Habitat Management Plan for the Rincon del Rio Project Nevada County (Conditional Use Permit CUP19-0010)

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1.0 INTRODUCTION

Greg Matuzak, a wildlife biologist and wetlands ecologist, conducted a reconnaissance-level biological resources survey and required background research related to sensitive biological resources, including the identification of potential streams and wetlands requiring non-disturbance buffers, landmark oak trees, and landmark groves (landmark oak woodlands) in order to develop this Habitat Management Plan. In addition, potential California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), and United States Army Corps of Engineers (Corps) jurisdiction was assessed as part of the proposed Rincon del Rio Senior Living Project (Project).

A previous Habitat Management Plan was developed by EcoSynthesis for the Project area in 2009; however, given the proposed changes to the Project layout since 2009 and the length of time that has elapsed since the development of the original Habitat Management Plan was developed for the Project area (approximately 10 years), the Nevada County Planning Department stated in their April 2nd, 2019 Incomplete Use Permit Application and Tentative Final Subdivision Map (PLN19-0024, TFM19-0008, CUP19-0010) Letter that an updated Habitat Management Plan is required as part of processing the updated application for the proposed Project. Therefore, the development of this Habitat Management Plan for the proposed Project is required by the Nevada County Planning Department and also meets the requirements for the development of a Habitat Management Plan for projects with potential disturbance within non-disturbance buffers associated with streams, wetlands, ponds, and other seasonal and perennial aquatic habitats. In addition, this Habitat Management Plan meets the requirements for an assessment of oak resources under the Nevada County Land Use and Development Code for trees.

A Comprehensive Master Plan and Tentative Final Subdivision Map, including a Conditional Use Permit (CUP) was previously approved for a similar Project by Nevada County on April 9, 2013. The approval was based on the development of a Draft Environmental Impact Report (DEIR, Nevada County 2012) and the development of a Final Environmental Impact Report (FEIR) approved by Nevada County in April 2013. Based on feedback from the Nevada County Community Development Agency Planning Department regarding an Incomplete Use Permit Application and Tentative Final Subdivision Map (PLN19-0024, TFM19-0008, CUP19-0010, dated April 2, 2019), which included an updated overall site plan, several items related to biological resources assessments are required to be updated in order to get a complete CUP application through Nevada County. This Habitat Management Plan is being developed in response to the Nevada County April 2nd, 2019 Incomplete Letter. Additionally, an Updated Biological Resources Inventory was developed in response to the Nevada County April 2nd, 2019 Incomplete Letter (Matuzak 2019).

The Project area includes 214.56 acres and includes four separate parcels, including the following:

- APN: 057-10-013 (54.72 acres)
- APN: 057-240-017 (82.04 acres)
- APN: 057-240-018 (37.80 acres)
- APN: 057-240-019 (40.00 acres)

The Project area is located in Auburn, Nevada County, California with the Bear River being the southern boundary of the Project area. The site is located at 10412 Rincon Way, 10420 Rincon Way, and 24885 Connie Court, Auburn, CA 95620 (see attached Project Vicinity and Project Location maps within Appendix A). Out of the 214.56-acre Project area, a minimum of 130 acres are proposed to be zoned as open space, protecting a minimum of 60% of the natural habitat and protecting a majority of the mapped protected oak resources within the Project area. Most of the proposed open space zoning will occur within the eastern, undeveloped portion of the Project area as well as between proposed development within the western Project area. This will help protect and preserve, as well as compensate for impacts to, the sensitive biological resources covered under this Habitat Management Plan.

Previous reporting and assessments completed as part of the original CUP application approved in April 2013 as it relates to biological resources includes, but is not limited, to the following:

- Rincon del Rio Project Biological Inventory (EcoSynthesis, 2009a)
- Supplemental Biological Inventory Information, Rincon del Rio Project (EcoSynthesis, August 22, 2011)
- Habitat Management Plan for the Rincon del Rio Project (EcoSynthesis 2009b)
- Habitat Assessment for the California Red-legged Frog and Western Pond Turtle at the Rincon del Rio Property, Nevada County, California (Costella Environmental Consulting, March 29, 2013)
- Section 3.4 Biological Resources, Rincon del Rio Draft Environmental Impact Report (Nevada County, January 2012)

The project site features varied topography, including rolling hills and somewhat flatter terrain near the center of the property. Elevations within the site range from approximately 1,300 feet above msl along its southern portion near the Bear River to approximately 1,700 feet above msl at the site's southeastern corner at the peak of a steep hill. The Bear River flows east to west at the southern boundary of the project site. One main unnamed Bear River tributary, flowing from the northeast corner through the

central portion of the project site, is dammed, creating a large pond on site. A smaller Bear River tributary also flows into the main tributary just north of the pond. Both tributaries support woody riparian and some herbaceous wetland plants. Smaller drainages are located throughout the project site. Three small areas of mixed riparian and herbaceous wetland vegetation, which are supported by springs located in rocky slopes, are found adjoining the Bear River in the southeastern part of the project site. Additionally, two sections of Nevada Irrigation District (NID) irrigation canals traverse the property: Weeks Canal crosses the northwestern portion of the Project site and the Combie Phase I Canal (formerly referred to as the Magnolia Ditch) crosses the eastern portion of the Project site.

The proposed Project includes the implementation of the following phases with the order of phasing to be potentially modified and/or combined with other phases to meet market conditions:

PHASE 1:
- Emergency Access Road Connection
- Primary Access Road Improvements
- Gatehouse
- Sewer Lift Stations, Water Tank, and Other Utility Connections
- 14 Cottage Units
- 4 5-Plex Condominiums (20 units)

PHASE 2:
- 24 Bungalow Units

PHASE 3:
- 4 Attached Condominiums (56 units)
- 2 5-Plex Condominiums (10 units)

PHASE 4:
- 5 5-Plex Condominiums (30 units)

PHASE 5:
- 11 Cottage Units
- 7 5-Plex Condominiums (35 units)

PHASE 6:
- 17 Cottage Units

PHASE 7:
- Village Service Center
- Group House Memory Care
- Pool/ Fitness Center
- Art Studio

PHASE 8:
- 9 Cottage Units
- 6 5-Plex Condominiums (30 units)

PHASE 9:
- 7 Cottage Units
- Pickleball/ Tennis Court
- Row Gardens/Farm
- Auto/ Tractor Repair Barn
- Bungalow
- Attached 14-Unit Condominium

PHASE 10:
- 20 Cottage Units
- 5 5-Plex Condominiums (20 units)
- Lodge

This Habitat Management Plan Report has been developed for submission to the Nevada County Planning Department. The Habitat Management Plan includes an assessment of the following seasonal and perennial aquatic resources that are subject to non-disturbance buffers:

- two NID irrigation canals that cross the Project area (Weeks Canal in northwest section of Project area and Combie Phase I Canal in the northeast and eastern section of the Project area) and each NID irrigation canal requires a 100-foot non-disturbance buffer along the uphill side and a 20-foot non-disturbance buffer for the downhill side of each canal;
- a large perennial pond in the middle of the Project area (100-foot non-disturbance buffer required for perennial water features such as perennial ponds);
- the Bear River located along the southern border of the Project area (subject to a 100-foot non-disturbance buffer);
- an ephemeral drainage along the western edge of the large pond (non-disturbance buffer not required for ephemeral drainages that do not contain the required bed and bank and ordinary high water mark);
- two seasonal streams (tributaries to the large pond) that enter the Project area from the north and northeast respectively (50-foot non-disturbance buffer required for seasonal/intermittent streams); and
- several wetlands associated with the northern section of the large pond and additional wetlands associated with the two seasonal/intermittent streams that

are located north of the large pond (100-foot non-disturbance buffer required for wetlands).

The Nevada County Land Use and Development Code, Chapter II; Zoning Regulations, Section L-II 4.3 17C.3 (Ordinance Number 2033) requires a Management Plan be prepared for projects in non-disturbance buffers, including areas that are within 100 feet of the high water mark of perennial streams, watercourses, ponds, and wetlands, and 50 feet from the high water mark of intermittent watercourses (Nevada County 2000. Land Use and Development Code, Chapter II: Zoning Regulations. Effective July 27, 2000). Therefore, the development of this Habitat Management Plan for the Project area meets the requirements of the Nevada County Land Use and Development Code.

In addition, this Habitat Management Plan Report includes an assessment of the following protected oak resources per the Nevada County Land Use and Development Code:

- Landmark trees are any native oak tree species (*Quercus* species) with a trunk diameter of 36" or greater at diameter breast height (dbh or 4'6");
- Identifies landmark groves as hardwood tree groves with 33+% canopy closure, or groves whose size, visual impact, or association with a historically significant structure or event has caused it to be marked for preservation by the county, state, or federal government.

The Nevada County Land Use and Development Code, Chapter II; Zoning Regulations, Section L-II 4.3.18 for Trees. Landmark trees are any native oak tree species (*Quercus* species) with a trunk diameter of 36" or greater at diameter breast height (dbh or 4'6"). Identifies landmark groves as hardwood tree groves with 33+% canopy closure, or groves whose size, visual impact, or association with a historically significant structure or event has caused it to be marked for preservation by the county, state, or federal government. Projects shall be approved only when they do not remove or disturb defined trees or groves, unless a Management Plan is prepared consistent with paragraph 3 below or other standards are met consistent with paragraph 3 of this Code for Trees (see Section 2.0 for more detail). Therefore, the development of this Habitat Management Plan for the Project area meets the requirements of the Nevada County Land Use and Development Code as defined for landmark oak trees and landmark groves.

As part of the DEIR and approved FEIR for the Project area (Nevada County 2012 and 2013), the approved CEQA document for the Project area contains an impact assessment and mitigation measures covering the protection of landmark oak trees and landmark groves, which is identified as **Mitigation Measure MM 3.4.6** within both the DEIR and FEIR approved for the Project area. In addition, the approved CEQA

documentation covering the Project area also covers impacts and mitigation for stream, wetland, and pond resources. These aquatic resources are assessed under **Impact 3.4.4** and **Mitigation Measure MM 3.4.4** within both the DEIR and FEIR approved for the Project area. See Section 5.0 of this Habitat Management Plan and the Updated Biological Resources Inventory developed for the proposed Project by Matuzak (2019) for detail related to Project compliance with **MM 3.4.4** and **MM 3.4.6**. Therefore, this Habitat Management Plan meets the full requirements for mitigation related to oak resources and partial fulfillment of mitigation requirements related to aquatic resources as required by the approved DEIR and FEIR covering the Project area. The applicant will fulfill the remaining obligations under **Impact 3.4.4** and **Mitigation Measure MM 3.4.4** within the approved DEIR and FEIR covering the Project area as it relates to any required regulatory permits and compensatory mitigation for Project related impacts to the mapped streams, wetlands, NID Irrigation Canals, and large pond within the Project area. Therefore, the applicant will be in full compliance with **MM 3.4.4** and **MM 3.4.6** as part of the approved DEIR and FEIR covering the Project area as well as in compliance with the Nevada County Land Use and Development Code for trees and non-disturbance buffers given the development and approval of this Habitat Management Plan.

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 does contain potential wetland, pond, and stream features that would be subject to regulation under the CWA if dredge or fill material are placed within any wetlands, streams, or the large pond within 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 may contain waters of the U.S. or waters of the state, and thus could be subject to regulation under the CWA. The Project area does contain potential wetland, pond, and stream features that would be subject to regulation under the CWA if dredge or fill material are placed within any mapped wetlands, streams, or the large pond within the Project area.

