBird. Does not regularly occur and would not be expected to.
Black Skimmer (Rynchops niger)	CNDDB(1), IPaC	SSC, S2, BCC	NESTS ON GRAVEL BARS, LOW ISLETS, AND SANDY BEACHES, IN UNVEGETATED SITES. NESTING COLONIES USUALLY LESS THAN 200 PAIRS.	No	N/A	None	None	—
Western Yellow-billed Cuckoo (Coccyzus americanus occidentalis)	CNDDB(6)	CE, S1	RIPARIAN FOREST NESTER, ALONG THE BROAD, LOWER FLOOD-BOTTOMS OF LARGER RIVER SYSTEMS. NESTS IN RIPARIAN JUNGLES OF WILLOW, OFTEN MIXED WITH COTTONWOODS, WITH LOWER STORY OF BLACKBERRY, NETTLES, OR WILD GRAPE.	No	N/A	None	None	—
Burrowing Owl (Athene cunicularia)	CNDDB(5)	SSC, S2	OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION. SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.	Yes	None	None	None	—
Black Swift (Cypseloides niger)	IPaC	SSC, S3, BCC	COASTAL BELT OF SANTA CRUZ AND MONTEREY COUNTIES; CENTRAL AND SOUTHERN SIERRA NEVADA; SAN BERNARDINO AND SAN JACINTO MOUNTAINS. BREEDS IN SMALL COLONIES ON CLIFFS BEHIND OR ADJACENT TO WATERFALLS IN DEEP CANYONS AND SEA-BLUFFS ABOVE THE SURF; FORAGES WIDELY.	No	N/A	None	None	—
Allen's Hummingbird (Selasphorus sasin)	IPaC	BCC	No CNDDB habitat description available	Yes	High	Present	Low	Potential effects include temporary loss of foraging habitat and potential impacts to nests if work occurs during the nesting season.
Olive-sided Flycatcher (Contopus cooperi)	IPaC	SSC, S3, BCC	NESTING HABITATS ARE MIXED CONIFER, MONTANE HARDWOOD-CONIFER, DOUGLAS-FIR, REDWOOD, RED FIR AND LODGEPOLE PINE. MOST NUMEROUS IN MONTANE CONIFER FORESTS WHERE TALL TREES OVERLOOK CANYONS, MEADOWS, LAKES OR OTHER OPEN TERRAIN.	No	N/A	None	None	Has some potential to occur as a migrant, however, has not been recorded in the park per eBird.
Bank Swallow (Riparia riparia)	CNDDB(3)	S3	COLONIAL NESTER; NESTS PRIMARILY IN RIPARIAN AND OTHER LOWLAND HABITATS WEST OF THE DESERT. REQUIRES VERTICAL BANKS/CLIFFS WITH FINE-TEXTURED/SANDY SOILS NEAR STREAMS, RIVERS, LAKES, OCEAN TO DIG NESTING HOLE.	No	N/A	None	None	—

Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
San Diego Cactus Wren (Campylorhynchus brunneicapillus sandiegensis)	CNDDB(1)	SSC, S2	SOUTHERN CALIFORNIA COASTAL SAGE SCRUB. WRENS REQUIRE TALL OPUNTIA CACTUS FOR NESTING AND ROOSTING.	No	N/A	None	None	—
Coastal California Gnatcatcher (Polioptila californica californica)	CNDDB(12), CH, IPaC	SSC, S2	OBLIGATE, PERMANENT RESIDENT OF COASTAL SAGE SCRUB BELOW 2500 FT IN SOUTHERN CALIFORNIA. LOW, COASTAL SAGE SCRUB IN ARID WASHES, ON MESAS AND SLOPES. NOT ALL AREAS CLASSIFIED AS COASTAL SAGE SCRUB ARE OCCUPIED.	No	N/A	None	None	—
California Thrasher (Toxostoma redivivum)	IPaC	BCC	No CNDDB habitat description available	Yes	None	None	None	—
Least Bell's Vireo (Vireo bellii pusillus)	CNDDB(3)	FE, CE, S3	SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT. NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.	No	N/A	None	None	Has some potential to be recorded in the park as a migrant, but has not been recorded in the park per eBird.
Yellow Warbler (Setophaga petechia)	CNDDB(1)	SSC, S3	RIPARIAN PLANT ASSOCIATIONS IN CLOSE PROXIMITY TO WATER. ALSO NESTS IN MONTANE SHRUBBERY IN OPEN CONIFER FORESTS IN CASCADES AND SIERRA NEVADA. FREQUENTLY FOUND NESTING AND FORAGING IN WILLOW SHRUBS AND THICKETS, AND IN OTHER RIPARIAN PLANTS INCLUDING COTTONWOODS, SYCAMORES, ASH, AND ALDERS.	Yes	Low	Low	None	Has occurred a handful of times in the park per eBird., but not during the breeding season.
Saltmarsh Common Yellowthroat (Geothlypis trichas sinuosa)	IPaC	SSC, S3, BCC	RESIDENT OF THE SAN FRANCISCO BAY REGION, IN FRESH AND SALT WATER MARSHES. REQUIRES THICK, CONTINUOUS COVER DOWN TO WATER SURFACE FOR FORAGING; TALL GRASSES, TULE PATCHES, WILLOWS FOR NESTING.	No	N/A	None	None	—
Yellow-breasted Chat (Icteria virens)	CNDDB(1)	SSC, S4	SUMMER RESIDENT; INHABITS RIPARIAN THICKETS OF WILLOW AND OTHER BRUSHY TANGLES NEAR WATERCOURSES. NESTS IN LOW, DENSE RIPARIAN, CONSISTING OF WILLOW, BLACKBERRY, WILD GRAPE; FORAGES AND NESTS WITHIN 10 FT OF GROUND.	Yes	Low	Low	None	Has not been recorded in the park per eBird.
Belding's Savannah Sparrow (Passerculus sandwichensis beldingi)	CNDDB(8), IPaC	CE, S3, BCC	INHABITS COASTAL SALT MARSHES, FROM SANTA BARBARA SOUTH THROUGH SAN DIEGO COUNTY. NESTS IN SALICORNIA ON AND ABOUT MARGINS OF TIDAL FLATS.	No	N/A	None	None	Belding's only occurs in coastal marshes.
Tricolored Blackbird (Agelaius tricolor)	CNDDB(3), IPaC	SSC, S2, BCC	HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY AND VICINITY. LARGELY ENDEMIC TO CALIFORNIA. REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.	Yes	Low	Low	None	Has been recorded once in the park with Red-winged Blackbirds.

Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
Bullock's Oriole (Icterus bullockii)	IPaC	BCC	No CNDDB habitat description available	Yes	N/A	None	None	Has some potential to occur as a migrant, however, has not been recorded in the park per eBird.

Mammals

The section of the report summarizes the potential for occurrence on the Project Site of 9 special status mammal taxa documented by various resource databases as occurring in the Regional Study Area. The locations of CNDDB records are shown on the map at right (note: the CNDDB license agreement expressly forbids showing records at scales where occurrences can be refound in the field based on the map). The columns in the table that follows this page are defined as follows:

Taxon

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Source(s)

The database sources prompting the inclusion of the taxon. Options are: CNDDB (numbers in parentheses are the number of CNDDB records in the Regional Study Area), CH (Critical Habitat is designated for the taxon in the Regional Study Area), and IPaC (the US Fish & Wildlife Service's Information for Planning and Consultation database).

Status

The protected status of the taxon, which for wildlife includes its status - if any - under the federal and state Endangered Species Acts, Species of Special Concern status, Fully Protected status, and NatureServe state rank. The abbreviations used are defined in the Methods section of the report.

About

The habitat of the taxon directly from the Element Info table in the CNDDB.

Range

Whether or not the Biological Study Area is within the expected range of the taxon. Options are Yes or No. Range includes the known modern distribution of the taxon and elevation limits of the taxon (if any) relative to the Biological Study Area.

Habitat

The suitability of the habitat in the Biological Study Area to support the taxon. Options are None, Low, Medium, and High. If the Biological Study Area is not within the taxon's range, habitat is not considered and is listed as N/A.

Occurrence

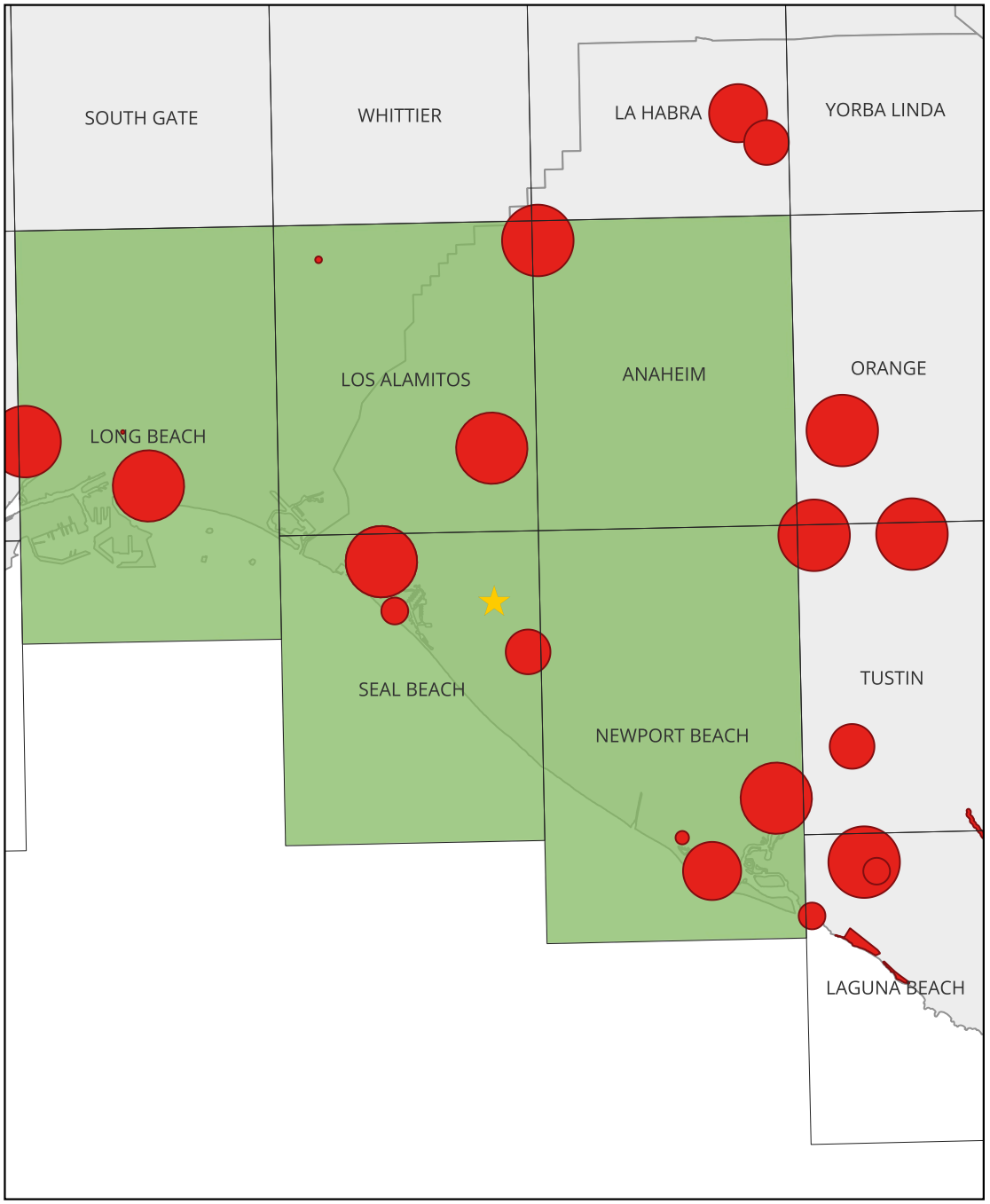
The potential for the taxon to occur in the Biological Study Area based on habitat and range. Options are None, Low, Moderate, High, and Present.

Impact

The potential for Project implementation to impact the taxon, considering its occurrence potential and the scope of the Project. Options are None, Low, Moderate, and High.

Notes

Clarifying notes, if needed.



Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
Salt Marsh Ornate Shrew (Sorex ornatus salicornicus)	CNDDB(2)	SSC, S1	COASTAL MARSHES IN LOS ANGELES, ORANGE AND VENTURA COUNTIES. REQUIRES DENSE VEGETATION AND WOODY DEBRIS FOR COVER.	No	N/A	None	None	Within mapped CWHR limits for species-level taxon. However, for S. o. salicornicus, confined to the coastal marshes in Los Angeles, Orange, and Ventura counties. Known occurrence extends from Point Mugo, Ventura County on the north to the salt marshes around Anaheim Bay and Newport Beach in Orange County, on the south per https://sdmmp.com/upload/SDMMP_Re
Silver-haired Bat (Lasionycteris noctivagans)	CNDDB(2)	S3S4	PRIMARILY A COASTAL AND MONTANE FOREST DWELLER, FEEDING OVER STREAMS, PONDS AND OPEN BRUSHY AREAS. ROOSTS IN HOLLOW TREES, BENEATH EXFOLIATING BARK, ABANDONED WOODPECKER HOLES, AND RARELY UNDER ROCKS. NEEDS DRINKING WATER.	Yes	Medium	Moderate	None	Area mapped as medium value predicted habitat by CWHR. No apparent roosting habitat.Value of area as foraging habitat may be increased by project.
Northern Hoary Bat (Lasiurus cinereus)	CNDDB(1)	S4	PREFERS OPEN HABITATS OR HABITAT MOSAICS, WITH ACCESS TO TREES FOR COVER AND OPEN AREAS OR HABITAT EDGES FOR FEEDING. ROOSTS IN DENSE FOLIAGE OF MEDIUM TO LARGE TREES. FEEDS PRIMARILY ON MOTHS. REQUIRES WATER.	Yes	Low	Low	None	Area mapped as low value predicted habitat by CWHR. No apparent roosting habitat.Value of area as foraging habitat may be increased by project.
Western Yellow Bat (Lasiurus xanthinus)	CNDDB(1)	SSC, S3	FOUND IN VALLEY FOOTHILL RIPARIAN, DESERT RIPARIAN, DESERT WASH, AND PALM OASIS HABITATS. ROOSTS IN TREES, PARTICULARLY PALMS. FORAGES OVER WATER AND AMONG TREES.	Yes	None	None	None	Not mapped as predicted habitat by CWHR.
California Bonneted Bat (Eumops perotis californicus)	CNDDB(3)	SSC, S3S4	MANY OPEN, SEMI-ARID TO ARID HABITATS, INCLUDING CONIFER AND DECIDUOUS WOODLANDS, COASTAL SCRUB, GRASSLANDS, CHAPARRAL, ETC. ROOSTS IN CREVICES IN CLIFF FACES, HIGH BUILDINGS, TREES AND TUNNELS.	Yes	Low	Low	None	Area mapped as low value predicted habitat by CWHR. No apparent roosting habitat.Value of area as foraging habitat may be increased by project.
Big Free-tailed Bat (Nyctinomops macrotis)	CNDDB(2)	SSC, S3	LOW-LYING ARID AREAS IN SOUTHERN CALIFORNIA. NEED HIGH CLIFFS OR ROCKY OUTCROPS FOR ROOSTING SITES. FEEDS PRINCIPALLY ON LARGE MOTHS.	No	N/A	None	None	—
Pacific Pocket Mouse (Perognathus longimembris pacificus)	CNDDB(1), IPaC	FE, SSC, S2	INHABITS THE NARROW COASTAL PLAINS FROM THE MEXICAN BORDER NORTH TO EL SEGUNDO, LOS ANGELES COUNTY. SEEMS TO PREFER SOILS OF FINE ALLUVIAL SANDS NEAR THE OCEAN, BUT MUCH REMAINS TO BE LEARNED.	No	N/A	None	None	While within species range, outside of subspecies range per https://www.fws.gov/species/pacific-poc
Stephens' California Vole (Microtus californicus stephensi)	CNDDB(2)	SSC, S2	TIDAL MARSHES IN LOS ANGELES, ORANGE AND SOUTHERN VENTURA COUNTIES.	No	N/A	None	None	Within CWHR species-level range. Subspecies occurs in tidal marshes at Point Mugo, Orange Co., and Playa del Rey and Sunset Beach, Los Angeles Co. per https://sdmmp.com/upload/SDMMP_Re

Taxon	Source(s)	Status	About	Range	Habitat	Occurrence	Impact	Notes
American Badger (Taxidea taxus)	CNDDB(1)	SSC, S3	MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS. NEEDS SUFFICIENT FOOD, FRIABLE SOILS AND OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS. DIGS BURROWS.	Yes	N/A	None	None	No predicted habitat mapped in area by CWHR.

