Berriman Ranch Tentative Map (APN: 22-140-03 and 22-160-03) 75+/- Acres Biological Inventory



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1.0 INTRODUCTION

Greg Matuzak, a Wildlife Biologist, conducted a reconnaissance-level biological resources survey and required background research related to biological resources to develop this Biological Inventory. In addition, potential California Department of Fish and Wildlife (CDFW) and United States Army Corps of Engineers (Corps) jurisdiction was assessed within the Berriman Ranch Tentative Map (revised August 2018) Project (Project). The Project is located within the City of Grass Valley in Nevada County, California (see Project Vicinity Figure). The Project area is located within APN 22-140-03 and 22-160-03 and within Section 2, Township 15 North, Range 8 East within the USGS 7.5-minute Grass Valley Quadrangle. The Project includes the development of residential units, new access and circulation roads, and the upgrade and extension existing roads to meet City of Grass Valley and local fire code standards. The overall Berriman Ranch Project area is approximately 121 acres; however, the study area for this Biological Inventory is approximately 75 acres, which includes an extension of Taylorville Road and the proposed buildout area. See attached Project Study Area Figure and the Tentative Map Berriman Ranch Revised August 2018 for the proposed buildout within the Project area.

The proposed Project includes the development of lots for residential units accessed off Taylorville Road to the east along an emergency access road. The Project is located within the southern, eastern, and western areas of the Project area (see Tentative Map – revised August 2018). In addition, access to the Project area will also include Picadilly Lane to the northwest through the residential units currently being constructed immediately north of the Project area and then south along the emergency access road. Additionally, the proposed Project plan includes the development of an extension of Taylorville Road from its southern end where it currently ends to connect with and access the southern and western areas of the proposed Project buildout. The Tentative Map (revised August 2018) includes 215 residential lots ranging between 2,337 to 11,599 square feet. As part of the Tentative Map approval, two neighborhood commercial areas are proposed along the entrance to the Project area off of Taylorville Road.

A total of three intermittent streams are located within the Project area. Each of the intermittent streams within the Project area flow from the eastern edge of the Project area along Taylorville Road towards the west/southwest Project area and each are tributaries to Wolf Creek located adjacent to the western edge of the Project area (see attached map identifying the streams and proposed setback requirements). As part of the proposed development within the Tentative Map (revised August 2018), two proposed stream crossings are located within the southern and southeastern sections of the Project area where proposed access roads will cross each of the intermittent streams in those areas.

A proposed open space area identified as Lot B Open Space is located within the Tentative Map (revised August 2018). Lot B Open Space may include a proposed 40-foot Right of Way that will include a 10-foot wide public trail, which would connect from the Phase 1 project area currently under construction with the northeast corner of the Project area where it connects with Taylorville Road. Lot B and the proposed public trail in the northeastern section of the Tentative Map (revised August 2018) are proposed to be placed in a public trail and open space easement and to be offered for dedication to the Bear Yuba Land Trust. A proposed regional sewer lift station is located at the southern end of the Project area.

The Project area is covered mostly by the following habitat types: Ponderosa Pine, Annual Grassland, and Abandoned Orchard habitats. The Project area also includes small amounts of Foothill Hardwood habitats dominated by oak trees and Foothill Riparian habitats that are located along the border of the three existing intermittent streams that connect from the east to Wolf Creek, which runs north to south along the western edge of the Project area. Significant portions of the old orchards were previously mapped as being associated with facultative mesic meadow plants and characterize the delineated Foothill Riparian habitats associated with the intermittent streams and drainage patterns located within the northern section (part of the current Phase 1 under development) and the southwestern and southeastern areas of the Project area.

Site topography slopes gradually to the west towards Wolf Creek, where the two intermittent streams connect to. The Project area is approximately 2,200 feet above mean sea level (MSL); elevations increase in east, north, and south directions as the terrain drains to the west. The Project area supports Annual Grassland, Orchard, Orchard/Wet Meadow/Seasonal Wetland, Montane Hardwood Woodland, Foothill Riparian habitat, and Fresh Emergent Wetland habitat types. The Foothill Riparian habitat within the Project area as stated above, occurs along the intermittent streams that connect downstream to Wolf Creek. The intermittent streams are unnamed tributaries to Wolf Creek. The intermittent stream located along the northern boundary of the proposed development within the Project area crosses the emergency access road, which contains a large culvert to allow water passage under the road. The southern intermittent streams drain from the southeast towards the southwest of the proposed development within the Project area.

The purpose of the Biological Inventory is to identify the location and extent of sensitive biological resources within the Project area, including special status plant and wildlife species, and the presence of drainage features that could potentially meet the Corps' criteria as a "waters of the United States," pursuant to Section 404 of the Clean Water Act (CWA), and streams that could be under the jurisdiction of the California Fish and Wildlife Code Section 1600 *et.* seq. This Biological Inventory also satisfies the City of Grass Valley General Plan and Development Code requirements for any parcel(s) subject to land use changes. However, an aquatic resources delineation was not conducted as part of the development of this Biological Inventory and therefore, mapping of potential "waters of the U.S.," including wetlands and "waters of the State of California" was not included as part of this Biological Inventory.



Berriman Ranch

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Project Studay Area for Biological Inventory

Approximate 75 +/- Acres

Tentative Map Revised Aug. 2018



Grange-Ct

Golo

Irgil

Crest

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2.0 REGULATORY OVERVIEW AND DEFINITIONS

Federal Regulations

Section 404 of the Clean Water Act

The United States Army Corps of Engineers (Corps) and the Environmental Protection Agency (EPA) regulate the discharge of dredge or fill material into waters of the U.S. under Section 404 of the Clean Water Act (CWA). Waters of the United States include wetlands and lakes, rivers, streams, and their tributaries. Wetlands are defined for regulatory purposes as areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated solid conditions (33 CFR 328.3, 40 CFR 230.3). Project proponents must obtain a permit from the Corps for all discharges of fill material into waters of the U.S., including wetlands, before proceeding with a proposed action. The Project area contains three intermittent streams and each stream would be subject to regulation under the CWA if dredge or fill material are placed below the ordinary high water mark of any stream or within any jurisdictional wetlands, including the development of the two proposed stream crossings for access within the southern and southeastern sections of the Project area.

Section 401 of the Clean Water Act

CWA Section 401 compliance is required for any project requiring a federal action (i.e. Corps permit or federal funding) with construction that could have an impact to surface water quality. The Project area contains three intermittent streams and each stream would be subject to regulation under the CWA if dredge or fill material are placed below the ordinary high water mark of either stream or within any jurisdictional wetlands, including the development of the two proposed stream crossings for access within the southern and southeastern sections of the Project area.

Endangered Species Act of 1973

For the proposed Project area, consultation with the USFWS would be necessary if a proposed action may affect suitable habitat for a federally listed species. This consultation would proceed under Section 7 of the Endangered Species Act (ESA) if a federal action is part of the proposed action or through Section 10 of the ESA if no such nexus were available (USFWS, 1973). There are two federally protected plant species under the ESA that have been previously documented within 3 miles of the Project area (CDFW 2018). Stebbins' morning glory (*Calystegia stebbinsii*) and Pine Hill Flannelbush (*Fremontodendron decumbens*) are each ESA listed species as Endangered (USFWS 2018, CDFW 2018); however, the Project area does not contain suitable habitat for either federally protected species.

Migratory Bird Treaty Act of 1918 and Bald and Golden Eagle Protection Act

The Migratory Bird Treaty Act (MBTA) (16 USC Section 703-711) and the Bald and Golden Eagle Protection Act (BAGEPA) (16 USC Section 668) protect certain species of

birds from direct "take" (i.e. harm or harassment as described above). The MBTA protects migrant bird species from take through setting hunting limits and seasons and protecting occupied nests and eggs (USFWS, 1918). BAGEPA prohibits the take or commerce of any part of the bald or golden eagles (USFWS, 1940). The USFWS administers both Acts and reviews actions that may affect species protected under each Act.