Endangered Species Act of 1973

For the subject parcel, consultation with the USFWS would be necessary if a proposed action may affect suitable habitat for a federally listed species or could potentially affect Designated Critical Habitat (DCH) 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 no federally protected species listed under the ESA or DCH for federally listed species within 3 miles of the Project area (CDFW 2019). The large pond was surveyed by Costella Environmental Consulting between February and March 2013 following USFWS revised guidance for onsite assessments and field surveys for the federally threated California red-legged frog (*Rana draytonii*, USFWS August 2005). The 2013 site assessments and field surveys for the federally threated California red-legged frog determined that the species is not present within the Project area and is not likely to occur within the large pond or within the Project area.

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 state-listed 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. No CESA listed species have been previously documented within 3 miles of the Project area and the Project area does not provide suitable habitat for any CESA listed species.

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. Impacts to the bed, bank, riparian zone, and/or floodplain of any of the mapped streams and the large pond within the Project area would require that a Lake and Streambed Alteration (LSA) Notification (LSA) be submitted to CDFW for review and that an executed LSA Agreement be signed off on by both CDFW and the applicant prior to impacting any features under CDFW jurisdiction as part of the LSA program.

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 subject parcel contains "waters of the State" as defined by the State Water Resources Board (State Board 2014); however, no such additional "waters of the State" were documented and mapped within the Project area besides the water features mapped as potential "waters of the United States," including 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 woodland habitats are protected under both State and the Nevada County General Plan.

Nevada County General Plan

The Project site land use changes and any subsequent development would be required to comply with those goals and policies outlined in the Nevada County General Plan and thus are included here.

The following goals and policies regarding relevant biological resources are set forth in Chapter 13: Wildlife and Vegetation of the Nevada County General Plan.

Goal 13.1 Identify and manage significant areas to achieve sustainable habitat.

Objective 13.1 Discourage intrusion and encroachment by incompatible land uses in significant and sensitive habitats.

Policy 13.1 Where significant environmental features, as defined in Policy 1.17, are identified during review of projects, the County shall require all portions of the project site that contain or influence said areas to be retained as non-disturbance open space through clustered development on suitable portions of the project site, or other means where mandatory clustering cannot be achieved. The intent and emphasis of such open space designation and non-disturbance is to promote continued viability of contiguous or inter-dependent habitats by avoiding fragmentation of existing habitat areas and preserving movement corridors between related habitats. Vegetation management for the benefit of habitat preservation or restoration shall be considered consistent with the intent of this policy.

Policy 13.2 As part of the Comprehensive Site Development Standards, include standards to minimize removal of existing vegetation and require installation and long-term maintenance of landscaping in Chapter 13: Wildlife and Vegetation Element Nevada County General Plan Volume I - Page 13-5 setbacks and buffer areas. These standards shall be applicable to all discretionary projects and to all ministerial projects other than a single-family residence located on an individual lot. Tree removal may be allowed where necessary to comply with public right-of-way development or dedication, or development of required site access and public utilities. Individual trees or groups of trees shall be protected during construction to prevent damage to the trees and their root systems. Vegetation in proximity to structures shall conform to applicable fire protection standards.

Policy 13.2A Project review standards shall include a requirement to conduct a site-specific biological inventory to determine the presence of special status species or habitat for such species that may be affected by a proposed project. The results of the biological inventory shall be used as the basis for establishing land use siting and design tools required to achieve the objective of no net loss of habitat function or value for

special status species. Where a Habitat Management Plan is deemed appropriate, the Plan shall be prepared to comply with the requirements of the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA). The plan shall provide the background data, impact analysis, and mitigation programs necessary to obtain a FESA Section 10(a) and CESA Section 2081 permit authorizing incidental take of federal and state listed threatened and endangered species that occur in areas proposed for future development. Prior to implementation of an adopted Habitat Management Plan, project applicants proposing the development of a project that would impact a federal or state listed species, or a species that is proposed for listing, shall be individually responsible for obtaining federal and state incidental take permits on a project-by-project basis.

Policy 13.3 As part of the Comprehensive Site Development Standards, require the maximum feasible use of drought tolerant native plant species for landscaping of all new multi-family residential, commercial, industrial, and public projects. Invasive, non-native plants, as determined by a landscape architect or other similar expert, that may displace native vegetation on adjoining undeveloped lands shall not be used. Landscaping with native trees and shrubs shall be encouraged to provide suitable habitat for native wildlife, particularly in proposed open space uses of future development.

Policy 13.4 Encourage long-term sustainability and maintenance of landscaped areas.

Policy 13.4A No net loss of habitat functions or values shall be caused by development where rare and endangered species and wetlands of over 1 acre, in aggregate, are identified during the review of proposed projects. No net loss shall be achieved through avoidance of the resource, or through creation or restoration of habitat of superior or comparable quality, in accordance with guidelines of the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

Policy 13.4B Habitat that is required to be protected, restored, or created as mitigation for a project's impacts shall be monitored and maintained in accord with a County-approved Habitat Management Plan.

Objective 13.2 Minimize impacts to corridors to ensure movement of wildlife.

Objective 13.3 Provide for the integrity and continuity of wildlife environments.

Objective 13.5 Support, where feasible, the continued diversity and sustain ability of the habitat resource through restoration and protection.

Objective 13.7 Identify and preserve heritage and landmark trees and groves where appropriate.

Policy 13.9 Development in the vicinity of significant oak groves of all oak species shall be designed and sited to maximize the long-term preservation of the trees and the integrity of their natural setting. The County shall adopt a regulation to protect native

heritage oak trees and significant oak groves. All native oak tree species with a trunk diameter of 36" or greater shall be protected.

Nevada County Stream and Wetland Non-Disturbance Buffer Regulations

Nevada County Land Use and Development Code, Chapter II; Zoning Regulations, Section L-II 4.3 17C.3 (Ordinance No. 2033) requires a Management Plan be prepared for projects in non-disturbance buffers, including areas that are within 100 feet of wetlands and riparian areas and from the high water mark of perennial steams and watercourses, and within 50 feet from the high water mark of seasonal watercourses.

Nevada County Landmark Groves and Landmark Oak Tree Regulations

The Nevada County Land Use and Development Code, Chapter II; Zoning Regulations, Section L-II 4.3.18 for Trees. Landmark trees are any native oak tree species (*Quercus* species) with a trunk diameter of 36" or greater at diameter breast height (dbh or 4'6"). Identifies landmark groves as hardwood tree groves with 33+% canopy closure, or groves whose size, visual impact, or association with a historically significant structure or event has caused it to be marked for preservation by the county, state, or federal government

Projects shall be approved only when they do not remove or disturb defined trees or groves, unless a Management Plan is prepared consistent with paragraph 3 below or other standards are met consistent with paragraph 3 below. Exempted from this standard shall be trees or groves determined to be dead, dying, or a public safety hazard by a certified professional arborist, licensed landscape architect, registered professional forester, or qualified biologist or botanist (referred to herein as a qualified professional). In addition, exemption shall apply to those trees that must be removed to ensure fire safe access or provide adequate fuel reduction as determined by the California Department of Forestry or local fire district. Tree removal may also be allowed where necessary to provide for site access and public utilities or public right-of-way.

Paragraph 3. If the above standard effectively precludes development of the project or a revised project, or adversely affects another environmentally-sensitive resource, a Management Plan shall be prepared by a certified arborist, registered forester, qualified biologist or botanist, or landscape architect. Said Plan shall evaluate the impact of the project on defined trees and groves and recommend project modifications that avoid or minimize impacts. Emphasis shall be placed on protecting groups of trees rather than individuals. Defined trees that must be removed shall be replaced on an inch for an inch replacement of the removed tree(s). The total of replacement trees shall be required to have a combined diameter of the tree(s) removed. The Management Plan shall provide for the long-term maintenance of the replacement trees.

Management Plans shall emphasize protection of two varieties of oak: blue oak (*Quercus douglasii*) and valley oak (*Quercus lobata*). Both are of very limited distribution in Nevada County and considered to be sensitive plants worthy of special protection.

3.0 METHODS

In order to evaluate the Project area for the presence of sensitive biological resources, baseline information from databases and reporting for similar projects in Nevada County was collected and reviewed prior to conducting reconnaissance-level field biological surveys. The database searches, background research, and habitat level field surveys characterized the baseline conditions of the Project area.

Previous surveys, reporting, and the development of a DEIR for the Project area (approved in April 2013) were reviewed closely. 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 site.

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, 2019);
- California Native Plant Society's online Inventory of Rare and Endangered Plants of California known to occur within the 7.5-minute Lake Combie USGS Quadrangle where the proposed Project is located (CNPS, 2019);
- The U.S. Fish and Wildlife Service Information, Planning, and Consultation System (IPaC) for endangered, threatened, and proposed listed species for the proposed Project area (USFWS, 2019);
- National Wetland Inventory (NWI, 2019);
- United States Department of Agriculture (USDA) Soils Mapper (USDA, 2019);
- Natural Resources Conservation Service (NRCS) Hydric Soils List for Nevada County (NRCS, 2019); and
- Nevada County General Plan (Nevada County, 1996 with subsequent amendments through 2012).

In addition, and as stated in Section 1.0 of this Updated Biological Resources Inventory, the following reporting developed specifically for the Project site was reviewed closely and included:

- Rincon del Rio Project Biological Inventory (EcoSynthesis, 2009a);
- Supplemental Biological Inventory Information, Rincon del Rio Project (EcoSynthesis, August 22, 2011);
- Habitat Management Plan for the Rincon del Rio Project (EcoSynthesis 2009b);
- Habitat Assessment for the California Red-legged Frog and Western Pond Turtle at the Rincon del Rio Property, Nevada County, California (Costella Environmental Consulting, March 29, 2013); and
- Section 3.4 Biological Resources, Rincon del Rio Draft Environmental Impact Report (DEIR, Nevada County, January 2012)

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 each is evaluated as part of this Updated Biological Resources 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; however, this species and has not been identified within 3 miles of the Project and is not evaluated within this Updated Biological Resources Inventory further. This species 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.

Reconnaissance-level Biological Resources Field Surveys

A reconnaissance-level biological field survey was conducted on foot of the Project area by Greg Matuzak, a Wildlife Biologist and Wetlands Ecologist, on the Nevada County's Biological Resources Consultants List, on April 19th and April 29th, 2019. The entirety of the 214.56-acre Project area was not included in the April 2019 reconnaissance-level biological resources field survey given that the intention of this Habitat Management Plan is to evaluate the potential of the proposed Project changes and their potential impacts on aquatic resources and their non-disturbance buffers and on sensitive oak resources, including landmark groves and landmark oak trees as defined by the Nevada County Land Use and Development Code. Therefore, the April 2019 reconnaissance-level biological field surveys included a review of approximately 80 acres of the Project area with a focus on the Overall Site Plan dated May 2019 (included within Appendix G attached) to ensure coverage of the Project area that may be subject to impacts from the implementation of the Overall Site Plan.

The reconnaissance-level biological field surveys were focused through the entirety of the western section of the Project area as well as the southern and northern areas where Project related impacts could occur. Additionally, the field surveys focused on the previously mapped areas of the Project area containing protected oak resources and previously mapped aquatic resources potentially subject to non-disturbance buffers. For example, the 2012 DEIR included Figure 3.4-3 for mapped Landmark Trees and Oak Grove within the Project Site and this mapping was verified in the field as part of the development of this Habitat Management Plan. A list of plant and wildlife species observed during the field surveys was compiled (see Appendix C). A map depicting the results of a review of the CNDDB within 3 miles of the Project area is included in Appendix D, a USDA Soils Map is included in Appendix E, and a National Wetland Inventory (NWI) Map is included in Appendix F. Appendix G includes the Overall Site Plan, Biological Resources Constraints Map, Landmark Trees and Oak Grove previously mapped within the Project area, and Impact Figures identifying oak resources and aquatic resources potentially impacted by the proposed Project.

