Natural Resource and Habitat Assessment

in Consideration of:

Tentative Tract Map No. 20494

Located south of
Highland Avenue and West of Medical Center Drive
San Bernardino, CA.

Prepared By:

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B.A. Biology; CSU San Bernardino 2000

Prepared For:

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December 20, 2021
Natural Resource and Habitat Assessment for the Proposed Single-Family Residential Development at Highland Avenue West of Medical Center Drive in San Bernardino, CA.

This report is prepared by Michael V. Grimes on behalf of Romo Planning Group, Inc. (RPG) the Project Applicant, in consideration of the proposed residential development (Project). The proposed project site is located south of Highland Avenue and west of Medical Center Drive and is referred to as Tentative Tract Map 20494. This natural resource analysis and general biological habitat assessment satisfies requirements under the California Environmental Quality Act (CEQA), and considers applicable laws including:

- California Endangered Species Act (CESA)
- Federal Endangered Species Act (FESA)
- California Fish and Game Code (§1600-1603, §2080-2081, §3503-3503.5)
- U.S. Clean Water Act (CWA)
- Porter-Cologne Water Quality Control Act
- Migratory Bird Treaty Act (MBTA)

Project Description

The Applicant proposes to construct approximately 95 single-family dwelling units on an approximately 10.1-acre parcel. Construction includes residential structures, site improvements, landscaping, and two open space lots.

Methodology

Analysis methods include scientific literature review, pedestrian survey, and review of aerial imagery. For pedestrian survey, RPG retained the services of Michael V. Grimes, Environmental Planner/Field Biologist. Mr. Grimes holds a degree in Biology and approximately five years’ experience conducting biological resource assessments in southern California. Mr. Grimes conducted a pedestrian survey of the project site on November 27, 2021 approximately 2:30 PM. The temperature was approximately 75°F with clear skies, mild wind conditions and high visibility.

Literature and image sources reviewed for this project include:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and Biogeographic Information and Observation System (BIOS) were queried for the San Bernardino North, California 7.5-minute Quadrangle (CDFW, December 2021).
- The United States Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation System (IPaC) was queried for a report of
federally-listed species and designated critical habitat (USFWS, November 2021).

- The USFWS National Wetlands Inventory (NWI) Wetlands Mapper (December 2021).
- The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey Geographic Information System was queried for a report on all soil series classifications within the study area (NRCS December 2021).
- Google Earth Pro (December 2021).

The study area for this analysis includes a 300-foot buffer beyond the construction footprint to account for potential indirect project related impacts (i.e. - noise, ground vibrations, water quality impacts, artificial lighting, etc.).

Literature review for this location identifies sixteen (16) Federal and twelve (12) State-listed species as having potential to occur in the project vicinity. Results from the literature search are listed in the following table.
<table>
<thead>
<tr>
<th>Common Name (scientific name)</th>
<th>Status</th>
<th>General Habitat Description</th>
<th>Habitat Present/Absent</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riversidian Alluvial Fan Sage Scrub</td>
<td>S1.1</td>
<td>Holland Classification Code: 32700 Sawyer-Keeler-Wolf equivalent: <em>Artemisia californica</em> - <em>Eriogonum fasciculatum</em> Shrubland Alliance</td>
<td>A</td>
<td>The study area does not contain this natural community of concern.</td>
</tr>
</tbody>
</table>

Alluvial fan sage scrub is a threatened and rare natural community. A sub-type of coastal sage scrub, this habitat is found on alluvial fans and flood plains of the coastal side of the San Gabriel San Bernardino Mountains. Significant areas now occur only in San Bernardino County and include the Etiwanda Fan, Lytle Creek, Cajon Creek, and the Santa Ana River. Climatic conditions are similar to those for coastal sage scrub, but frequency and intensity of surface flooding occurs within the habitat. Soils include a complex, unsorted structure of alluvium composed of boulders, rocks and sands.
Vegetation is less dense than coastal sage scrub when in river channels that are subject to frequent flooding. The primary indicator plant is scale-broom (*Lepidospartum squamatum*). Alluvial Fan Sage Scrub communities have been severely altered by flood control activities that circumvent periodic flooding, leading to gradual conversion.

