
**BIOLOGICAL RESOURCES ASSESSMENT
FOR THE
BLUE LAKE MULTI-FAMILY HOUSING PROJECT ON
TAYLOR WAY, BLUE LAKE, CALIFORNIA**



Prepared December 3, 2022
Revised February 7, 2023

Prepared by:

G.O. Graening, PhD and Tim Nosal, MS
Natural Investigations Company, Inc.
3104 O Street, #221, Sacramento, CA 95816



NATURAL INVESTIGATIONS CO.
WWW.NATURALINVESTIGATIONS.COM

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1. INTRODUCTION

1.1. PROJECT LOCATION AND DESCRIPTION

A Biological Resources Assessment was conducted on an 8.29-acre property for the proposed Blue Lake Multi-Family Housing Development Project (“Project”) in Blue Lake, Humboldt County, California. The property is accessed from Taylor Way, and the property consists of two parcels: APN 312-161-015-000 and APN 312-161-018-000. The proposed project is an infill multi-family housing development with a footprint of approximately 1.75 acres (see exhibits). The proposed project also includes potential improvements to access paths to the housing development. Thus, the Project Area is the sum of all of the following subproject areas:

- the 1.75-acre portion of the property that will contain the housing development
- road corridor from Powers Creek Bridge to Greenwood Road / Railroad Avenue;
- creek trail corridor
- road corridor on Taylor Way, from project site to Hatchery Road

For this assessment, the Project Area was defined as the combined project area and was the subject of the impact analysis. The entire 8.29-acre property and relevant road corridors were defined as the Study Area. The Study Area is defined to identify biological resources adjacent to the Project Area, and is the area subject to potential indirect effects from Project implementation.

1.2. SCOPE OF ASSESSMENT

This assessment provides information about the biological resources within the Study Area, the regulatory environment affecting such resources, any potential Project-related impacts upon these resources, and finally, to recommend measures to reduce the significance of these impacts. The specific scope of services performed for this assessment consisted of the following tasks:

- Compile all readily-available historical biological resource information about the Study Area;
- Spatially query state and federal databases for any occurrences of special-status species or habitats within the Study Area and vicinity;
- Perform a reconnaissance-level field survey of the Study Area, including photographic documentation;
- Inventory all flora and fauna observed during the field survey;
- Characterize and map the habitat types present within the Study Area, including any potentially-jurisdictional water resources;
- Evaluate the likelihood for the occurrence of any special-status species;
- Assess the potential for the Project to adversely impact any sensitive biological resources;
- Recommend measures to avoid or minimize Project-related impacts; and
- Prepare and submit a report summarizing all of the above tasks.

1.3. REGULATORY SETTING

The following section summarizes some applicable regulations of biological resources on real property in California.

1.3.1. Special-status Species Regulations

The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service implement the Federal Endangered Species Act of 1973 (FESA) (16 USC §1531 et seq.). Threatened and endangered species on the federal list (50 CFR §17.11, 17.12) are protected from “take” (direct or

indirect harm), unless a FESA Section 10 Permit is granted or a FESA Section 7 Biological Opinion with incidental take provisions is rendered. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present in the project area and determine whether the proposed project will have a potentially significant impact upon such species. Under FESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC §1536[3], [4]). Therefore, project-related impacts to these species or their habitats would be considered significant and would require avoidance and minimization measures. Species that are candidates for listing are not protected under FESA; however, USFWS advises that a candidate species could be elevated to listed status at any time, and therefore, applicants should regard these species with special consideration.

The California Endangered Species Act of 1970 (CESA) (California Fish and Game Code §2050 *et seq.*, and CCR Title 14, §670.2, 670.51) prohibits “take” (defined as hunt, pursue, catch, capture, or kill) of species listed under CESA. A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. Section 2081 establishes an incidental take permit program for state-listed species. Under CESA, California Department of Fish and Wildlife (CDFW) has the responsibility for maintaining a list of threatened and endangered species designated under state law (CFG Code 2070). CDFW also maintains lists of species of special concern, which serve as “watch lists.” Pursuant to requirements of CESA, an agency reviewing proposed projects within its jurisdiction must determine whether any state-listed species may be present in the Study Area and determine whether the proposed project will have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and would require avoidance and minimization measures.

California Fish and Game Code Sections 4700, 5050, and 5515 designates certain mammal, amphibian, and reptile species “fully protected”, making it unlawful to take, possess, or destroy these species except under issuance of a specific permit. The California Native Plant Protection Act of 1977 (CFG Code §1900 *et seq.*) requires CDFW to establish criteria for determining if a species or variety of native plant is endangered or rare. Section 19131 of the code requires that landowners notify CDFW at least 10 days prior to initiating activities that will destroy a listed plant to allow the salvage of plant material.

Many bird species, especially those that are breeding, migratory, or of limited distribution, are protected under federal and state regulations. Under the Migratory Bird Treaty Act of 1918 (16 USC §703-711), migratory bird species and their nests and eggs that are on the federal list (50 CFR §10.13) are protected from injury or death, and project-related disturbances must be reduced or eliminated during the nesting cycle. California Fish and Game Code (§3503, 3503.5, and 3800) prohibits the possession, incidental take, or needless destruction of any bird nests or eggs. Fish and Game Code §3511 designates certain bird species “fully protected”, making it unlawful to take, possess, or destroy these species except under issuance of a specific permit. The Bald and Golden Eagle Protection Act (16 USC §668) specifically protects bald and golden eagles from harm or trade in parts of these species.

California Environmental Quality Act (CEQA) (Public Resources Code §15380) defines “rare” in a broader sense than the definitions of threatened, endangered, or fully protected. Under the CEQA definition, CDFW can request additional consideration of species not otherwise protected. CEQA requires that the impacts of a project upon environmental resources must be analyzed and assessed using criteria determined by the lead agency. Sensitive species that would qualify for listing but are not currently listed may be afforded protection under CEQA. The CEQA Guidelines (§15065) require that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines (§15380) provide for assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Plant species on the California Native Plant Society (CNPS) Lists 1A, 1B, or 2 are typically considered rare under CEQA. California “Species of

Special Concern” is a category conferred by CDFW on those species that are indicators of regional habitat changes or are considered potential future protected species. While they do not have statutory protection, Species of Special Concern are typically considered rare under CEQA and thereby warrant specific protection measures.

1.3.2. Water Resource Protection

Real property that contains water resources are subject to various federal and state regulations and activities occurring in these water resources may require permits, licenses, variances, or similar authorization from federal, state and local agencies, as described next.

The Federal Water Pollution Control Act Amendments of 1972 (as amended), commonly known as the Clean Water Act (CWA), established the basic structure for regulating discharges of pollutants into “waters of the United States”. Waters of the US includes essentially all surface waters, all interstate waters and their tributaries, all impoundments of these waters, and all wetlands adjacent to these waters. CWA Section 404 requires approval prior to dredging or discharging fill material into any waters of the US, especially wetlands. The permitting program is designed to minimize impacts to waters of the US, and when impacts cannot be avoided, requires compensatory avoidance and minimization measures. The US Army Corps of Engineers (USACE) is responsible for administering Section 404 regulations. Substantial impacts to jurisdictional wetlands may require an Individual Permit. Small-scale projects may require only a Nationwide Permit, which typically has an expedited process compared to the Individual Permit process. Avoidance and minimization measures of wetland impacts is required as a condition of the CWA Section 404 Permit and may include on-site preservation, restoration, or enhancement and/or off-site restoration or enhancement. The characteristics of the restored or enhanced wetlands must be equal to or better than those of the affected wetlands to achieve no net loss of wetlands.

Under CWA Section 401, every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain State Water Quality Certification that the proposed activity will comply with State water quality standards. The California State Water Resources Control Board is responsible for administering CWA Section 401 regulations.

Section 10 of the Rivers and Harbors Act of 1899 requires approval from USACE prior to the commencement of any work in or over navigable Waters of the US, or which affects the course, location, condition or capacity of such waters. Navigable waters of the United States are defined as waters that have been used in the past, are now used, or are susceptible to use, as a means to transport interstate or foreign commerce up to the head of navigation. Rivers and Harbors Act Section 10 permits are required for construction activities in these waters.