4.0 RESULTS

Environmental Setting

The 124.56-acre Project area lies in the Sierra Nevada foothills. The Project site features varied topography, including rolling hills and somewhat flatter terrain near the center of the property. Elevations within the site range from approximately 1,300 feet above Mean Sea Level (MSL) along its southern portion near the Bear River to approximately 1,700 feet above MSL at the site's southeastern corner at the peak of a steep hill. The Bear River flows east to west at the southern boundary of the Project site. A main unnamed seasonal Bear River tributary, flowing from the northeast corner through the central portion of the Project site, is dammed, creating a large pond on site. The main unnamed seasonal Bear River Tributary is also fed by a smaller seasonal stream that enters the Project from the northern central border of the Project area and connects with the main seasonal stream tributary just north of the large pond. Both tributaries support woody riparian and some herbaceous wetland plants.

Plant Communities

The areas mapped previously by EcoSynthesis (2009a, 2009b, 2011) and mapping presented within the DEIR for the Project area (Nevada County 2012) were used as a base layer and habitat types were correlated to the wildlife habitat types in *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988). CDFW 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 Photo Log of the Project area is included in Appendix B and a list of plants and wildlife documented during the field surveys are attached in Appendix C to this Habitat Management Plan. As part of the development of this Habitat Management Plan, the previously mapped habitats and their descriptions were evaluated in the field to ensure their accuracy.

The Project area is dominated by Montane Hardwood and Montane Hardwood-Conifer habitat types. In addition, Annual Grassland is the 3rd most common habitat type within the Project area. Additionally, the Project area include Valley Foothill Riparian habitat as well as Fresh Emergent Wetlands, large pond (Lacustrine habitat), Wet Meadow, and the Bear River. A fragment of Montane Chaparral habitat is located adjacent to the Bear River, but it is not mapped within the Project area and therefore, is not included in the habitat descriptions below. See the Updated Biological Resources Inventory (Matuzak 2019) for detailed habitat descriptions and a table identifying the approximate acreages of each of the habitat types within the Project area.

The aquatic habitat descriptions below have been taken from the previous reporting completed for the Project, most recently the DEIR developed by Nevada County and approved in April 2013.

Riparian and Wetland Associated Habitats

The riparian and wetland associated habitats were previously mapped within the Project area by EcoSynthesis (EcoSynthesis 2009a) and then later slightly updated by PMC as part of the development of the DEIR for the Project area (Nevada County 2012). The habitat descriptions below are taken from the descriptions within the DEIR. Based on the site visits in April 2019 as part of the development of this Habitat Management Plan, an ephemeral drainage did not exhibit the same level of defined bed and bank and an ordinary high water mark as previously mapped. Therefore, the previously mapped ephemeral drainage along the western edge of the large pond has been reduced and is mapped from the point where a clear drainage is located and is identified as an ephemeral drainage given it exhibits characteristics of a drainage area/swale, but does not exhibit the required defined bed and bank and an ordinary high water mark to be mapped as a regulated stream (see attached Overall Site Plan with the mapped ephemeral drainage along the western edge of the large pond as well as the other locations of wetlands, riparian habitat, and streams within the Project area – located within Appendix G).

Valley Foothill Riparian

Within the Project site, riparian habitat occurs along the entire length of the main tributary connecting the northeastern section of the Project area with the central portion of the Project site, including the lower extremity of the small seasonal tributary that flows through the large pasture from the north. The main seasonal stream (which flows into and out of the large pond connecting with the Bear River) supports habitat dominated by white alder, Arroyo willow (*Salix lasiolepis*), and red willow (*S. laevigata*). The riparian vegetation understory varies from absent to dominated by freshwater emergent wetland species to dominated heavily by Himalayan blackberry (*Rubus armeniacus*). Valley oaks occur at the fringe of, or mixed with, the alder-willow riparian woodland. The limit of the foothill riparian community was mapped to include all of the riparian-associated valley oaks (EcoSynthesis 2009a). The mapping of the riparian habitat was expanded by PMC to include the area surrounding the main seasonal tributary in the central portion of the Project site where riparian species have become more prolific.

Bird species that may occur in riparian habitat include acorn woodpecker, belted kingfisher (*Megaceryle alcyon*), northern flicker (*Colaptes auratus*), tree swallow (*Tachycineta bicolor*), and bushtit (*Psaltriparus minimus*). Mammal species may include opossum (*Didelphis virginiana*), desert cottontail (*Sylvilagus audubonii*), beaver (*Castor*

canadensis), coyote (*Canis latrans*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and black-tailed deer.

Wet Meadow

Meadow ecosystems are associated with seasonally moist to waterlogged soils in valleys, flats, gentle slopes, and filled-in lake basins in the higher elevations of Nevada County (Beedy and Brussard 2002). Wet meadows occur where water is at or near the surface most of the growing season, following spring runoff (Ratliff 1988). Wet meadows at all elevations generally have a simple structure consisting of a layer of herbaceous plants. Shrub or tree layers are usually absent or very sparse; however, they may be an important feature of the meadow edge. Several genera are common to wet meadows including bentgrass (*Agrostis* sp.), oatgrass (*Danthonia* sp.), rushes (*Juncus* sp.), willows (*Salix* sp.), and sedges (*Carex* sp., *Scirpus* sp.). Wet meadow occurs adjacent to part of the shore of the large pond and between the upland pasture and Valley foothill riparian. The majority of the area of the herbaceous wetland is characterized by plants that are facultative indicator species (occurring equally commonly within and outside of wetlands) such as perennial ryegrass, curly dock, and common thistle (*Cirsium vulgare*). Small areas close to the streams and to the shore of the pond would, by themselves, be termed fresh emergent wetland on the basis of dominance by facultative-wetland and obligate species (almost always found in wetlands) including species like umbrella sedge (*Cyperus eragrostis*), rushes (*Juncus* spp.), and willow herb (*Epilobium glaberriumum*) (EcoSynthesis 2009a).

Freshwater Emergent Wetlands

Fresh emergent wetlands are characterized by erect, rooted herbaceous hydrophytes. Dominant vegetation is generally perennial monocots 6.6 feet tall (Kramer 1988). All emergent wetlands are flooded frequently, enough so that the roots of the vegetation are in an anaerobic environment. On the upper margins of this habitat, saturated or periodically flooded soils support several moist soil plant species including Baltic rush (*Juncus balticus*), redroot flatsedge (*Cyperus erythrorhizos*), nutgrass (*C. rotundus*), and on more alkali sites, saltgrass (*Distichlis spicata*). On wetter sites, common cattail (*Typha* spp.), bulrushes (*Scirpus* spp.), and arrowhead (*Sagittaria* spp.) are potential dominant species (Kramer 1988). The largest area of emergent wetland is found in the northeastern part of the Project site and this appears to be at least partially, if not completely, due to leakage of the Combie Phase I NID canal in that area. Three additional seep-supported wetland areas were mapped within the lower part of the rocky slopes near the Bear River.

Fresh emergent wetlands are key habitat for many species of water birds, amphibians, and some reptiles. Many species rely on fresh emergent wetlands for their entire life cycle. Slow- moving waters provide important resting and foraging habitats

for migratory water birds such as the mallard (*Anas platyrhynchos*) and cinnamon teal (*A. cyanoptera*). Wetlands also provide habitat for the American coot (*Fulica americana*), great blue heron (*Ardea herodias*), great egret (*A. alba*), and black phoebe (*Sayornis nigricans*).

Large Pond

Lacustrine ecosystems include natural ponds and lakes and man-made features such as reservoirs. In Nevada County, most man-made reservoirs and ponds exist below 5,000 feet on the west slope (Beedy and Brussard 2002). Lacustrine habitats are inland depressions or dammed riverine channels containing standing water (Grenfell 1988c). As sedimentation and accumulation of organic matter increases toward the shore, floating rooted aquatic plants such as water lilies (*Nymphaea* spp.) and smartweed (*Polygonum amphibium*) often occur (Grenfell 1988c). The lacustrine habitat on the project site consists of the pond created by damming the unnamed main tributary.

Man-made reservoirs and ponds are attractive to waterfowl, raptors, swallows, bats, and many other wildlife species. Suspended organisms such as plankton are found in the open water of lacustrine habitats. Most permanent lacustrine systems support fish life; intermittent types usually do not. Floating plants offer food and support for numerous herbivorous animals that feed both on plankton and floating plants (Grenfell 1988c). Several geese (*Anser* spp.) and mallards were observed in the pond. Based on observations of the pond in April 2019, bullfrogs were plentiful along the edges and within the pond given the number that were heard and observed.

Additionally, Costella Environmental Consulting implemented an onsite assessment and field surveys for the federally threated California red-legged frog (*Rana draytonii*) following USFWS August 2005 guidelines between February and March 2013. Costella Environmental Consulting identified blue gill (*Lepomis macrochirus*) and largemouth bass (*Micropterus salmoides*) within the large pond, which usually precludes the presence of California red-legged frog given they are a predator to such frog's eggs and tadpoles.

Bear River

Riverine habitat only includes the open water areas and areas below the ordinary high water mark. Riverine habitats are found contiguous to riparian, lacustrine and fresh emergent wetland habitats (Grenfell 1988b). Intermittent or continually running water distinguishes rivers and streams. A stream originates at some elevated source, such as a spring or lake, and flows downward at a rate relative to slope or gradient and the volume of surface runoff or discharge. Velocity generally declines at progressively lower altitudes, and the volume of water increases until the enlarged stream finally becomes sluggish. Over this transition from a rapid, surging stream to a slow, sluggish river, water temperature and turbidity will tend to increase, dissolved

oxygen will decrease and the bottom will change from rocky to muddy (Grenfell 1988b). Emergent vegetation grows along riverbanks, and duckweed (*Lemma* sp.) floats on the surface. The riverine habitat within the Project site includes the Bear River as well as the smaller drainages found on the Project site. The smaller drainages support smaller volumes of water. The drainages within the Project site vary from perennial (the main tributary) to ephemeral or intermittent.

Riverine ecosystems support many birds, mammals, fish, amphibians, and reptiles and a high diversity of invertebrates that are important links in aquatic food chains (Beedy and Brussard 2002). Many insects including insect larvae inhabit fast and slow streams (Grenfell 1988b). Common wildlife species found among riverine habitat include gulls, terns, and raptor species that hunt over the open waters. The open water zones of large rivers provide resting and escape cover for many species of waterfowl. Near-shore waters provide food for waterfowl, herons, and shorebirds. Some of the more common mammals found in riverine habitats include river otter (*Lontra canadensis*), mink (*Neovison vison*), muskrat (*Ondatra zibethicus*), and beaver (Grenfell 1988b).

Landmark Oak Trees and Landmark Groves

Ecosynthesis (2009a) previously identified sixteen (16) landmark oak trees (greater than 36 inches dbh) within the Project site (see Appendix G), belonging to three of the oak species that are present on the site: blue oak, valley oak, and California black oak. Most of these landmark oak trees occurred mainly in specific small areas that provide highly suitable growing conditions for oaks. However, based on the April 2019 surveys, a total of twenty (20) landmark oak trees have been identified within the Project area. Each of the mapped landmark oak trees are located within the attached Overall Site Plan located in Appendix G.

Landmark oak groves (with hardwood canopy coverage 33+ percent) were previously observed to occur in 24 scattered large and small patches in all parts of the Project area, having an aggregate area of about 39.9 acres (EcoSynthesis 2009a, 2009b). In the western half of the Project site (where all of the development except the secondary fire access road is located), the majority of these groves are dominated or co-dominated by interior live oak, often with a low dense canopy formed by small to medium diameter trees with relatively low diversity of other plants, and providing only limited special wildlife values. No additional areas containing landmark oak groves was identified as part of the DEIR analysis conducted by Nevada County (2012) or were any additional landmark oak groves identified as part of the development of this Updated Biological Resources Inventory. Therefore, approximately 39.9 acres of

landmark oak grove are mapped as well as 20 landmark oak trees within the 214.56-acre Project area.