State Regulations

California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) has jurisdiction over plant and wildlife species listed as threatened or endangered under section 2080 of the CDFW Code. The California Endangered Species Act (CESA) prohibits take of statelisted threatened and endangered species. The state Act differs from the federal Act in that it does not include habitat destruction in its definition of *take*. The CDFW defines *take* as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The CDFW may authorize *take* under the CESA through Sections 2081 agreements. If the results of a biological survey indicate that a state-listed species would be affected by the project, the CDFW would issue an Agreement under Section 2081 of the CDFW Code and would establish a Memorandum of Understanding for the protection of state-listed species. CDFW maintains lists for Candidate-Endangered Species and Candidate-Threatened Species.

California black rail (Laterallus jamaicensis coturniculis) is listed as threatened under CESA and the Scadden Flat checkerbloom (Sidalcea stipularis) and Stebbins' morning glory (Calystegia stebbinsii) are both CESA listed species as Endangered and each of these species has been previously documented within 3 miles of the Project area. Pine Hill Flannelbush (Fremontodendron decumbens) is listed as a Rare species by CDFW and has been previously documented within 3 miles of the Project area. No other candidate species or CESA protected species have been documented within 3 miles of the Project area (CDFW 2018); however, the Project area does not contain suitable habitat for any CESA protected species.

California Special Species of Concern, Fully Protected, and Special Status Species

California designates Species of Special Concern (SSC) as species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational or educational values. These species do not have the same legal protection as listed species but may be added to official lists in the future (CDFW 2014). For example, the coast horned lizard (*Phrynosoma blainvillii*), foothill yellow-legged frog (*Rana boylii*), and western pond turtle (*Actinemys marmorata*) are designated as SSC and the coast horned lizard is evaluated as part of this Biological Inventory.

In the 1960's California created a designation to provide additional protection to rare species. This designation remains today and is referred to as "Fully Protected" species, and those listed "may not be taken or possessed at any time" (CDFW 2014c). The California black rail (Laterallus jamaicensis coturniculus) has been known to occur

in Nevada County and has been identified within 3 miles of the Project area and is designated as Fully Protected by the state of California.

California special status species are identified by the California Natural Diversity Database (CNDDB) and includes those species considered to be of greatest conservation need by the CDFW (CDFG 2011).

Streambed Alteration Agreements: CDFG Code Section 1600 et seq.

CDFW has jurisdictional authority over wetland resources associated with rivers, streams, and lakes under Sections 1600–1616. CDFW has the authority to regulate all work under the jurisdiction of the State of California that would substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed.

In practice, CDFW marks its jurisdictional limit at the top of the stream or lake bank, or the outer edge of the riparian vegetation (where present) and extends its jurisdiction to the edge of the 100-year floodplain.

Porter-Cologne Water Quality Control Act & Section 1601 – Section 1607 of CDFG Code

These acts and codes pertain to projects with potential impacts to water quality or waterways. The proposed Project site contains waters of the State as defined by the State Water Resources Board (State Board 2014), including the two intermittent streams within the Project area and their associated wetlands.

California Department of Fish and Game Code Sections 3503, 3503.5, and 3800: Nesting Migratory Bird and Raptors

Sections 3503, 3503.5, and 3800 of the CDFG Code prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that project-related disturbance within active nesting territories be reduced or eliminated during critical phases of the nesting cycle (approximately March 1 – August 31). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g. killing or abandonment of eggs or young), or the loss of habitat upon which birds are dependent, is considered "taking", and is potentially punishable by fines and/or imprisonment (LCC 2013). Such *taking* would also violate federal law protecting migratory birds (e.g. MBTA above).

California Environmental Quality Act Guidelines Section 15380

California Environmental Quality Act (CEQA) Guidelines section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specific criteria. This section was included in the guidelines to deal primarily with situations in which a public agency is reviewing a project that may have a significant effect on, for example a "candidate species" that has not yet been listed by the USFWS or CDFW. CEQA, therefore, enables an agency to protect a species from significant

project impacts until the respective government agencies have had an opportunity to list the species as protected, if warranted (CNRA 2012).

Plants appearing on the California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) are considered to meet CEQA's Section 15380 criteria. Ranks include: 1A) plants presumed extirpated in California and either rare or extinct elsewhere, 1B) plant rare, threatened, or endangered in California and elsewhere, 2A) plants presumed extirpated in California, but more common elsewhere, and 2B) plants rare, threatened, or endangered in California, but more common elsewhere. Impacts to these species would therefore be considered "significant" requiring mitigation.

State Oak Woodland Regulations

State laws that regulate protection of oak woodlands include Professional Forester's Law (PFL) and CEQA according to Public Resources Code Section 21083.4. Oak woodlands are defined as areas having 10% oak canopy cover or greater. "Oaks" are defined in Public Resources Code Section 21083.4 as a native tree species in the genus Quercus, that is 5 inches diameter at breast height (DBH) or greater. The Oak Woodlands Conservation Act (SB 1334) provides funding for the conservation and protection of oak woodlands in California. Oak trees and oak woodland habitats are protected under both the State and the City of Grass Valley Tree Preservation and Protection Ordinance as discussed below.

City of Grass Valley Tree Ordinance

The City of Grass Valley acknowledges the importance of trees to the community's health, safety, welfare, and tranquility. Trees increase property values, provide visual continuity, provide shade and cooling, decrease wind velocities, control erosion, conserve energy, reduce stormwater runoff, filter airborne pollutants, reduce noise, provide privacy, provide habitat and food value, and release oxygen. In December 2005, the City Council adopted the Tree Ordinance, Chapter 12.36 of the Municipal Code, to ensure that the community trees would be prudently protected and managed so as to ensure these multiple civic benefits.

- What Types of Trees Are Protected Under This Ordinance?
- Any woody plant having a trunk ten (10) caliper inches or larger in Diameter at Breast Height (DBH) (54" above ground height) and as further defined within the definitions section of the Tree Preservation and Protection Ordinance, Chapter 12.36.

City of Grass Valley Development Code 17.50 Creek and Riparian Resource Protection

The City of Grass Valley Development Code 17.50 for Creek and Riparian Resource Protection states that a Resource Management Plan must be prepared for encroachment within the 30-foot stream setback, "and shall include measures which will minimize impacts to the watercourse and enhance runoff filtration." The measure should include: enhancement and/or restoration of the riparian vegetation area; removal of non-native vegetation; decompaction of soils and/or incorporation of organic material to improve runoff filtration; incorporation of bioswales in drainage plans to filter parking areas and other impervious surfaces; and, incorporation of other Best Management Practices (BMP's) which provide long-term protection of the water quality.

City of Grass Valley 2020 General Plan

The Conservation and Open Space Elements were combined in the 2020 Grass Valley General Plan Update. Both are mandatory General Plan Elements under State law. The Conservation/Open Space Element addresses those aspects of conservation and open space determined most important to Grass Valley. It supplements, but does not replace, the Mineral Resources Element adopted by the City in 1993.