California Fish and Game Code (§1601 - 1607) protects fishery resources by regulating “*any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.*” CDFW requires notification prior to commencement, and issuance of a Lake or Streambed Alteration Agreement, if a proposed project will result in the alteration or degradation of “waters of the State”. The limit of CDFW jurisdiction is subject to the judgment of the Department; currently, this jurisdiction is interpreted to be the “stream zone”, defined as “*that portion of the stream channel that restricts lateral movement of water*” and delineated at “*the top of the bank or the outer edge of any riparian vegetation, whichever is more landward*”. CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFW and the applicant is the Streambed Alteration Agreement. Projects that require a Streambed Alteration Agreement may also require a CWA 404 Section Permit and/or CWA Section 401 Water Quality Certification.

For construction projects that disturb one or more acres of soil, the landowner or developer must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 2009-0009-DWQ).

1.3.3. Tree Protection

At the State level, in areas inside timberland, any tree removal is subject to the conditions and requirements set forth in the Z'berg-Nejedly Forest Practice Act and the California Forest Practice Rules. If development of a project will result in the removal of commercial tree species, one of the following permits is needed: Less than 3 Acre Conversion Exemption; Christmas Tree; Dead, Dying or Diseased, Fuelwood, or Split Products Exemption; a Public Agency, Public and Private Utility Right of Way Exemption; a Notice of Exemption from Timberland Conversion Permit for Subdivision; or an Application for Timberland Conversion Permit.

2. ENVIRONMENTAL SETTING

The Study Area is located within Outer North Coast Range geographic subregion, which is contained within the Northwestern California geographic subdivision of the larger California Floristic Province (Baldwin et al. 2012). This region has a warm-summer Mediterranean-type climate, characterized by distinct seasons of warm, dry summers and wet, moderately-cold winters. The Study Area and vicinity is in Climate Zone 15 – Chilly Winters Along the Coast Range, defined by cold-winter areas that lie in cold-air basins, on hilltops above the thermal belts, or far enough north that plant performance dictates a Zone 15 designation. (Sunset, 2022).

The topography of the Study Area is a gravel floodplain that has been graded flat except for an incised creek. The elevation ranges from approximately 82 feet to 95 feet above mean sea level. Drainage runs north into Powers Creek, and eventually flows into Mad River. The land uses of the Study Area are open space and a recreational trail. The surrounding land uses are industrial and commercial, gravel extraction, residential, equestrian facilities, and open space.

3. METHODOLOGY

3.1. PRELIMINARY DATA GATHERING AND RESEARCH

Prior to conducting the field survey, the following information sources were reviewed:

- Any readily-available previous biological resource studies pertaining to the Study Area or vicinity
- Aerial photography of the Study Area (current and historical)
- United States Geologic Service 7.5 degree-minute topographic quadrangles of the Study Area and vicinity
- USFWS National Wetland Inventory
- USDA Natural Resources Conservation Service soil survey maps
- California Natural Diversity Database (CNDDDB), electronically updated monthly by subscription
- USFWS species list (IPaC Trust Resources Report).
- A query of the California Native Plant Society's database *Inventory of Rare and Endangered Plants of California* (online edition).

3.2. FIELD SURVEY

Consulting biologist Tim Nosal, MS. conducted a reconnaissance-level field survey on December 28, 2022. Weather conditions were cool with occasional rain. A variable-intensity pedestrian survey was performed, and modified to account for differences in terrain, vegetation density, and visibility. All visible fauna and flora observed were recorded in a field notebook, and identified to the lowest possible taxon. Survey efforts emphasized the search for any special-status species that had documented occurrences in the CNDDDB within the vicinity of the Study Area and those species on the USFWS species list (Appendix 1).

When a specimen could not be identified in the field, a photograph or voucher specimen (depending upon permit requirements) was taken and identified in the laboratory using a dissecting scope where necessary. Dr. Graening holds the following scientific collection permits: CDFW Scientific Collecting Permit No. SC-006802; and CDFW Plant Voucher Specimen Permit 09004. Tim Nosal holds CDFW Plant Voucher Specimen Permit 2081(a)-16-102-V. Taxonomic determinations were facilitated by referencing museum specimens or by various texts, including the following: Powell and Hogue (1979); Pavlik (1991); (1993); Brenzel (2012); Stuart and Sawyer (2001); Lanner (2002); Sibley (2003); Baldwin et al. (2012); Calflora (2022); CDFW (2022b,c); NatureServe 2022; and University of California at Berkeley (2022a,b).

The locations of any special-status species sighted were marked on aerial photographs and/or georeferenced with a geographic positioning system (GPS) receiver. Habitat types occurring in the Study Area were mapped on aerial photographs, and information on habitat conditions and the suitability of the habitats to support special-status species was also recorded. The Study Area was also informally assessed for the presence of potentially-jurisdictional water features, including riparian zones, isolated wetlands and vernal pools, and other biologically-sensitive aquatic habitats

3.3. MAPPING AND OTHER ANALYSES

Locations of species' occurrences and habitat boundaries within the Study Area were digitized to produce the final habitat maps. The boundaries of potentially jurisdictional water resources within the Study Area were identified and measured in the field, and similarly digitized to calculate acreage and to produce informal delineation maps. Geographic analyses were performed using geographical information system software (ArcGIS 10, ESRI, Inc.). Vegetation communities (assemblages of plant species growing in an area of similar biological and environmental factors), were classified by Vegetation Series (distinctive associations of plants, described by dominant species and particular environmental setting) using the CNPS Vegetation Classification system (Sawyer and Keeler-Wolf, 2009). Informal wetland delineation methods consisted of an abbreviated, visual assessment of the three requisite wetland parameters (hydrophytic vegetation, hydric soils, hydrologic regime) defined in the US Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). Wildlife habitats were classified according to the CDFW's California Wildlife Habitat Relationships System (CDFW, 2022c). Species' habitat requirements and life histories were identified using the following sources: Baldwin et al. (2012); CNPS (2022), Calflora (2022); CDFW (2022a,b,c); and University of California at Berkeley (2022a,b).

4. RESULTS

4.1. INVENTORY OF FLORA AND FAUNA FROM FIELD SURVEY

All plants detected during the field survey of the Study Area are listed in Appendix 2. The following animals were detected within the Study Area during the field survey:

northern Pacific treefrog (*Pseudacris regilla*); Botta's pocket gopher (*Thomomys bottae*); Columbian black-tailed deer (*Odocoileus hemionus columbianus*); dog (*Canis lupis familiaris*); horse (*Equus caballus*); American crow (*Corvus brachyrhynchos*); American robin (*Turdus migratorius*); black phoebe (*Sayornis nigricans*); black-capped chickadee (*Poecile atricapillus*); chipping sparrow (*Spizella passerina*); downy woodpecker (*Picoides pubescens*); house finch (*Haemorhous mexicanus*); house sparrow (*Passer domesticus*); northern flicker (*Colaptes auratus*); Pacific wren (*Troglodytes pacificus*); red breasted nuthatch (*Sitta canadensis*); song sparrow (*Melospiza melodia*); spotted towhee (*Pipilo maculatus*); Stellar's jay (*Cyanocitta stelleri*); white crowned sparrow (*Zonotrichia leucophrys*); wrentit (*Chamaea fasciata*) and yellow-rumped warbler (*Setophaga coronata*).

No federally-listed species were detected. No special-status species were detected.

4.2. VEGETATION COMMUNITIES AND WILDLIFE HABITAT TYPES

4.2.1. Terrestrial Vegetation Communities

The Study Area contains the following terrestrial vegetation communities: Disturbed/Developed, Annual Grassland and Riparian. These vegetation communities are discussed here and are delineated in the Exhibits.