SPECIAL STATUS SPECIES

Special-status species were considered for this Updated Biological Resources 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 as well as the previous reporting for biological resources developed for the Project area. The database searches did reveal three species, including Brandegee's clarkia, American peregrine falcon, and western pond turtle have been identified previously within 3 miles of the Project area. None of the species was observed during field surveys in April 2019; however, the western pond turtle was identified previously within the large pond as part of previous surveys conducted within the Project area by Costella Environmental Consulting (reporting dated 2014). There is no USFWS Designated Critical Habitat (DCH) mapped within the Project site or within 3 miles of the Project site. Given the proximity of the Project area to previously identified special-status species (previously located further than 3 miles from the Project area), including the coast horned lizard, California red-legged frog, and foothill yellow-legged frog, these species are also discussed further within this Updated Biological Resources Inventory below in addition to the three species previously identified within 3 miles of the Project area. See Appendix H for the CNDDB occurrence report and the USFWS IPaC report for the Project area.

It is assumed that if suitable habitat was previously identified within the DEIR (Nevada County 2012) for the Project area for specific special-status plant and wildlife species, that suitable habitat continues to be located within the Project area. Therefore, for those species not identified within 3 miles of the Project site, it is assumed that suitable habitat is located within the Project site and those species are included within the impact assessment and required mitigation for the Project as identified within the 2012 DEIR and outlined within the Updated Biological Resources Inventory reporting developed for the proposed Project (Matuzak 2019).

Brandegee's Clarkia (*Clarkia biloba ssp. brandegeeae*) – California Native Plant Society List 4.2

Brandegee's clarkia inhabits chaparral, cismontane woodland, and lower montane coniferous/mixed conifer forest habitats. It is most often found in road cuts between 75 and 915 meters above MSL. The species has been documented within 3 miles of the Project site along the east side of Highway 49. Hundreds of the plant were identified at the base of a grassy road bank. During field surveys this species was not identified within the Project area where proposed development is to occur and no

suitable habitat for this species was located during the April 2019 surveys. However, previously identified suitable habitat for this species was mapped along the Bear River within the extreme southwestern portion of the Project area and therefore, suitable habitat for this species is assumed to be present within the previously identified area of the Project area for this species.

Given that this species is most likely found on or near road cuts on north facing slopes, the likelihood of this species occurring within the areas under consideration for development within the Project area, there is a very low probability of this species being impacted by the proposed Project. However, given this species has been previously identified as a special-status plant to be included in pre-construction special-status plant species as part of the 2012 DEIR covering the Project area, this species is covered as part of required mitigation as outlined within the Updated Biological Resources Inventory reporting developed for the proposed Project (Matuzak 2019) and will be a focal species for potential impacts to special-status plants.

American peregrine falcon (*Falco peregrinus anatum*) – CDFW Fully Protected

American peregrine falcon generally associates with wetlands, lakes, rivers, or other water, as well as cliffs, banks, dunes, mounds, and human made structures. They primarily nest within a scrape, depression, or ledge in an open site. This species has been previously identified within 3 miles of the Project site where it was identified nesting within the cliffs of an old limestone quarry, which is now used for recreation, including rock climbing. Suitable nesting habitat for this species is not located within the Project area. However, the entirety of the proposed areas of development within the Project area will be surveyed prior to ground disturbing activities and tree removal in order to identify active raptor nests within and adjacent to the proposed areas of disturbance. See the Updated Biological Resources Inventory reporting developed for the proposed Project (Matuzak 2019) and the DEIR for the Project area (Nevada County 2012) for additional information related to avian impacts and mitigation measures to protect nesting avian species that will be incorporated into the proposed Project.

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 subject parcel.

No western pond turtles were observed during April 2019 surveys of the Project area. However, Costella Environmental Consulting conducted a survey of the western pond turtle and identified twelve adult and one juvenile western pond turtles basking along the perimeter for the large pond. Given this species has been previously identified within the Project area and mitigation specifically for reducing potential impacts to the species is included in the 2012 DEIR covering the Project area, this species is assumed to be present within the Project site and species specific mitigation as outlined within the Updated Biological Resources Inventory reporting developed for the proposed Project (Matuzak 2019) and approved DEIR and FEIR for the Project will be required to be implemented for this species.

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 cobble-sized 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 and according to EcoSynthesis (2011), suitable egg-laying substrate for this species (some cobble) is not present within the Project site (EcoSynthesis 2011). However, the results of the 2011 survey conducted by PMC (for the 2012 DEIR for the Project site) found suitable habitat within the main seasonal tributary to the large pond within the Project site. Therefore, the large pond, wetlands, and drainages, in addition to the associated uplands within the Project site, are considered suitable habitat for foothill yellow-legged frog. The Bear River is not considered suitable habitat (Nevada County 2012).

It is assumed that suitable habitat for this species is present given it was previously identified within the DEIR (Nevada County 2012) for the Project area for the species. Therefore, even though this species has not been identified within 3 miles of the Project site, it is assumed that suitable habitat is located within the Project site and therefore, the species was included within the impact assessment and mitigation measure for the species as identified within the 2012 DEIR and outlined within the Updated Biological Resources Inventory reporting developed for the proposed Project (Matuzak 2019).

CA Red-legged Frog (*Rana aurora draytonii*) – Federal Threatened and CA State Species of Concern – Designated Critical Habitat Mapped in Nevada County

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 nor has Designated Critical Habitat (DCH) for the species been mapped by the USFWS within 3 miles of the Project area. If suitable breeding locations are located within 1.25 miles of a given 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 overall project area. Breeding habitat for the species includes pools and backwaters within streams, creeks, ponds, marshes, springs, lagoons, and artificially impounded stock ponds. California red-legged frogs are known to aestivate in upland habitat in rodent burrows, under rocks and logs, and in leaf litter in areas adjacent to aquatic habitat (USFWS 2002).

The large pond and surrounding wetland and stream habitat within the Project area were previously surveyed by Costella Environmental Consulting between February and March 2013 following USFWS revised guidance for onsite assessments and field surveys for the federally threated California red-legged frog (*Rana draytonii*, USFWS August 2005). The 2013 site assessments and field surveys for the federally threated California red-legged frog determined that the species is not present within the Project area and is not likely to occur within the Project area, either within the onsite aquatic habitat for breeding given the lack of detections of the species and number of predators for the species documented within the large pond (large, active bullfrog population as well as largemouth bass and blue fill – all predators of frog eggs and tadpoles), or within the entirety of the Project area for dispersal given there are no other potential breeding ponds within proximity to the Project area that would precipitate the species moving into the Project area from offsite. Therefore, it is highly unlikely the species would associate with the aquatic and/or upland habitats associated with the Project site.

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 wind-blown deposits in a wide variety of habitats and can be found at elevations up to 8,000 feet (2,438 meters) (CaliforniaHerps, 2014).

The Project area does not contain suitable habitat for the coast horned lizard given the lack of rockier and sandy areas that this species requires. This species has not been documented within 3 miles of the Project area and the species was not detected during previous surveys and studies associated with the Project area. Given the Project area contains a lack of rockier and sandy areas, it is not likely this species would occur within the Project area. No coast horned lizards were observed during the April 2019 site visits.

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 high potential for nesting raptors and other nesting migratory bird species protected under the MBTA to occur within the Project area. The Project area represents potential habitat for bird species protected under the MBTA, such as tree nesting species (raptors), ground nesting species like the spotted towhee (*Pipilo maculatus*) and dark-eyed junco (*Junco hyemalis*), as well as species that associate with the wetlands fringing the large pond within the Project area. Active and inactive nests within the Project area were not identified during field surveys; however, two sets of Canada geese (*Branta canadensis*) had large clutches of baby chicks that were swimming and walking behind their parents during the April 2019 surveys.

Therefore, if any development is proposed within the Project area during the avian nesting season for raptors and ground nesting MBTA protected birds, a pre-construction survey should be conducted if such development activities pose a risk to nest abandonment prior to the fledging of young from such nests. See the Updated Biological Resources Inventory reporting developed for the proposed Project (Matuzak 2019) for a detailed description of the avoidance, minimization, and mitigation measures as well as the 2012 DEIR for the Project area that includes a detailed analysis and assessment of avian nesting impacts covering the proposed Project.

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. The Project area does not contain any known major deer migration corridors, known deer holding areas, nor critical deer fawning areas.

5.0 IMPACT ASSESSMENT AND MITIGATION

This section presents an impact assessment and required mitigation for the resources covered within this Habitat Management Plan.

Management Plan for Aquatic Resources Subject to Non-Disturbance Buffers

The following aquatic features within the Project area are subject to this Habitat Management Plan and the recommended mitigation measures contained herein given that these features require a variance for any disturbance within each of their non-disturbance buffers, whether 50-feet for seasonal water features or 100-feet for perennial water features. Therefore, this Habitat Management Plan includes an assessment of the following seasonal and perennial aquatic resources that are subject to non-disturbance buffers:

- two NID irrigation canals that cross the Project area (Weeks Canal in northwest section of Project area and Combie Phase I Canal in the northeast and eastern section of the Project area) and each NID irrigation canal requires a 100-foot non-disturbance buffer along the uphill side and a 20-foot non-disturbance buffer for the downhill side of each canal;
- two seasonal streams (tributaries to the large pond) that enter the Project area from the north and northeast respectively (50-foot non-disturbance buffer required for seasonal/intermittent streams); and
- wetlands associated with the two seasonal/intermittent streams that are located north of the large pond and the wet meadow wetland previously mapped within the northeast corner of the Project area (100-foot non-disturbance buffer required for wetlands).

The remaining aquatic features mapped within the Project site are not subject to this Habitat Management Plan given the proposed Project does not include any disturbance within the non-disturbance buffers associated with each of those features. The features not subject to this Habitat Management Plan include the Bear River, large pond, and previously mapped wetlands within the southeastern portion of the Project area. Each of those features requires a 100-foot non-disturbance buffer and the proposed Project will not encroach within that 100-foot non-disturbance buffer for those features. In addition, the small ephemeral drainage mapped along the western edge of the large pond does not exhibit a defined bed and bank or an ordinary high water mark; therefore, the ephemeral drainage is not subject to regulation or a 50-foot non-disturbance buffer. However, no proposed disturbance will occur within 50-foot of the

mapped ephemeral drainage. An overview of the aquatic features not covered within this Habitat Management Plan includes the following:

- a large perennial pond in the middle of the Project area (100-foot non-disturbance buffer required for perennial water features such as perennial ponds) and no variance is requested for disturbance within the non-disturbance buffer area of the large pond;
- the Bear River located along the southern border of the Project area (subject to a 100-foot non-disturbance buffer) and no variance is requested for disturbance within the non-disturbance buffer area of the Bear River;
- wetlands associated with the southeastern sections of the Project area (100-foot non-disturbance buffer required for wetlands) and no variance is requested for disturbance within the non-disturbance buffer area of the wetlands previously mapped along the Bear River in the southeastern section of the Project area; and
- an ephemeral drainage along the western edge of the large pond (non-disturbance buffer not required for ephemeral drainages that do not contain the required bed and bank and ordinary high water mark) and therefore, no variance is requested for disturbance within the 50-foot non-disturbance buffer area of a seasonal/intermittent stream given it is not required for this feature.

The following impacts to stream and wetland resources within the Project area would be regulated under Section 404 and Section 401 of the Clean Water Act and would be subject to regulation by CDFW. The table below identifies the aquatic features being impacts as well as the acreage impacts to each feature and linear foot impacts to each of the features (see Impact Figures attached in Appendix G identifying the stream and other aquatic resources potentially impacted by the proposed Project).