Conservation/Open Space Goals and Objectives

- 1-COSG Provide a balance between development and the natural environment, protecting and properly utilizing Grass Valley's sensitive environmental areas/features, natural resources and open space lands.
 - 1-COSO Inventory of sensitive environmental areas and features.
 - 2-COSO Multi-purpose open space lands, accommodating the needs and requirements of open space/conservation, habitat, recreation, and aesthetics.
 - 3-COSO Protection of rare and endangered animals and plants.
 - 4-COSO Reduction of urban development impacts on native vegetation, wildlife and topography.
 - 5-COSO Encouragement of wildlife through habitat protection.
 - 6-COSO Assurance of appropriate resource conservation and environmental protection measures as prerequisites to development.
- 2-COSG Protect, enhance and restore hydrologic features, including stream corridors, flood plains, wetlands, and riparian zones.
 - 7-COSO Development of an extensive trail network providing recreational and educational opportunities.
 - 8-COSO Minimize interference with the natural functions of flood plains and naturally flood-prone areas.
- 3-COSG Ensure the protection of Grass Valley's trees and forested areas.
 - 9-COSO Identification of heritage trees for special recognition and protection.
 - 10-COSO Identification of significant groves and groupings of trees for permanent open space designation.
- 4-COSG Protect and enhance town entryways, visual corridors and important

viewsheds including ridgelines.

- 11-COSO Identification of particular corridors and views requiring protection or enhancement.
- 12-COSO Identification of specific aesthetic considerations important to the protection/enhancement of particular corridors and views.
- 5-COSG Maintain close relationships with public agencies and private organizations regarding conservation, open space and environmental protection.
 - 13-COSO Ongoing communication of information, plans, and concepts
 - 14-COSO Creation of joint efforts and shared funding responsibilities.
- 6-COSG Assure compliance with and understanding of air and water quality regulations and standards.
 - 15-COSO Protection of ground- and surface water quality.
 - 16-COSO Inclusion of air and water quality considerations in land use decisions rendered by the Planning Commission and City Council.

Conservation/Open Space Policies

- 1-COSP Continue to identify mineral resources and to develop policies addressing their protection from competing land uses, minimizing impacts on mining activities, in compliance with State law.
- 2-COSP Establish an active program of land/development rights acquisition in order to protect sensitive environmental areas and features.
- 3-COSP Encourage clustering, density averaging, and other techniques in largerscale new developments, as means of preserving open space and natural systems.
- 4-COSP Establish standards for inclusion and management of permanent open space in new developments.
- 5-COSP Carefully regulate development on steep slopes.
- 6-COSP Prevent excessive alteration of the natural topography.
- 7-COSP Recognize and reinforce Grass Valley's public park system.
- 8-COSP Study the potential for inter-jurisdictional transfer of development rights.
- 9-COSP Carefully regulate development for location in flood hazard areas.
- 10-COSP Establish a city trail network program for friendly acquisition, development and administration of a natural trails system.
- 11-COSP Return to open space, areas within which flooding poses a clear danger to life and property.
- 12-COSP Enhance the City's tree ordinance addressing tree maintenance and protection both within new developments and elsewhere in the City.
- 13-COSP Assist property owners wishing to preserve and protect heritage trees and significant groves.
- 14-COSP Establish a program to identify and administer a viewshed/view corridor

protection program.

15-COSP Assign responsibility for the viewshed/view corridor program.

- 16-COSP Incorporate viewshed/view corridor standards into the Design Element of the General Plan, City Design Guidelines and other appropriate developmental documents.
- 17-COSP Utilize the services and expertise of organizations involved in resource conservation and open space protection.
- 18-COSP Develop and achieve agreement with the County of Nevada on a strategy for conservation and open space protection within the Grass Valley Planning Area and City's Sphere of Influence.
- 19-COSP Enlist the interest and efforts of appropriate state and federal agencies and private foundations regarding conservation and open space protection.
- 20-COSP Establish, in cooperation with Nevada County, an urban limit line beyond which urban land uses, densities, facilities and services will not extend.
- 21-COSP Continue to implement water quality improvement plans, including storm water separation and sewage treatment plant expansion.
- 22-COSP Implement circulation/transportation measures designed to reduce reliance on the automobile.
- 23-COSP Respond appropriately to state and federal air and water quality policies and policy changes, understanding the implications of regulations and standards, and maintaining a continuing public education program.

3.0 METHODS

In order to evaluate the Project area for the presence of any sensitive biological resources, baseline information from databases and reporting for similar projects in the City of Grass Valley and Nevada County was collected and reviewed prior to conducting reconnaissance-level field biological surveys within the Project area. The database searches, background research, and habitat level field surveys characterized the baseline conditions of the Project area. Based on the baseline conditions of the Project area, an assessment was implemented to determine if any special status plant or wildlife species have the potential to use the Project area at any time during their life cycle. The baseline conditions identified the presence of any sensitive habitat or communities, if they were identified within the Project area.

Sensitive Biological Resources

The following information was used to identify potential special status plant and wildlife species within the Project region that could be found to use the Project area:

- California Department of Fish and Wildlife's California Natural Diversity Database records search of a 3-mile buffer around the Project area (CDFW, 2018);
- California Native Plant Society's online Inventory of Rare and Endangered Plants of California for the Project area 7.5-minute Grass Valley USGS quadrangle and Nevada County (CNPS, 2018);
- U.S. Fish and Wildlife Service list of endangered, threatened, and proposed species for the Project site 7.5-minute Grass Valley USGS quadrangle and Nevada County (USFWS, 2018);
- National Wetland Inventory (NWI, 2018);
- United States Department of Agriculture (USDA) Soils Mapper (USDA, 2018);
- Natural Resources Conservation Service (NRCS) Hydric Soils List for Nevada County (NRCS, 2018); and
- City of Grass Valley 2020 General Plan (Quad-Knopf, 1999).

In addition, the following reporting was previously developed for the Berriman Ranch Project area and was reviewed as part of the background research for this Biological Inventory:

- Biological Inventory and Habitat Management Plan (EcoSynthesis, 2006);
- Special-status Plant Survey Report (EcoSynthesis, 2008); and
- Berriman Ranch Delineation of Waters of the United States and State of California (Matuzak 2014).

Reconnaissance-level Biological Resources Field Surveys

A reconnaissance-level biological field survey was conducted on foot of the entire western Project area (Tentative Map, revised June 2018) by Greg Matuzak, Wildlife Biologist on August 22nd and 23rd, 2018. Based on a Tentative Map, revised August 2018, additional proposed development was added within an extensive area within the eastern and southern areas of the Project area. The additional areas within the Tentative Map, revised August 2018 and not surveyed in August 2018 as part of the Tentative Map, revised June 2018 were surveyed by Greg Matuzak on October 29th and November 12th, 2018. The purpose of the surveys was to identify any sensitive habitat and vegetation types (intermittent streams, riparian vegetation, wetlands, etc.) within the Project area and to determine the potential of any special status plant and wildlife species identified within the desktop analysis and background research to occur within the Project area. A photo log of the Project area and a list of plant and wildlife species observed during the field surveys was compiled (see Appendix A and Appendix B). An aquatic resources delineation was not conducted as part of the development of this Biological Inventory and therefore, mapping of potential "waters of the U.S.," including wetlands and "waters of the State of California" was not included as part of this reporting.

4.0 RESULTS

Environmental Setting

The Project area lies in the Sierra Nevada foothills. The general topography of the Project area is sloping gradually to the west towards Wolf Creek, where onsite drainages connect to. The site is approximately 2,200 feet above mean sea level (MSL); elevations increase in east, north, and south directions as the terrain drains to the west (see attached figure showing site topography and intermittent streams and proposed stream setbacks within the Project area).

Plant Communities

Plant communities have been classified based on the California Wildlife Habitat Relationships System developed by the California Department of Fish and Wildlife (CDFW). The CDFW also manages the California Natural Diversity Data Base (CNDDB), which is a database inventory of the locations of rare and endangered plants, wildlife, and natural communities in California. A list of plants and wildlife documented during the field survey are attached in Appendix B to this Biological Inventory.

The dominant plant communities are discussed below.

Ponderosa Pine

The Ponderosa Pine habitats within the Project area is dominated by ponderosa pine (*Pinus ponderosa*), include incense cedar (*Calocedrus decurrens*) and California black oak (*Quercus kelloggii*). This habitat type is dominant within the western and southwestern sections of the Project area.