Appendix C. Photo Log

Inserted after this cover page is a database-generated photo log.

Photo Log

Carr Park

This database-generated report presents a visual depiction of site conditions during the survey conducted on February 13, 2024 by England|Ecology. The data presented here were collected in the field using the QField app on an iPhone 15 Pro. After fieldwork was completed, data were synced to QGIS desktop. The map below presents an overview of the photo locations in this report, with each photo shown on the ensuing pages. This report was generated using QGIS 3.36.

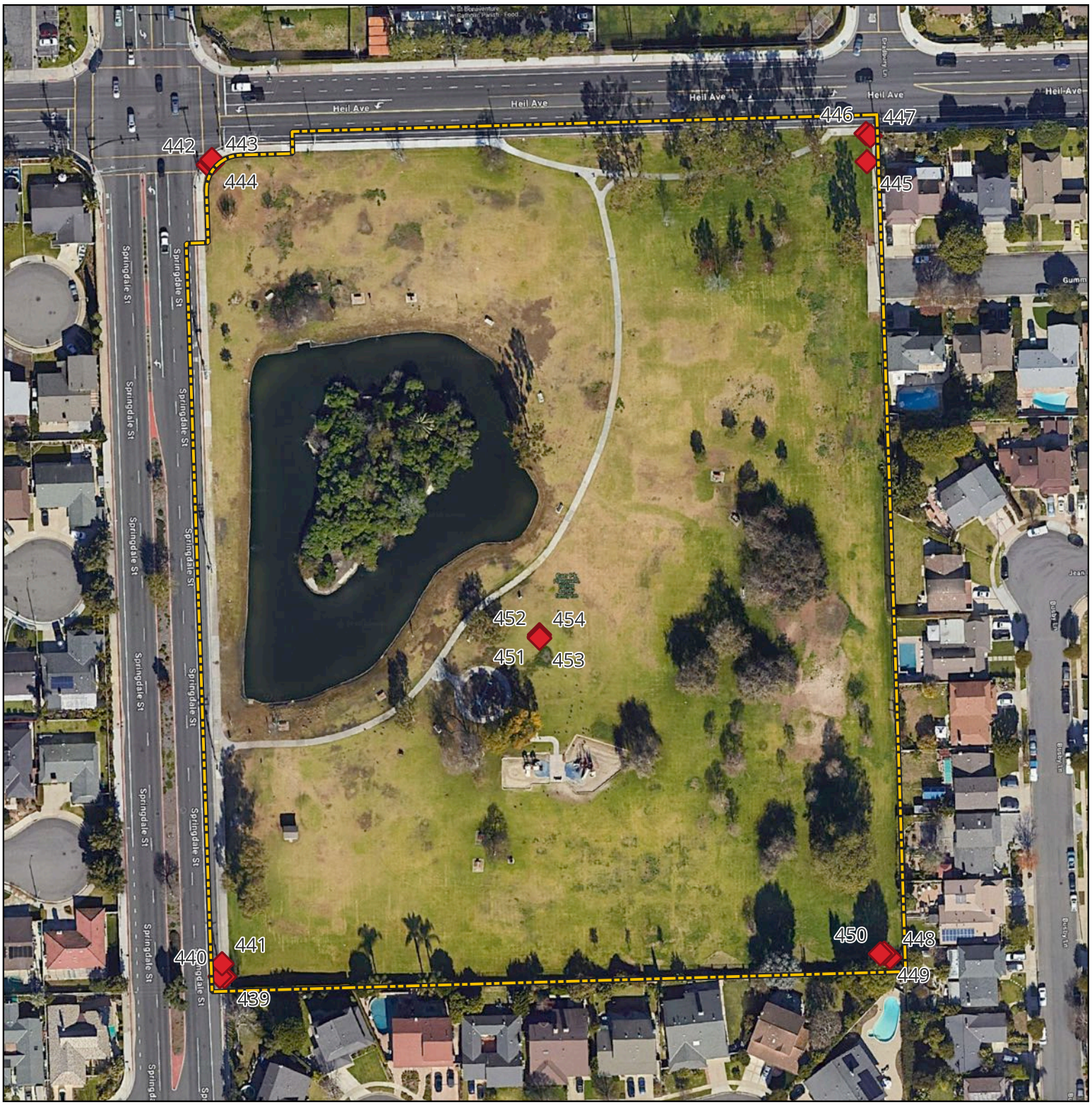


Photo Point 439

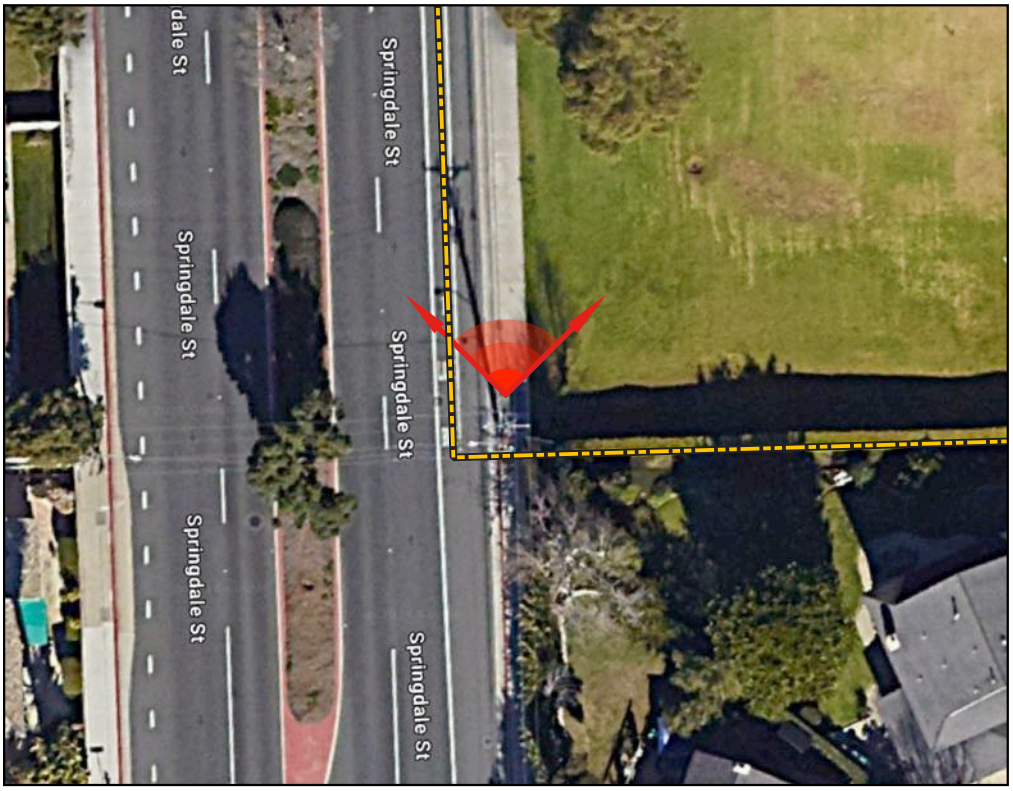


Photo Direction
North

Photo Description
View along Springdale Street from the park's southwest corner.

Photo Point 440

Photo Direction
Northeast

Photo Description
View into the park from the park's southwest corner.

Photo Point 441

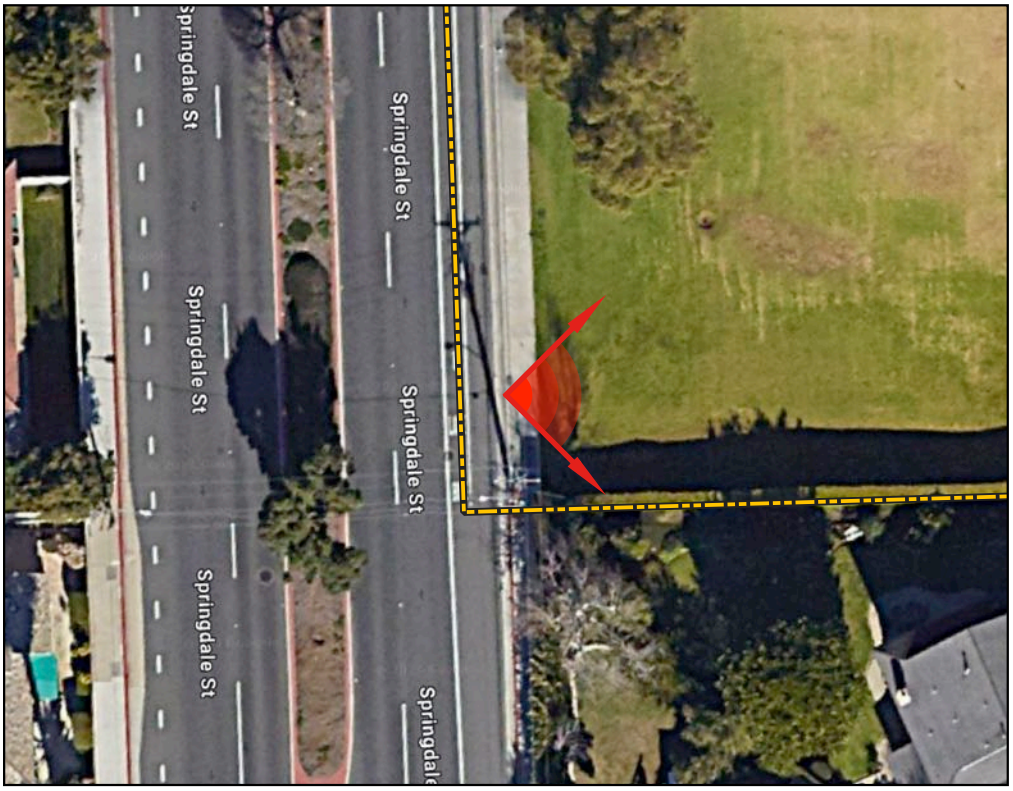


Photo Direction
East

Photo Description
View along the park's southern boundary from the park's southwest corner.

Photo Point 442

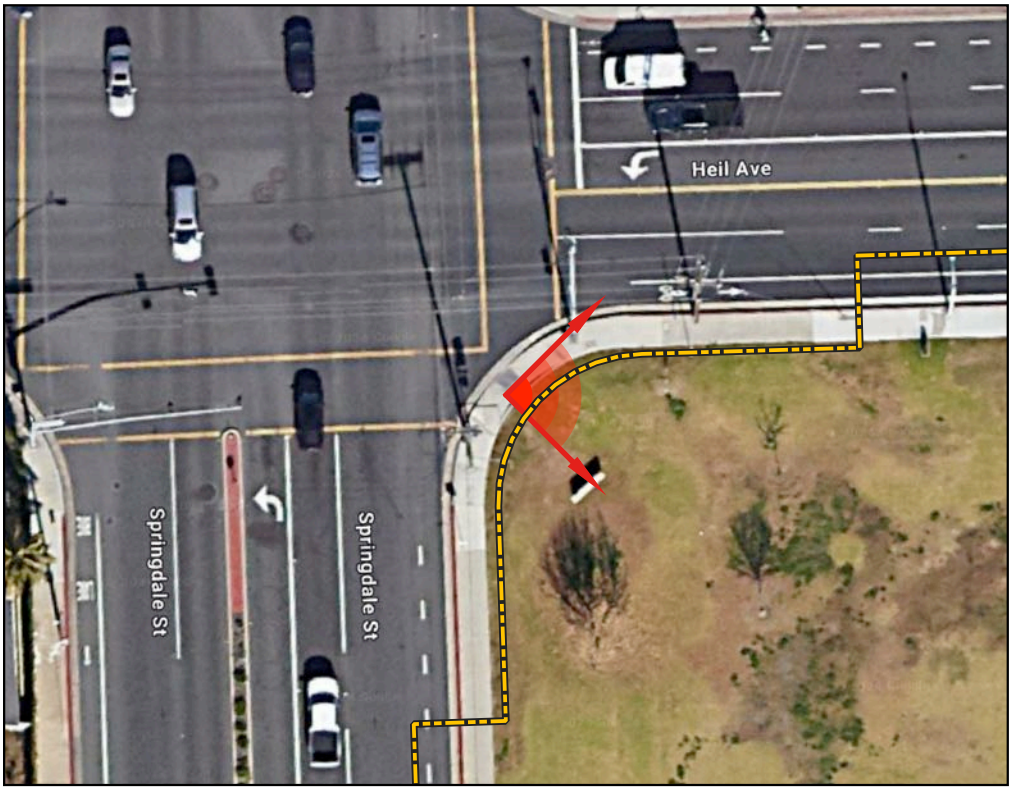


Photo Direction
East

Photo Description
View along Heil Avenue from the park's northwest corner.