Disturbed/Developed. These areas consist of disturbed or converted natural habitat that is now either in ruderal state or urbanized with gravel trails and paved roads. Vegetation within this habitat type consists primarily of nonnative weedy or invasive species lacking a consistent community structure. This habitat type provides limited resources for wildlife and is utilized primarily by species tolerant of human activities. The disturbed and altered condition of these lands greatly reduces their habitat value and ability to sustain rare plants or diverse wildlife assemblages.

Annual Grassland: The annual grassland habitat is comprised largely of non-native annual grasses and native herbs. Plants common in this habitat type include unidentified annual grasses, English plantain (*Plantago lanceolata*), short pod mustard (*Hirschfeldia incana*), fennel (*Foeniculum vulgare*), filaree (*Erodium spp.*), clover (*Trifolium sp.*), Queens Anne's lace (*Daucus carota*), California poppy (*Eschscholzia californica*) and various other species. This vegetation can be classified as the Holland Type "Non-native Grassland" or as "42.000.00 Non-native Grassland" (CDFW 2022e).

Riparian Forest / Scrub: Riparian habitat can be found along the channel of Powers Creek, following the northern edge of the Study Area. The riparian vegetation consists of a dense canopy of Hooker's willow (*Salix hookeriana*) with occasional black cottonwood (*Populus trichocarpa*). Vegetation in the understory includes California blackberry (*Rubus ursinus*), Himalayan blackberry (*Rubus armeniacus*), thimble berry (*Rubus parviflorus*), coyote brush (*Baccharis pilularis ssp. consanguinea*), sweet pea (*Lathyrus latifolius*) and bedstraw (*Galium aparine*). The riparian scrub can be classified as the Holland Type "North Coast Riparian Scrub" or as "61.203.00 *Salix hookeriana* (Coastal willow thickets) Alliance" (CDFW 2022e). "61.120.00 *Populus trichocarpa* (Black cottonwood forest) Alliance" may also apply.

4.2.2. Wildlife Habitat Types

Wildlife habitat types were classified using CDFW's Wildlife Habitat Relationship System. The Study Area contains the following wildlife habitat types: Urban; Barren; Annual Grassland and Valley Foothill Riparian.

4.2.3. Critical Habitat and Special-status Habitat

No critical habitat for any federally-listed species occurs within the Project Area or the surrounding Study Area. The CNDDDB reported no special-status habitats within the Project Area or surrounding Study Area. The CNDDDB reported the following special-status habitats in a 10-mile radius outside of the Study Area: Northern Coastal Salt Marsh and Upland Douglas Fir Forest. No special-status habitats were detected within the Project Area. However, the surrounding Study Area contains the following special-status habitats: Riparian Scrub. The willow thickets and black cottonwood stands are sensitive natural communities.

4.2.4. Habitat Plans and Wildlife Corridors

Wildlife movement corridors link remaining areas of functional wildlife habitat that are separated primarily by human disturbance, but natural barriers such as rugged terrain and abrupt changes in vegetation cover are also possible. Wilderness and open lands have been fragmented by urbanization, which can disrupt migratory species and separate interbreeding populations. Corridors allow migratory movements and act as links between these separated populations.

No designated wildlife corridors exist within or near the Study Area, although the Powers Creek corridor may function as such. No fishery resources exist in the Study Area, but Powers Creek is a fishery resource, including for salmonids. The nearest major fisher is the Mad River. The Study Area is not located within any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

4.3. LISTED SPECIES AND OTHER SPECIAL-STATUS SPECIES

For the purposes of this assessment, “special status” is defined to be species that are of management concern to state or federal natural resource agencies, and include those species that are:

- Listed as endangered, threatened, proposed, or candidate for listing under the Federal Endangered Species Act;
- Listed as endangered, threatened, rare, or proposed for listing, under the California Endangered Species Act of 1970;
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- Designated as a species of special concern by CDFW;
- Plants considered to be rare, threatened or endangered in California by the California Native Plant Society (CNPS); this consists of species on Lists 1A, 1B, and 2 of the CNPS Ranking System; or
- Plants listed as rare under the California Native Plant Protection Act.

4.3.1. Reported Occurrences of Listed Species and Other Special-status Species

A list of special-status plant and animal species that have occurred within the Study Area and vicinity was compiled based upon the following:

- Any previous and readily-available biological resource studies pertaining to the Study Area;
- Informal consultation with USFWS by generating an electronic Species List (Information for Planning and Conservation website at <https://ecos.fws.gov/ipac/>); and
- A spatial query of the CNDDDB using the standard 9 quadrangle boundary
- A query of the California Native Plant Society’s database *Inventory of Rare and Endangered Plants of California* (online edition).

The CNDDDB was queried and any reported occurrences of special-status species were plotted in relation to the Study Area boundary using GIS software (see exhibits).

The CNDDDB reported no special-status species occurrences within the Project Area or the surrounding Study Area. Within a 10-mile buffer of the Study Area boundary, the CNDDDB reported several special-status species occurrences, summarized in the table in the Appendix along with any additional CNPS species.

A USFWS species list was generated online using the USFWS’ IPaC Trust Resource Report System (see Appendix 1). This list is generated using a regional and/or watershed approach and does not necessarily indicate that the Study Area provides suitable habitat. The following listed species should be considered in the impact assessment:

- Pacific marten, Coastal Distinct Population Segment (*Martes caurina*) Threatened
- Marbled murrelet (*Brachyramphus marmoratus*) Threatened
- Northern Spotted Owl (*Strix occidentalis caurina*) Threatened
- Western Snowy Plover (*Charadrius nivosus nivosus*) Threatened
- Yellow-billed Cuckoo (*Coccyzus americanus*) Threatened
- Monarch Butterfly (*Danaus plexippus*) Candidate
- Western lily (*Lilium occidentale*) Endangered

Migratory birds should also be considered in the impact assessment.

4.3.2. Listed Species or Special-status Species Observed During Field Survey

During the field survey, no listed species or special-status species were detected within the Project Area or the surrounding Study Area.

4.3.3. Potential for Listed Species or Special-status Species to Occur in the Study Area

See the Appendix for a complete table of special-status species and their potential to occur in the Study Area. The disturbed/developed habitat within the Study Area has a low potential for harboring special-status plant species due to the disturbance regimes of human activity and weed control. However, non-listed, special-status plants may occur in the annual grassland habitat found within the Study Area. These special-status plant species consist of:

- Harlequin lotus (*Hosackia gracilis*)
- Nodding semaphore grass (*Pleuropogon refractus*)
- Maple-leaved checkerbloom (*Sidalcea malachroides*)

The disturbed/developed habitat within the Study Area has a low potential for harboring special-status animal species due to the simplification of the habitats and the constant disturbance regimes of noise, ground disturbance, traffic, and other human land use activity. Special-status animals have a potential to occur in the annual grassland habitat and riparian habitat. These special-status animal species consist of:

- Western bumble bee (*Bombus occidentalis*)
- Obscure bumble bee (*Bombus caliginosus*)
- Crotch bumble bee (*Bombus crotchii*)
- Humboldt cuckoo wasp (*Cleptes humboldti*)

4.4. POTENTIALLY-JURISDICTIONAL WATER RESOURCES

The USFWS National Wetland Inventory reported no water features within the Project Area, but the Inventory did report 1 water feature within the Study Area (see Exhibits): a riverine feature (Powers Creek). An assessment for the presence of potentially-jurisdictional water resources within the Study Area was also conducted during the field survey. The delineation determined that the Project Area does not contain any channels or wetlands. One water feature was detected within the surrounding Study Area during the field survey (see Exhibits): Powers Creek (intermittent channel). There are no vernal pools or other isolated wetlands in the Study Area.

5. POTENTIAL IMPACTS AND RECOMMENDED MEASURES

5.1. Potential Direct / Indirect Adverse Effects Upon Special-status Species

- *Will the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

No direct impacts to listed species or special-status species were identified from project implementation. Indirect impacts consist primarily of habitat loss or the discovery of new populations. The Project Area is located in ruderal/developed habitat and annual grassland habitat, which will be impacted by project implementation. Special-status plants have a moderate potential to occur in the annual grassland habitat because rare plant species have been reported in similar habitats in the region by the CNDDDB and CNPS. An off-season botanical survey was performed during our site surveys. No special-status plants were observed within the Project Area or the surrounding Study Area, but this survey was performed outside

of the blooming period of most rare plants occurring in the region. Without an additional botanical survey performed during the blooming period, we cannot be certain that special-status plants will not be impacted by project implementation.