The Project area does not contain any heritage trees as designated by the City of Grass Valley. However, the Project area would be subject to the City of Grass Valley Tree Ordinance and a Tree Removal Permit would be required prior to the removal of any tree that is 10 inches or greater DBH. The Ponderosa Pine habitat type contains many trees that would be subject to a Tree Removal Permit by the City of Grass Valley if they are to be removed given they are 10 inches or greater DBH.

Annual Grasslands

Annual grassland species occur as the dominant habitat type in the eastern and southeastern sections of the Project area. This habitat type is dominated by wild oats (Avena fatua), ripgut brome (Bromus diandrus), soft chess (Bromus hordeaceus), medusa head (Taeniatherum caput medusae), and filaree (Erodium cicutarium). Orchard grass (Dactylis glomerata), wild rye (Elymus glaucus), and tall fescue (Festuca arundinacea), among other native and non-native grasses, were also identified in these areas of the Project area. Non-native grasslands are known to out-compete native grasses and forbs throughout the valley and foothill regions.

Riparian and Wetland Vegetation

The intermittent stream located along the northern border of the Project area that flows within the area in between Phase 1 and the Project area included in this Biological Inventory includes abandoned orchard areas and Foothill Riparian habitats located adjacent to the intermittent stream. In addition, Foothill Riparian habitats are located adjacent to the two intermittent streams located within the southwestern and southeastern sections of the Project area (see attached Tentative Map revised August 2018 and the attached figure identifying the location of the three intermittent streams and proposed stream setbacks within the Project area). This habitat type within the Project area is dominated by white alders (*Alnus rhombifolia*) and willows (*Salix laevigata* and *S. lasiolepis*) in addition to Himalayan blackberry (*Rubus armeniacus*), Baltic rush (*Juncus balticus*), and iris-leaved rush (*Juncus xiphioides*).

In addition, seasonal wetlands associated with the intermittent stream floodplain located in the northern section of the Project area below the large culvert that crosses the emergency fire access road contain a diverse palette of native herbaceous wetland species, such as clustered field sedge (*Carex praegracilis*), umbrella sedge (*Cyperus eragrostis*), Baltic rush (*Juncus balticus*), and iris-leaved rush (*Juncus xiphioides*). This intermittent stream contains wetland species associated with its banks and floodplain within the western section of the Project area once the stream crosses a large culvert under the existing emergency fire access road. The obligate wetland species, cattail (*Typha* sp.) is also present in the topographic low areas adjacent to this intermittent stream, which is a tributary to Wolf Creek. The two intermittent streams located within the southern section of the Project area do not contain obligate wetland species and native herbaceous wetland species were sparsely occurring adjacent to those two intermittent streams. A proposed 50-foot setback along each side of the three intermittent streams is included within the attached figure identifying the location of each of the streams along with the proposed setbacks along each.

SPECIAL STATUS SPECIES

Special status species were considered for this Biological Inventory is based on a current review of the California Natural Diversity Data Base (CNDDB) and database information provided by the United States Fish and Wildlife Service for the Project area. The database searches did reveal ten species, California black rail, Scadden Flat checkerbloom, Stebbins' morning glory, Pine Hill flannelbush, dubious pea, finger rush, chaparral sedge, brownish beaked-rush, coast horned lizard, and the Twondesnd's bigeared bat that have been previously identified within 3 miles of the Project area. None of these species were observed during field surveys. In addition, western pond turtle, foothill yellow-legged frog, and California red-legged frog are also discussed below given the presence of intermittent streams within the Project area.

Scadden Flat Checkerbloom (Sidalcea stipularis) – CA State Endangered and California Native Plant Society List 1B.1

Scadden Flat checkerbloom inhabits marshes and swamps. It is found in wet montane marshes fed by springs, normally between 700 and 740 meters above MSL. This species has been identified within 3 miles of the Project area. The species was not

identified during field surveys and suitable habitat for this species does not occur within the Project area.

Stebbins' Morning Glory (Calystegia stebbinsii) – CA State and Federally Endangered and California Native Plant Society List 1B.1

Stebbins' morning glory inhabits chaparral and cismontane woodland. It is found in red clay soils of the pine hill formation on gabbro or serpentine soils in open areas, normally between 180 and 725 meters above MSL. This species has been identified within 3 miles of the Project area. However, the species was not identified during field surveys and suitable habitat for this species does not occur within the Project area.

Pine Hill Flannelbush (Fremontodendron decumbens) – Federally Endangered and CA State Rare and California Native Plant Society List 1B.2

Pine Hill flannelbush inhabits rocky ridges on gabbro and serpentine soils within chaparral and cismontane woodlands. This species is endemic to these soil types and is normally documented between 425 and 760 meters above MSL. This species has been identified within 3 miles of the Project area. However, the species was not identified during field surveys and suitable habitat for this species does not occur within the Project area.

Dubious Pea (Lathyrus sulphureus var. argillaceus) – California Native Plant Society List 3

Dubious pea inhabits lower and upper montane coniferous forest and cismontane woodlands, normally between 150 and 930 meters above MSL. This species has been identified within 3 miles of the Project area. The species was not identified during field surveys; however, field surveys were conducted outside of the blooming season for the species making their positive identification difficult. Suitable habitat for this species does occur within the forested western and southwestern sections of the Project area. A pre-construction survey for this species should be implemented during its blooming season to determine if it is present within the forested areas of the Project area prior to ground disturbance (see Section 5.0 below).

Finger Rush (Juncus digitatus) – California Native Plant Society List 1B.1

Finger rush inhabits open chaparral habitat surrounded by mixed oak/conifer woodland on low gradient, north-facing, and vernally moist slopes. This species also associates with sandy clay loam soil within substrates underlain by granitic bedrock. This species has been identified within 3 miles of the Project area to the northeast. However, the species was not identified during field surveys and suitable habitat for this species does not occur within the Project area.

Chaparral Sedge (Carex xerophila) – California Native Plant Society List 1B.2

Chaparral sedge inhabits openings within chaparral habitat, cismontane woodland, and lower montane coniferous forests. This species is found in areas containing serpentine and gabbroic microhabitats between 250 and 770 meters above MSL. This species has been identified within 3 miles of the Project area to the west.

However, the species was not identified during field surveys and suitable habitat for this species, including rocky gabbro soils, does not occur within the Project area.

Brownish Beaked-Rush (*Rhynchospora capitellata*) – California Native Plant Society List 2B.2

Brownish beaked-rush inhabits meadows and seeps, marshes and swamps, and it is found in upper and lower montane coniferous forests, normally between 45 and 2000 meters above MSL. This species is normally identified on mesic sites and has been identified within 3 miles of the Project area in a marshy area along the northwest corner of the Nevada County Fairgrounds along Hwy 20. The species was not identified during field surveys and suitable habitat for this species does not occur within the Project area.

Townsend's Big-eared Bat (Corynorhinus townsendii) – CA State Species of Concern

This species inhabits lower montane coniferous and mixed conifer forest habitats where abandoned buildings and structures occur for roosting. This species has been identified within 3 miles of the Project area. However, the species was not identified during field surveys and suitable habitat for this species does not occur within the Project area given there are no abandoned structures that have suitable roosting sites for this species.

California Black Rail (Laterallus jamaicensis coturiculus) - CA State Threatened

California black rail inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. The species requires water depths of about 1 inch that does not fluctuate during the year and dense vegetation for nesting habitat. This species has been identified within 3 miles of the Project area. The species was not identified during field surveys and suitable habitat for this species does not occur within the Project area.