Photo Point 443

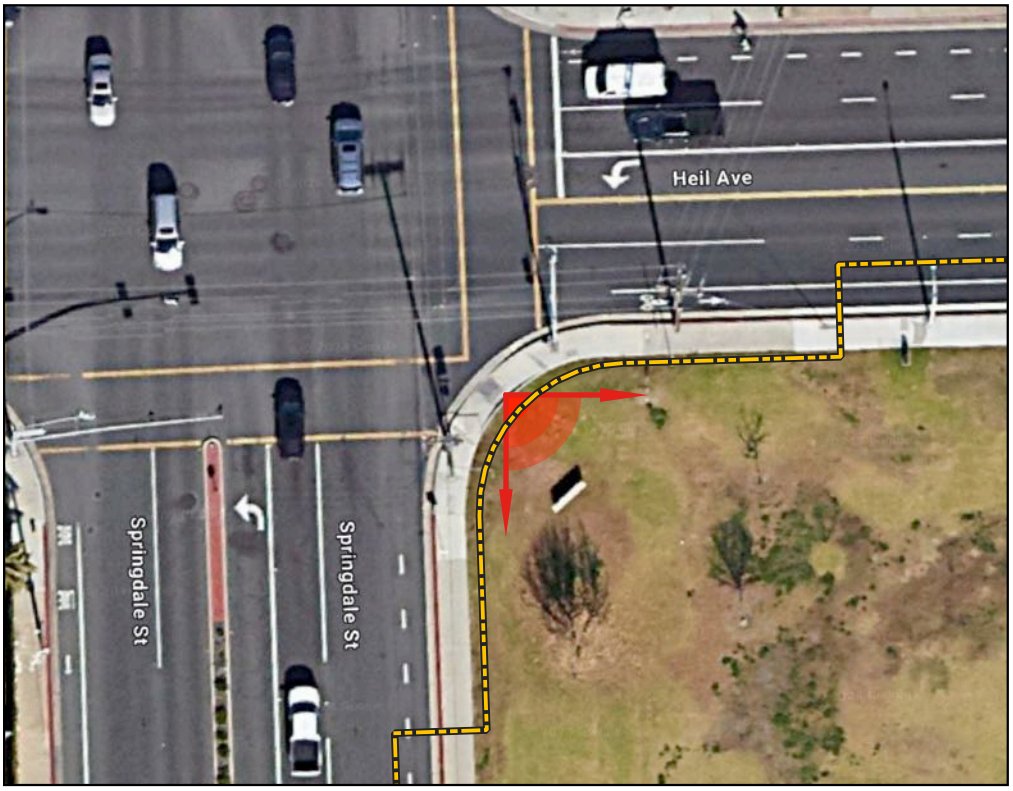


Photo Direction
Southeast

Photo Description
View into the park from the park's northwest corner.

Photo Point 444

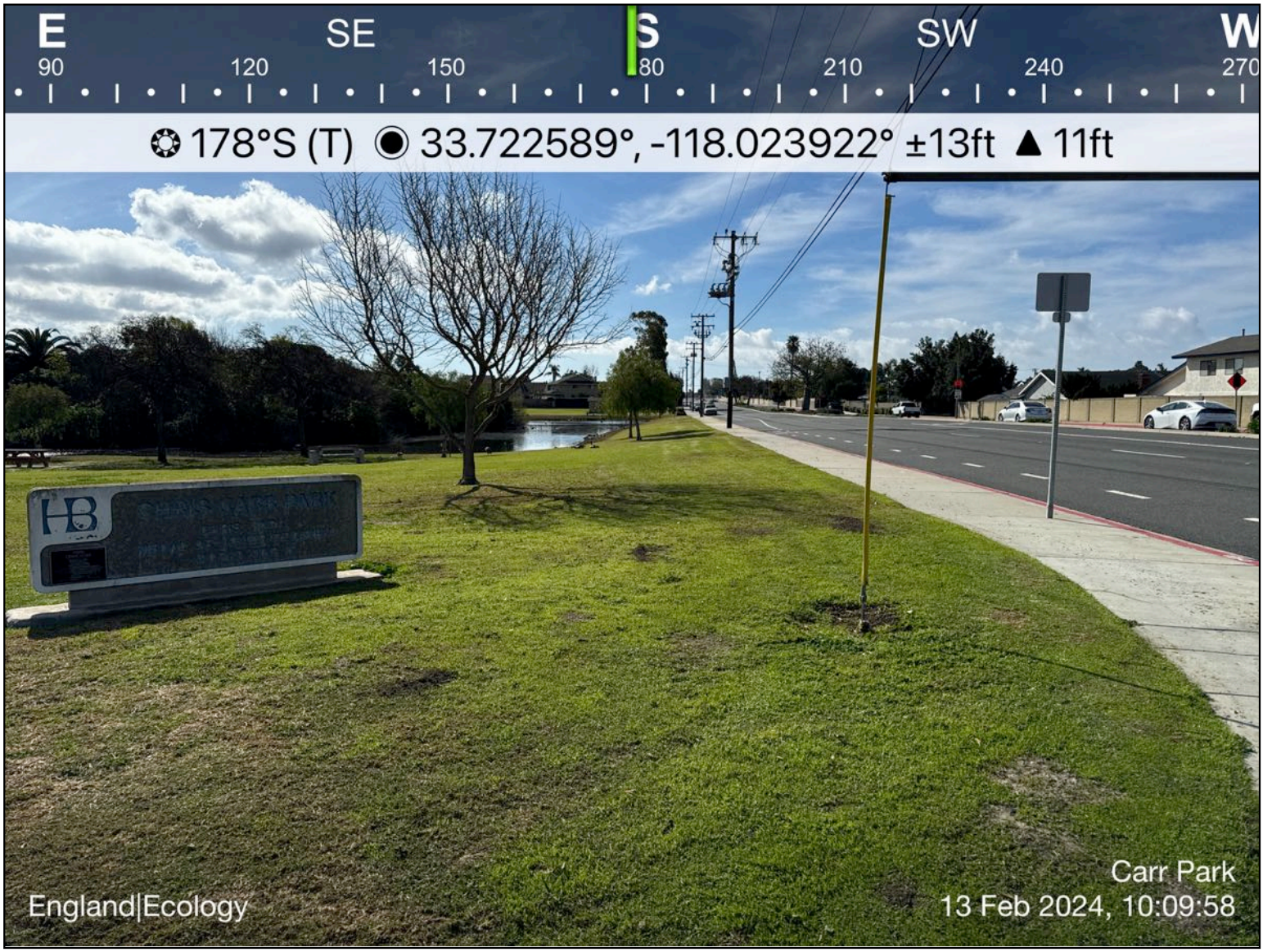


Photo Direction
South

Photo Description
View along Springdale Street from the park's northwest corner.

Photo Point 445

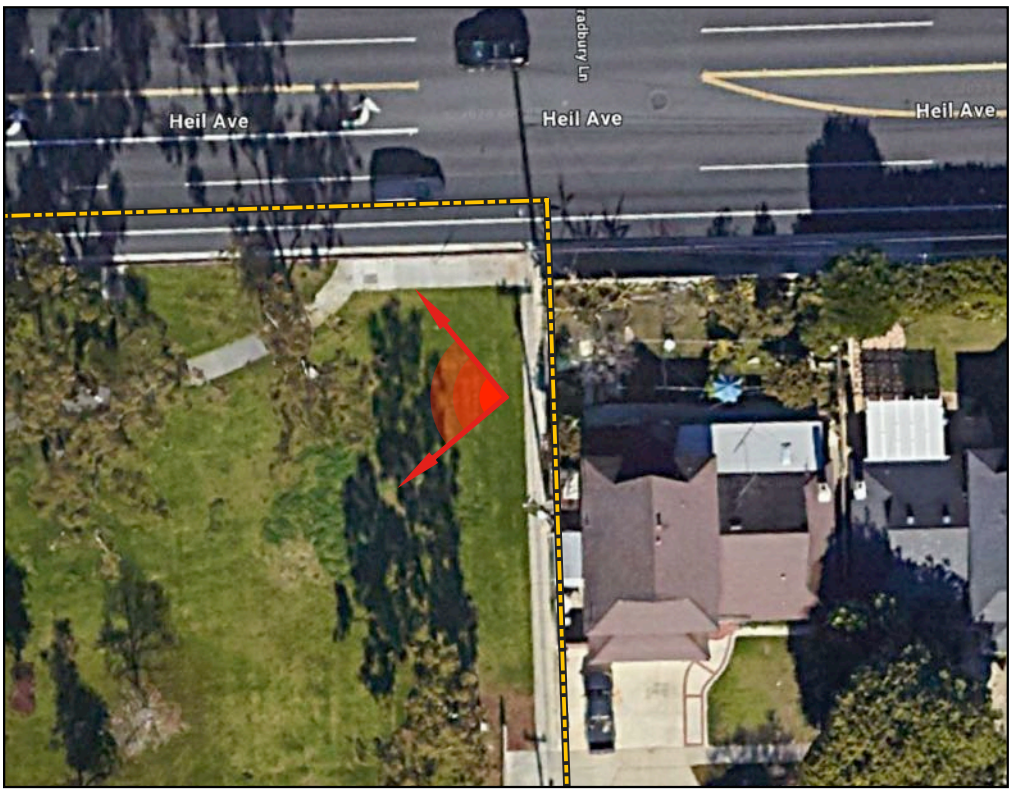


Photo Direction
West

Photo Description
View along Heil Avenue from the park's northeast corner.

Photo Point 446

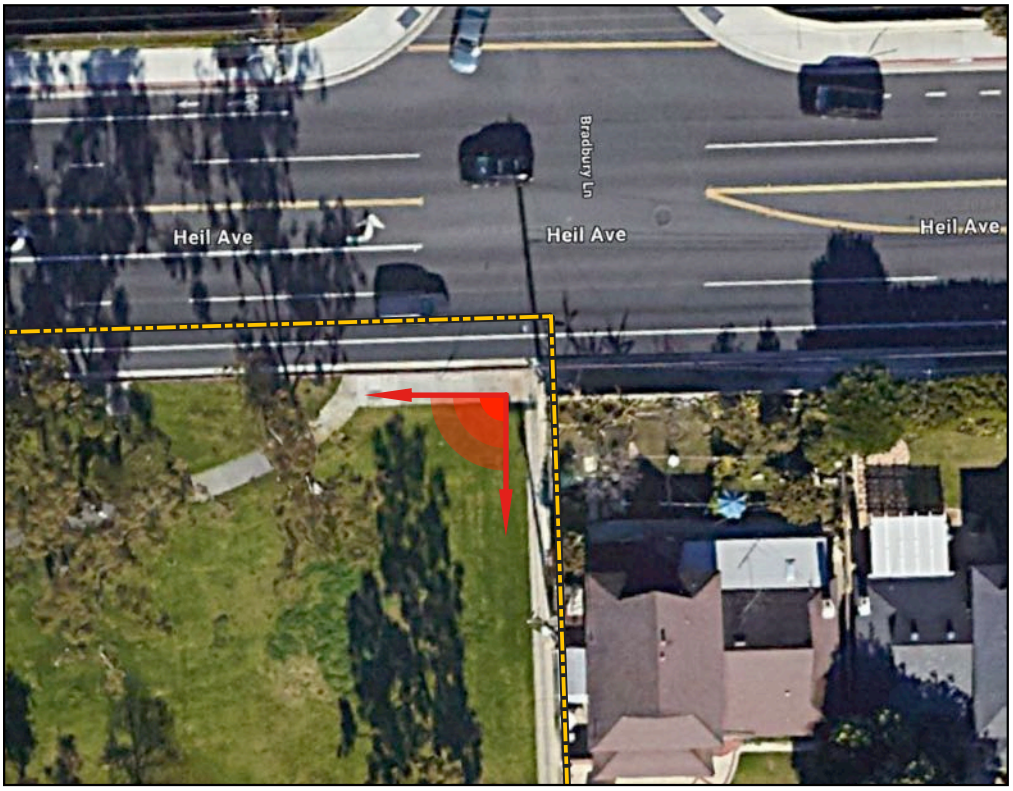


Photo Direction
Southwest

Photo Description
View into the park from the park's northeast corner.

Photo Point 447

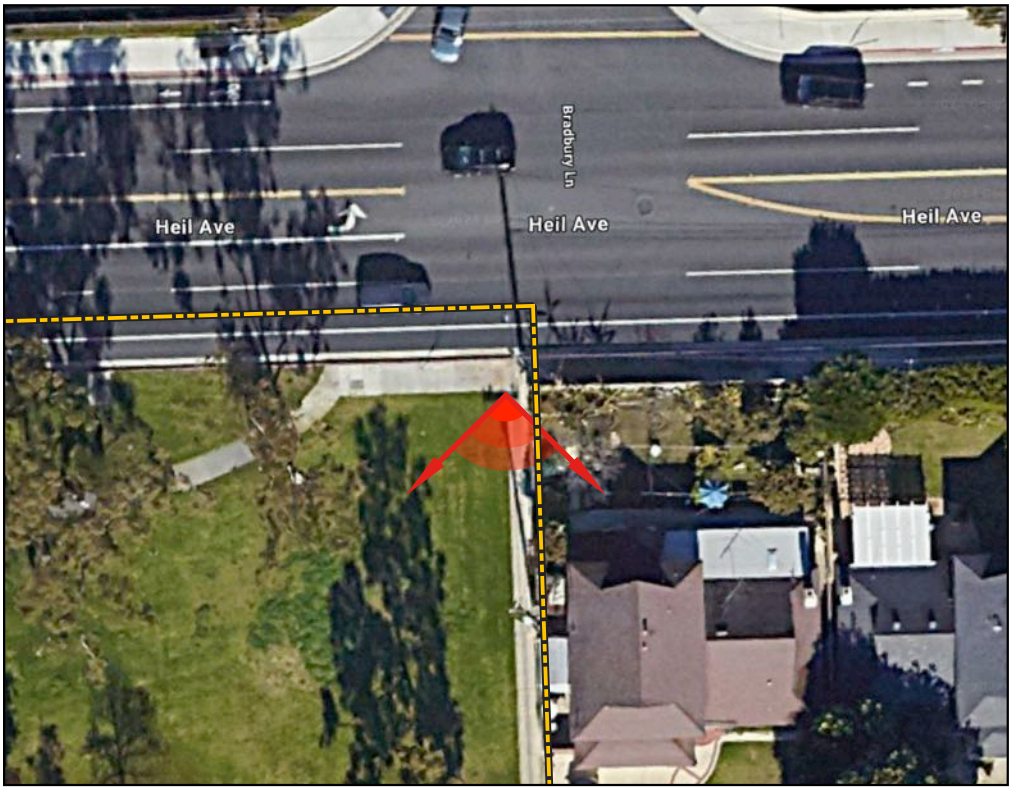


Photo Direction
South

Photo Description
View along the park's eastern boundary from the park's northeast corner.

Photo Point 448

Photo Direction
West

Photo Description
View along the park's southern boundary from the park's southeast corner.

Photo Point 449

Photo Direction
Northwest

Photo Description
View into the park from the park's southeast corner.