During the field survey, no listed animal species or special-status animal species were observed within the Project Area or the surrounding Study Area. State and federal databases do not report any listed animal species or special-status animal species. However, special-status species could migrate into Project Areas between the time that the field survey was completed and the start of construction.

Special-status bird species were reported in databases (CNDDDB and USFWS) in the vicinity of the Project Area. Shrubs, trees, and utility poles, contain suitable nesting habitat for various bird species. However, no nests were observed during the field survey. If construction activities are conducted during the nesting season, nesting birds could be directly impacted by tree removal and indirectly impacted by noise, vibration, and other construction-related disturbance.

Recommendations

A botanical survey during the appropriate blooming period is recommended prior to the commencement of construction activity to confirm that no special-status plants are present. If special-status plant species are detected, it is recommended that these plants be avoided. Avoidance measures consist of shifting the cultivation compound boundaries to locations outside of the rare plant population boundaries or the creation of preserve islands within the compound boundaries. Populations should be demarcated with exclusion fencing and signage. Where avoidance is not possible, a rare plant salvage program could be implemented. Project activities could be delayed long enough for a qualified biologist to prepare and implement the rare plant salvage program. An outline of the salvage program is presented next.

If the impacted rare plants are annuals (annual life history strategy), the salvage program shall consist of the following: collection of seeds; sowing of the seeds in the Fall/Winter in all suitable habitats on the Property or in a specified preserve area on the Property; and covering with a weed-free mulch, such as sterile (pasteurized) wheat straw. If the impacted rare plants are perennials (perennial life history strategy), the preservation program shall consist of the following: careful excavation of the entire rare plant, including the majority of the root ball; placement in containers and performing health maintenance activities; transplantation in the Fall/Winter to various suitable habitats on the Property or in a specified preserve area on the Property; covering with a weed-free mulch, such as sterile (pasteurized) wheat straw; and supplemental irrigation (as needed) and weeding for a minimum of 3 years. There should be monitoring for at least 3 years, and corrective actions should be implemented if the transplantations are not successful.

- This recommendation should be included as a condition of approval for the project.

Because special-status animal species that occur in the vicinity could migrate onto the Study Area between the time that the field survey was completed and the start of construction, a pre-construction survey for special-status species should be performed by a qualified biologist to ensure that special-status species are not present. If any listed species are detected, construction should be delayed, and the appropriate wildlife agency (CDFW and/or USFWS) should be consulted and project impacts and avoidance measures reassessed.

- This recommendation should be included as a condition of approval for the project.

If construction activities would occur during the nesting season (typically February through August), a pre-construction survey for the presence of special-status bird species or any nesting bird species should

be conducted by a qualified biologist within 500 feet of proposed construction areas. If active nests are identified in these areas, CDFW and/or USFWS should be consulted to develop measures to avoid “take” of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged.

- This recommendation should be included as a condition of approval for the project.

5.2. Potential Direct / Indirect Adverse Effects Upon Special-status Habitats or Natural Communities or Corridors

- *Will the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The Project Area does not contain special-status habitats, although there are special-status habitats in the vicinity—coast willow thickets and black cottonwood woodland. The project design avoided sensitive habitats, such as all riparian habitat, and in particular, coast willow thickets and black cottonwood woodland. Because project implementation will not impact any special-status habitats, no recommendations were.

Recommendations

No recommendations are necessary.

5.3. Potential Direct / Indirect Adverse Effects on Jurisdictional Water Resources

- *Will the project 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?*

Potential direct impacts to water resources could occur during construction by modification or destruction of stream banks or riparian vegetation or the filling of wetlands or channels. However, there are no water resources within the Project Area. The housing project has been designed with a minimum 100-foot setback from the channel and is situated on flat terrain. Thus, implementation of the proposed project is not anticipated to directly impact water resources.

Potential indirect impacts to water resources could occur during construction. Surface water quality has the potential to be degraded from storm water transport of sediment from disturbed soils or by accidental release of hazardous materials or petroleum products from sources such as heavy equipment servicing or refueling.

Recommendations

Since the project will disturb an area greater than 1 acre, the landowner or project proponent must enroll under the State Water Quality Control Board’s Construction General Permit prior to the initiation of construction. In conjunction with enrollment under this Permit, a Storm Water Pollution Prevention Plan, Erosion Control Plan, and a Hazardous Materials Management/Spill Response Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials.

- This recommendation should be included as a condition of approval for the project.

5.4. Potential Impacts to Wildlife Movement, Corridors, etc.

- *Will the project 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?*

Although no mapped wildlife corridors (such as the California Essential Habitat Connectivity Area layer in CNDDDB) exist within or near the Study Area, the open space and the stream corridor in the Study Area facilitate animal movement and migrations. While the Study Area may be used by wildlife for movement or migration, the Project would not have a significant impact on this movement because it would not block movement and the majority of the open space in the Study Area would still be available.

Implementation of the proposed project will include construction of buildings, walls, and roads. These built features would not allow animal movement and may act as a local barrier to wildlife movement. However, the built features would be surrounded by open space, allowing wildlife to move around these fenced areas and the entire Powers Creek corridor is left unchanged. Thus, implementation of the proposed project is a less than significant impact upon wildlife movement. Implementation of the project will not 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.

Recommendations

No recommendations are necessary.

5.5. Potential Conflicts with Ordinances, Habitat Conservation Plans, etc.

- *Will the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
- *Will the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

Implementation of the proposed project will not require the removal of mature trees. The project does not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved governmental habitat conservation plan. The Study Area is not within the coverage area of any adopted Habitat Conservation Plan or Natural Community Conservation Plan.