Coast horned lizard (Phrynosoma blainvillii) - CA State Species of Concern

The coast horned lizard occurs in open sandy areas, scattered low bushes, chaparral, manzanita, and oak woodland habitats. It is found in the Sierra Nevada foothills from Butte County to Kern County and throughout the central and southern California coast. Coast horned lizards forage on the ground in open areas, usually between shrubs and often near ant nests. The species relies on camouflage for protections. Predators and extreme heat are avoided by burrowing into loose soil. Periods of inactivity and winter hibernation are spent burrowed in the soil under surface objects such as logs or rocks, in mammal burrows, or in crevices (Zeiner et al. 2000). They inhabit mostly open country, especially sandy areas, washes, flood plains and windblown deposits in a wide variety of habitats and can be found at elevations up to 8,000 feet (2,438 meters) (CaliforniaHerps, 2014).

There is minimal potential suitable habitat within the Project area for the coast horned lizard except for the open rockier areas located in the western section of the Project area. The species has been previously documented within 3 miles of the Project area. Given the Project area does not contain rocky areas with sandy soils, it is not likely to occur within the Project area. No coast horned lizards were observed during the August, October, or November 2018 surveys.

Western Pond Turtle (Emys marmorata) - CA State Species of Concern

Western pond turtles associate with permanent ponds, lakes, streams, irrigation ditches, and permanent pools along intermittent streams. They are most commonly associated with permanent or nearly permanent water in a wide variety of habitats. This species requires basking sites such as partial submerged logs, rocks, mats of floating vegetation, or open mud banks. During the spring or early summer, females move overland for up to 100 m (325 ft) to find suitable sites for egg laying. This species has not been identified within 3 miles of the Project area. The species was not identified during field surveys and marginal suitable habitat for this species occurs within the Project area given the presence of the three intermittent streams that flow towards the southwest connecting with Wolf Creek. However, given the intermittent nature of the streams and lack of permanent water, the potential for the species to occur within the Project area is considered very low.

Foothill Yellow-legged Frog (Rana boylii) - Candidate for Listing under the CA ESA

Foothill yellow-legged frogs inhabit partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. The species requires at least some cobblesized substrate for egg laying. The species requires at least 15 weeks to attain metamorphosis. This species has not been identified within 3 miles of the Project area. The species was not identified during field surveys and suitable habitat for this species does not occur within the Project area given the lack of required habitat and low flows of water within the intermittent streams within the Project area.

CA Red-legged Frog (*Rana aurora draytonii*) – Federal Threatened and CA State Species of Concern

CA red-legged frog (CRLF) is known in Nevada County in the North Bloomfield USFS Quadrangle within the Rock Creek watershed. CRLF has not been identified within 3 miles of the Project area. The species was not identified during field surveys and suitable reproductive habitat for this species does not occur within the Project area. If suitable breeding locations are located within 1.25 miles of the Project area and connected by barrier-free dispersal habitat that is at least 300 feet in width, then suitable dispersal habitat could be located within the Project area; however, since CRLF have not been identified in the Grass Valley USGS Quadrangle or the watershed associated with the Project area, the potential for this species to occur is extremely low and is considered absent from the Project area.

Nesting raptors and other migratory birds species - Protected under MBTA, Protected under CA State DFG Code Sections 3503, 3503.5, and 3800

There is a moderate potential for nesting raptors and other nesting migratory bird species protected under the MBTA to occur within the Project area given the presence of the forested areas within the western and southwestern portions of the Project area. The Project area represents potential habitat for bird species protected under the

MBTA, such as ground nesting species like the spotted towhee (*Pipilo maculatus*) and dark-eyed junco (*Junco hyemalis*). Active and inactive nests within and adjacent to the proposed areas to be developed within the Project area were not identified during field surveys; however, given the presence of large trees within the western and southwestern portions and open grasslands within the eastern portion of the Project area, there is a moderate potential for these species to nest within the Project area.

Critical Deer Habitat

Known migratory deer ranges outlined in the Nevada County General Plan was reviewed for deer migration corridors, critical range, and critical fawning areas. The Project area is not located in any known major deer corridors, known deer holding areas, or critical deer fawning area. Per the Migratory Deer Ranges Nevada County General Plan map, the Project area is located in an area of potential Resident Deer Herd (includes some areas of migratory deer winter range). The field survey did not record any observations of deer though deer trails were detected while walking the southwestern forested portion of the Project area. The Project area does not contain any known major deer migration corridors, known deer holding areas, nor critical deer fawning areas.

5.0 CONCLUSION

The Project area is located within an undeveloped area within the southern area of the City of Grass Valley. The Project area is adjacent to/nested within a largely developed area of Grass Valley given SR 49 is located just east of the Project area and a large commercial center, including the Berriman Ranch Phase 1 development currently under construction, is located just north of the Project area. The Project area is bound by Taylorville Road along the eastern frontage road, Wolf Creek drainage to the west, current Berriman Ranch development being constructed to the north off Picadilly Lane (Phase 1), and larger residential lots to the south of the Project area. The Project area is one of the largest undeveloped areas within the City of Grass Valley that has been zoned for residential and commercial development. As part of the Project, the entire Project area will be zoned for residential and commercial development. The Project area has historically been in active agricultural production given the extensive orchards within the northern and northeastern areas of the Project area, including Lot B. Therefore, any development within the Project area would have an overall low potential to impact sensitive wildlife and plant resources given the low likelihood of such sensitive species to occur within the Project area. However, given the presence of three intermittent streams that connect to the southwest with Wolf Creek, potential impacts to the two streams within the southern section of the Project area and adjacent Foothill Riparian habitats could occur from encroaching development and potential stream crossings for Project area access.

Based on site specific field surveys, the Project area does not contain any heritage trees as designated by the City of Grass Valley. However, the project area would be subject to the City of Grass Valley Tree Ordinance and a Tree Removal Permit would be required prior to the removal of any tree that is 10 inches or greater DBH. Many native ponderosa pine and other native tree species are located within the forested western and southwestern areas of the Project area that would be subject to a Tree Removal Permit by the City of Grass Valley if they are to be removed given they are each 10 inches or greater DBH.

Given the Project area does contain large trees within the western, southwestern, and southeastern sections (see Photo Log) and those trees contain suitable habitat for nesting raptors and MBTA protected nesting bird species, removal of such trees should be done outside the breeding season if possible to avoid potential impacts to such nesting species. The breeding season for most protected birds in the vicinity of the Project area is generally from March 1 to August 30. Vegetation clearing or tree removal outside of the breeding season for such bird species would not require the implementation of any avoidance, minimization, or mitigation measures. However, construction or development activities during the breeding season could disturb or remove occupied nests of migratory birds or raptors and could require the implementation of a pre-construction survey within 250 feet of the disturbance area within the Project area for nesting migratory birds and raptors prior to development. Preconstruction nesting surveys would be conducted by a qualified biologist (approved by CDFW). If any nesting raptors or migratory birds are identified during surveys, active nests should be avoided and a no-disturbance buffer should be established around the nesting site to avoid disturbance or destruction of the nest site until after the breeding

season or after a wildlife biologist determines that the young have fledged. The extent of these buffers would be determined by a wildlife biologist and would depend on the special-status species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. These factors should be analyzed to make an appropriate decision on buffer distances.

The Project area does contain aquatic habitat and adjacent upland areas immediately associated with aquatic habitat along the three intermittent streams that are located within the Project area. However, The Project area does not provide suitable habitat for any sensitive or special-status amphibians or aquatic reptiles given the lack of permanent water features and microhabitat requirements. As a result, no impact would be expected to California red-legged frog, foothill yellow-legged frog, or western pond turtle. In addition, suitable habitat for the California black rail does not occur within the Project area given the intermittent nature of the three streams located within the Project area.