| Southern Sycamore Alder Riparian Woodland | NA | Holland Classification Code: 62400 Sawyer-Keeler-Wolf equivalent: *Platanus racemosa* Woodland Alliance. | A | The study area does not contain this natural community of concern. |

**Plants**

| *Arenaria paludicola* (marsh sandwort) | FE, SE, CNPS 1B.1 | Inhabits freshwater marsh, marsh and swamp, and wetland habitats. Species grows through dense mats of Typha, Juncus, Scirpus, etc. in freshwater marsh and sandy soils at 3-170 meters (~10-558 feet) in elevation. | A | The study area does not contain suitable freshwater marsh or wetland habitats capable of supporting this species. |

| *Berberis nevinii* (Nevin’s barberry) | FE, SE, CNPS 1B.1 | Inhabits chaparral, cismontane woodland, coastal scrub, and riparian scrub habitats. | A | The study area does not contain suitable chaparral, cismontane woodland, coastal scrub, and riparian scrub habitats capable of supporting this species. |

<p>| <em>Brodiaea filifolia</em> (tread-leaved brodiaea) | FT, SE, CNPS 1B.1 | Found in chaparral (openings); cismontane woodland; coastal scrub; playas; valley and foothill grassland; vernal pool; and wetland habitats but is | A | The study area does not contain suitable chaparral, cismontane woodland, coastal scrub, and grassland habitats capable of supporting this species. |</p>
<table>
<thead>
<tr>
<th>Species</th>
<th>Bloom Period</th>
<th>Study Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>salt marsh bird’s beak</strong> <em>(Chloropyron maritimum ssp. maritimum)</em></td>
<td>March to June</td>
<td>The study area does not contain suitable coastal salt marsh, dunes, and wetland habitats capable of supporting this species, and is above the species elevation range.</td>
</tr>
<tr>
<td><strong>slender-horned spineflower</strong> <em>(Dodecahema leptoceras)</em></td>
<td>May to June</td>
<td>The study area does not contain suitable chaparral, cismontane woodland, and alluvial fan sage scrub habitats capable of supporting this species.</td>
</tr>
<tr>
<td><strong>Santa Ana River woollystar</strong> <em>(Eriastrum densifolium ssp. sanctorum)</em></td>
<td>Inhabits coastal scrub and chaparral habitats in sandy soils, river floodplains, or terraced fluvial deposits at 180-705 meters (~591-2,313 feet) in elevation.</td>
<td>The study area does not contain suitable coastal scrub, chaparral or floodplain habitats capable of supporting this species.</td>
</tr>
<tr>
<td>Invertebrates</td>
<td>FC</td>
<td>A</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>quino checkerspot butterfly (Euphydryas editha quino)</td>
<td>FE</td>
<td>A</td>
</tr>
<tr>
<td>Fish</td>
<td>FT</td>
<td>A</td>
</tr>
<tr>
<td>Amphibians</td>
<td>Reptiles</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| California red-legged frog  
(*Rana draytonii*)  | southern rubber boa  
(*Charina umbratica*) |
| FT, SSC             | ST                           |
| Inhabits a variety of aquatic environments, including both standing and flowing waters, marshes and swamps, riparian areas, and wetlands. Found in lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat. | Found within meadow and seep, riparian forest, riparian woodland, wetland, and upper montane coniferous forest habitats. Known from the San Bernardino and San Jacinto mountains. Species is found in a variety of montane forest habitats, including in the vicinity of streams or wet meadows. Species requires loose, moist soil for burrowing; seeks cover in rotting logs, rock outcrops, and under surface litter (CNDDB 2019). |
|                     | A                            | The study area does not contain suitable riparian, wetland, and montane forest habitats capable of supporting this species. |
|                     | The study area does not contain suitable aquatic breeding habitat capable of supporting this species. |
| southern mountain yellow-legged frog  
(*Rana muscosa*) |                            |
| FE, SE, WL          |                             |
| Highly aquatic; species is always encountered within a few feet of water. Tadpoles may require 2 - 4 years to complete their aquatic development. |                             |
| A                    |                             | The study area does not contain suitable aquatic breeding habitat capable of supporting this species. |
### Birds