Photo Point 450

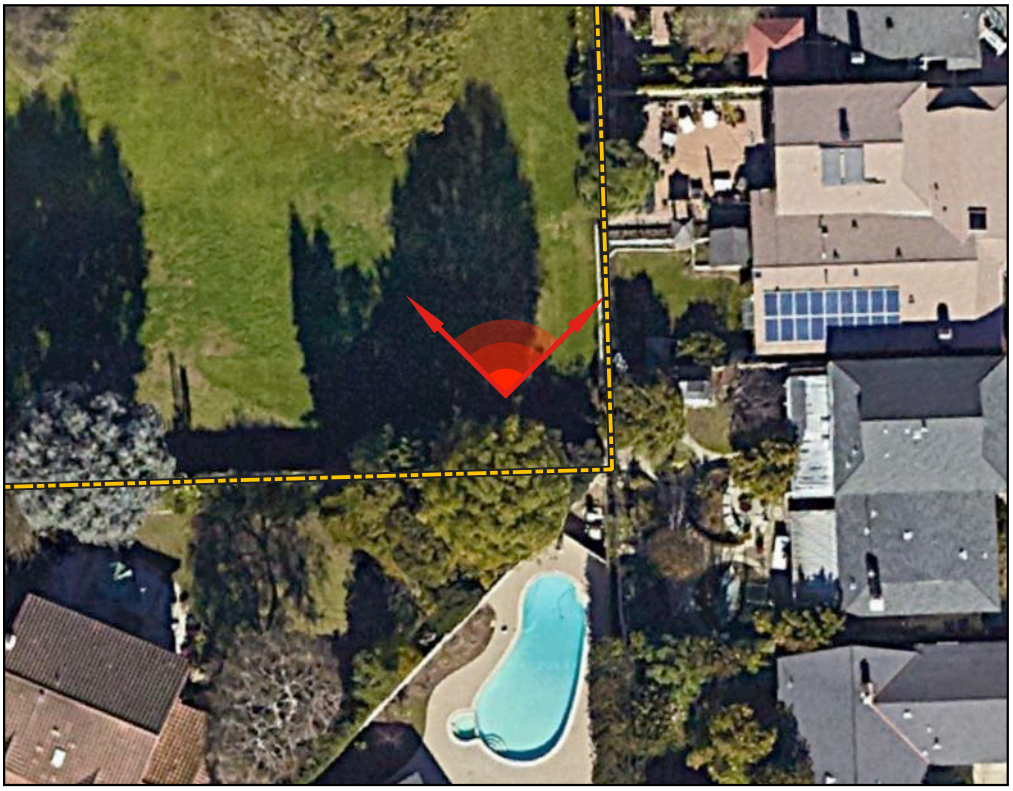


Photo Direction
North

Photo Description
View along the park's eastern boundary from the park's southeast corner.

Photo Point 451

Photo Direction
North

Photo Description
From near the park's center.

Photo Point 452

Photo Direction
East

Photo Description
From near the park's center.

Photo Point 453

Photo Direction
South

Photo Description
From near the park's center.

Photo Point 454

Photo Direction
West

Photo Description
From near the park's center.

Appendix D. eBird Species List

Following is the list of all 158 avian taxa reported to eBird for the Carr Park hotspot. The table includes the relative abundance information from eBird. The abundance data is color-coded for clarity:

- Red - not recorded.
- Orange - rarely recorded.
- Yellow - not commonly recorded.
- Green - commonly recorded.
- Blue - recorded on most checklists.

	Jan				Feb				Mar				Apr				May				Jun			
Sample Size:	96	34	27	98	77	46	34	15	15	10	7	8	4	3	6	5	4	3	2	6	0	2	4	4
Snow Goose (Anser caerulescens)	0.010	0.059	0.000	0.000	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Graylag Goose (Anser anser)	0.031	0.147	0.037	0.010	0.013	0.022	0.059	0.067	0.067	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.500	0.167	0.000	0.000	0.000	0.250
Swan Goose (Anser cygnoides)	0.125	0.088	0.074	0.031	0.000	0.022	0.147	0.133	0.133	0.100	0.143	0.000	0.250	0.333	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000
Greater White-fronted Goose (Anser albifrons)	0.010	0.029	0.000	0.010	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Domestic goose sp. (Domestic type) (Anser sp. (Domestic type))	0.198	0.294	0.148	0.071	0.091	0.109	0.176	0.267	0.400	0.500	0.143	0.375	0.750	0.333	0.500	0.400	0.000	0.333	0.500	0.333	0.000	0.500	0.500	0.250
Brant (Branta bernicla)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cackling Goose (Branta hutchinsii)	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Canada Goose (Branta canadensis)	0.969	0.971	0.963	0.959	0.909	0.978	0.971	1.000	0.933	1.000	0.857	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.833	0.002	1.000	1.000	0.750
Domestic goose sp. x Canada Goose (hybrid) (Anser sp. (Domestic type) x Branta canadensis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
goose sp. (Anatidae (goose sp.))	0.000	0.000	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.100	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Egyptian Goose (Alopochen aegyptiaca)	0.542	0.324	0.444	0.133	0.234	0.196	0.324	0.400	0.200	0.200	0.286	0.125	0.250	0.000	0.667	0.200	0.250	0.000	0.000	0.500	0.000	0.500	0.250	0.500
Muscovy Duck (Cairina moschata)	0.021	0.029	0.037	0.000	0.000	0.043	0.088	0.000	0.133	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000
Wood Duck (Aix sponsa)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Blue-winged Teal (Spatula discors)	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cinnamon Teal (Spatula cyanoptera)	0.010	0.000	0.000	0.002	0.013	0.109	0.000	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northern Shoveler (Spatula clypeata)	0.042	0.029	0.148	0.684	0.610	0.543	0.176	0.267	0.133	0.500	0.143	0.125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Gadwall (Mareca strepera)	0.042	0.000	0.000	0.020	0.013	0.002	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Eurasian Wigeon (Mareca penelope)	0.063	0.000	0.000	0.520	0.260	0.109	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
American Wigeon (Mareca americana)	0.958	0.882	1.000	0.980	0.987	0.978	0.971	1.000	0.933	1.000	0.857	1.000	0.750	0.667	0.500	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Eurasian x American Wigeon (hybrid) (Mareca penelope x americana)	0.031	0.029	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mallard (Anas platyrhynchos)	0.917	0.941	0.926	0.867	0.948	0.891	0.971	0.867	0.867	1.000	0.857	1.000	1.000	1.000	1.000	1.000	0.750	0.667	1.000	0.833	0.000	1.000	1.000	0.500
Mexican Duck (Anas diazi)	0.802	0.706	0.370	0.776	0.636	0.543	0.500	0.067	0.133	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northern Pintail (Anas acuta)	0.000	0.000	0.000	0.010	0.026	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Green-winged Teal (Anas crecca)	0.031	0.029	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Redhead (Aythya americana)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000
Ring-necked Duck (Aythya collaris)	0.000	0.029	0.000	0.010	0.026	0.087	0.176	0.067	0.267	0.400	0.286	0.125	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Lesser Scaup (Aythya affinis)	0.000	0.000	0.000	0.000	0.000	0.000	0.118	0.067	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Bufflehead (Bucephala albeola)	0.000	0.000	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Common Goldeneye (Bucephala clangula)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Hooded Merganser (Lophodytes cucullatus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ruddy Duck (Oxyura jamaicensis)	0.490	0.471	0.593	0.653	0.584	0.739	0.529	0.733	0.667	0.700	0.571	0.375	0.500	0.333	0.500	0.200	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
duck sp. (Anatidae (duck sp.))	0.002	0.000	0.002	0.010	0.013	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pied-billed Grebe (Podilymbus podiceps)	0.021	0.029	0.000	0.010	0.026	0.022	0.029	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Horned Grebe (Podiceps auritus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Eared Grebe (Podiceps nigricollis)	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Rock Pigeon (Columba livia)	0.813	0.765	0.815	0.796	0.792	0.804	0.824	0.800	0.867	1.000	0.857	0.750	0.750	0.667	0.833	1.000	0.500	1.000	1.000	0.667	0.000	1.000	1.000	0.750
Eurasian Collared-Dove (Streptopelia decaocto)	0.021	0.088	0.037	0.010	0.013	0.022	0.000	0.067	0.000	0.000	0.000	0.000	0.250	0.000	0.167	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Spotted Dove (Spilopelia chinensis)	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
White-winged Dove (Zenaida asiatica)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mourning Dove (Zenaida macroura)	0.073	0.176	0.000	0.102	0.091	0.022	0.176	0.133	0.133	0.100	0.000	0.000	0.250	0.000	0.500	0.200	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000
White-throated Swift (Aeronautes saxatalis)	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Anna's Hummingbird (Calypte anna)	0.125	0.176	0.111	0.245	0.247	0.261	0.235	0.267	0.267	0.300	0.429	0.375	0.000	0.000	0.333	0.200	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000
Allen's Hummingbird (Selasphorus sasin)	0.167	0.118	0.222	0.163	0.260	0.217	0.206	0.200	0.267	0.200	0.000	0.000	0.500	0.000	0.167	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Rufous/Allen's Hummingbird (Selasphorus rufus/sasin)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.067	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
hummingbird sp. (Trochilidae sp.)	0.021	0.029	0.000	0.031	0.000	0.022	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000
Sora (Porzana carolina)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
American Coot (Fulica americana)	0.938	0.912	0.926	0.888	0.935	0.935	0.882	1.000	0.933	1.000	0.857	1.000	0.750	1.000	1.000	0.600	0.500	0.333	0.500	0.333	0.000	0.500	0.250	0.250
Black-necked Stilt (Himantopus mexicanus)	0.031	0.000	0.000	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Killdeer (Charadrius vociferus)	0.031	0.000	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Whimbrel (Numenius phaeopus)	0.000	0.000	0.000	0.000	0.000	0.000	0.059	0.067	0.067	0.000	0.000	0.000	0.000	0.000	0.167	0.200	0.250	0.000	0.500	0.167	0.000	0.000	0.000	0.000
Long-billed Curlew (Numenius americanus)	0.002	0.088	0.296	0.041	0.039	0.261	0.294	0.267	0.267	0.300	0.429	0.125	0.000	0.000	0.167	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Marbled Godwit (Limosa fedoa)	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Long-billed Dowitcher (Limnodromus scolopaceus)	0.021	0.000	0.074	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Spotted Sandpiper (Actitis macularius)	0.000	0.000	0.000	0.000	0.013	0.000	0.059	0.000	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Greater Yellowlegs (Tringa melanoleuca)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Bonaparte's Gull (Chroicocephalus philadelphia)	0.000	0.002	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Short-billed Gull (Larus brachyrhynchus)	0.000	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ring-billed Gull (Larus delawarensis)	0.813	0.765	0.778	0.878	0.831	0.804	0.794	0.867	0.800	0.900	0.714	0.750	0.750	0.667	0.667	1.000	0.750	0.333	1.000	0.500	0.000	0.000	0.000	0.250
Western Gull (Larus occidentalis)	0.188	0.235	0.222	0.204	0.390	0.196	0.176	0.333	0.067	0.200	0.000	0.125	0.000	0.000	0.167	0.600	0.250	0.333	0.500	0.333	0.000	0.500	0.250	0.000
Herring Gull (Larus argentatus)	0.010	0.000	0.037	0.020	0.052	0.000	0.000	0.000	0.000	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
California Gull (Larus californicus)	0.177	0.294	0.185	0.235	0.221	0.130	0.235	0.200	0.133	0.200	0.143	0.250	0.500	0.333	0.500	0.800	0.250	0.333	0.000	0.333	0.000	1.000	0.250	0.500
Glaucous-winged Gull (Larus glaucescens)	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.125	0.000	0.000	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Western x Glaucous-winged Gull (hybrid) (Larus occidentalis x glaucescens)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Western/Glaucous-winged Gull (Larus occidentalis/ glaucescens)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Iceland Gull (Larus glaucoides)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
white-winged gull sp. (Larus sp. (white-winged gull sp.))	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
gull sp. (Larinae sp.)	0.042	0.029	0.037	0.000	0.065	0.022	0.088	0.000	0.067	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Least Tern (Sternula antillarum)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250
Double-crested Cormorant (Nannopterum auritum)	0.333	0.235	0.296	0.102	0.052	0.239	0.265	0.133	0.067	0.000	0.000	0.375	0.000	0.000	0.167	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.000	0.000
American White Pelican (Pelecanus erythrorhynchos)	0.125	0.147	0.222	0.408	0.156	0.196	0.382	0.400	0.067	0.200	0.000	0.250	0.500	0.333	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Brown Pelican (Pelecanus occidentalis)	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
American Bittern (Botaurus lentiginosus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Yellow-crowned Night Heron (Nyctanassa violacea)	0.000	0.000	0.000	0.000	0.000	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000