Given that potential suitable habitat for dubious pea occurs within the forested areas of the Project area, it is recommended that a targeted plant survey be conducted for the species prior to development within those areas of the Project area. Previous special-status plant surveys conducted within the Project area did not identify any special-status plant species (EcoSynthesis 2008) and given the lack of suitable habitat for such species within the Project area, no additional targeted special-status plant species are recommended as part of this Biological Inventory. In order to avoid impacts to dubious pea, avoidance of the plant species is recommended and therefore, conducting a species-specific survey for the dubious pea during its blooming period (for identification purposes) will be sufficient to identify whether the species occurs within the Project area. Pre-construction surveys would be conducted by a qualified biologist (approved by CDFW). If the dubious pea is identified during preconstruction surveys and impacts to the species can't be avoided, a Special-Status Plant Species Protection Plan should be developed that outlines avoidance, minimization, and mitigation measures for the plants identified within the proposed disturbance areas. An example of a potential mitigation measure to be implemented to avoid permanent impacts to such plants is the transplantation of the species outside of the proposed disturbance areas with up to 3 years of monitoring post transplantation to ensure that the transplanted plants survive and are protected from adjacent indirect development impacts.

Limited rocky areas occur within the Project area that could provide suitable habitat for the coast horned lizard; however, it is also recommended that these areas located within the eastern and southeastern areas of the Project area be avoided during site development or a pre-construction survey for the species should be conducted prior to any development within those areas of the Project area in order to avoid direct impacts to the species. If the species is documented during preconstruction surveys, a qualified biologist (approved by CDFW) would have the authority to move individual coast horned lizards outside of the proposed disturbance area in order to avoid an impact on the species.

State and/or federal agencies regulate the presence of jurisdictional wetlands if there is a dominance of wetland vegetation, indicators of hydric soils, and primary and secondary indicators of wetland hydrology present. Previous wetland assessments (Matuzak 2014, EcoSynthesis 2006) identified and mapped wetlands within the Project area generally associated with the intermittent stream located within the northern section of the Project area below the existing large culvert that crosses the existing emergency fire access road. In addition, the orchard/drainage area within Lot B has been previously identified as containing Foothill Riparian habitat and potential wetlands. During the surveys conducted as part of the development of this Biological Inventory a stream corridor and adjacent riparian vegetation (dominated by willow shrubs and trees) was identified and mapped along with a 50-foot stream setback (see attached figure below). Part of Lot B is proposed to be placed within a public trail and open space easement so that no impacts to Lot B will occur from current and future site development. The proposed 40-foot Right of Way, including a 10-foot wide public trail, connecting Taylorville Road with the residential area under construction in the northern section of the Project area (Phase 1) is located outside of the intermittent stream in that area so the development of the 40-foot Right of Way would have no impact on any intermittent stream or associated riparian or wetland vegetation within Lot B. The riparian and wetland vegetation associated with the intermittent stream corridor within Lot B is contained within the 50-foot stream setback and therefore, would not be impacted by any development in that area.

Development along the southern sections of the Project area may occur within and directly adjacent to the two intermittent streams in those areas. Two proposed stream crossings for road access are included in the Tentative Map (revised August 2018) as well as potential encroachment within the riparian habitat adjacent to those two intermittent streams. Given the potential to impact the intermittent streams (regulated as "waters of the U.S.") and adjacent riparian habitat at those two potential stream crossing locations, it is recommended that an aquatic resources delineation and assessment should be conducted to identify the edges of the two intermittent streams and any riparian and/or seasonal/wet meadow wetlands within and adjacent to proposed disturbance areas within those two proposed stream crossings. If the development of the two stream crossings or any other proposed disturbance includes the placement of dredge or fill material within either or both intermittent streams and/or within a jurisdictional wetland or riparian habitat zone, state and/or federal permitting would be required for such impacts as described in Section 2.0 of this Biological Inventory.

Grass Valley Development Code 17.50 states that a Resource Management Plan must be prepared for encroachment in the 30-foot stream setback, "and shall include measures which will minimize impacts to the watercourse and enhance runoff filtration." The measure should include: enhancement and/or restoration of the riparian vegetation area; removal of non-native vegetation; decompaction of soils and/or incorporation of organic material to improve runoff filtration; incorporation of bioswales in drainage plans to filter parking areas; and, incorporation of other Best Management Practices (BMP's) which provide long-term protection of the water quality. However, as part of the development of this Biological Inventory it is recommended that a 50-foot stream setback be required for each of the three intermittent streams located within the Project area. See the attached figure below depicting the location of the three intermittent streams and the proposed 50-foot stream setbacks within the Project area. If development were to occur within the City of Grass Valley 30-foot stream setback requirement, a Resource Management Plan would need to be developed for the proposed Project per the City of Grass Valley Development Code 17.50 for Creek and Riparian Resource Protection.

NOTES:

APPROXIMATE 75 \pm ACRES

BIOLOGICAL INVENTORY BERRIMAN RANCH

TENTATIVE MAP REVISED AUG 2018

NOVEMBER, 2018



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Appendix A

Photo Log

Photos of the August and November 2018 Field Surveys of the Project Study Area



Photo 1: Entrance gate/main road entrance to parcel off of Taylorville Road.



Photo 2: Main entrance road to project area off of Taylorville Road. Planned development to the left of access road includes lots and additional access roads.



Photo 3: Abandoned orchard and open space area along southern side of the main entrance road off of Taylorville Road. Development, including access roads and lots, is planned in this upland area.



Photo 4: Open area along the southern side of the main entrance road off of Taylorville Road. Development is planned within this hilly, upland area. Existing barn is located at top of hill.



Photo 5: Open annual grassland habitat area looking into the southern area of the project area. Development, including access roads and lots, are planned within this entire area heading south.



Photo 6: Northwest corner of the proposed development along the main entrance to the project area. Several potential lots are planned for this upland/orchard area of the project area.



Photo 7: Corner of the existing road heading into the northern development area (to the left), the main road off of Taylorville entering project area (to the right), and the road heading south into the southern sections of the project area.



Photo 8: Open area within the eastern section of the project area at the top of a hill looking north towards the northern area currently under development.



Photo 9: Northeastern corner of the proposed western buildout area. The corner flagged stake marks the northern edge of the buildout area at this location and it heads west from the corner flagged stake. An intermittent tributary to Wolf Creek is located north of this area outside the buildout area.



Photo 10: Western area of the proposed buildout area within annual grassland habitat and within the forested habitat to the left.



Photo 11: Looking towards the southern section of the proposed buildout area with grassland habitat and the transition to an area dominated by ponderosa pine and other conifers. Proposed development occurs along the road heading through the trees at the bottom of the hill.



Photo 12: Existing barn within the eastern section of the project area up on a hill. Proposed development in this area will include access road and several lots.



Photo 13: Southern and eastern area of proposed buildout dominated by ponderosa pine and conifers.



Photo 14: Northern area of the western section of the project area is dominated by annual grassland with some orchard trees. The intermittent stream tributary to Wolf Creek is located north of this area.



Photo 15: Southern end of Taylorville Road where a new access and circulation road will be constructed to connect with the southern and southwestern area of the project area.



Photo 16: Southwestern area of project area heading downhill into a seasonal drainage area. This area is dominated by upland grasslands and Himalayan blackberry bushes.



Photo 17: Seasonal drainage located along southern area of project area.



Photo 18: Looking downhill towards the seasonal drainage located along southern area of project area. Himalayan blackberry bushes are in an upland area with large riparian trees along the seasonal drainage after the blackberry bushes stop.



Photo 19: Looking towards the seasonal drainage located along southern area of project area. Himalayan blackberry bushes and orchard trees are dominant as well as grassland species in the upland area located outside the seasonal drainage.



Photo 20: Southern upland area of project area is dominated by conifers and CA black oak trees.



Photo 21: Proposed 10-foot paved trail corridor through Himalayan blackberry shrubs, orchard trees, and Ponderosa pine trees. Trail corridor located off of Taylorville Road.