<table>
<thead>
<tr>
<th>Species</th>
<th>Location</th>
<th>Habitat Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>southwestern willow flycatcher (<em>Empidonax traillii extimus</em>)</td>
<td>FE, SE</td>
<td>Occurs within riparian woodlands of Southern California.</td>
<td>A</td>
</tr>
<tr>
<td>California condor (<em>Gymnogyps californianus</em>)</td>
<td>FE, SE</td>
<td>Inhabits chaparral and valley and foothill grassland habitats. It requires vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Condors forage up to 100 miles from the nest.</td>
<td>A</td>
</tr>
<tr>
<td>coastal California gnatcatcher (<em>Polioptila californica californica</em>)</td>
<td>FT, SSC</td>
<td>Found in low, coastal sage scrub or coastal bluff scrub within arid washes on top of mesas and slopes. An obligate, permanent resident of coastal sage scrub below 2,500 feet in Southern California. Not all areas classified as coastal sage scrub are occupied.</td>
<td>A</td>
</tr>
<tr>
<td>least Bell’s vireo (<em>Vireo bellii pusillus</em>)</td>
<td>FE, SE</td>
<td>A summer resident of Southern California within riparian forest, riparian scrub, or riparian woodland habitats; nests are along margins of bushes or twigs projecting into pathways, usually willow, <em>Baccharis</em>, or mesquite species, in low riparian in vicinity of water or in dry river bottoms below 2,000 feet in elevation.</td>
<td>A</td>
</tr>
</tbody>
</table>

### Mammals
San Bernardino kangaroo rat (*Dipodomys merriami parvus*)

<table>
<thead>
<tr>
<th>Abbreviations: Absent [A] - no habitat present and no further work needed. Critical Habitat [CH] - USFWS critical habitat is present. Habitat Present [HP] - habitat is or may be present. The species may be present. Status: Federal Endangered (FE); State Candidate Endangered (SCE); State Candidate Threatened (SCT); State Endangered (SE); State Watch List (WL); Fully Protected (FP); State Species of Special Concern (SSC); California Native Plant Society (CNPS): 1A - plants presumed extirpated in CA and either rare or extinct elsewhere, 1B - plants rare, threatened, or endangered in CA and elsewhere, 2A - plants presumed extirpated in CA, but more common elsewhere, 2B - plants rare, threatened, or endangered in CA, but more common elsewhere, 3 - plants about which more information is needed-CNPS review list, 4 - plants of limited distribution.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Found within coastal sage scrub and alluvial scrub vegetation on sandy loam substrates that is characteristic of alluvial fans and floodplains. Needs early to intermediate seral stages.</td>
</tr>
</tbody>
</table>

The study area does not contain suitable alluvial fan sage scrub habitat capable of supporting this species.
Results

The approximate 10.1-acre project site is relatively flat at an elevation of roughly 1,227 feet above mean sea level. The site consists primarily of un-vegetated mowed/disked field. Habitat conditions are extremely marginalized due to surrounding development and associated human disturbance such as multimodal traffic, artificial lighting, pedestrian use and residential and commercial activities.

Vegetation consists of common and nonnative invasive species characteristic of disturbed places such as common fiddle neck (Amsinckia intermedia), cheeseweed mallow (Malva parviflora), and foxtail barley (Hordeum murinum), mustard (Brassica sp.), wild oat (Avena fatua), and bluegum eucalyptus (Eucalyptus globulus). No natural habitat or communities of special concern capable of supporting special status species occur at this location. Wildlife observed at this site includes common raven (Corvus corax), pigeon (Columbidae) and common ground squirrel (Otospermophilus beecheyi).