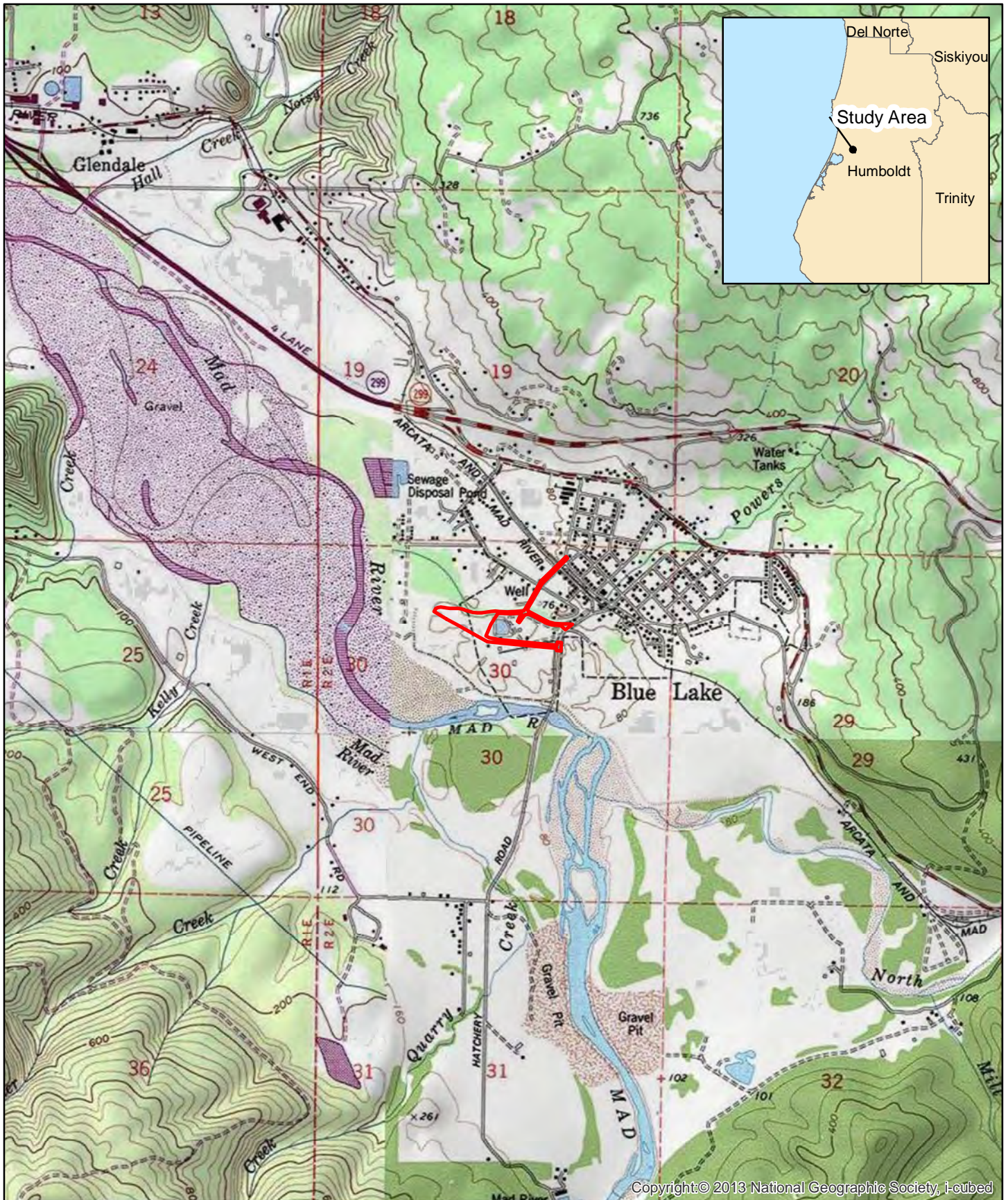
Recommendations

No recommendations are necessary.

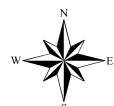
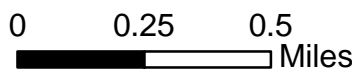
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APPENDIX 1: EXHIBITS



Study Area

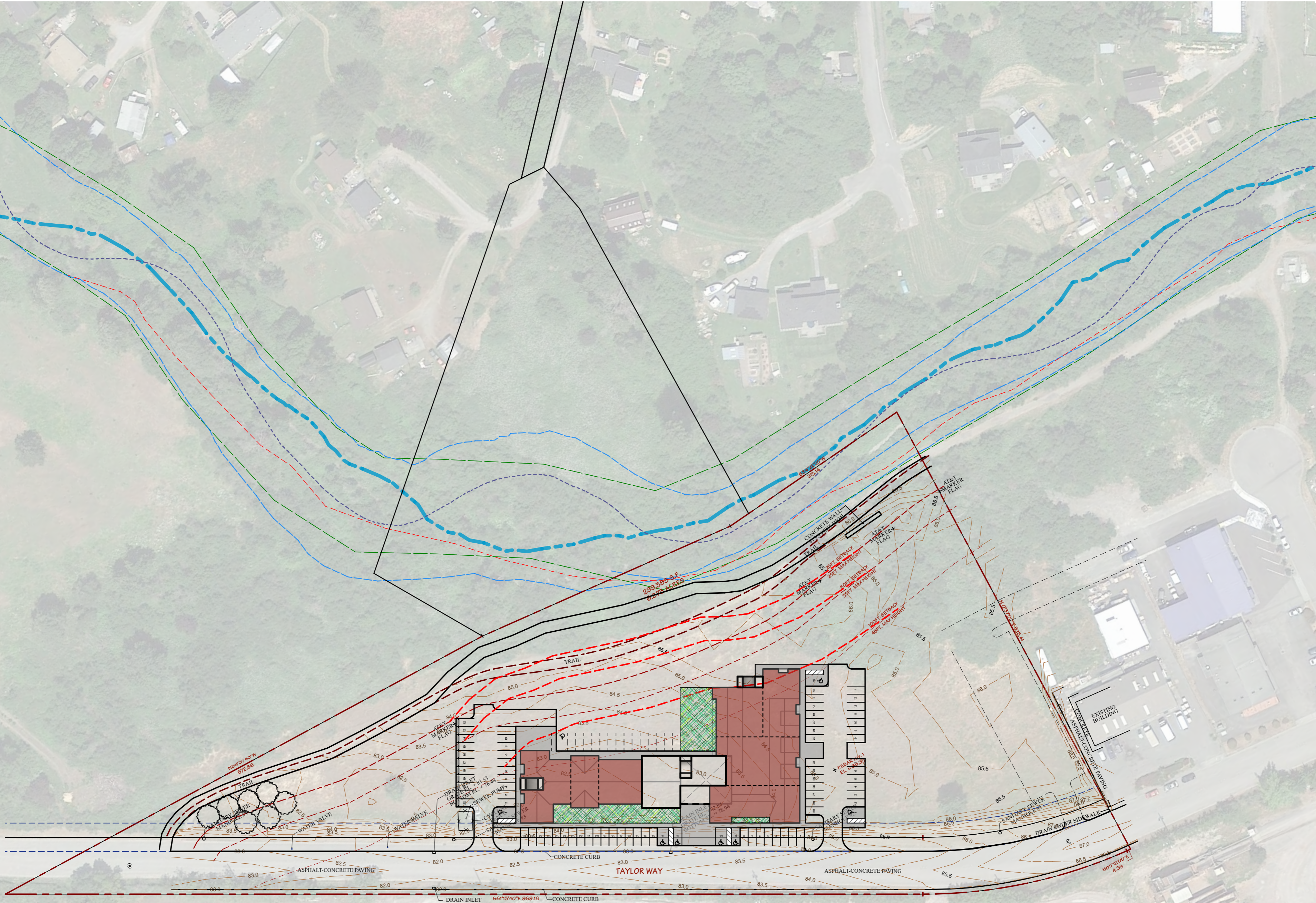


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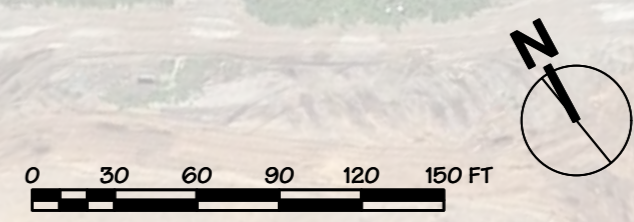
Blue Lake Multi-Family Housing Development Study Area Location Map