	Jul				Aug				Sep				Oct				Nov				Dec			
Sample Size:	0	1	2	3	1	3	2	5	13	4	2	2	6	9	12	26	22	13	55	39	34	12	19	32
Snow Goose (Anser caerulescens)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.029	0.000	0.002	0.031
Graylag Goose (Anser anser)	0.000	0.000	0.500	0.333	0.000	0.000	0.000	0.000	0.077	0.250	0.000	0.000	0.000	0.111	0.002	0.038	0.409	0.077	0.018	0.051	0.059	0.250	0.000	0.000
Swan Goose (Anser cygnoides)	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.038	0.227	0.000	0.091	0.154	0.059	0.167	0.105	0.063
Greater White-fronted Goose (Anser albifrons)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.091	0.000	0.018	0.000	0.029	0.000	0.000	0.000
Domestic goose sp. (Domestic type) (Anser sp. (Domestic type))	0.002	0.000	0.000	0.333	1.000	0.667	0.000	0.400	0.462	0.000	1.000	0.500	0.333	0.444	0.417	0.000	0.091	0.000	0.509	0.256	0.441	0.250	0.474	0.250
Brant (Branta bernicla)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000
Cackling Goose (Branta hutchinsii)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.273	0.154	0.018	0.000	0.000	0.167	0.000	0.000
Canada Goose (Branta canadensis)	0.002	1.000	1.000	1.000	1.000	1.000	0.500	0.800	1.000	0.750	1.000	1.000	0.667	1.000	1.000	0.962	0.955	0.923	1.000	0.846	1.000	0.750	1.000	0.969
Domestic goose sp. x Canada Goose (hybrid) (Anser sp. (Domestic type) x Branta canadensis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.115	0.045	0.000	0.000	0.051	0.029	0.083	0.000	0.000
goose sp. (Anatidae (goose sp.))	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.026	0.000	0.000	0.000	0.000
Egyptian Goose (Alopochen aegyptiaca)	0.000	0.000	0.000	0.333	0.000	0.333	0.500	0.400	0.462	0.000	0.000	0.000	0.167	0.444	0.417	0.500	0.318	0.692	0.764	0.564	0.676	0.417	0.579	0.375
Muscovy Duck (Cairina moschata)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.111	0.000	0.002	0.273	0.077	0.109	0.051	0.029	0.083	0.000	0.000
Wood Duck (Aix sponsa)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.111	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Blue-winged Teal (Spatula discors)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cinnamon Teal (Spatula cyanoptera)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000
Northern Shoveler (Spatula clypeata)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.045	0.000	0.600	0.487	0.353	0.167	0.000	0.063
Gadwall (Mareca strepera)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000	0.077	0.036	0.026	0.029	0.083	0.000	0.000
Eurasian Wigeon (Mareca penelope)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031
American Wigeon (Mareca americana)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.444	0.750	0.846	0.773	0.923	1.000	0.923	1.000	0.833	1.000	0.938
Eurasian x American Wigeon (hybrid) (Mareca penelope x americana)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.077	0.045	0.002	0.000	0.000	0.029	0.083	0.053	0.031
Mallard (Anas platyrhynchos)	0.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.846	0.750	1.000	1.000	0.833	1.000	0.917	0.923	0.773	0.846	0.945	0.949	0.941	0.917	0.895	0.938
Mexican Duck (Anas diazi)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.500	0.136	0.077	0.327	0.564	0.647	0.167	0.421	0.625
Northern Pintail (Anas acuta)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.115	0.000	0.000	0.018	0.026	0.059	0.000	0.000	0.000
Green-winged Teal (Anas crecca)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000
Redhead (Aythya americana)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000
Ring-necked Duck (Aythya collaris)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Lesser Scaup (Aythya affinis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Bufflehead (Bucephala albeola)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.000
Common Goldeneye (Bucephala clangula)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.000
Hooded Merganser (Lophodytes cucullatus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.031
Ruddy Duck (Oxyura jamaicensis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.167	0.077	0.182	0.231	0.600	0.513	0.588	0.167	0.474	0.719
duck sp. (Anatidae (duck sp.))	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.083	0.000	0.000	0.000	0.036	0.000	0.000	0.000	0.000	0.000
Pied-billed Grebe (Podilymbus podiceps)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.136	0.154	0.018	0.026	0.000	0.000	0.000	0.002
Horned Grebe (Podiceps auritus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Eared Grebe (Podiceps nigricollis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.091	0.000	0.018	0.000	0.000	0.000	0.000	0.000
Rock Pigeon (Columba livia)	0.002	1.000	0.500	0.667	1.000	1.000	1.000	0.800	0.846	0.750	1.000	1.000	0.500	0.778	0.750	0.846	0.591	0.615	0.836	0.769	0.853	0.500	0.737	0.875
Eurasian Collared-Dove (Streptopelia decaocto)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.154	0.000	0.000	0.000	0.000	0.111	0.000	0.038	0.000	0.000	0.000	0.000	0.059	0.000	0.000	0.094
Spotted Dove (Spilopelia chinensis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
White-winged Dove (Zenaida asiatica)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mourning Dove (Zenaida macroura)	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.200	0.308	0.250	0.500	0.000	0.167	0.222	0.167	0.000	0.000	0.077	0.055	0.128	0.088	0.000	0.263	0.000
White-throated Swift (Aeronautes saxatalis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.000	0.000	0.000
Anna's Hummingbird (Calypte anna)	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.002	0.000	0.045	0.077	0.055	0.051	0.029	0.083	0.158	0.063
Allen's Hummingbird (Selasphorus sasin)	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.077	0.250	0.500	0.000	0.000	0.111	0.000	0.038	0.000	0.154	0.055	0.128	0.147	0.083	0.316	0.188
Rufous/Allen's Hummingbird (Selasphorus rufus/sasin)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.000
hummingbird sp. (Trochilidae sp.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.036	0.000	0.000	0.000	0.000	0.000
Sora (Porzana carolina)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
American Coot (Fulica americana)	0.000	0.000	1.000	0.333	0.000	0.333	0.000	0.400	0.615	0.500	0.500	0.500	0.833	0.889	1.000	0.962	0.864	0.923	0.927	0.846	0.941	0.750	0.947	0.938
Black-necked Stilt (Himantopus mexicanus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Killdeer (Charadrius vociferus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.000
Whimbrel (Numenius phaeopus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Long-billed Curlew (Numenius americanus)	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.038	0.091	0.462	0.018	0.128	0.059	0.000	0.000	0.063
Marbled Godwit (Limosa fedoa)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Long-billed Dowitcher (Limnodromus scolopaceus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Spotted Sandpiper (Actitis macularius)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	0.000	0.000	0.083	0.000	0.000
Greater Yellowlegs (Tringa melanoleuca)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Bonaparte's Gull (Chroicocephalus philadelphia)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.029	0.000	0.000	0.000
Short-billed Gull (Larus brachyrhynchus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.291	0.026	0.000	0.000	0.000	0.000
Ring-billed Gull (Larus delawarensis)	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.077	0.250	1.000	0.000	0.333	0.667	0.500	0.269	0.773	0.846	0.873	0.872	0.882	0.667	0.895	0.813
Western Gull (Larus occidentalis)	0.000	0.000	0.000	1.000	1.000	0.333	0.500	0.000	0.077	0.250	0.000	0.500	0.167	0.333	0.333	0.615	0.227	0.615	0.255	0.308	0.176	0.250	0.263	0.250
Herring Gull (Larus argentatus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.045	0.000	0.055	0.051	0.000	0.083	0.000	0.000
California Gull (Larus californicus)	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.400	0.000	0.000	0.000	0.000	0.167	0.222	0.167	0.308	0.182	0.538	0.382	0.256	0.147	0.000	0.158	0.281
Glaucous-winged Gull (Larus glaucescens)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.055	0.000	0.000	0.000	0.000	0.031
Western x Glaucous-winged Gull (hybrid) (Larus occidentalis x glaucescens)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Western/Glaucous-winged Gull (Larus occidentalis/ glaucescens)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.036	0.000	0.000	0.000	0.000	0.000
Iceland Gull (Larus glaucoides)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.055	0.000	0.000	0.000	0.000	0.000
white-winged gull sp. (Larus sp. (white-winged gull sp.))	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
gull sp. (Larinae sp.)	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.115	0.045	0.077	0.036	0.077	0.029	0.000	0.105	0.031
Least Tern (Sternula antillarum)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Double-crested Cormorant (Nannopterum auritum)	0.000	0.000	0.500	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.083	0.192	0.000	0.154	0.145	0.333	0.441	0.083	0.421	0.250
American White Pelican (Pelecanus erythrorhynchos)	0.000	0.000	0.000	0.667	0.000	0.667	0.500	0.200	0.846	0.002	0.002	0.500	0.167	0.222	0.667	0.692	0.409	0.154	0.564	0.718	0.559	0.750	0.263	0.250
Brown Pelican (Pelecanus occidentalis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.083	0.000	0.000	0.000	0.000	0.000	0.000	0.083	0.000	0.000
American Bittern (Botaurus lentiginosus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Yellow-crowned Night Heron (Nyctanassa violacea)	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.800	0.846	0.000	0.500	0.500	0.000	0.222	0.583	0.231	0.182	0.000	0.000	0.026	0.000	0.000	0.000	0.002

	Jan				Feb				Mar				Apr				May				Jun			
Sample Size:	96	34	27	98	77	46	34	15	15	10	7	8	4	3	6	5	4	3	2	6	0	2	4	4
Black-crowned Night Heron (Nycticorax nycticorax)	0.969	0.971	0.963	0.786	0.662	0.804	0.735	0.667	0.667	0.600	0.429	0.625	0.250	0.002	0.667	0.200	0.250	0.667	0.500	0.333	0.000	0.500	0.500	0.500
Little Blue Heron (Egretta caerulea)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Snowy Egret (Egretta thula)	0.031	0.176	0.037	0.041	0.000	0.022	0.118	0.133	0.000	0.000	0.000	0.125	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.250	0.250
Green Heron (Butorides virescens)	0.000	0.029	0.000	0.010	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Great Egret (Ardea alba)	0.042	0.265	0.185	0.041	0.026	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Great Blue Heron (Ardea herodias)	0.010	0.088	0.000	0.020	0.026	0.022	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
White-faced Ibis (Plegadis chihi)	0.792	0.735	0.852	0.816	0.792	0.848	0.882	0.733	0.867	0.800	0.714	0.750	0.500	0.333	0.167	0.200	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Turkey Vulture (Cathartes aura)	0.104	0.059	0.074	0.061	0.039	0.000	0.059	0.067	0.000	0.100	0.000	0.000	0.000	0.000	0.333	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Osprey (Pandion haliaetus)	0.000	0.000	0.037	0.000	0.013	0.022	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000
Northern Harrier (Circus hudsonius)	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sharp-shinned Hawk (Accipiter striatus)	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cooper's Hawk (Accipiter cooperii)	0.104	0.029	0.111	0.000	0.000	0.087	0.059	0.067	0.067	0.000	0.143	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.250
Sharp-shinned/Cooper's Hawk (Accipiter striatus/cooperii)	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Bald Eagle (Haliaeetus leucocephalus)	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Red-shouldered Hawk (Buteo lineatus)	0.052	0.059	0.037	0.010	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Red-tailed Hawk (Buteo jamaicensis)	0.115	0.000	0.037	0.051	0.052	0.087	0.088	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ferruginous Hawk (Buteo regalis)	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Belted Kingfisher (Megaceryle alcyon)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Downy Woodpecker (Dryobates pubescens)	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000
Nuttall's Woodpecker (Dryobates nuttallii)	0.042	0.029	0.000	0.010	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northern Flicker (Colaptes auratus)	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.133	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
woodpecker sp. (Picidae sp.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
American Kestrel (Falco sparverius)	0.000	0.000	0.037	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Merlin (Falco columbarius)	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Peregrine Falcon (Falco peregrinus)	0.073	0.088	0.074	0.061	0.078	0.043	0.000	0.067	0.000	0.100	0.143	0.000	0.000	0.000	0.000	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mitred Parakeet (Psittacara mitratus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000
Mitred/Red-masked Parakeet (Psittacara mitratus/erythrogenys)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Western Wood-Pewee (Contopus sordidulus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000
Black Phoebe (Sayornis nigricans)	0.510	0.412	0.444	0.480	0.416	0.326	0.324	0.533	0.333	0.500	0.714	0.375	0.750	0.333	0.500	0.200	0.000	0.333	0.500	0.333	0.000	0.500	0.000	0.500
Say's Phoebe (Sayornis saya)	0.156	0.088	0.037	0.306	0.169	0.283	0.176	0.133	0.400	0.300	0.143	0.000	0.250	0.000	0.000	0.400	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000
Vermilion Flycatcher (Pyrocephalus rubinus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ash-throated Flycatcher (Myiarchus cinerascens)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Tropical Kingbird (Tyrannus melancholicus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cassin's Kingbird (Tyrannus vociferans)	0.021	0.059	0.074	0.031	0.065	0.022	0.059	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000
new world flycatcher sp. (Tyrannidae sp.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Hutton's Vireo (Vireo huttoni)	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
American Crow (Corvus brachyrhynchos)	0.438	0.412	0.593	0.510	0.494	0.457	0.500	0.667	0.800	0.700	0.429	0.625	0.750	0.333	0.833	0.800	0.500	0.667	1.000	0.500	0.000	1.000	0.500	0.500
Common Raven (Corvus corax)	0.000	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000
Tree Swallow (Tachycineta bicolor)	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northern Rough-winged Swallow (Stelgidopteryx serripennis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000
Barn Swallow (Hirundo rustica)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.200	0.000	0.000	0.500	0.167	0.000	0.000	0.250	0.250
swallow sp. (Hirundinidae sp.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Bushtit (Psaltriparus minimus)	0.010	0.000	0.000	0.002	0.013	0.022	0.000	0.002	0.067	0.000	0.143	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.250
Swinhoe's White-eye (Zosterops simplex)	0.125	0.118	0.111	0.163	0.234	0.065	0.176	0.200	0.133	0.200	0.000	0.000	0.250	0.000	0.167	0.200	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000
Ruby-crowned Kinglet (Corthylio calendula)	0.042	0.059	0.074	0.102	0.143	0.087	0.088	0.002	0.067	0.100	0.143	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Blue-gray Gnatcatcher (Polioptila caerulea)	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
House Wren (Troglodytes aedon)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000
wren sp. (Troglodytidae sp.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
European Starling (Sturnus vulgaris)	0.010	0.059	0.037	0.051	0.091	0.109	0.118	0.067	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.500	0.002	0.000
Northern Mockingbird (Mimus polyglottos)	0.002	0.088	0.000	0.000	0.026	0.000	0.029	0.067	0.067	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000
Western Bluebird (Sialia mexicana)	0.375	0.235	0.333	0.122	0.169	0.130	0.265	0.200	0.333	0.100	0.000	0.125	0.500	0.000	0.333	0.400	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000
Hermit Thrush (Catharus guttatus)	0.010	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
American Robin (Turdus migratorius)	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cedar Waxwing (Bombycilla cedrorum)	0.010	0.000	0.000	0.000	0.013	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Scaly-breasted Munia (Lonchura punctulata)	0.000	0.000	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
House Sparrow (Passer domesticus)	0.052	0.029	0.074	0.010	0.013	0.065	0.088	0.133	0.133	0.000	0.000	0.000	0.500	0.000	0.667	0.400	0.000	0.333	0.000	0.333	0.000	0.500	0.000	0.250
American Pipit (Anthus rubescens)	0.021	0.029	0.074	0.000	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
House Finch (Haemorhous mexicanus)	0.229	0.176	0.148	0.112	0.195	0.152	0.206	0.200	0.333	0.100	0.143	0.250	0.250	0.000	0.500	0.600	0.000	0.000	0.000	0.333	0.000	0.500	0.250	0.750
Lesser Goldfinch (Spinus psaltria)	0.073	0.059	0.000	0.031	0.052	0.043	0.029	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Lawrence's Goldfinch (Spinus lawrencei)	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
American Goldfinch (Spinus tristis)	0.010	0.000	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Lark Sparrow (Chondestes grammacus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Dark-eyed Junco (Junco hyemalis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
White-crowned Sparrow (Zonotrichia leucophrys)	0.094	0.029	0.037	0.010	0.026	0.022	0.088	0.067	0.067	0.100	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Savannah Sparrow (Passerculus sandwichensis)	0.000	0.000	0.000	0.000	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Song Sparrow (Melospiza melodia)	0.021	0.059	0.000	0.000	0.026	0.000	0.000	0.000	0.067	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000
California Towhee (Melozone crissalis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Hooded Oriole (Icterus cucullatus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Red-winged Blackbird (Agelaius phoeniceus)	0.802	0.765	0.741	0.622	0.623	0.783	0.500	0.267	0.467	0.400	0.143	0.125	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Tricolored Blackbird (Agelaius tricolor)	0.292	0.029	0.037	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000
Red-winged/Tricolored Blackbird (Agelaius phoeniceus/tricolor)	0.000	0.029	0.002	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Brown-headed Cowbird (Molothrus ater)	0.042	0.029	0.148	0.031	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Brewer's Blackbird (Euphagus cyanocephalus)	0.021	0.029	0.074	0.051	0.013	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