Photo 22: East side of Taylorville Road with storm drain connecting a large culvert on the western side of Taylorville Road and where water enters an area dominated by orchard trees.



Photo 23: Looking east below culvert that crosses Taylorville Road and enters the northeastern section of the project area. The area below the culvert is not defined as a stream and a puddle of water is located at the culvert outlet with some wetland plants. Area is an isolated patch of wetland plants.



Photo 24: Looking east below culvert that crosses Taylorville Road and enters the northeastern section of the project area. The area below the culvert is not defined as a stream and Himalayan blackberry bushes and orchard trees dominate the vegetation in the area along with some willow trees.

Appendix B

Plants and Wildlife Observed

Appendix B. Species observed within the Project area August 22nd and 23rd, October 29th, and November 12th, 2018

Scientific Name

CRYPTOGAMS

Blechnaceae Woodwardia fimbriata

Dennstaedtiaceae Pteridium aquilinum

Equisetaceae Equisetum arvense

GYMNOSPERMS

Cupressaceae Calocedrus decurrens

Pineaceae Pinus ponderosa Abies concolor Psuedotsuga menziesii

DICOTYLEDONS

Aceraceae Acer macrophyllum

Anacardiaceae Toxicodendron diversilobum

Apiaceae (Umbelliferae) Daucus carota Torilis arvensis

Asteraceae (Compositae) Artemisia douglasiana Aster eatonii **Common Name**

FERNS AND SPIKE-MOSSES

chain fern

Bracken Family bracken fern

Horsetail Family common horsetail

CONIFERS Cypress Family incense cedar

Pine Family ponderosa pine white fir Douglas fir

FLOWERING PLANTS Maple Family

big-leaf maple

Cashew Family poison oak

Carrot Family wild carrot hedge-parsley

Sunflower Family mugwort Eaton's aster Calycadenia spicata Carduus pycnocephala Centaurea solstitialis Cichorium intybus Cirsium occidentale Cirsium vulgare Grindelia hirsutula Leucanthemum sp. Madia elegans ssp. vernalis Madia gracilis Solidago canadensis Sonchus sp. Taraxacum officinale

Betulaceae Alnus rhombifolia

Brassicaceae (Cruciferae) Brassica nigra Lepidium nitidum Rorippa nasturtium-aquaticum

Caprifoliaceae Lonicera hispidula

Cornaceae Cornus nuttallii

Ericaceae Arctostaphylos viscida

Fabaceae Lathyrus latifolius Lotus humistratus

Hypericaceae Hypericum perforatum white tarweed Italian thistle yellow star-thistle chicory western thistle common thistle gum plant ox-eye daisy common madia slender tarweed goldenrod sow thistle common dandelion

Birch Family white alder

Mustard Family black mustard pepper grass water cress

Honeysuckle Family honeysuckle

Dogwood Family California dogwood

Heath Family whiteleaf manzanita

Legume Family sweet pea lotus

St. John's Wort Family Klamath weed Juglandaceae Juglans californica

Lamiaceae Prunella vulgaris var. lanceolatus Stachys ajugoides Trichostema lanceolatum

Plantaginaceae Plantago lanceolata

Polemoniaceae Navarretia sp.

Polygonaceae Rumex crispus Rosaceae Malus spp. Oemleria cerasiformis Prunus virginiana Rosa californica Rubus armeniacus Rubus laciniatus Rubus leucodermis

Salicaceae Salix laevigata Salix lasiolepis

Scrophulariaceae *Mimulus guttatus Verbascum blattaria Verbascum thapsus*

Cyperaceae Carex densa (dudleyi) Carex feta Walnut Family California black walnut

Mint Family self-heal hedge nettle vinegar weed

Plantain Family common plantain

Phlox Family navarretia

Buckwheat Family curly dock Rose Family pear and apple Several cultivars oso berry choke cherry wild rose Armenian blackberry cut-leaved blackberry blackcap raspberry

Willow Family red willow arroyo willow

Figwort Family seep-spring monkeyflower moth mullein woolly mullein

Sedge Family sedge sedge Carex praegracilis Cyperus eragrostis

Iridaceae Iris sp.

Juncaceae Juncus balticus Juncus bufonius Juncus effusus Juncus tenuis Juncus xiphioides

Lemnaceae Lemna sp.

Liliaceae Chlorogalum pomeridianum

Poaceae Avena sp.

Briza minor Bromus diandrus Bromus hordeaceus Cynosurus echinata Dactylis glomerata Elymus glaucus Festuca arundinacea Holcus lanatus Hordeum marinum ssp. gussoneanum Lolium perenne perennial Muhlenbergia rigens Phalaris aquatica Poa pratensis Taeniatherum caput-medusae clustered field sedge umbrella sedge

Iris Family iris

Rush Family Baltic rush toad rush soft rush rush iris-leaved rush

Duckweed Family duckweed

Lily Family soap plant

Grass Family wild oats

tiny rattlesnake grass ripgut brome soft brome dog-tail grass orchard grass blue wild-rye tall fescue velvet grass Mediterranean barley rye grass deer grass Harding grass Kentucky bluegrass medusa-head grass

Wildlife Species observed within the Project Area August 22nd and 23rd,

October 29th, and November 12th, 2018

Wildlife Apheloxoma californica Buteo jamaicensis Callipepla californica Melozone crissalis

Western scrub jay Red-tailed hawk California quail California towhee

Appendix C

CNDDB Locations of Special Status Species within 3 Miles of Project Area

California Natural Diversity Database (CNDDB) Government [ds45]