NATURAL INVESTIGATIONS COMPANY



CONCEPTUAL SITE PLAN



— Study Area
— Housing Project Area
— Channel

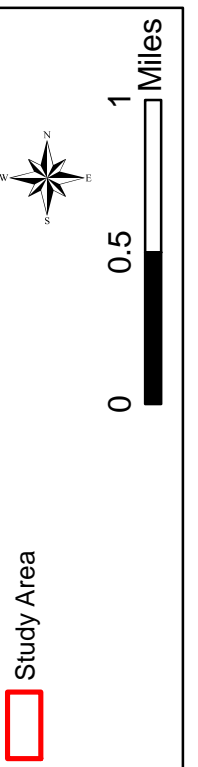
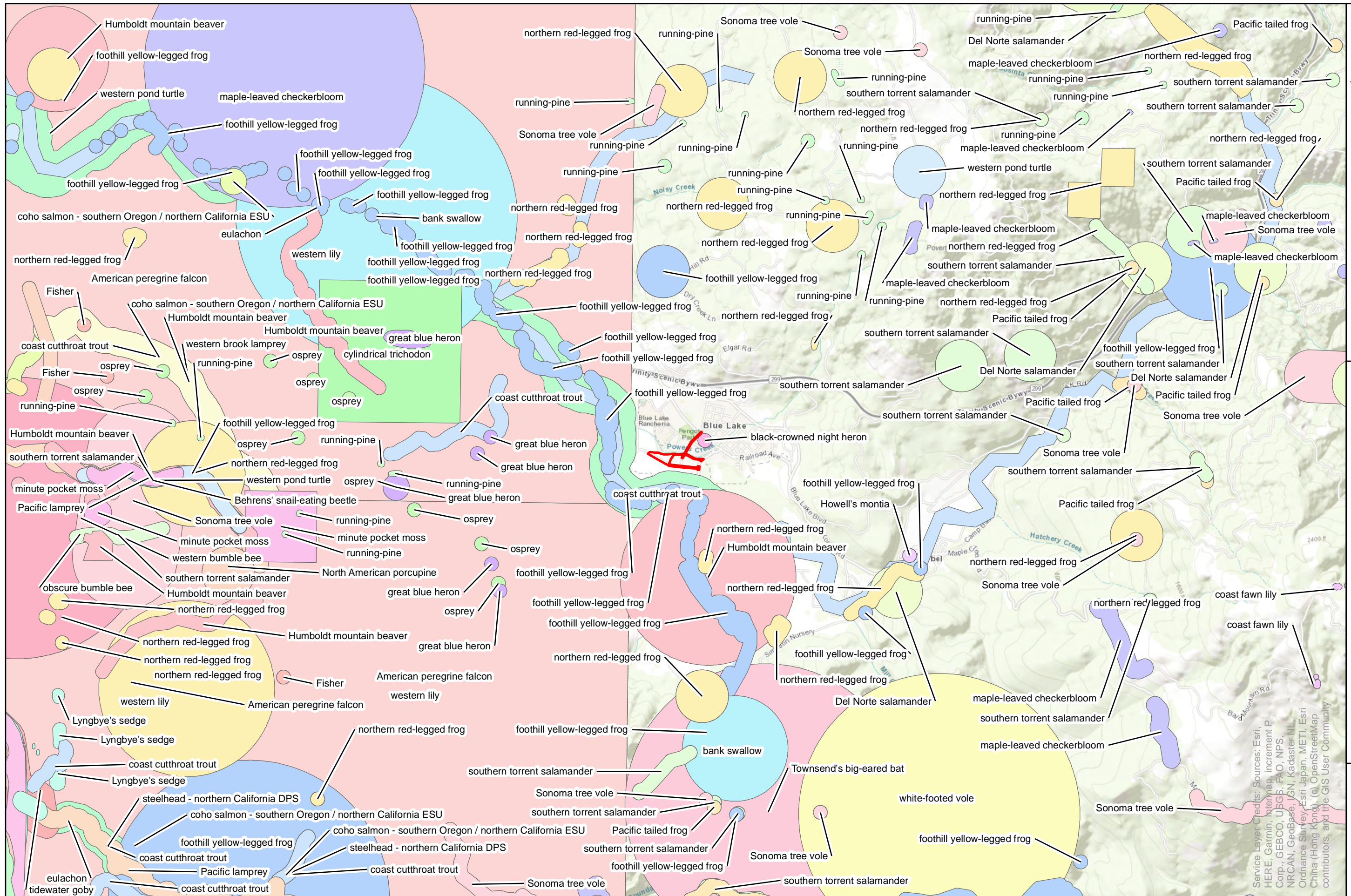
Vegetation Community Types
■ Annual grassland
■ Urbanized/developed
■ Riparian forest / scrub



Habitat Types
 Blue Lake Multi-Family Housing Development
 Unaddressed on Taylor Way, Blue Lake



500 ft




**Blue Lake Multi-Family Housing Development
 CNRDB Special-Status Species Occurrences**


NATURAL INVESTIGATIONS COMPANY
 Map Date 11/23/22


Service Layer Credits: Sources: Esri, HERE, Garmin, Intelmap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Swisstopo, and the GIS User Community

Data Sources: California Department of Fish and Wildlife. 2022. RareFind 5.x, California Natural Diversity Data Base. Biogeographic Data Branch, Sacramento, California. (updated monthly by subscription service)



 Study Area

 Wetlands and Channels

0 300 600
 Feet



1:5,000

Blue Lake Multi-Family Housing
 Development: National Wetlands
 Inventory Features Map



NATURAL
 INVESTIGATIONS
 COMPANY

— Study Area
— Housing Project Area

Notes: There are no wetlands within the Study Area

Powers Creek Corridor

Channel

Powers Creek Corridor

Water Resources
Blue Lake Multi-Family Housing Development
Unaddressed on Taylor Way, Blue Lake



400 ft

APPENDIX 2: USFWS SPECIES LIST



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
Phone: (707) 822-7201 Fax: (707) 822-8411

In Reply Refer To:
Project Code: 2023-0021292
Project Name: Blue Lake Multi-family Housing

December 04, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
 - Wetlands
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arcata Fish And Wildlife Office

1655 Heindon Road

Arcata, CA 95521-4573

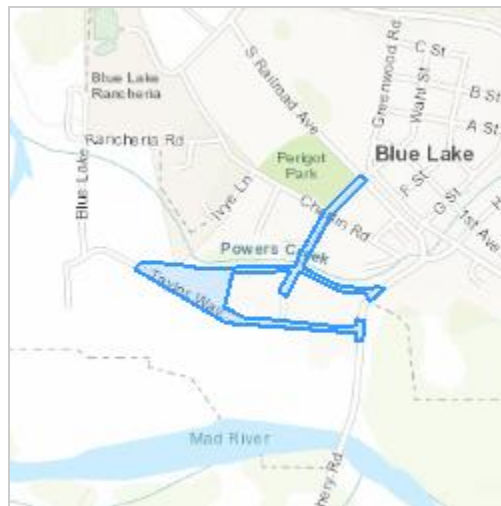
(707) 822-7201

Project Summary

Project Code: 2023-0021292
Project Name: Blue Lake Multi-family Housing
Project Type: New Constr - Above Ground
Project Description: multi-family housing project on 1.75 acre footprint with access improvements

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.88019745,-123.99364321955929,14z>



Counties: Humboldt County, California

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [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.

Mammals

NAME	STATUS
Pacific Marten, Coastal Distinct Population Segment <i>Martes caurina</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9081	Threatened

Birds

NAME	STATUS
Marbled Murrelet <i>Brachyramphus marmoratus</i> Population: U.S.A. (CA, OR, WA) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
Western Snowy Plover <i>Charadrius nivosus nivosus</i> Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Western Lily <i>Lilium occidentale</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/998	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

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](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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 of 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.

NAME	BREEDING SEASON
Allen's Hummingbird <i>Selasphorus sasin</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle <i>Haliaeetus leucocephalus</i> 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.	Breeds Jan 1 to Sep 30

NAME	BREEDING SEASON
<p>Black Swift <i>Cypseloides niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878</p>	Breeds Jun 15 to Sep 10
<p>California Gull <i>Larus californicus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Mar 1 to Jul 31
<p>Evening Grosbeak <i>Coccothraustes vespertinus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds May 15 to Aug 10
<p>Golden Eagle <i>Aquila chrysaetos</i> 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/1680</p>	Breeds Jan 1 to Aug 31
<p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p>	Breeds elsewhere
<p>Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<p>Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914</p>	Breeds May 20 to Aug 31
<p>Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002</p>	Breeds Apr 15 to Jul 15
<p>Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds elsewhere
<p>Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	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 (■)

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.

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.

No Data (-)

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

Survey Timeframe

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide 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 list of migratory birds that potentially occur 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, an eagle ([Eagle Act](#) requirements may apply), 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 [Rapid Avian Information Locator \(RAIL\) 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](#).

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 or migrating in my 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 query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. 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. Alternately, 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 Spiegel](#) 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.