Aquatic Feature	Acreage Impacts	Linear Feet (lf.) Impacts
Seasonal Stream with associated Riparian Wetlands	0.049 acres	141.28 lf.
NID Combie Phase I Canal	0.002 acres	37.99 lf.
Total	**0.051 acres**	**179.27 lf.**

If any dredge or fill material were to be placed within any of the stream, wetland, NID Irrigation Canal, and/or pond features within the Project area, including the features within the table above, it is recommended that a formal delineation of

"waters of the U.S.," including wetlands be conducted and Clean Water Act permit authorizations be acquired before placing such fill or dredge material into any potentially regulated water features. Disturbance to the bed, bank, riparian vegetation, and/or floodplain of any of the stream and/or lake/pond features within the Project area would require coverage under a Lake or Streambed Alteration Agreement (LSA) with CDFW. The approved CEQA documentation covering the Project area also covers impacts and mitigation for stream, wetland, and pond resources. These aquatic resources are assessed under **Impact 3.4.4** and **Mitigation Measure MM 3.4.4** within both the DEIR and FEIR approved for the Project area and impacts to such regulated features would require the permit authorizations as described above. Therefore, the requirement to acquire the permit authorizations as described above for disturbances to regulated aquatic features within the Project area is also a requirement for those resources as part of this Habitat Management Plan.

Mitigation for Encroachment into the Non-Disturbance Buffers Within the Project Area

This Habitat Management Plan for the encroachment into the non-disturbance buffers, including areas within 50 feet of the seasonal streams and areas within 100 feet of mapped wetlands, as detailed below, includes measures to minimize potential impacts to the stream and associated riparian vegetation adjacent to the streams. This mitigation also pertains to the NID Irrigation Canals (Weeks Canal and Combie Phase I Canal) for encroachment into the 20-foot downslope non-disturbance buffers to the canals and 100-foot upslope non-disturbance buffers to the canals. These measures are intended for inclusion into the proposed Project development within the non-disturbance buffers during and after construction to minimize direct and indirect impacts to water quality during and following construction. This will be accomplished by implementing the following during and following construction:

- Limit construction to periods of extended dry weather and the dry summer season;
- Establishing the area around the active stream channel as Environmentally Sensitive Area (ESA) where those areas will not be impacted by construction or thereafter;
- No fill or dredge material will enter or be removed from any stream channel or wetland during construction and thereafter unless the appropriate regulatory permits and authorizations are executed as stated above;
- Use appropriate machinery and equipment to limit disturbance within those areas;
- No dewatering of the streams will occur during construction or thereafter; and
- Implement Best Management Practices during and following construction.

Implementation of Best Management Practices During Construction

To protect the streams and wetlands and their non-disturbance buffer areas, water quality and downstream water resources, the contractor shall implement standard Best Management Practices (BMPs) during and after construction. These measures should include, but are not limited to:

- Minimize the number and size of work areas for equipment and spoil storage sites in the vicinity of the streams and wetlands. Place staging areas and other work areas outside of the required non-disturbance buffers for seasonal streams, wetlands, and NID Irrigation Canals.

- The contractor shall exercise reasonable precaution to protect these streams, wetlands, and NID Irrigation Canals as well as their adjacent non-disturbance buffers from pollution with fuels, oils, and other harmful materials. This includes the placement of soil erosion control structures such as straw bales, fiber or coir rolls, or silt fencing between the area where disturbance will occur and the water resource to be protected. Construction byproducts and pollutants such as oil, cement, and wash water shall be prevented from discharging into or near these resources and shall be collected for removal off the site. All construction debris and associated materials and litter shall be removed from the work site immediately upon completion.

- No equipment for vehicle maintenance or refueling shall occur within the non-disturbance buffers of these water resources. The contractor shall immediately contain and clean up any petroleum or other chemical spills with absorbent materials such as sawdust or kitty litter. For other hazardous materials, follow the cleanup instruction on the label.

- If the proposed Project will disturb 1.0 acres or greater of soil, the Project will be required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity. This would require the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer (QSD).

Post Construction Erosion Control

Exposed bare soil along stream embankments or adjacent to wetlands, including the non-disturbance buffers of each type of water resources should be protected against loss from erosion by the seeding of an erosion control mixture and restored with native grasses and mulching. Non-native species that are known to invade wild lands, such as orchard grass, velvet grass, rose clover, winter and spring vetch, and wild oats should not be used as they displace native species. These erosion control measures should also be implemented immediately adjacent to areas containing exposed soils to

limit debris and erosion from entering into any water resource, including seasonal streams, NID Irrigation Canals, and wetlands.

Provide Copies of Mitigation Measures to Contractors

To ensure the proper and timely implementation of all mitigation measures contained in this Habitat Management Plan, as well as the terms and conditions of any other required permits, the applicant shall distribute copies of these mitigation measures and permit requirements to the contractors prior to grading and construction within the non-disturbance buffers of any water resources. All contractors shall be completely familiar with the mitigation measures contained above and with the terms and conditions of all permits.

Oak Resources Management Plan

The previous project design was repeatedly adjusted to minimize direct or indirect impacts on the landmark oak trees and groves previously mapped within the Project site (see Appendix G) through incorporation of the recommendations of the draft Habitat Management Plan for the previous proposed project (EcoSynthesis 2009b). However, specific mitigation actions for potential direct and indirect impacts on landmark oak groves are subject to this Habitat Management Plan given the changes to the proposed Project and updated analysis of potential impacts to oak resources.

Impacts to a Landmark Oak Trees and Landmark Groves

As part of the proposed Project, not all individual landmark oak trees will be avoided as there is no feasible design for the Project area that achieved complete avoidance of landmark oak trees. Also, in order to achieve the extremely desirable environmental goal of clustering all proposed development in the western part of the Project site, it was necessary to allow for minor amounts of grading and tree removal with the limits of some mapped patches of landmark groves within the Project site. The Project will result in construction within the limits of some areas of mapped landmark groves (canopy cover greater 33+ percent).

The estimated area of impact of the proposed Project on landmark groves is approximately 1.24 acres of the total of 39.9 acres of landmark groves that occur within the Project site (a total of 3.1% of landmark oak resources within the Project site). In accordance with County Zoning Regulations, if it is impossible for the Project design to avoid landmark groves or if avoidance would make it impossible to achieve a more important environmental protection goal or requirement (as in the case of clustering development in the western part of the Project site rather than spreading it out and extending into the eastern part of the Project site where more valuable habitat resources are located), then the Project may be approved and constructed if a Habitat Management Plan is prepared and implemented. This is a specification of

Mitigation Measure **MM 3.4.6** developed as part of the approved DEIR and FEIR for the Project area. Therefore, the development of this Habitat Management Plan for the proposed updated Project provides appropriate and sufficient mitigation for both direct and indirect impacts to landmark groves and landmark oak trees and will reduce those impacts to a less than significant level. Below is a table identifying the potential impacts to landmark groves based on the implementation of the proposed Project as of May 2019.

Landmark Groves	Acreage Impacts
Landmark Grove – Interior Live Oak	0.079 acres
Landmark Grove – Blue Oak	0.022 acres
Landmark Grove – Blue Oak and Interior Live Oak	0.118 acres
Landmark Grove – Canyon Live Oak and Interior Live Oak	0.114 acres
Landmark Grove – Mixed Oaks	0.91 acres
Total	**1.24 acres**

The proposed Project will impact several landmark oak trees (native oak trees with a diameter of 36 inches or greater when measured at waist height, or approximately 4.5 feet above the ground). Within the northeastern section of the proposed development, a single landmark oak tree will most likely be removed due to the development of the emergency access road in the extreme north area of the Project area. Within the northwestern section of the proposed development, up to seven (7) landmark oak trees may need to be removed. Within the southwestern section of the proposed development, no mapped landmark oak trees will be required to be removed or will impacted from site development given the mapped landmark oak trees are located below the large pond where no development is proposed. Therefore, up to eight (8) landmark oak trees may be removed as part of the proposed Project.

Mitigation for Indirect Impacts to Landmark Oak Trees and Landmark Groves

The following Best Management Practices (BMPs) for oak resources outlined below should be implemented during the development of the proposed Project in order to avoid and minimize potential impacts to protected oak resources:

- ***Plans and specifications*** should clearly state protection procedures for oak resources within the Project area. The specifications should also require contractors to stay within designated work areas.

- ***Protective Fencing*** not less than four feet in height shall be placed at the limits of proposed disturbance where a landmark oak tree is located or at the edge of the drip line of any trees within a landmark grove. The protective fencing shall be inspected by the contractor prior to commencement of any grading activity within the Project disturbance areas and shall remain in place until construction is completed within each area of ground disturbing activities.

- ***Damage to Oak Trees*** during construction shall be immediately reported to a qualified biologist on the Nevada County Planning Department's Biological Resources Consultants List or a certified arborist to assess the potential level of impacts to oak resources and determine whether the damage will have a significant impact on any landmark oak tree or landmark grove. If it is determined by the qualified biologist or certified arborist that the damage to any protected oak resource, work should be halted and the Nevada County Planning Department should be contacted to discuss appropriate mitigation measures for such damages.

- ***Equipment Damage*** to limbs, trunks, and roots of all remaining trees shall be avoided during Project construction and development.

- ***Grading Restrictions*** Care must be taken to limit grade changes near the drip line of protected oak resources. Grade changes can lead to plant stress from oxygen deprivation or oak root fungus at the root collar of oaks. Minor grade changes further from the trunk are not as critical but can negatively affect the health of the tree if not carefully monitored by a qualified biologist or certified arborist.

- ***The Root Protective Zones (Drip Lines)*** Grade changes that are lowered or raised around the trunks (i.e., within the drip line) should be minimized adjacent to any protected oak resource. A qualified biologist or certified arborist should supervise all excavation or grading proposed within the protective zone (drip line) of a protected oak resource. Such work within the drip line of any protected oak resource shall be accomplished by the use of hand tools or small hand-held power tools, if feasible. Any major roots encountered shall be conserved to the greatest extent possible and treated as recommended by the

qualified biologist or certified arborist.

Mitigation for Direct Impacts to Landmark Oak Trees and Landmark Groves

Prior to the proposed development within the Project area, a certified arborist or qualified biologist shall review the plans to determine if impacts to any landmark oak tree or landmark grove will be significant. After construction is completed, an inspection will be performed by an arborist/qualified biologist of the preserved trees, including trees subject to encroachment within the drip line, for construction-related damage or other associated impacts, and appropriate remedial steps, if any are required, will be recommended. Given that the proposed Project will have a direct impact on both landmark oak trees and landmark groves, compensatory mitigation measures associated with impacts to protected oak resources are included as part of the recommended mitigation measures for oak resources as part of this Habitat Management Plan.

Mitigation to offset the direct impacts to protected oak resources from the removal of landmark oak trees and for the removal trees that reduce the canopy closure % within the mapped landmark groves within the Project area could include one or a combination of the following as recommended by the qualified biologist or certified arborist conducting the annual monitoring at that time:

- **Conservation Easement or Open Space Zoning Application**: within the Project area to permanently protect landmark groves from future development or use impacts, a conservation easement and/or the identification of areas as open space zoning would offset at least partially, if not all impacts to protected oak resources within the Project area. The amount of landmark groves to be included in such a conservation easement or open space zoning designation would be made by the qualified biologist or certified arborist conducting the monitoring and would be a minimum of a 1:1 ratio of impact area to conservation easement area with the final approval of the mitigation being approved by the Nevada County Planning Department. An offsite conservation easement at the same minimum 1:1 ratio would also be a viable option for using this type of mitigation for impacts to landmark oak groves.

  In addition, this mitigation option would protect existing native oak trees on or off the project site from future development through a conservation easement, open space zoning designation, or fee title dedication to a land conservation group approved by Nevada County. If the conservation easement, open space zoning designation, or land dedication does not reduce the landmark oak grove impact to a level of less than significant then additional mitigation would be required and would include one of the additional options listed below. Landmark groves offered as mitigation must be configured in such a

manner as to best preserve the integrity of the landmark oak woodland ecosystem and minimize the ratio of edge to area. Priority should be given to conserving oak habitat adjacent to existing landmark oak groves, and if feasible, under conservation easements, public lands, or open space lands.