There are CNDDB historic occurrences for special status species within the project site. Species include Parish's bush-mallow (Malacothamnus parishii, CNPS 1A, 1895), Parish's desert-thorn (Lycium parishii, CNPS 2B.3, 1885), and pocketed free-tailed bat (Nyctinomops femorosaccus, SSC, 1985). However, the existing roadway system and surrounding development have altered the natural landscape by introducing nonnative plant species and removing potentially suitable natural habitat for special status, federal and State listed plant or animal species within the study area. Furthermore, no federally designated critical habitat is found within the study area. Due to the presence of adjacent ornamental shrubs, trees, and undeveloped field, both common ground and tree nesting migratory birds have the potential to nest in the project site and adjacent areas.

Signs of mammal and small rodents occur on site. However, the site does not feature biological or physical features capable of supporting special-status species San Bernardino kangaroo rat (SBKR). SBKR are confined to inland valley scrub communities particularly along rivers, streams and drainages. This species requires specialized habitat including Riversidean Alluvial Sage Scrub habitat and friable soils. Therefore, SBKR are deemed absent from the site.

Rodent burrows were observed at the site. However, no signs of burrowing owl [BUOW] were evident. BUOW use burrows dug by California ground squirrel (Spermophilus beecheyi) and round-tailed ground squirrel (Citellus tereticaudus) and other fossorial species. Breeding season for BUOW occurs between February 1 and August 31. All surfaces were searched for signs of burrows, molted feathers, cast pellets, prey remains, and owl white-wash.

The Project site is subject to continuous disturbance which has resulted in habitat degradation. No indicators of BUOW were observed. High levels of habitat disturbance, human activity and proximity to urbanized development render the site unfavorable for BUOW habitat. Although potential signs of suitable habitat features may occur at this site, such as squirrel and rodent
burrows, the probability for BUOW to occur at this site is considered minimal. Furthermore, there are no CNDDB documented occurrences for BUOW in the study area.

To ensure avoidance of potential impacts to BUOW or its respective habitat, a pre-construction clearances survey is recommended; occurring at a minimum of 24 hours prior to construction, and a maximum of seven (7) days prior to construction.

The USFWS National Wetlands Inventory did not identify any potentially jurisdictional waters in the study area. No jurisdictional waters and no wetland indicator features (hydric soils, wetland hydrology, hydrophitic vegetation) occur within the development footprint. The project would not impact any Waters of the State or of the U.S., and would not require regulatory water quality permitting (i.e. – Regional Water Quality Control Board Section 401 of the Clean Water Act (CWA), U.S. Army Corps of Engineers Section 404 of the CWA, or California Department of Fish and Wildlife (CDFW) Section 1602 Lake and Streambed Alteration Agreement).

Recommended Avoidance Measures

To ensure avoidance of potential impacts to nesting/migratory birds and BUOW, the following avoidance and minimization measure are recommended.

1. **Pre-Construction Nesting Bird Survey:** If project activities cannot avoid the nesting season, generally regarded as February 1 – September 30, then preconstruction nesting bird surveys must be conducted no greater than 14 days prior to construction by a qualified biologist to locate and avoid nesting birds. If an active avian nest is located, a CDFW-approved no-construction buffer shall be established and/or monitored by the qualified biologist at their discretion.

2. **Pre-Construction Burrowing Owl Survey:** A qualified biologist shall conduct pre-construction pedestrian clearance survey for Burrowing Owl; the survey should occur at a minimum of 24 hours prior to construction, and a maximum of seven (7) days prior to construction. If an active burrowing owl is discovered, the developer will halt construction activities and consult with the Department of California Fish and Wildlife for further guidance.