Scientific Name	Common Name	Element Code	Occ Number	MAPNDX	EONDX	Key Quad Code	Key Quad Name	Key County Code	Accuracy	Presence	Осс Туре	Occ Rank	Sensitive	Site Date	Elm Date	Owner Management	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank	CDFW Status	Other Status	Sym bology
Calystegia stebbinsii	Stebbins' morning-glory	PDCON040H0	21	22745	8145	3912121	Grass Valley	NEV	specific area	Possibly Extirpated	Natural/Native occurrence	None	N	20040616	19910612	UNKNOWN	Endangered	Endangered	G1	S1	1B.1		SB_RSABG	102
Calystegia stebbinsii	Stebbins' morning-glory	PDCON040H0	20	22744	20409	3912121	Grass Valley	NEV	80 meters	Possibly Extirpated	Natural/Native occurrence	None	N	20040616	19910607	UNKNOWN	Endangered	Endangered	G1	S1	1B.1		SB_RSABG	101
Phrynosoma blainvillii	coast horned lizard	ARACF12100	599	39883	34885	3912121	Grass Valley	NEV	1/5 mile	Presumed Extant	Natural/Native occurrence	Poor	N	1991XXXX	1991XXXX	CITY OF GRASS VALLEY	None	None	G3G4	S3S4		SSC	BLM_S; IUCN_LC	204
Phrynosoma blainvillii	coast horned lizard	ARACF12100	602	39902	34904	3912121	Grass Valley	NEV	80 meters	Presumed Extant	Natural/Native occurrence	Unknow n	N	19910503	19910503	PVT	None	None	G3G4	S3S4		SSC	BLM_S; IUCN_LC	201
Phrynosoma blainvillii	coast horned lizard	ARACF12100	577	23689	7330	3912121	Grass Valley	NEV	nonspecific area	Presumed Extant	Natural/Native occurrence	Excellent	N	1995XXXX	1995XXXX	NEV COUNTY, PVT	None	None	G3G4	S3S4		SSC	BLM_S; IUCN_LC	203
Fremontodendron decumbens	Pine Hill flannelbush	PDSTE03030	14	41294	41294	3912121	Grass Valley	NEV	specific area	Presumed Extant	Natural/Native occurrence	Fair	N	20090603	20090603	PVT	Endangered	Rare	G1	S1	1B.2		SB_RSABG; SB_UCBBG	102
Rhynchospora capitellata	brow nish beaked-rush	PMCY P0N080	5	50474	50474	3912121	Grass Valley	NEV	1/5 mile	Presumed Extant	Natural/Native occurrence	Unknow n	N	19730723	19730723	UNKNOWN	None	None	G5	S1	2B.2			104
Calystegia stebbinsii	Stebbins' morning-glory	PDCON040H0	22	22746	8144	3912121	Grass Valley	NEV	specific area	Presumed Extant	Natural/Native occurrence	Fair	N	20150522	20150522	NEV COUNTY, PVT	Endangered	Endangered	G1	S1	1B.1		SB_RSABG	102
Sidalcea stipularis	Scadden Flat checkerbloom	PDMAL110R0	1	12076	4484	3912121	Grass Valley	NEV	specific area	Presumed Extant	Natural/Native occurrence	Fair	Y	20080720	20080720	CALTRANS, PVT	None	Endangered	G1	S1	1B.1		SB_RSABG	102
Laterallus jamaicensis coturniculus	California black rail	ABNME03041	264	76676	77622	3912121	Grass Valley	NEV	2/5 mile	Presumed Extant	Natural/Native occurrence	Unknow n	N	****	xxxxxxx	UNKNOWN	None	Threatened	G3G4T1	S1		FP	BLM_S; IUCN_NT; NABCI_RWL; USFWS_BCC	204
Lathyrus sulphureus var. argillaceus	dubious pea	PDFAB25101	4	79239	80219	3912121	Grass Valley	NEV	1 mile	Presumed Extant	Natural/Native occurrence	Unknow n	N	19260417	19260417	UNKNOWN	None	None	G5T1T2	S1S2	3			104
Fremontodendron decumbens	Pine Hill flannelbush	PDSTE03030	13	30490	3876	3912121	Grass Valley	NEV	specific area	Presumed Extant	Natural/Native occurrence	Poor	N	2016XXXX	2016XXXX	NEV COUNTY	Endangered	Rare	G1	S1	1B.2		SB_RSABG; SB_UCBBG	102
Juncus digitatus	finger rush	PMJUN013E0	3	83108	84104	3912121	Grass Valley	NEV	80 meters	Presumed Extant	Natural/Native occurrence	Excellent	N	20110601	20110601	NEVADA IRRIGATION DIST	None	None	G1	S1	1B.1			101
Corynorhinus tow nsendii	Tow nsend's big-eared bat	AMACC08010	636	99346	100891	3912121	Grass Valley	NEV	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20150724	20150724	DPR-EMPIRE MINE SHP	None	None	G3G4	S2		SSC	BLM_S; IUCN_LC; USFS_S; WBWG_H	201
Carex xerophila	chaparral sedge	PMCY P03M60	8	A1920	103485	3912121	Grass Valley	NEV	specific area	Presumed Extant	Natural/Native occurrence	Unknow n	N	20140809	20140809	PVT	None	None	G2	S2	1B.2			102
Carex xerophila	chaparral sedge	PMCY P03M60	9	A1922	103486	3912121	Grass Valley	NEV	specific area	Presumed Extant	Natural/Native occurrence	Unknow n	N	20140809	20140809	PVT	None	None	G2	S2	1B.2			102
Calystegia stebbinsii	Stebbins' morning-glory	PDCON040H0	18	22742	8302	3912121	Grass Valley	NEV	specific area	Presumed Extant	Natural/Native occurrence	Good	N	20120613	20120613	PVT, BLM	Endangered	Endangered	G1	S1	1B.1		SB_RSABG	102

CNDDB_Occurrences Within 3-mile radius

California Natural Diversity Database (CNDDB) Government [ds45]



N

5 mi

8 km



Appendix D

USFWS Species List for Project Area

Last login August 30, 2018 11:48 AM MDT

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

Nevada County, California



Local office

Sacramento Fish And Wildlife Office

└ (916) 414-6600 **i** (916) 414-6713

Federal Building 2800 Cottage Way, Room W-2605 Sacramento, CA 95825-1846

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 species¹ and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

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

- Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information.
- 2. <u>NOAA Fisheries</u>, 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:

Amphibians

NAME

STATUS

Threatened

California Red-legged Frog Rana draytonii There is final critical habitat for this species. Your location is outside the critical habitat. <u>https://ecos.fws.gov/ecp/species/2891</u>

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is final critical habitat for this species. Your location is outside the critical habitat. <u>https://ecos.fws.gov/ecp/species/321</u>	Threatened
Flowering Plants	STATUS
Pine Hill Flannelbush Fremontodendron californicum ssp.	Endangered
No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4818	
Stebbins' Morning-glory Calystegia stebbinsii No critical habitat has been designated for this species. <u>https://ecos.fws.gov/ecp/species/3991</u>	Endangered
200	

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^{1} and the Bald and Golden Eagle Protection Act^{2} .

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 <u>below</u>.

- 1. The <u>Migratory Birds Treaty Act</u> of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <u>http://www.fws.gov/birds/management/managed-species/</u> <u>birds-of-conservation-concern.php</u>
- Measures for avoiding and minimizing impacts to birds <u>http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/</u> <u>conservation-measures.php</u>
- Nationwide conservation measures for birds <u>http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf</u>

The birds listed below are birds of particular concern either because they occur on the <u>USFWS Birds</u> of <u>Conservation Concern</u> (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 <u>below</u>. 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 <u>E-bird data mapping tool</u> (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 <u>below</u>.

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 (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Breeds Jan 1 to Aug 31

Bald Eagle Haliaeetus leucocephalus

JIFOR

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/1626

Cassin's Finch Carpodacus cassinii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9462</u>	Breeds May 15 to Jul 15
Lewis's Woodpecker Melanerpes lewis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9408</u>	Breeds Apr 20 to Sep 30
Olive-sided Flycatcher Contopus cooperi This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/3914</u>	Breeds May 20 to Aug 31
Rufous Hummingbird selasphorus rufus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/8002</u>	Breeds elsewhere
Willow Flycatcher Empidonax traillii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <u>https://ecos.fws.gov/ecp/species/3482</u>	Breeds May 20 to Aug 31

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.

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.

		_	2	🗖 proba	bility of	presenc	e 📕 bre	eding se	ason	survey e	effort -	– no data
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Bald Eagle Non-BCC Vulnerable (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.)		T	++++	++++	+++	+++	• + - •	* + * +	++++	++++	++++	-+++
Cassin's Finch BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++-+	I ++	-+-+	+	++++	+++		++	-+++	++++	++++	

9/3/2018

IPaC: Explore Location



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

<u>Nationwide Conservation Measures</u> 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. <u>Additional measures</u> and/or <u>permits</u> 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 <u>Birds of Conservation Concern (BCC)</u> 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 <u>Avian Knowledge Network</u> (<u>AKN</u>). The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> 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 (<u>Eagle Act</u> 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 <u>E-bird Explore Data Tool</u>.

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 <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey, banding, and citizen</u> <u>science datasets</u>.

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: <u>The Cornell Lab of Ornithology All About Birds Bird Guide</u>, or (if you are unsuccessful in locating the bird of interest there), the <u>Cornell Lab of Ornithology Neotropical Birds</u> <u>guide</u>. 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 <u>Birds of Conservation Concern</u> (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 <u>Eagle Act</u> 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 <u>Northeast Ocean Data Portal</u>. 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 <u>NOAA NCCOS</u> <u>Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf</u> 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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam</u> <u>Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> 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 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 I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> 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 AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to <u>NWI wetlands</u> 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>U.S. Army Corps of</u> <u>Engineers District</u>.

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.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND PFOC

A full description for each wetland code can be found at the National Wetlands Inventory website

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 tuberficid 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.