- **Bear Yuba Land Trust (BYLT) In-lieu Fee**: payment of an in-lieu fee to a BYLT mitigation fund that shall specify that the fee paid will be used to purchase mitigation landmark oak grove(s) within Nevada County. An administration fee equal to five percent of the mitigation fee may also be required to cover the Nevada County and/or BYLT costs associated with this option. For land division projects, the in-lieu fee may be prorated among the parcels created and collected at the time of issuance of the first building permit on each parcel. This mitigation alternative is subject to approval by BYLT and Nevada County.

- **Planting Replacement**: at a 2:1 ratio the number of inches of oak trees removed (at dbh). This is the recommendation for planting ratios outlined in recent Oak Resources Management Plans developed for projects approved by Nevada County Planning Department. The oak plantings would need to be maintained and monitored to ensure that the number of inches of oak trees removed survive after 5 years from the time that plantings are completed. The final approval of this mitigation type being approved would be with Nevada County.

  All planted replacement trees must be grown in deep five-gallon containers and the trees shall not have been in the containers for more than two years. Planted trees must be spaced such that they do not compete with one another and they do not compete with established vegetation. This option will require a Tree Planting and Maintenance Plan showing species, size, spacing and location of plantings and the location and species of established vegetation. The Tree Planting and Maintenance Plan would be subject to approval by the qualified biologist or certified arborist as well as Nevada County. An offsite location can also be used for this mitigation option as long as the location is within the same general vicinity as the proposed project assessed as part of this Habitat Management Plan.

  Other Mitigation: can be developed between a qualified biologist or certified arborist, the project proponent, and Nevada County with the final approval of the mitigation being approved by Nevada County. However, at a minimum, any other mitigation recommended as part of this Habitat Management Plan would be required to fully mitigate for the loss of the number of trees (their dbh at a 2:1 ratio) or landmark oak grove canopy closure % lost due to permanent construction and/or operational impacts from the proposed Project.

Proposed Open Space Zoning within the Project Area for Protected Oak Resources

In total, the proposed Project will impact an estimated 1.24 acres of landmark groves out of a total of 39.9 mapped acres of the protected oak resources, a total of 3.1% of landmark groves within the Project area to be impacted by the proposed Project. In addition, it is estimated that up to 8 landmark oak trees will be removed as part of the development of the proposed Project within the northwestern and northeastern sections where development and such landmark oak trees occur. For the level of impacts to protected oak resources from the development of the proposed Project, it is recommended that the applicant place a minimum of 5 acres of the mapped landmark groves within the eastern section of the Project into an open space zoning, which would protect those landmark groves and oak resources. This recommended level of mitigation would equate to a 4:1 ratio between the 1.24 acres of landmark groves to be impacted by the proposed Project and the minimum of 5 acres to be placed on an open space zoning within the eastern section of the Project area. This would fully mitigate for the removal of up to 8 landmark oak trees as well as for the impacts to landmark groves that would occur through the implementation of the proposed development within the western section of the Project area. The proposed Project as conceptualized will avoid a total of 96.9% of all mapped landmark groves within the Project area and the placement of a minimum of 5 acres of landmark groves into open space zoning would additionally protect approximately 12.5% of landmark groves within the Project area.

However, the applicant is proposing to place a minimum of 130 acres of the Project area into open space zoning as part of the proposed Project, which would protect a minimum of 60% of the natural habitat and protect a majority of the mapped protected oak resources within the Project area. Most of the proposed open space zoning is proposed to occur within the eastern, undeveloped portion of the Project area where habitat values are the highest within the Project area. In addition, to the proposed Project being designed to avoid and minimize impacts to landmark groves within the western section of the Project area, the applicant proposes to place at least some of the avoided protected oak resources (landmark groves) within the western Project area into open space zoning as well for further protection of such protected oak resources.

Therefore, the proposed Project will protect landmark groves at a ratio of a minimum of 8:1 if 10 acres of landmark groves are zoned as open space. However, the final zoning of open space will most likely protect more than 15 acres of mapped landmark groves, a mitigation ratio of 12:1 for impacts to protected oak resources. This would create open space zoning and protection covering a minimum of 40% of the landmark groves that occur within the Project area. This level of protection of protected oak resources would fully compensate for Project related impacts to such resources.

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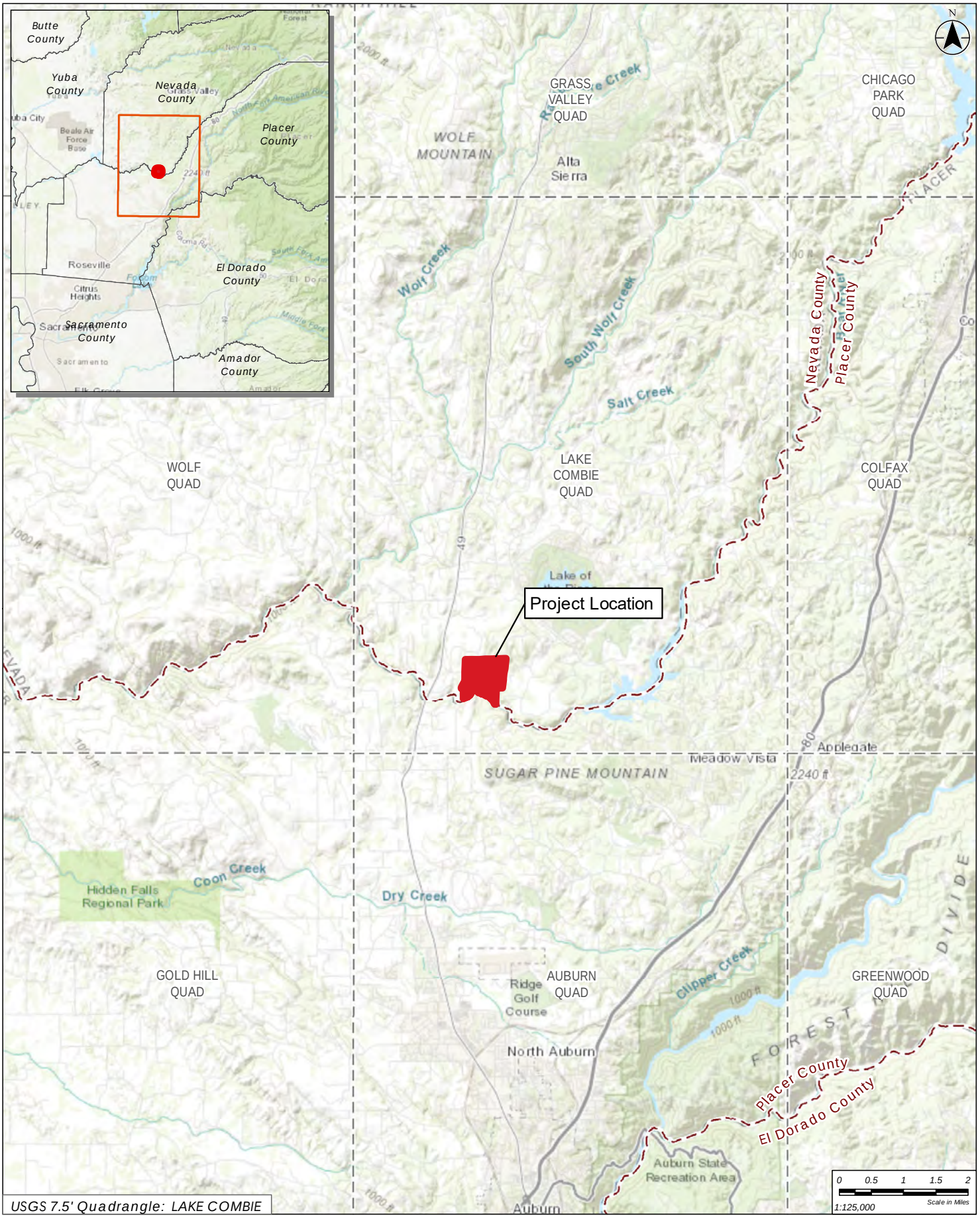
Appendix A

Project Vicinity and Project Location Maps



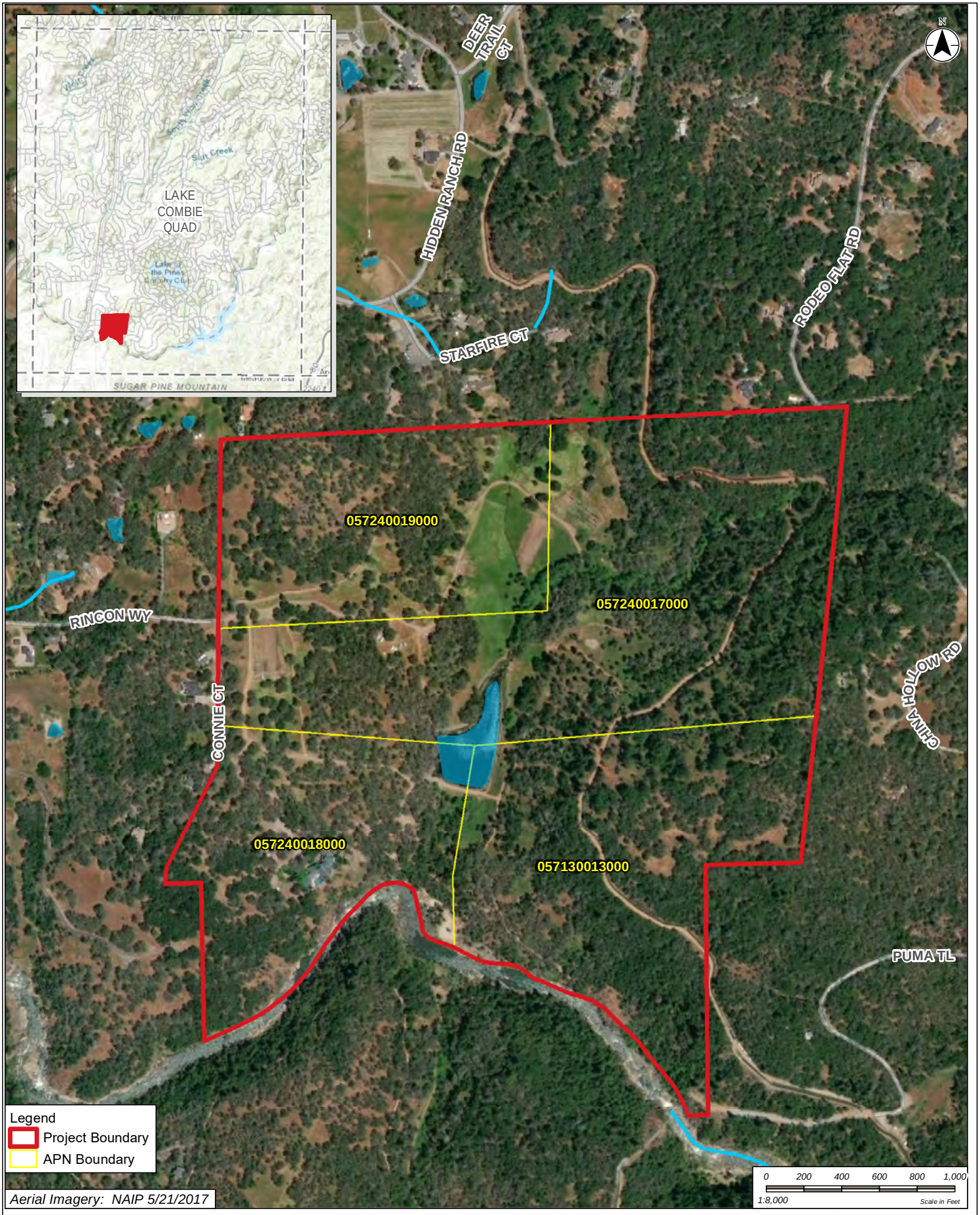
USGS 7.5' Quadrangle: LAKE COMBIE

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

Parcel Nos.: 057-130-013-000, 057-240-017-000, 057-240--018-000, and 057-240--019-000

Figure 1. Vicinity Map

Prepared: Melissa Nugent 4/18/2019 C:\2019_Matsuzak\20190417_NevCounty_057-240-013-017-018-019\mxd\Fig1_Vicinity_NevCounty_057-240-013-017-018-019.mxd



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Parcel Nos.: 057-130-013-000, 057-240-017-000, 057-240--018-000, and 057-240--019-000

Figure 2. Project Location Map

Prepared: Melissa Nugent 4/18/2019 C:\2019_Matsuzak\20190417_NevCounty_057-240-013-017-018-019\mxd\Fig2_SiteMap_NevCounty_057-240-013-017-018-019.mxd

Appendix B

Photo Log

Photos of the April 19th and 29th, 2019 Field Surveys for the Project Area

Photo 1: Entrance off of Rincon Way with Weeks NID Irrigation Canal to the left.