Findings and Conclusion

Based on the above findings, and in accordance with the California Endangered Species Act, the proposed development would result in no Take of the following State-listed, candidate, and fully-protected species:

- marsh sandwort (*Arenaria paludicola*) SE;
- Nevin’s barberry (*Berberis nevinii*) SE;
- southern rubber boa (*Charina umbratica*) ST;
• tread-leaved brodiaea (*Brodiae filifolia*) SE;
• salt marsh bird´s beak (*Chloropyron maritimum* ssp. *maritimum*) FE;
• San Bernardino kangaroo rat (*Dipodomys merriami parvus*) SCE;
• slender-horned spineflower (*Dodecahema leptoceras*) SE;
• southwestern willow flycatcher (*Empidonax traillii extimus*) SE;
• Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) SE;
• California condor (*Gymnogyps californianus*) SE/FP;
• southern mountain yellow-legged frog (*Rana muscosa*) SE;
• least Bell´s vireo (*Vireo bellii pusillus*) SE.

Likewise, pursuant to the Federal Endangered Species Act, the project would result in *No Effect* to the following federally-listed species:

• marsh sandwort (*Arenaria paludicola*) FE;
• Nevin´s barberry (*Berberis neviniii*) FE;
• tread-leaved brodiaea (*Brodiae filifolia*) FT;
• salt marsh bird´beak (*Chloropyron maritimum* ssp. *maritimum*) FE;
• Santa Ana sucker (*Catostomus santaanae*) FT;
• monarch butterfly (*Danana plexippus*) FC;
• San Bernardino kangaroo rat (*Dipodomys merriami parvus*) FE;
• slender-horned spineflower (*Dodecahema leptoceras*) FE;
• southwestern willow flycatcher (*Empidonax traillii extimus*) FE;
• Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) FE;
• quino checkerspot butterfly (*Euphydryas editha quino*) FE;
• California condor (*Gymnogyps californianus*) FE;
• coastal California gnatcatcher (*Polioptila californica californica*) FT;
• California red-legged frog (*Rana draytonii*) FT;
• southern mountain yellow-legged frog (*Rana muscosa*) FE;
• least Bell´s vireo (*Vireo bellii pusillus*) FE.

Attachments:

1. San Bernardino County APN Map
2. U.S. Fish and Wildlife Service IPaC Search Results
3. CNDDDB Search Result Map
4. Site Photos
Attachment 1 – San Bernardino County APN Map

Source: San Bernardino County Assessor’s Office, 2021.
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as trust resources) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location
San Bernardino County, California

Local office
Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

http://www.fws.gov/carlsbad/
Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act requires Federal agencies to request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries).

Species and critical habitats under the sole responsibility of NOAA Fisheries are not shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals
### Birds

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>San Bernardino Merriam's Kangaroo Rat</strong></td>
<td><strong>Endangered</strong></td>
</tr>
<tr>
<td>Dipodomys merriami parvus</td>
<td></td>
</tr>
<tr>
<td>Wherever found</td>
<td></td>
</tr>
<tr>
<td>There is final critical habitat for this species. The location of the critical habitat is not available.</td>
<td><a href="https://ecos.fws.gov/ecp/species/2060">https://ecos.fws.gov/ecp/species/2060</a></td>
</tr>
</tbody>
</table>

| **California Condor**                        | **Endangered** |
| Gymnogyps californianus                      |                |
| Wherever found                               |                |
| There is final critical habitat for this species. The location of the critical habitat is not available. | https://ecos.fws.gov/ecp/species/8193 |

| **Coastal California Gnatcatcher**           | **Threatened** |
| Polioptila californica californica           |                |
| Wherever found                               |                |
| There is final critical habitat for this species. The location of the critical habitat is not available. | https://ecos.fws.gov/ecp/species/8178 |

| **Least Bell's Vireo**                       | **Endangered** |
| Vireo bellii pusillus                        |                |
| Wherever found                               |                |
| There is final critical habitat for this species. The location of the critical habitat is not available. | https://ecos.fws.gov/ecp/species/5945 |

| **Southwestern Willow Flycatcher**           | **Endangered** |
| Empidonax traillii extimus                   |                |
| Wherever found                               |                |
| There is final critical habitat for this species. The location of the critical habitat is not available. | https://ecos.fws.gov/ecp/species/6749 |