Wetlands

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](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

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IPaC User Contact Information

Agency: Natural Investigations Co., Inc.
Name: G.O. Graening
Address: 3104 O Street
Address Line 2: No. 221
City: Sacramento
State: CA
Zip: 95816
Email: ggraening@gmail.com
Phone: 9164525442

APPENDIX 3: CHECKLIST OF PLANTS DETECTED IN THE STUDY AREA

Plants Observed at Blue Lake Housing Project Area on November 29, 2022

Common Name	Scientific Name
Silver wattle	<i>Acacia dealbata</i>
English daisy	<i>Bellis perennis</i>
Wax myrtle	<i>Morella californica</i>
Spiny sowthistle	<i>Sonchus asper</i>
Western red cedar	<i>Thuja plicata</i>
Slender wild oat	<i>Avena barbata</i>
Coyote brush	<i>Baccharis pilularis</i>
Rescue brome	<i>Bromus catharticus</i>
Poverty brome	<i>Bromus sterilis</i>
Bull thistle	<i>Cirsium vulgare</i>
Pampas grass	<i>Cortaderia selloana</i>
Tall flatsedge	<i>Cyperus eragrostis</i>
Queen Anne's lace	<i>Daucus carota</i>
Fuller's teasel	<i>Dipsacus fullonum</i>
Broad leaved filaree	<i>Erodium botrys</i>
Red-stemmed filaree	<i>Erodium cicutarium</i>
California poppy	<i>Eschscholzia californica</i>
Blue gum	<i>Eucalyptus globulus</i>
Italian ryegrass	<i>Festuca perennis</i>
Fennel	<i>Foeniculum vulgare</i>
Bedstraw	<i>Galium aparine</i>
French broom	<i>Genista monspessulana</i>
Cutleaf geranium	<i>Geranium dissectum</i>
Bristly oxtongue	<i>Helminthotheca echioides</i>
Shortpod mustard	<i>Hirschfeldia incana</i>
Henbit	<i>Lamium amplexicaule</i>
Sweet pea	<i>Lathyrus latifolius</i>
Hawkbit	<i>Leontodon saxatilis</i>
Peppergrass	<i>Lepidium sp.</i>
Narrowleaf cottonrose	<i>Logfia gallica</i>
Bird's-foot trefoil	<i>Lotus corniculatus</i>
Apple	<i>Malus domestica</i>
Mallow	<i>Malva sp.</i>
Pennyroyal	<i>Mentha pulegium</i>
Carolina bristle mallow	<i>Modiola caroliniana</i>
English plantain	<i>Plantago lanceolata</i>
Annual bluegrass	<i>Poa annua</i>
Grass – unidentified	Poaceae
Knot grass	<i>Polygonum arenastrum</i>
Western sword fern	<i>Polystichum munitum</i>
Black cottonwood	<i>Populus trichocarpa</i>
Cherry plum	<i>Prunus cerasifera</i>

Common Name	Scientific Name
Common plum	<i>Prunus domestica</i>
Jointed charlock	<i>Raphanus sativus</i>
Himalayan blackberry	<i>Rubus armeniacus</i>
California blackberry	<i>Rubus ursinus</i>
Sheep sorrel	<i>Rumex acetosella</i>
Dock	<i>Rumex sp.</i>
Arroyo willow	<i>Salix lasiolepis</i>
Shepherd's needle	<i>Scandix pecten-veneris</i>
California bee plant	<i>Scrophularia californica</i>
Old man of spring	<i>Senecio vulgare</i>
Milk thistle	<i>Silybum marianum</i>
Dandelion	<i>Taraxacum officinale</i>
Clover	<i>Trifolium sp.</i>
Periwinkle	<i>Vinca major</i>

APPENDIX 4: SITE PHOTOS



View looking east of riparian woodland and buildings



View of footpath and riparian habitat and fencing.



View looking east of field and covered soil pile and riparian habitat.



View of riparian habitat and Powers Creek beyond.



View looking north of footbridge over Powers Creek



View looking west of buildings and riparian vegetation.



View looking east from footpath near buildings.



View looking southeast at buildings.



View downstream (west) of Powers Creek.



View looking south of open area with trees and industrial buildings beyond.



View of footbridge over Powers Creek.



View looking east along footpath and Powers Creek beyond.



View looking west from Taylor Way of field.



View looking northwest from Taylor Way of field and dirt pile.



View of some riparian vegetation.



View looking north from Taylor Way of project area.

APPENDIX 5: SPECIAL-STATUS SPECIES TABLE AND POTENTIAL TO OCCUR

Special-status Species Reported by CNDDDB and CNPS in the Vicinity of the Study Area

Common Name	Scientific Name	Status*	General Habitat**	Microhabitat**	Potential to Occur in Project Area***
ANIMALS					
Del Norte salamander	<i>Plethodon elongatus</i>	CWL	Oldgrowth	Cool, moist, stable microclimate, a deep litter layer, closed multi-storied canopy, dominated by large, old trees.	Absent: No habitat onsite.
Southern torrent salamander	<i>Rhyacotriton variegatus</i>	CSSC	Lower montane coniferous forest; Oldgrowth; Redwood; Riparian forest	Cold, well-shaded, permanent streams and seepages, or within splash zone or on moss-covered rocks within trickling water.	Absent: No habitat onsite.
Pacific tailed frog	<i>Ascaphus truei</i>	CSSC	Aquatic; Klamath/North coast flowing waters; Lower montane coniferous forest; North coast coniferous forest; Redwood; Riparian forest	Restricted to perennial montane streams. Tadpoles require water below 15 degrees C.	Absent: No habitat onsite.
Northern red-legged frog	<i>Rana aurora</i>	CSSC	Klamath/North coast flowing waters; Riparian forest; Riparian woodland	Generally near permanent water, but can be found far from water, in damp woods and meadows, during non-breeding season.	Absent: No habitat onsite.
Foothill yellow-legged frog	<i>Rana boylei</i>	CE/CSSC	Aquatic; Chaparral; Cismontane woodland; Coastal scrub; Klamath/North coast flowing waters; Lower montane coniferous forest; Meadow & seep; Riparian forest; Riparian woodland; Sacramento/San Joaquin flowing waters	Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Absent: No habitat onsite.
Fork-tailed storm-petrel	<i>Hydrobates furcatus</i>	CSSC	Protected deepwater coastal communities	Birds choose offshore islets which provide nesting crannies beneath rocks or sod for burrowing.	Absent: No habitat onsite.
Double-crested cormorant	<i>Nannopterum auritum</i>	CWL	Riparian forest; Riparian scrub; Riparian woodland	Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	Absent: No habitat onsite.
Great blue heron	<i>Ardea herodias</i>		Brackish marsh; Estuary; Freshwater marsh; Marsh & swamp; Riparian forest; Wetland	Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Absent: No habitat onsite.
Black-crowned night heron	<i>Nycticorax nycticorax</i>		Marsh & swamp; Riparian forest; Riparian woodland; Wetland	Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	Absent: No habitat onsite.
Osprey	<i>Pandion haliaetus</i>	CWL	Riparian forest	Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	Absent: No habitat onsite.
White-tailed kite	<i>Elanus leucurus</i>	CFP	Cismontane woodland; Marsh & swamp; Riparian woodland; Valley & foothill grassland; Wetland	Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Absent: No habitat onsite.
Bald eagle	<i>Haliaeetus leucocephalus</i>	FD/CE/CFP	Lower montane coniferous forest; Oldgrowth	Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Absent: No habitat onsite.
Cooper's hawk	<i>Accipiter cooperii</i>	CWL	Cismontane woodland; Riparian forest; Riparian woodland; Upper montane coniferous forest	Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Absent: No habitat onsite.
American peregrine falcon	<i>Falco peregrinus anatum</i>	FD/CD/CFP		Nest consists of a scrape or a depression or ledge in an open site.	Absent: No habitat onsite.
Yellow rail	<i>Coturnicops noveboracensis</i>	CSSC	Freshwater marsh; Meadow & seep	Freshwater marshlands.	Absent: No habitat onsite.
Western snowy plover	<i>Charadrius nivosus nivosus</i>	FT/CSSC	Great Basin standing waters; Sand shore; Wetland	Needs sandy, gravelly or friable soils for nesting.	Absent: No habitat onsite.
Mountain plover	<i>Charadrius montanus</i>	CSSC	Chenopod scrub; Valley & foothill grassland	Short vegetation, bare ground, and flat topography. Prefers grazed areas and areas with burrowing rodents.	Absent: No habitat onsite.
Rhinoceros auklet	<i>Cerorhinca monocerata</i>	CWL		Nests in a burrow on undisturbed, forested and unforested islands, and probably in cliff caves on the mainland.	Absent: No habitat onsite.
Tufted puffin	<i>Fratercula cirrhata</i>	CSSC	Protected deepwater coastal communities	Requires sod or earth into which the birds can burrow, on island cliffs or grassy island slopes.	Absent: No habitat onsite.
Bank swallow	<i>Riparia riparia</i>	CT	Riparian scrub; Riparian woodland	Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Absent: No habitat onsite.
Pacific lamprey	<i>Entosphenus tridentatus</i>	CSSC	Aquatic; Klamath/North coast flowing waters; South coast flowing waters; Sacramento/San Joaquin flowing waters	Swift-current gravel-bottomed areas for spawning with water temps between 12-18 c. Ammocoetes need soft sand or mud.	Absent: No habitat onsite.
Western brook lamprey	<i>Lampetra richardsoni</i>	CSSC			Absent: No habitat onsite.
Green sturgeon - southern DPS	<i>Acipenser medirostris pop. 1</i>	FT	Aquatic; Estuary; Marine bay; Sacramento/San Joaquin flowing waters	Spawning occurs primarily in cool (11-15 c) sections of mainstem rivers in deep pools (8-9 meters) with substrate containing small to medium sized sand, gravel, cobble, or boulder.	Absent: No habitat onsite.
Coho salmon - southern Oregon / northern California ESU	<i>Oncorhynchus kisutch pop. 2</i>	FT/CT	Aquatic; Klamath/North coast flowing waters; Sacramento/San Joaquin flowing waters	State listing refers to populations between the Oregon border and Punta Gorda, California.	Absent: No habitat onsite.
Coast cutthroat trout	<i>Oncorhynchus clarkii clarkii</i>	CSSC	Aquatic; Klamath/North coast flowing waters	Small, low gradient coastal streams and estuaries. Needs shaded streams with water temperatures <18c, and small gravel for spawning.	Absent: No habitat onsite.