Photo 2: Weeks NID Irrigation Canal within northwest section of Project area flowing towards Connie Court and offsite towards the southwest.

Photo 3: Weeks NID Irrigation Canal flowing southwest offsite and crossing Connie Court.

Photo 4: Landmark oak tree along northern side of entrance road into the Project area.

Photo 5: Top of drainage swale previously mapped as an ephemeral/intermittent tributary. However, at the top of drainage it does not exhibit a bed and bank and much of the tributary was removed from the drainage except for area near large pond.

Photo 6: Looking up vegetated drainage swale along western edge of large pond. Not mapped as an ephemeral drainage until lower down closer to the large pond.

Photo 7: Vegetated drainage swale half way down along western edge of large pond.

Photo 8: Ephemeral drainage mapped towards the bottom of the draw near the large pond. No non-disturbance buffer required given lack of bed and bank and OHWM.

Photo 9: Lower ephemeral drainage reaches the western area of the large pond. Large pond is subject to a 100-foot non-disturbance buffer.

Photo 10: Erosional hillside previously referred to as an ephemeral/intermittent tributary to the large pond. This feature is an erosional feature and removed from map.

Photo 11: Southwest corner of the large pond within the Project area and is subject to a 100-foot non-disturbance buffer. No development proposed within large pond buffer.

Photo 12: Southwest corner outlet of the large pond connecting with the Bear River.

Photo 13: Western edge of large existing pond within the Project area.

Photo 14: Main seasonal stream/tributary to the large pond with associated wetlands at the north end of the large pond. Both the pond and wetlands subject to a 100-foot non-disturbance buffer. No development proposed within these buffer areas.

Photo 15: Seasonal stream just north of the large pond subject to 50-foot non-disturbance buffer where no wetlands have been mapped along the edge of stream.

Photo 16: Large open area adjacent to the west of the large pond and associated seasonal stream and associated wetlands. Currently with bee hives.

Photo 17: Wetland area adjacent to main seasonal stream north of the large pond. The wetlands are subject to a 100-foot non-disturbance buffer from their outer edge.

Photo 18: Wetland area adjacent to main seasonal stream north of the large pond. The wetlands are subject to a 100-foot non-disturbance buffer from their outer edge.

Photo 19: Northern section of Project area within agricultural production.

Photo 20: Landmark oak tree along emergency access road and within the proposed barn, orchard, and pickleball court area. Photo looking towards the north.

Photo 21: Two landmark oak trees where emergency access road crosses a seasonal stream in the northeastern section of the Project area.

Photo 22: Emergency access road heading northeast crossing the main seasonal stream tributary to the large pond. Stream subject to 50-foot non-disturbance buffer.

Photo 23: Small seasonal tributary flows north to south connecting with a larger seasonal stream and the large pond. Stream subject to 50-foot non-disturbance buffer.

Photo 24: Small seasonal tributary heading south towards main seasonal stream and the large pond. Stream subject to 50-foot non-disturbance buffer.

Photo 25: Landmark oak tree northwest of the large pond in an open area.

Photo 26: Landmark oak tree NW of large pond in an open area used for storage.

Photo 27: Large open area east of the Rincon Way project area entrance where attached 5-unit condominium buildings are proposed.

Photo 28: Access road heading down towards the south from the large pond.

Photo 29: Area proposed for attached 5-unit condominium buildings to the west and southwest from the southern section of the large pond. Non landmark oak groves.

Photo 30: Access road leading to a BBQ Pavilion under construction next to the Bear River directly south and a seasonal tributary directly east coming from the large pond.

Photo 31: Bear River directly south of the BBQ Pavilion under construction. Bear River is subject to a strict 100-foot non-disturbance buffer. BBQ Pavilion outside of buffer.

Photo 32: Pedestrian bridge over a seasonal stream connecting the large pond with the Bear River. BBQ Pavilion is >50 feet from seasonal stream and >100 feet from Bear River.

Photo 33: Seasonal stream connecting directly with the Bear River downstream of the large pond. Stream is subject to 50-foot non-disturbance buffer.

Photo 34: Access from large pond and BBQ Pavilion towards existing clubhouse.

Photo 35: Open area to north of access from BBQ Pavilion towards existing clubhouse.

Photo 36: Open area north of existing clubhouse where attached 5-unit condominium buildings are proposed upslope of grazing cattle.

Photo 37: Area directly west of existing clubhouse where 5-unit condominium buildings are proposed. Area upslope contains landmark groves and may not be avoided.

Photo 38: Area directly northwest of existing clubhouse where 5-unit condominium buildings are proposed adjacent to landmark groves that may not be avoided.

Photo 39: Area directly southwest of existing clubhouse where upslope and downslope cottages are proposed adjacent to landmark groves that may not be avoided.

Photo 40: Area directly southwest of existing clubhouse where upslope and downslope cottages are proposed adjacent to landmark groves that may not be avoided.

Appendix C

Plants and Wildlife Observed During Site Surveys

Plants Observed within the Project Area During Surveys Conducted in April 2019

Scientific Name	Common Name	Origin	Form	Rarity Status	Wetland Status (WMVC 2014)	CAL-IPC Status
Acer macrophyllum	Bigleaf maple	native	tree	-	FACU	-
Acer negundo	Boxelder	native	tree	-	FAC	-
Acmispon americanus var. americanus	Spanish lotus	native	annual herb	-	FACU	-
Agrostis gigantea	Creeping bentgras	non-native	perennial grass	-	FAC	-
Alnus rhombifolia	White alder	native	tree	-	FACW	-
Ammi visnaga	Bisnaga	non-native	annual, biennial herb	-	-	-
Andropogon virginicus var. virginicus	Broomsedge bluestem	non-native	perennial grass	-	FAC	-
Arbutus menziesii	Madrono	native	tree	-	-	-
Arctostaphylos viscida ssp. viscida	Smooth white leaf manzanita	native	tree, shrub	-	-	-
Artemisia douglasiana	California mugwort	native	perennial herb	-	FACW	-
Asclepias sp.	-	-	-	-	-	-
Avena sp.	-	-	-	-	-	-
Baccharis pilularis	Coyote brush	native	shrub	-	-	-
Berberis aquifolium var. repens	Creeping oregon grape	native	shrub	-	FACU	-
Bromus diandrus	Ripgut brome	non-native (invasive)	annual grass	-	-	Moderate
Bromus hordeaceus	Soft chess	non-native (invasive)	annual grass	-	FACU	Limited
Bromus suksdorfii	Suksdorf's bromegrass	native	perennial grass	-	-	-
Bromus tectorum	Downy chess	non-native (invasive)	annual grass	-	-	High
Calocedrus decurrens	Incense cedar	native	tree	-	-	-
Carex feta	Green sheathed sedge	native	perennial grasslike herb	-	FACW	-

Scientific Name	Common Name	Origin	Form	Rarity Status	Wetland Status (WMVC 2014)	CAL-IPC Status
Ceanothus cuneatus	Buck brush	native	shrub	-	-	-
Ceanothus integerrimus	Deer brush	native	shrub	-	-	-
Centaurea solstitialis	Yellow starthistle	non-native (invasive)	annual herb	-	-	High
Centranthus sp.	-	-	-	-	-	-
Chlorogalum pomeridianum	Amole	native	perennial herb	-	-	-
Chondrilla juncea	Skeleton weed	non-native (invasive)	perennial herb	-	-	Moderate
Cichorium intybus	Chicory	non-native	perennial herb	-	FACU	-
Cirsium vulgare	Bullthistle	non-native (invasive)	perennial herb	-	FACU	Moderate
Cortaderia jubata	Andean pampas grass	non-native (invasive)	perennial grass	-	FACU	High
Corylus cornuta ssp. californica	Beaked hazelnut	native	shrub	-	FACU	-
Crataegus monogyna	Hawthorn	non-native (invasive)	shrub	-	FAC	Limited
Croton setiger	Turkey-mullein	native	perennial herb	-	-	-
Cynosurus echinatus	Dogtail grass	non-native (invasive)	annual grass	-	-	Moderate
Cyperus eragrostis	Tall cyperus	native	perennial grasslike herb	-	FACW	-
Cytisus scoparius	Scotch broom	non-native (invasive)	shrub	-	-	High
Dactylis glomerata	Orchardgrass	non-native (invasive)	perennial grass	-	FACU	Limited
Deschampsia elongata	Hairgrass	native	perennial grass	-	FACW	-
Elymus caput-medusae	Medusa head	non-native	annual grass	-	-	-
Elymus elymoides	Squirrel tail grass	native	perennial grass	-	FACU	-

Scientific Name	Common Name	Origin	Form	Rarity Status	Wetland Status (WMVC 2014)	CAL-IPC Status
Elymus glaucus	Blue wildrye	native	perennial grass	-	FACU	-
Epilobium brachycarpum	Willow herb	native	annual herb	-	-	-
Epilobium densiflorum	Willow herb	native	annual herb	-	FACW	-
Epilobium sp.	-	-	-	-	-	-
Eriodictyon californicum	Yerba santa	native	shrub	-	-	-
Eriophyllum lanatum	Wooly sunflower	native	perennial herb	-	-	-
Festuca arundinacea	Reed fescue	non-native (invasive)	perennial grass	-	FAC	Moderate
Festuca microstachys	Small fescue	native	annual grass	-	-	-
Festuca occidentalis	Western fescue	native	perennial grass	-	-	-
Galium triflorum	Sweet bedstraw	native	annual herb	-	FACU	-
Garrya fremontii	Fremont's silk tassel	native	shrub	-	-	-
Goodyera oblongifolia	Rattlesnake plantain	native	perennial herb	-	FACU	-
Hesperocyparis macnabiana	Macnab cypress	native	tree, shrub	-	-	-
Hirschfeldia incana	Mustard	non-native (invasive)	perennial herb	-	-	Moderate
Holcus lanatus	Common velvetgrass	non-native (invasive)	perennial grass	-	FAC	Moderate
Hypericum perforatum ssp. perforatum	Klamathweed	non-native	perennial herb	-	FACU	-
Ilex aquifolium	Holly	non-native (invasive)	tree, shrub	-	FACU	Moderate
Juncus articulatus ssp. articulatus	Jointed rush	native	perennial grasslike herb	-	OBL	-
Juncus balticus ssp. ater	Baltic rush	native	perennial grasslike herb	-	FACW	-
Juncus confusus	Colorado rush	native	perennial grasslike herb	-	FAC	-
Juncus effusus ssp. pacificus	Pacific rush	native	perennial grasslike herb	-	FACW	-