	Jul				Aug				Sep				Oct				Nov				Dec			
Sample Size:	0	1	2	3	1	3	2	5	13	4	2	2	6	9	12	26	22	13	55	39	34	12	19	32
Black-crowned Night Heron (Nycticorax nycticorax)	0.002	0.002	0.000	0.667	0.000	0.667	0.500	0.400	0.923	0.500	0.500	1.000	0.500	0.889	0.833	0.846	0.773	0.846	0.782	0.872	0.941	0.750	0.842	0.938
Little Blue Heron (Egretta caerulea)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Snowy Egret (Egretta thula)	0.000	0.002	0.500	0.333	0.000	0.333	0.500	0.400	0.000	0.500	0.500	0.002	0.333	0.222	0.167	0.038	0.091	0.077	0.000	0.077	0.000	0.167	0.000	0.031
Green Heron (Butorides virescens)	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.000	0.538	0.250	0.000	0.000	0.000	0.000	0.083	0.000	0.000	0.000	0.000	0.000	0.059	0.000	0.000	0.000
Great Egret (Ardea alba)	0.000	0.002	0.000	0.000	0.000	0.000	0.002	0.000	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.045	0.000	0.036	0.000	0.059	0.000	0.000	0.000
Great Blue Heron (Ardea herodias)	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.105	0.000
White-faced Ibis (Plegadis chihi)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.538	0.500	0.000	0.500	0.500	0.889	1.000	0.846	0.591	0.615	0.691	0.821	0.765	0.667	0.737	0.781
Turkey Vulture (Cathartes aura)	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.200	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.308	0.136	0.154	0.327	0.128	0.206	0.083	0.211	0.125
Osprey (Pandion haliaetus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northern Harrier (Circus hudsonius)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.000	0.000	0.000
Sharp-shinned Hawk (Accipiter striatus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cooper's Hawk (Accipiter cooperii)	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.200	0.077	0.000	0.500	0.000	0.167	0.111	0.083	0.038	0.045	0.000	0.091	0.051	0.088	0.083	0.105	0.063
Sharp-shinned/Cooper's Hawk (Accipiter striatus/cooperii)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Bald Eagle (Haliaeetus leucocephalus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Red-shouldered Hawk (Buteo lineatus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.236	0.026	0.029	0.000	0.053	0.031
Red-tailed Hawk (Buteo jamaicensis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.045	0.000	0.182	0.179	0.265	0.000	0.211	0.063
Ferruginous Hawk (Buteo regalis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Belted Kingfisher (Megaceryle alcyon)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Downy Woodpecker (Dryobates pubescens)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.000	0.000	0.000
Nuttall's Woodpecker (Dryobates nuttallii)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.088	0.083	0.000	0.000
Northern Flicker (Colaptes auratus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
woodpecker sp. (Picidae sp.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053	0.000
American Kestrel (Falco sparverius)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.000
Merlin (Falco columbarius)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Peregrine Falcon (Falco peregrinus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.309	0.026	0.294	0.083	0.000	0.094
Mitred Parakeet (Psittacara mitratus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mitred/Red-masked Parakeet (Psittacara mitratus/erythrogenys)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Western Wood-Pewee (Contopus sordidulus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Black Phoebe (Sayornis nigricans)	0.000	0.000	0.000	0.333	0.000	0.333	0.000	0.000	0.385	0.500	1.000	0.000	0.500	0.444	0.667	0.577	0.409	0.462	0.600	0.744	0.765	0.500	0.526	0.563
Say's Phoebe (Sayornis saya)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.154	0.000	0.000	0.000	0.333	0.000	0.000	0.077	0.045	0.000	0.127	0.154	0.235	0.083	0.105	0.094
Vermilion Flycatcher (Pyrocephalus rubinus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.000
Ash-throated Flycatcher (Myiarchus cinerascens)	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Tropical Kingbird (Tyrannus melancholicus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cassin's Kingbird (Tyrannus vociferans)	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	0.036	0.026	0.147	0.083	0.053	0.031
new world flycatcher sp. (Tyrannidae sp.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Hutton's Vireo (Vireo huttoni)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
American Crow (Corvus brachyrhynchos)	0.002	0.000	0.500	1.000	1.000	0.667	0.500	0.600	0.615	0.750	0.500	0.000	0.667	0.778	0.667	0.577	0.409	0.462	0.327	0.487	0.353	0.250	0.632	0.500
Common Raven (Corvus corax)	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.073	0.000	0.000	0.000	0.105	0.000
Tree Swallow (Tachycineta bicolor)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Northern Rough-winged Swallow (Stelgidopteryx serripennis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Barn Swallow (Hirundo rustica)	0.000	0.000	0.500	0.333	0.000	0.667	0.500	0.600	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
swallow sp. (Hirundinidae sp.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Bushtit (Psaltriparus minimus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.051	0.029	0.000	0.000	0.063
Swinhoe's White-eye (Zosterops simplex)	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.077	0.500	0.500	0.500	0.167	0.000	0.000	0.115	0.136	0.077	0.145	0.128	0.176	0.000	0.158	0.094
Ruby-crowned Kinglet (Corthylio calendula)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.038	0.000	0.077	0.036	0.128	0.176	0.000	0.158	0.094
Blue-gray Gnatcatcher (Polioptila caerulea)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
House Wren (Troglodytes aedon)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000
wren sp. (Troglodytidae sp.)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053	0.000
European Starling (Sturnus vulgaris)	0.000	0.000	0.500	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.111	0.000	0.115	0.045	0.077	0.018	0.000	0.029	0.083	0.053	0.156
Northern Mockingbird (Mimus polyglottos)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.083	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Western Bluebird (Sialia mexicana)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.231	0.000	0.500	0.500	0.000	0.111	0.000	0.077	0.000	0.154	0.073	0.077	0.206	0.083	0.474	0.219
Hermit Thrush (Catharus guttatus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053	0.031
American Robin (Turdus migratorius)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.000	0.105	0.031
Cedar Waxwing (Bombycilla cedrorum)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.105	0.063
Scaly-breasted Munia (Lonchura punctulata)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
House Sparrow (Passer domesticus)	0.000	0.002	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.111	0.000	0.077	0.045	0.077	0.000	0.026	0.000	0.083	0.053	0.000
American Pipit (Anthus rubescens)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.045	0.000	0.055	0.000	0.029	0.000	0.000	0.000
House Finch (Haemorhous mexicanus)	0.000	0.000	0.500	0.667	0.000	0.667	0.000	0.000	0.077	0.750	0.500	0.000	0.500	0.222	0.250	0.269	0.045	0.231	0.109	0.205	0.294	0.167	0.474	0.313
Lesser Goldfinch (Spinus psaltria)	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.077	0.000	0.500	0.000	0.167	0.111	0.083	0.038	0.000	0.077	0.036	0.026	0.000	0.083	0.053	0.063
Lawrence's Goldfinch (Spinus lawrencei)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
American Goldfinch (Spinus tristis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000	0.000	0.000	0.000
Lark Sparrow (Chondestes grammacus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Dark-eyed Junco (Junco hyemalis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053	0.031
White-crowned Sparrow (Zonotrichia leucophrys)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.045	0.077	0.055	0.026	0.147	0.000	0.211	0.125
Savannah Sparrow (Passerculus sandwichensis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Song Sparrow (Melospiza melodia)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.002	0.000	0.000	0.077	0.000	0.000	0.029	0.000	0.000	0.031
California Towhee (Melozone crissalis)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031
Hooded Oriole (Icterus cucullatus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Red-winged Blackbird (Agelaius phoeniceus)	0.000	0.000	0.000	0.333	0.000	0.333	0.000	0.000	0.000	0.250	0.500	1.000	0.333	0.556	0.083	0.385	0.227	0.462	0.818	0.769	0.882	0.250	0.842	0.656
Tricolored Blackbird (Agelaius tricolor)	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.038	0.000	0.000	0.745	0.205	0.382	0.083	0.105	0.156
Red-winged/Tricolored Blackbird (Agelaius phoeniceus/tricolor)	0.000	0.000	0.000	0.000	0.000	0.002	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.059	0.000	0.000	0.000
Brown-headed Cowbird (Molothrus ater)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.111	0.002	0.000	0.000	0.000	0.073	0.026	0.147	0.000	0.000	0.000
Brewer's Blackbird (Euphagus cyanocephalus)	0.000	0.000	0.000	0.333	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.038	0.000	0.000	0.000	0.000	0.029	0.000	0.000	0.031

	Jan				Feb				Mar				Apr				May				Jun				Jul				Aug				Sep				Oct				Nov				Dec			
Sample Size:	96	34	27	98	77	46	34	15	15	10	7	8	4	3	6	5	4	3	2	6	0	2	4	4	0	1	2	3	1	3	2	5	13	4	2	2	6	9	12	26	22	13	55	39	34	12	19	32
Great-tailed Grackle (Quiscalus mexicanus)	0.000	0.000	0.000	0.061	0.065	0.065	0.000	0.000	0.000	0.200	0.143	0.000	0.250	0.333	0.167	0.400	0.250	0.000	1.000	0.333	0.000	1.000	0.500	0.500	0.000	1.000	1.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.083	0.077	0.045	0.077	0.055	0.000	0.000	0.083	0.000	0.031
blackbird sp. (Icteridae sp.)	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Orange-crowned Warbler (Leiothlypis celata)	0.063	0.059	0.074	0.122	0.156	0.043	0.118	0.267	0.000	0.000	0.143	0.000	0.250	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.167	0.111	0.167	0.038	0.136	0.154	0.018	0.103	0.059	0.083	0.211	0.188
Common Yellowthroat (Geothlypis trichas)	0.042	0.000	0.000	0.122	0.104	0.043	0.059	0.000	0.067	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.083	0.038	0.000	0.231	0.036	0.128	0.088	0.000	0.158	0.063
Yellow Warbler (Setophaga petechia)	0.000	0.000	0.037	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.000	0.000	0.000	0.333	0.111	0.002	0.115	0.000	0.077	0.000	0.026	0.059	0.000	0.000	0.031
Yellow-rumped Warbler (Setophaga coronata)	0.490	0.324	0.519	0.388	0.351	0.348	0.412	0.333	0.333	0.200	0.429	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.556	0.667	0.423	0.409	0.462	0.273	0.385	0.353	0.417	0.526	0.313
Prairie Warbler (Setophaga discolor)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Townsend's Warbler (Setophaga townsendi)	0.010	0.000	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.167	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053	0.031
Wilson's Warbler (Cardellina pusilla)	0.002	0.029	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.053	0.063
Black-headed Grosbeak (Pheucticus melanocephalus)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.083	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Lazuli Bunting (Passerina amoena)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
passerine sp. (Passeriformes sp.)	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031

Appendix E. Resume

All fieldwork, report text, and maps were prepared by Marcus C. England whose resume follows.

Marcus C. England
Principal Biologist

Marcus C. England offers over two decades of experience, with expertise in avian biology, population ecology, project permitting, technical writing, and GIS and project experience in all industries.

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Summary

Marcus C. England is an experienced principal biologist with expertise in avian biology, population ecology, project permitting, technical writing, geographic information systems, and database management. He has led teams on large and complex projects in all industries across the western United States. He has a recovery permit to conduct surveys for California Gnatcatcher, Southwestern Willow Flycatcher, and Yellow-billed Cuckoo and has extensive experience conducting protocol surveys for Least Bell's Vireo, Burrowing Owl, Swainson's Hawk, and Desert Tortoise. England has a thorough knowledge of the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA) and Federal Endangered Species Act (FESA) and how these state and federal policies, as well as local land use and environmental policies, apply to the project permitting process. England has written biological resources assessments and biological assessments for some of the largest development projects in the state of California, including projects in Sacramento, Kern, Ventura, Los Angeles, Orange, San Bernardino, Riverside, and San Diego counties and has successfully supported project permitting under an array of regional habitat conservation plans statewide. He has also written due diligence documents for large projects in northern California, Arizona, New Mexico and Nevada. He currently sits on the Science Advisor Panel for the Clark County (Nevada) Multiple Species Habitat Conservation Plan.

Employment History

Independent Consulting Biologist
dba England|Ecology (now England|Ecology, LLC)
Jan 2010 - Jun 2011, Oct 2016 - Mar 2020, Mar 2023 - Present — Los Angeles, CA

- Author proposals, respond to RFP needs for teaming partners
- Conduct all aspects of fieldwork, data management, report writing, mapping
- Business planning, marketing, relationship development

Director of Biological Resources
Bargas Environmental Consulting
Mar 2020 - Mar 2023 — Sacramento, CA

- Corporate leader, department head, and project manager
- Conduct all aspects of fieldwork, data management, report writing, mapping

Vice President
Bloom Biological
Jun 2011 - Oct 2016 — Santa Ana, CA

- Lead development of corporate business strategy, obtain new work contracts
- Manage staff and biological data, conduct fieldwork, author reports, mapping

Director of Biological Services
Natural Resource Consultants
Jun 2003 - Dec 2009 — Laguna Beach, CA
Write proposals, manage staff and biological data

- Conduct all aspects of fieldwork, data management, report writing, mapping
- Conduct fieldwork, author reports

Chief Ornithologist
Lamanai Field Research Center
Sep 1998 - Jun 2000 — Belize, Central America

- Develop and implement ecosystem-scale research on birds
- Manage volunteer biologists, lead birding tours, develop new tour clients

Permits

Recovery Permit TE-082233
US Fish and Wildlife Service
Jan 2005 - Present

- California Gnatcatcher, Southwestern Willow Flycatcher, Yellow-billed Cuckoo

Scientific Collecting Permit SC-11354
California Department of Fish & Wildlife
Jan 2010 - Present

Expertise

Field Biology
- Specialist in avian ecology and identification
- Sensitive species surveys including Desert Tortoise, California Gnatcatcher, Burrowing Owl, Least Bell's Vireo, Swainson's Hawk, Golden Eagle among many others
- Large-scale vegetation mapping projects and impact analysis
- CEQA, NEPA, FESA, NCCPs
- GPS and mobile field data collection systems

Geospatial
- Desktop software: ArcGIS, QGIS, GRASS
- Server and geodatabases: PostGIS, Spatialite
- Web mapping: Google Maps, OpenLayers

Project Management
- Array of projects in many industries
- Oversight of large multidisciplinary teams
- Reliably on time and within budget
- Collaborate with clients, agencies, other stakeholders

Office
- Operating systems: MacOS, Windows, Linux
- Mobile: iOS, iPadOS, Android
- Productivity Software: MS Office, Apple iWork
- Data Management: MS Access, Excel, Ninox, PowerApps, PostgreSQL
- Server: SharePoint, Plone, Linux

Education

B.Sc. in EEO Biology
The Ohio State University
Mar 1993 - Jun 1998

Management Development for Entrepreneurs
UCLA Anderson School of Management
Sep 2021 - Jan 2022

Certificate in Tropical Ornithology
Estación Biológica La Suerte, Costa Rica
Jun 1996 - Jul 1996

Below: *contemplating the upcoming day's work during implementation of a contract with the US Bureau of Land Management to survey Pygmy Rabbits in a remote area of northern Nevada in September 2017. England|Ecology led a three-person team that completed the work on time and under budget.*

Marcus C. England
Selected Project History

2017 to Present

Upper Westside Specific Plan | Upper Westside, LLC

- Apr 2019 - Apr 2022
- Sacramento County, California
- Swainson's Hawk, Giant Gartersnake
- PM, Surveyor, Author
- Biological Resources Assessment

As project manager and Director for Bargas, England conducted one year of Swainson's Hawk (SWHA) protocol surveys, managed SWHA and other species' survey efforts for two additional years, and authored a biological resources assessment addressing the potential effects of the proposed project on resources, including SWHA and Giant Gartersnake, within the context of the requirements of the Natomas Basin HCP and the Metro Air Park HCP, collectively addressing 22 covered plant and animal species.

Descanso Gardens Wildlife Management Plan | Descanso Gardens Guild

- Jan 2019 - Dec 2019
- Los Angeles County, California
- Special Status Species, Wildlife Habitats, Impacts
- PM, Surveyor, Author
- Wildlife Management Plan

This contract sought to provide solutions to some of the challenges of operating public gardens in a natural environment using guidance from nearby and similar facilities. The plan's goals were to increase the quality of native habitats for wildlife, minimize visitor-wildlife conflict, protect planted garden areas and facilities from wildlife damage, promote environmental research and education, and promote a regional habitat linkage. Fieldwork for the plan included 10 months of diurnal and nocturnal surveys as well as widespread camera trapping.

Harris Beach Management Unit Wildlife Assessment | Oregon Parks & Recreation

- Jan 2018 - Dec 2019
- Brookings, Oregon
- Colonial Waterbirds, Marine Mammals, Spotted Owl
- PM, Surveyor, Author
- Wildlife Assessment

England|Ecology was contracted by OPRD to prepare a wildlife assessment report. Because of the size of the survey area, the field component lasted two weeks and included wildlife and habitat documentation (including remote camera trapping), hiking every trail available within the included parks, and camping with Harris Beach and Alfred A. Loeb state parks. Final deliverables included geospatial data and a report documenting what is known and not known about the wildlife and habitats of the park unit, with suggestions for future research and management priorities.