### Insects

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monarch Butterfly</strong></td>
<td><strong>Candidate</strong></td>
</tr>
<tr>
<td>Danaus plexippus</td>
<td></td>
</tr>
<tr>
<td>Wherever found</td>
<td></td>
</tr>
<tr>
<td>No critical habitat has been designated for this species.</td>
<td><a href="https://ecos.fws.gov/ecp/species/2743">https://ecos.fws.gov/ecp/species/2743</a></td>
</tr>
</tbody>
</table>

### Flowering Plants

<table>
<thead>
<tr>
<th>NAME</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

Santa Ana River Woolly-star  Erinaceum densifolium ssp. sanctorum  Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/6575

Thread-leaved Brodiaea  Brodiaea filifolia  Threatened
Wherever found
There is final critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/6087

Critical habitats
Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds
Certain birds are protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:
- Measures for avoiding and minimizing impacts to birds
- Nationwide conservation measures for birds

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ.
below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

<table>
<thead>
<tr>
<th>Name</th>
<th>Breeding Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen's Hummingbird, Selasphorus sasin</td>
<td>Breeds Feb 1 to Jul 15</td>
</tr>
<tr>
<td>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</td>
<td></td>
</tr>
<tr>
<td><a href="https://ecos.fws.gov/ecp/species/9537">https://ecos.fws.gov/ecp/species/9537</a></td>
<td></td>
</tr>
<tr>
<td>California Thrasher, Toxostoma redivivum</td>
<td>Breeds Jan 1 to Jul 31</td>
</tr>
<tr>
<td>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</td>
<td></td>
</tr>
<tr>
<td>Clark's Grebe, Aechmophorus clarkii</td>
<td>Breeds Jun 1 to Aug 31</td>
</tr>
<tr>
<td>This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</td>
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<tr>
<td>Common Yellowthroat, Geothlypis trichas sinuosa</td>
<td>Breeds May 20 to Jul 31</td>
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<tr>
<td>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</td>
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<td><a href="https://ecos.fws.gov/eco/species/2084">https://ecos.fws.gov/eco/species/2084</a></td>
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</table>
Golden Eagle  *Aquila chrysaetos*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

https://ecos.fws.gov/ecp/species/1580

Lawrence's Goldfinch  *Carduelis lawrencei*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

https://ecos.fws.gov/ecp/species/9464

Nuttall’s Woodpecker  *Picoides nuttalli*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA.

https://ecos.fws.gov/ecp/species/9410

Tricolored Blackbird  *Agelaius tricolor*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

https://ecos.fws.gov/ecp/species/3910

Breeds Jan 1 to Aug 31

Breeds Mar 20 to Sep 20

Breeds Apr 1 to Jul 20

Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

**Probability of Presence (a)**

Each green bar represents the bird’s relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any
week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (↑)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (↓)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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<tr>
<th>SPECIES</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
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<th>MAY</th>
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<tr>
<td>Allen's Hummingbird</td>
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<td>California Thrasher</td>
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https://fcoa.fws.gov/parclocation/QPCFNEBUI89TLLT13ICUSUMES/resourced#
Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

National Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year-round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets, and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

https://ecos.fws.gov/ipac/location/QPCFNEBUING72LDTT3ACUSMEA/resources#
Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the “Tell me about these graphs” link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If “Breeds elsewhere” is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range, anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands).
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g., offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternatively, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Sciegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring
in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project, not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Facilities
Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME
This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations
The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.
Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberfield worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.
Attachment 4 – Site Photos

North West Elevation

141°SE (T) 34.135551, -117.3261 ±3 m ▲ 345 m

27 Nov 2023 14:34:54
South Elevation

📍 9°N (T) • 34.135277, -117.326111 ± 6 m ▲ 328 m