Steelhead - northern California DPS	<i>Oncorhynchus mykiss irideus pop. 16</i>	FT	Aquatic; Klamath/North coast flowing waters	Coastal basins from Redwood Creek south to the Gualala River, inclusive.	Absent: No habitat onsite.
Summer-run steelhead trout	<i>Oncorhynchus mykiss irideus pop. 36</i>	CCE/CSSC	Aquatic; Klamath/North coast flowing waters; Sacramento/San Joaquin flowing waters	Cool, swift, shallow water and clean loose gravel for spawning, and suitably large pools in which to spend the summer.	Absent: No habitat onsite.
Longfin smelt	<i>Spirinchus thaleichthys</i>	FC/CT	Aquatic; Estuary	Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	Absent: No habitat onsite.
Eulachon	<i>Thaleichthys pacificus</i>	FT	Aquatic; Klamath/North coast flowing waters	Spawn in lower reaches of coastal rivers with moderate water velocities and bottom of pea-sized gravel, sand, and woody debris.	Absent: No habitat onsite.
Tidewater goby	<i>Eucyclogobius newberryi</i>	FE	Aquatic; Klamath/North coast flowing waters; South coast flowing waters; Sacramento/San Joaquin flowing waters	Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Absent: No habitat onsite.
Long-eared myotis	<i>Myotis evotis</i>			Nursery colonies in buildings, crevices, spaces under bark, and snags. Caves used primarily as night roosts.	Absent: No habitat onsite.
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	CSSC	Broadleaved upland forest; Chaparral; Chenopod scrub; Great Basin grassland; Great Basin scrub; Joshua tree woodland; Lower montane coniferous forest; Mojavean desert scrub; Meadow & seep; Riparian forest; Riparian woodland; Sonoran desert scrub; Sonoran	Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Absent: No habitat onsite.
Humboldt mountain beaver	<i>Aplodontia rufa humboldtiana</i>		Coastal scrub; Redwood; Riparian forest	Variety of coastal habitats, including coastal scrub, riparian forests, typically with open canopy and thickly vegetated understory.	Absent: No habitat onsite.
White-footed vole	<i>Arborimus albipes</i>	CSSC	North coast coniferous forest; Redwood; Riparian forest	Occupies the habitat from the ground surface to the canopy. Feeds in all layers and nests on the ground under logs or rock.	Absent: No habitat onsite.
Sonoma tree vole	<i>Arborimus pomo</i>	CSSC	North coast coniferous forest; Oldgrowth; Redwood	Feeds almost exclusively on Douglas-fir needles. Will occasionally take needles of grand fir, hemlock or spruce.	Absent: No habitat onsite.
North American porcupine	<i>Erethizon dorsatum</i>		Broadleaved upland forest; Closed-cone coniferous forest; Cismontane woodland; Lower montane coniferous forest; North coast coniferous forest; Upper montane coniferous forest	Wide variety of coniferous and mixed woodland habitat.	Absent: No habitat onsite.
Fisher	<i>Pekania pennanti</i>	CSSC	North coast coniferous forest; Oldgrowth; Riparian forest	Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	Absent: No habitat onsite.
Western pond turtle	<i>Emys marmorata</i>	CSSC	Aquatic; Artificial flowing waters; Klamath/North coast flowing waters; Klamath/North coast standing waters; Marsh & swamp; South coast flowing waters; South coast standing waters; Sacramento/San Joaquin flowing waters; Sacramento/San Joaquin standing wa	Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Absent: No habitat onsite.
Sandy beach tiger beetle	<i>Cicindela hirticollis gravida</i>		Coastal dunes	Clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.	Absent: No habitat onsite.
Behrens' snail-eating beetle	<i>Scaphinotus behrensi</i>		North coast coniferous forest	Found in extreme NW Ca along the coast.	Absent: No habitat onsite.
Wawona riffle beetle	<i>Atractelmis wawona</i>		Aquatic	Strong preference for inhabiting submerged aquatic mosses.	Absent: No habitat onsite.
Western bumble bee	<i>Bombus occidentalis</i>			Once common and widespread, species has declined precipitously from central Ca to southern B.C., perhaps from disease.	Potential to occur: Suitable habitat present
Obscure bumble bee	<i>Bombus caliginosus</i>			Food plant genera include <i>Baccharis</i> , <i>Cirsium</i> , <i>Lupinus</i> , <i>Lotus</i> , <i>Grindelia</i> and <i>Phacelia</i> .	Potential to occur: Suitable habitat present
Crotch bumble bee	<i>Bombus crotchii</i>			Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and .	Potential to occur: Suitable habitat present
Humboldt cuckoo wasp	<i>Cleptes humboldti</i>				Potential to occur: Suitable habitat present
Western pearlshell	<i>Margaritifera falcata</i>		Aquatic	Prefers lower velocity waters.	Absent: No habitat onsite.
PLANTS					
Pink sand-verbena	<i>Abronia umbellata var. breviflora</i>	1B.1	Coastal dunes	Foredunes and interdunes with sparse cover. <i>A. umbellata var. breviflora</i> is usually the plant closest to the ocean. 0-75 m.	Absent: No habitat onsite.
Sea-watch	<i>Angelica lucida</i>	4.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Marshes and swamps		Absent: No habitat onsite.
Evergreen everlasting	<i>Antennaria suffrutescens</i>	4.3	Lower montane coniferous forest		Absent: No habitat onsite.
Serpentine arnica	<i>Arnica cernua</i>	4.3	Lower montane coniferous forest		Absent: No habitat onsite.
Rattan's milk-vetch	<i>Astragalus rattanii var. rattanii</i>	4.3	Chaparral, Cismontane woodland, Lower montane coniferous forest	Gravelly, Streambanks	Absent: No habitat onsite.
Bald Mountain milk-vetch	<i>Astragalus umbraticus</i>	2B.2	Cismontane woodland; Lower montane coniferous forest	Dry open oak and pine woodlands; sometimes on roadsides. 210-1220 m.	Absent: No habitat onsite.
Bensoniella	<i>Bensoniella oregona</i>	CR/1B.1	Bog & fen; Lower montane coniferous forest; Meadow & seep; Wetland	Wet meadows and openings in forest. 920-1390 m.	Absent: No habitat onsite.