Smith Rock State Park Wildlife Assessment | Oregon Parks & Recreation

- Jan 2017 - Jun 2017
- Deschutes County, Oregon
- Special Status Species, Bald and Golden Eagles
- PM, Surveyor, Author
- Wildlife Assessment

England|Ecology was contracted by the Oregon Parks & Recreation Department to prepare a wildlife assessment report for Smith Rock State Park located in central Oregon. The project required extensive pre-survey research; five field days on-site with over 30 miles of hiking, wildlife and habitat documentation (including remote camera trapping); and preparation of new geospatial data and an extensive report documenting what is known and not known about the wildlife and habitats of the park, with suggestions for future research and management priorities.

Owyhee Roads Fuelbreak Project | US Bureau of Land Management

- Jul 2017 - Oct 2017
- Humboldt County, Nevada
- Pygmy Rabbit
- PM, Surveyor
- Letter report, GIS data

England|Ecology was contracted by the US Bureau of Land Management (BLM) to conduct surveys for Pygmy Rabbit on 2,068 acres of BLM-managed lands. Two subcontractors were trained on survey methodology and identification of Pygmy Rabbit sign. The survey was completed over two weeks, involving 114 miles of transect walking per surveyor in often adverse weather conditions and over rough terrain. Final deliverables to the BLM included a report, photos, and geospatial data.

2016 and Prior

High Speed Rail Project - Bakersfield to Palmdale

T.Y. Lin

- Jan 2015 - Oct 2016
- Los Angeles and Kern Counties, California
- Swainson's Hawk, Golden Eagle
- PM, Surveyor, Author, GIS
- Biological Resources Letter Report

Raptor Conservation Strategy

Mitsubishi Cement & US Forest Service

- Jan 2016 - Oct 2016
- San Bernardino National Forest, California
- Golden Eagle
- PM, Surveyor, Author
- Biological Resources Letter Report

Santa Clara River Riparian Surveys

Newhall Land

- Jan 2010 - Oct 2016
- Los Angeles and Ventura Counties, CA
- Least Bell's Vireo, Southwestern Willow Flycatcher
- PM, Surveyor, Author
- Biological Resources Letter Report

Montebello Hills Conservation & Development Project

Cook-Hill Properties

- Jan 2007 - Dec 2009
- Los Angeles County, California
- California Gnatcatcher, Coastal Sage Scrub Restoration
- PM, Surveyor, Author
- Biological Resources Assessment, Biological Assessment

Terranea Resort

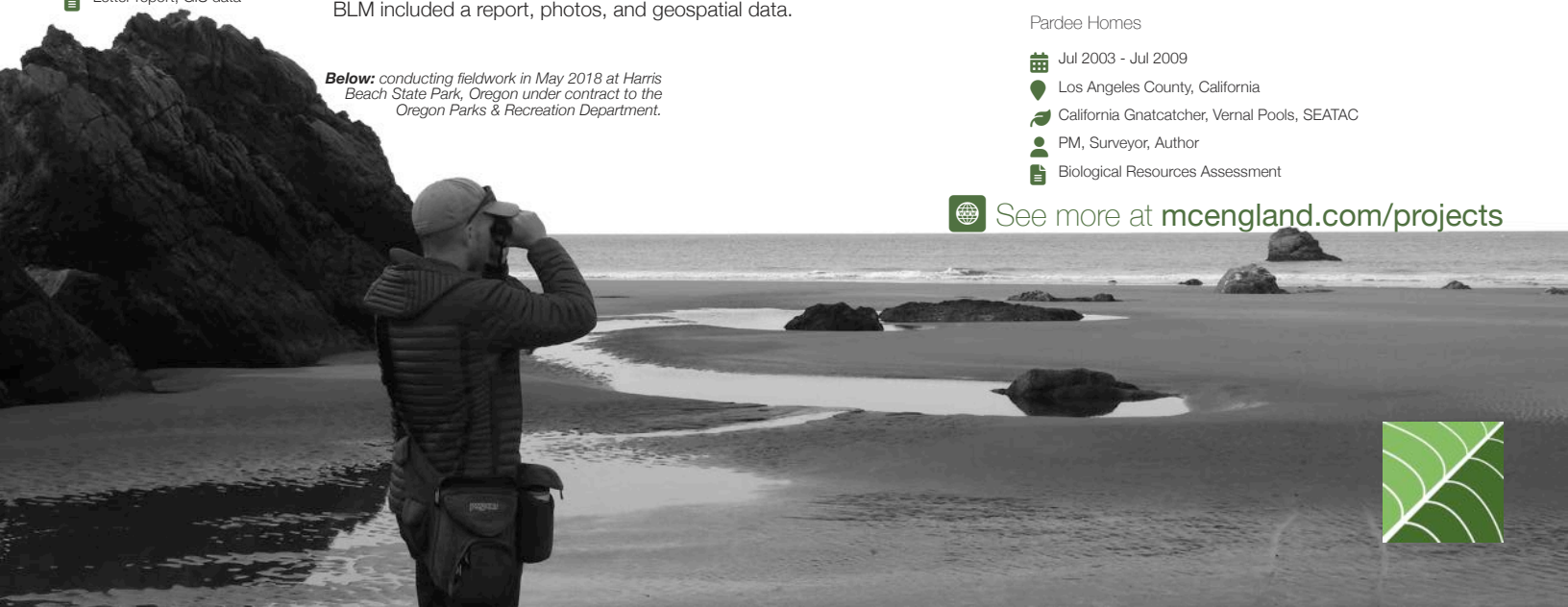
Long Point Development

- Jan 2005 - Jul 2008
- Los Angeles County, California
- California Gnatcatcher, Coastal Sage Scrub Restoration
- PM, Surveyor, Author
- Biological Resources Assessment

Skyline Ranch

Pardee Homes

- Jul 2003 - Jul 2009
- Los Angeles County, California
- California Gnatcatcher, Vernal Pools, SEATAC
- PM, Surveyor, Author
- Biological Resources Assessment



Below: *conducting fieldwork in May 2018 at Harris Beach State Park, Oregon under contract to the Oregon Parks & Recreation Department.*

See more at **mcengland.com/projects**

WE WANT YOUR INPUT ON CARR PARK

The City of Huntington Beach, in collaboration with David Volz Design, is hosting Community Workshops to provide updates and solicit further community input regarding the Carr Park Conceptual Plan.

COMMUNITY MEETING 1
Wednesday, May 17, 6pm, Carr Park (16532 Springdale St.)

VIRTUAL SURVEY
Open Thursday, May 18–Thursday, June 1 at *tinyurl.com/carr-park*

COMMUNITY MEETING 2
July 2023 (Official date to be announced at *tinyurl.com/carr-park*)

Paper surveys also available by calling **714-374-5302**.

Scan the QR code to visit the project website and add your email to the distribution list to receive updates on the project.

To learn more and to provide your feedback, visit **tinyurl.com/carr-park**.
For questions and additional information, call **714-374-5302**.

WE WANT YOUR INPUT ON CARR PARK

PRST STD
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HUNTINGTON BEACH,
CA 92647
PERMIT NO. 23

COMMUNITY MEETING 1
Wednesday, May 17, 6pm, Carr Park (16532 Springdale St.)

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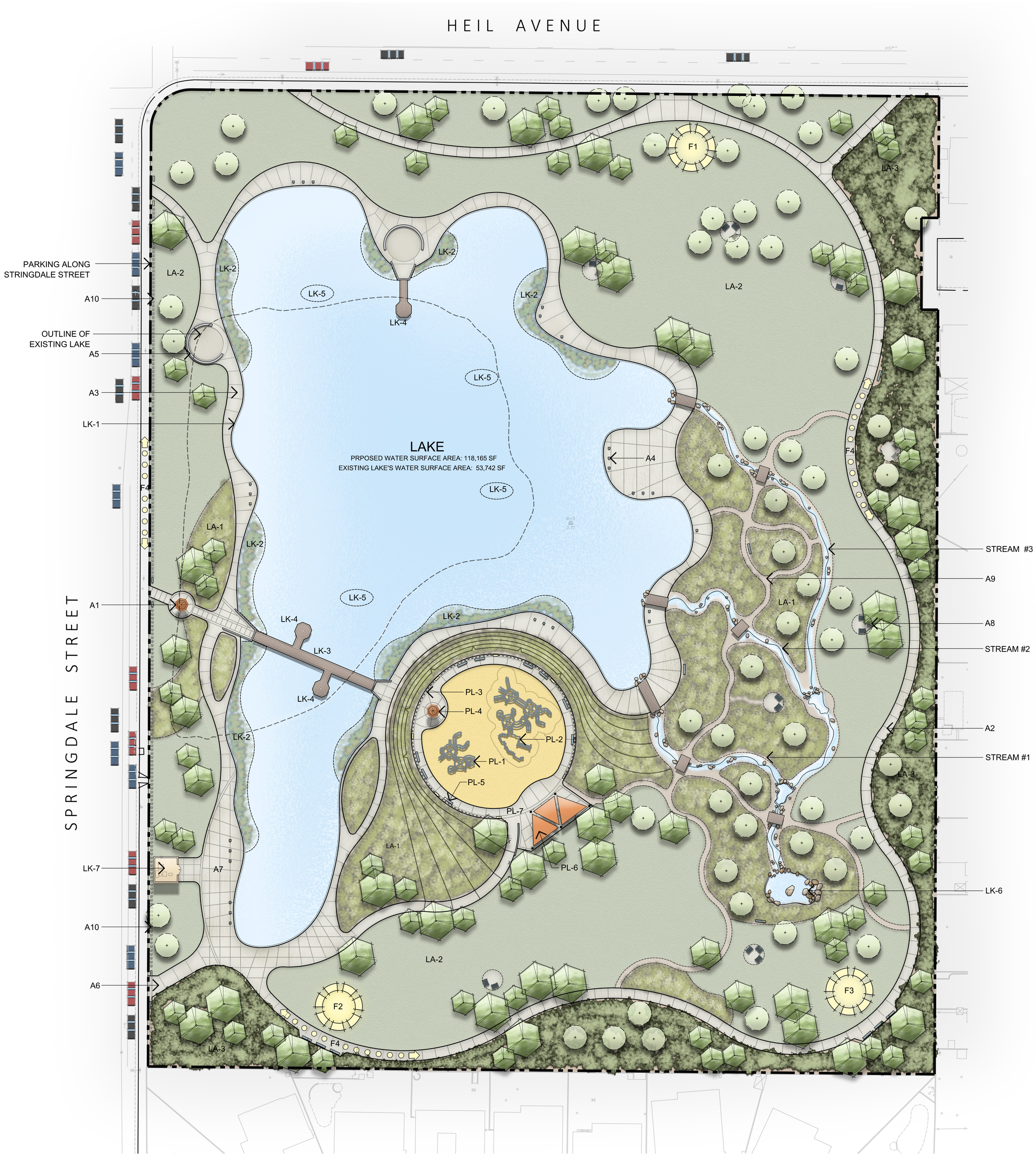
For questions and additional information, call **714-374-5302**.

Scan the QR code to visit the project website and RSVP for the community workshops.

****ECRWSSEDDM ****

Residential Customer



LEGEND

A - AMENITIES

SYMBOL	KEY	DESCRIPTION
	A1	INFORMATION KIOSK
	A2	PAVED WALKWAY, 8' wide (ADA COMPLINAT)
	A3	ACCESSIBLE LAKE'S EDGE & WALK
	A4	LAKESIDE SEAT BLOCKS
	A5	SEAT WALL
	A6	VEHICLE ACCESS DRIVE
	A7	PAVED SPACE TO ACOMMODATE LAKE & PARK SERVICE VEHICLES FOR MAINTENANCE AND PARK EVENTS
	A8	SEATING, LOUNGING & SOCILIZING
	A9	MEANDERING TRAIL (DECOMPOSED GRANITE SURFACE)
	A10	7' H. TUBE STEEL FENCE

F - FITNESS STATIONS

KEY	DESCRIPTION
F1	FITNESS STATIONS - AREA 1
F2	FITNESS STATIONS - AREA 2
F3	FITNESS STATIONS - AREA 3
F4	PERIMETER WALKING & EXERCISE PATH - ½ MILE LOOP

PL - PLAYGROUNDS

KEY	DESCRIPTION
PL-1	CHILDREN PLAYGROUND (AGES 2-5)
PL-2	CHILDREN PLAYGROUND (AGES 5-12)
PL-3	BARRIER FENCING
PL-4	PLAYGROUND ACCENT COLUMN
PL-5	PLAYGROUND SEATING
PL-6	SHADED SEATING AREA
PL-7	CONTROLLED POINT OF ENTRY AND EXIT

LK - LAKE IMPROVEMENTS

KEY	DESCRIPTION
LK-1	PROPOSED LAKE'S EDGE
LK-2	AQUATIC PLANT SHELF
LK-3	BRIDGE
LK-4	FISHING DOCK
LK-5	ARTIFICIAL REEF
LK-6	HEAD POND & BIOFILTER
LK-7	LAKE EQUIPMENT ENCLOSURE
STREAM #1	
STREAM #2	
STREAM #3	

LA - LANDSCAPE

SYMBOL	KEY	DESCRIPTION
	LA-1	MEADOW GRASSES (NON-MOWABLE)
	LA-2	NATURAL GRASS (MOWABLE)
	LA-3	GREEN BUFFER - WITH PLANTS PROVIDING WILDLIFE VALUE
		EXISTING TREE TO REMAIN
		PROPOSED TREE

CONCEPT A

CARR PARK

CITY OF HUNTINGTON BEACH

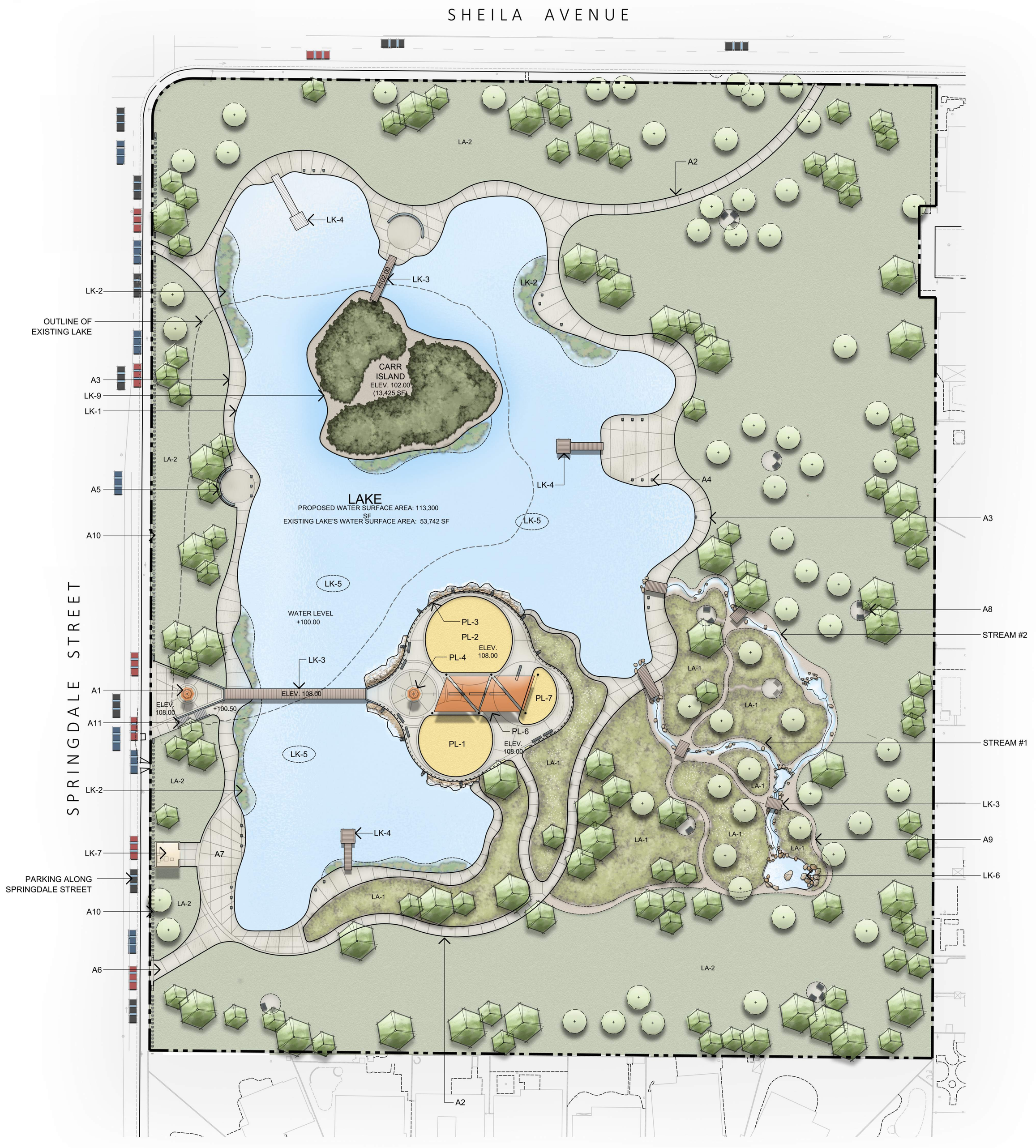
NORTH

Scale: 1" = 30'-0"

0 15' 30' 60'

David Volz Design
Landscape Architects and Park Planners

July 2023



LEGEND

A - AMENITIES

SYMBOL	KEY	DESCRIPTION
	A1	MONUMENT COLUMN w/CHRIS CARR MEMORIAL PLAQUE
	A2	WALKWAY, 8' wide (ADA COMPLIANT)
	A3	MEANDERING LAKE WALK, WIDTH VARIES, (ADA COMPLIANT)
	A4	SEAT BLOCKS
	A5	SEAT WALL
	A6	VEHICLE ACCESS DRIVE
	A7	PARK & LAKE SERVICE AREA FOR VEHICLES FOR PARK MAINTENANCE AND PARK EVENTS ONLY
	A8	PASSIVE SPACE SEATING, LOUNGING & SOCIALIZING
	A9	MEANDERING TRAIL (DECOMPOSED GRANITE SURFACE)
	A10	7' H. TUBE STEEL FENCE
	A11	STAIRS

PL - PLAYGROUNDS

KEY	DESCRIPTION
PL-1	CHILDREN PLAYGROUND (AGES 2-5)
PL-2	CHILDREN PLAYGROUND (AGES 5-12)
PL-3	BARRIER FENCING
PL-4	COLUMN
PL-5	PLAYGROUND SEATING
PL-6	SHADED SEATING AREA
PL-7	ADDITIONAL PLAY SPACE

LK - LAKE IMPROVEMENTS

SYMBOL	KEY	DESCRIPTION
	LK-1	PROPOSED LAKE'S EDGE
	LK-2	AQUATIC PLANTS
	LK-3	BRIDGE
	LK-4	FISHING DOCK
	LK-5	ARTIFICIAL REEF
	LK-6	HEAD POND & BIOFILTER
	LK-7	LAKE EQUIPMENT ENCLOSURE
	LK-8	LARGE ROCKS STACKED TO IMPLY JETTY/SEA WALL
	LK-9	ISLAND - NO PUBLIC ACCESS

LA - LANDSCAPE

SYMBOL	KEY	DESCRIPTION
	LA-1	MEADOW GRASSES (NON-MOWABLE)
	LA-2	NATURAL GRASS (MOWABLE)
		EXISTING TREE TO REMAIN
		PROPOSED TREE

CONCEPT B

CARR PARK

CITY OF HUNTINGTON BEACH

NORTH

Scale: 1" = 30'-0"

0 15' 30' 60'

DVD David Volz Design
Landscape Architects and Park Planners

July 2023

HEIL AVENUE

SPRINGDALE STREET

A13
PARKING ALONG SPRINGDALE STREET
A10
A5
A3
LK-1
OUTLINE OF EXISTING LAKE
EXISTING LAKE'S WATER SURFACE AREA: 53,742 SF
LAKE
PROPOSED WATER SURFACE AREA: 123,706 SF
A1
LK-7
A10
A6
NEIGHBORHOOD PARK ACCESS
A8
STREAM #2
A2
STREAM #1
A9
LK-6

LA-1 LA-2 LA-3 LK-1 LK-2 LK-3 LK-4 LK-5 F1 F2 F3 F4 A4 A7 A11 A12 PL-1 PL-2 PL-3

ELEV. 101.00
ELEV. 105.00
ELEV. 108.00 - 109.00
ELEV. 104.00
ELEV. 106.00
WATER SURFACE ELEV. 100.00

LEGEND

A - AMENITIES

SYMBOL	KEY	DESCRIPTION
	A1	INFORMATION KIOSK
	A2	PAVED WALKWAY, 10' wide (ADA COMPLIANT)
	A3	ACCESSIBLE WALK ALONG LAKE'S PERIMETER
	A4	LAKESIDE SEAT BLOCKS
	A5	SEAT WALL
	A6	VEHICLE ACCESS DRIVE
	A7	PAVED SPACE TO ACCOMMODATE LAKE & PARK SERVICE VEHICLES FOR MAINTENANCE AND PARK EVENTS
	A8	SEATING, LOUNGING & SOCIALIZING
	A9	MEANDERING TRAIL (DECOMPOSED GRANITE SURFACE)
	A10	7' H. TUBE STEEL FENCE
	A11	OUTDOOR SPACE FOR COMMUNITY EVENTS
	A12	STAIRS
	A13	PARK SIGN

F - FITNESS STATIONS

KEY	DESCRIPTION
F1	FITNESS STATIONS - AREA 1
F2	FITNESS STATIONS - AREA 2
F3	FITNESS STATIONS - AREA 3
F4	PERIMETER WALKING & EXERCISE PATH - ½ MILE LOOP

PL - PLAYGROUNDS

KEY	DESCRIPTION
PL-1	CHILDREN PLAYGROUND (AGES 2-5)
PL-2	CHILDREN PLAYGROUND (AGES 5-12)
PL-3	PLAYGROUND SEATING

LK - LAKE IMPROVEMENTS

SYMBOL	KEY	DESCRIPTION
	LK-1	PROPOSED LAKE'S EDGE
	LK-2	AQUATIC PLANTS
	LK-3	BRIDGE
	LK-4	FISHING DOCK
	LK-5	ARTIFICIAL REEF
	LK-6	HEAD POND & BIOFILTER
	LK-7	LAKE EQUIPMENT ENCLOSURE
		STREAM #1
		STREAM #2

LA - LANDSCAPE

SYMBOL	KEY	DESCRIPTION
	LA-1	MEADOW GRASSES (NON-MOWABLE)
	LA-2	NATURAL GRASS (MOWABLE)
	LA-3	GREEN BUFFER - WITH PLANTS PROVIDING WILDLIFE VALUE
		EXISTING TREE TO REMAIN
		PROPOSED TREE

PROPOSED CONCEPT PLAN

CARR PARK

CITY OF HUNTINGTON BEACH

NORTH

Scale: 1" = 30'-0"

0 15' 30' 60'

David Volz Design
Landscape Architects and Park Planners

September 2023

J. SMITH & T. MULI

JS&TM

TECHNICAL MEMORANDUM

DATE: May 30, 2023

TO: Mr. David Volz

FROM: Jonis C. Smith, PE (JS&TM); Tim Muli, PE (JS&TM)

RE: Carr Park Lake Concept Development

JS&TM PN: 1018

JS&TM has developed a comprehensive lake design approach that creates a lake and lake ecosystem that mimics a natural lake system as much as physically possible. We include an eight (8)-stage biological treatment train in the lake design so that the lake can provide biological nutrient and pollutant control without the use of chemical inputs; similar to how natural lakes provide natural biological treatment. Our lake design includes the following treatment stages:

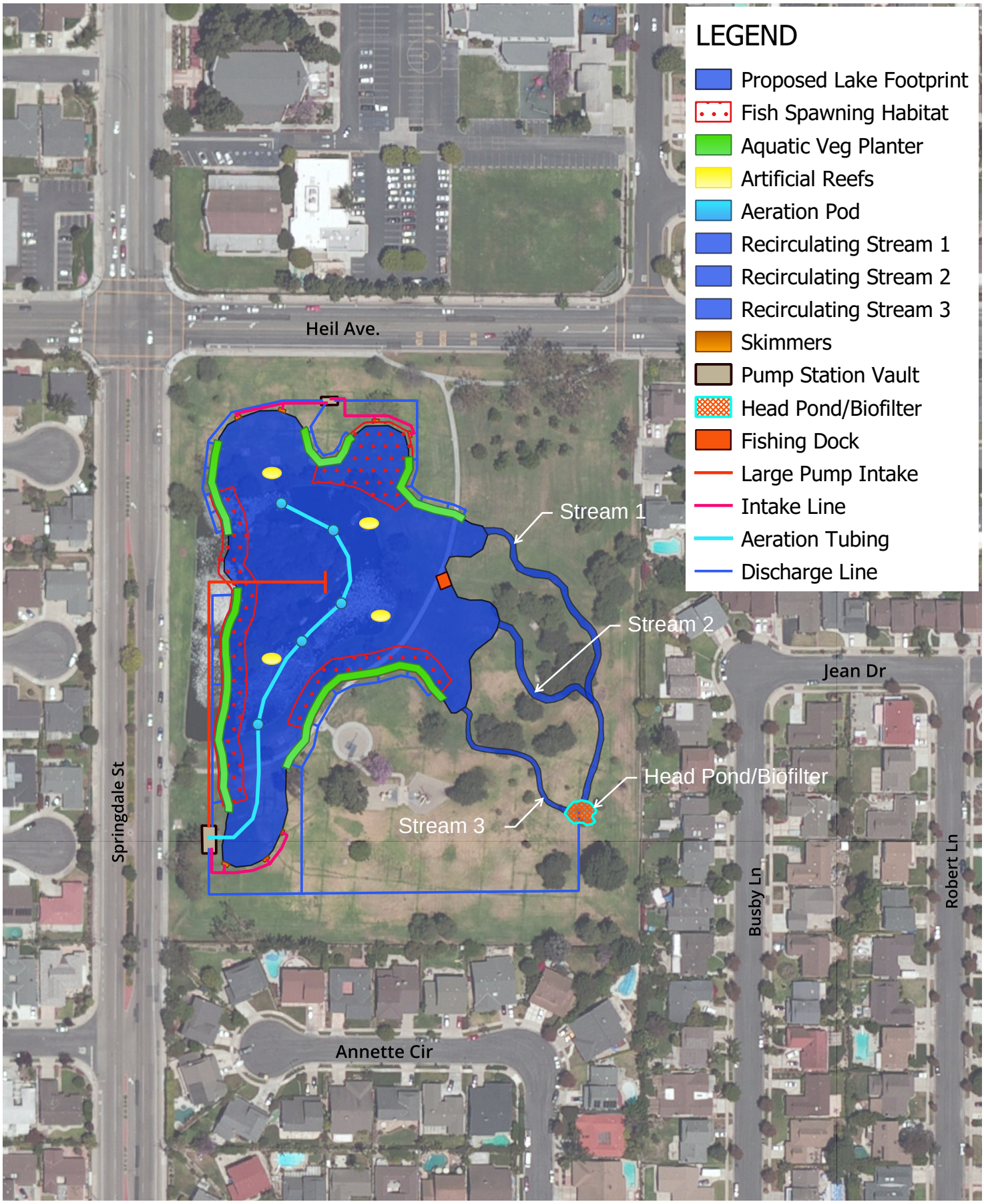
1. Aeration
2. Aerobic biofiltration
3. Anoxic biofiltration
4. Horizontal circulation
    a. macro trash filtration
5. Vertical circulation
6. Aquatic vegetation/wetland filtration nutrient removal
7. Fishery habitat (support biofilter flora)
    a. Sporting fish species specific artificial reefs
    b. Sporting fish species specific spawning beds
    c. Sporting fish species specific habitat and cover
    d. Fishery specific sport fish stocking plan
8. Waterfowl and Vector control measures

Conventional/traditional lake design only includes aeration, vertical circulation and in some cases horizontal circulation. Conventional lake design does not result in adequate natural biological treatment and leads to lakes that must be managed using chemicals to manually adjust nutrient control. Thus, conventionally designed lakes typically have excessive algae growth and poor water quality. Our approach results in a lake that has abundant natural biological treatment that controls nutrients, algae, bad bacteria, spores, viruses, etc. Our lake design will not require the lake manager to use chemicals to manage the lake water quality. Instead, the lake management team will control circulation rates and aeration rates to adjust the system gradually, seasonally if needed. The system is self-adjusting and results in a healthy lake and lake ecosystem that is an asset to the community. Our lakes provide great viewing

opportunities, abundant fishing opportunities and are a pleasure to be near without the nuisance of too many waterfowl, insects, and vectors.

A few of the ideas were discussed at the Community Meeting on May 17, 2023. Those ideas and a few other are listed below to consider/investigate to resolve identified deficiencies and issues with Carr Park Lake are listed below. A concept drawing was created to use as a starting point for laying out lake improvement/renovation concepts for the park (see Figure-1).

1. Natural bird feed dispensers
2. Information kiosks /signage
3. Adjust lake boundary to increase distance from road
4. Promote natural predation of waterfowl by supporting owl populations
5. Removal of some island vegetation
6. Provide pedestrian access to island
7. Remove island
8. Make lake larger
9. Provide increased aeration
10. Provide biological treatment
    a. aerobic and anoxic
11. Increase lake circulation
12. Introduce recirculating streams to the lake/park
13. Provide rooted vascular vegetation
14. Provide natural predation of vector by supporting mosquito eating fish, insects, birds, and bats
15. Improve fishing/angling
    a. enhance fish habitat
    b. enhance fish breeding/spawning habitat
    c. provide artificial reefs
    d. provide a fishing dock(s)
    e. create customized fish stocking plan



J. SMITH & T. MULI
JS&TM
33161 Camino Capistrano, Suite D
San Juan Capistrano, CA 92675
Phone: 949.329.3639 Web: JSTMINC.COM

NORTH
JSMITH & TMULI

0 100 200 ft

Carr Park Lake
Figure 1.0 - Lake Features Concept Drawing