Scientific Name	Common Name	Origin	Form	Rarity Status	Wetland Status (WMVC 2014)	CAL-IPC Status
Lathyrus latifolius	Sweet pea	non-native	perennial herb	-	-	-
Lonicera hispidula	Pink honeysuckle	native	vine, shrub	-	FACU	-
Lysimachia latifolia	Pacific starflower	native	perennial herb	-	FACW	-
Melilotus albus	White sweetclover	non-native (invasive)	annual, biennial herb	-	-	-
Muhlenbergia rigens	Deergrass	native	perennial grass	-	UPL	-
Pickeringia montana	Chaparral pea	native	shrub	-	-	-
Pinus ponderosa	Ponderosa pine	native	tree	-	FACU	-
Plantago lanceolata	Ribwort	non-native (invasive)	perennial herb	-	FACU	Limited
Populus fremontii ssp. fremontii	Cottonwood	native	tree	-	FAC	-
Poterium sanguisorba	Garden burnet	non-native	perennial herb	-	UPL	-
Prunella vulgaris	Self heal	native	perennial herb	-	FACU	-
Pteridium aquilinum var. pubescens	Western bracken fern	native	fern	-	FACU	-
Quercus chrysolepis	Canyon live oak	native	tree	-	-	-
Quercus lobata	Valley oak	native	tree	-	-	-
Quercus wislizeni	Interior live oak	native	tree	-	-	-
Quercus douglasii	Blue oak	native	tree	-	-	-
Quercus kelloggii	California black oak	native	tree	-	-	-
Rubus armeniacus	Himalayan blackberry	non-native (invasive)	shrub	-	FACU	High
Rubus leucodermis	White bark raspberry	native	shrub	-	FACU	-
Rubus ursinus	California blackberry	native	vine, shrub	-	FACU	-
Salix laevigata	Red willow	native	tree	-	FACW	-
Salix lasiolepis	Arroyo willow	native	tree, shrub	-	FACW	-
Toxicodendron diversilobum	Poison oak	native	vine, shrub	-	FAC	-

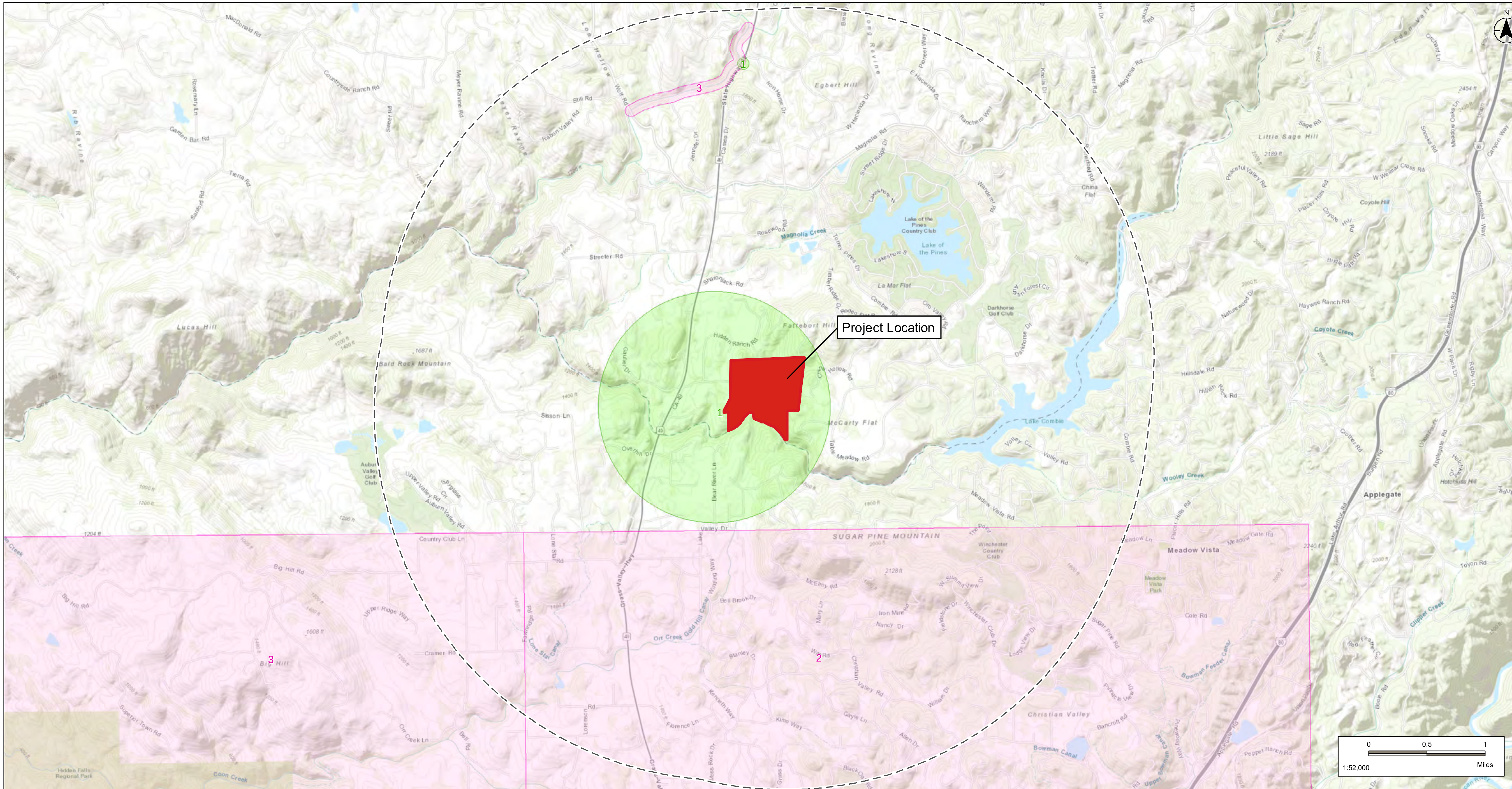
Scientific Name	Common Name	Origin	Form	Rarity Status	Wetland Status (WMVC 2014)	CAL-IPC Status
Trifolium sp.	-	-	-	-	-	-
Typha domingensis	Cattail	native	perennial herb	-	OBL	-
Typha latifolia	Boradleaf cattail	native	perennial herb (aquatic)	-	OBL	-

Wildlife Species Observed within the Project Area

Wildlife	
Apheloxoma californica	Western scrub jay
Buteo jamaicensis	Red-tailed hawk
Callipepla californica	California quail
Melozone crissalis	California towhee
Lithobates catesbeianus	Bullfrog
Branta canadensis	Canada geese
Anas platyrhynchos	Mallard duck
Cathartes aura	Turkey vulture
Sialia mexicana	Western bluebird
Melanerpes formicivorus	Acorn woodpecker
Agelaius phoeniceus	Red-winged Blackbird
Buteo lineatus	Red-shouldered hawk
Charadrius vociferus	Killdeer

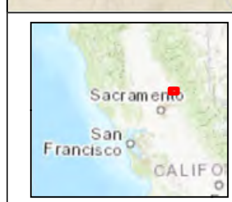
Appendix D

CNDDB 3-Mile Buffer Figure



Legend

- Project Location
- 3 mile Buffer on Project Area
- CNDDB Plant Occurence*
- CNDDB Wildlife Occurence*
- Critical Plant Habitat** (none)
- Critical Wildlife Habitat** (none)



* California Natural Diversity Database (CNDDB) Data: Downloaded April 2019, from the California Department of Fish and Wildlife
** United States Fish and Wildlife Service (USFWS) Critical Habitat Data: Downloaded February 24, 2019 from: https://ecos.fws.gov/ecp/report/table/critical-habitat.html

CNDDB OCCURRENCES*

Plant Species

1. Brandegee's clarkia

Wildlife Species

2. American peregrine falcon
3. Western pond turtle

CRITICAL HABITAT OCCURRENCES**

Plant Habitat

None

Wildlife Habitat

None

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Environmental Consulting LLC
Nevada City, CA

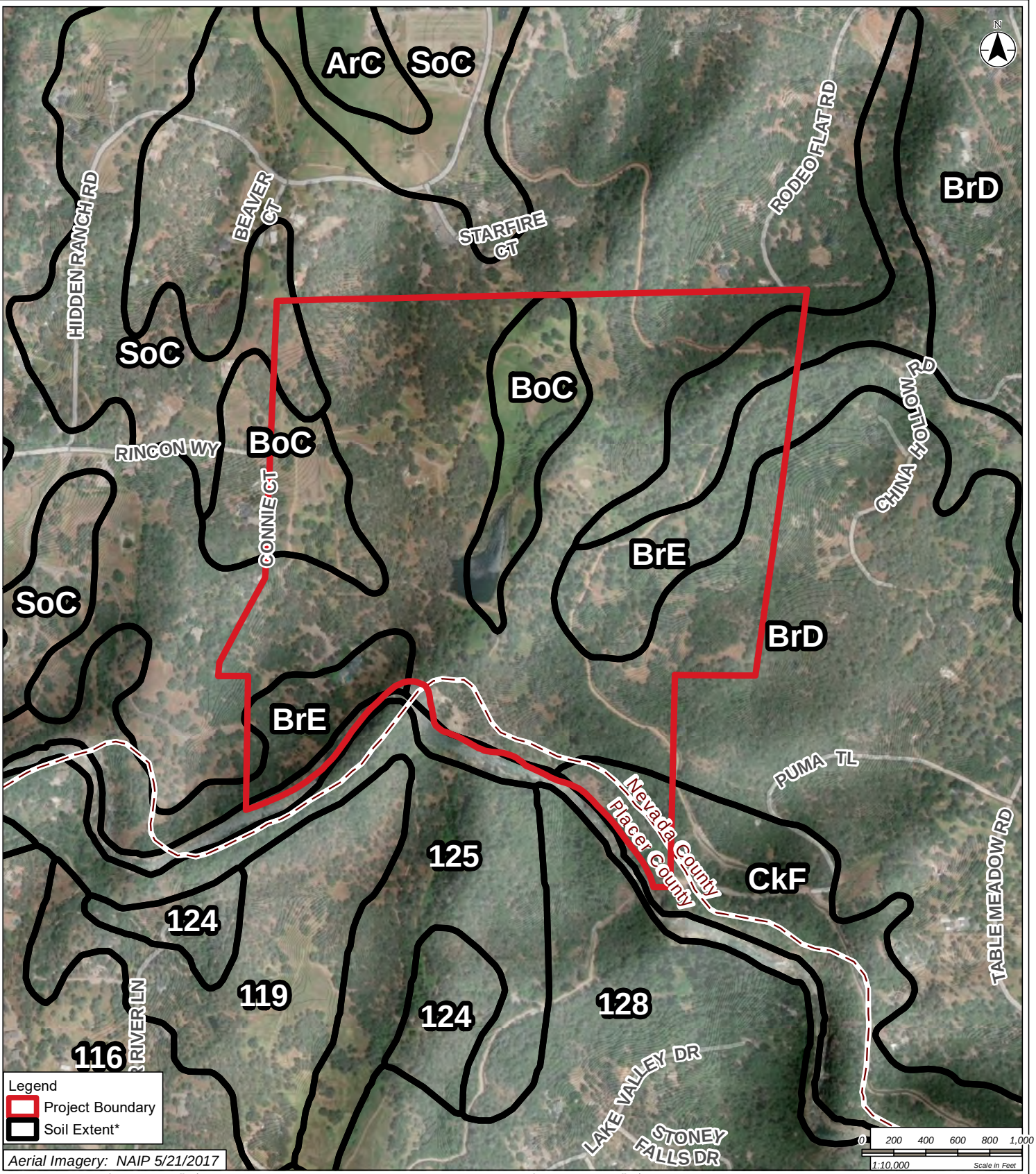
Parcel Nos.: 057-130-013-000, 057-240-017-000, 057-240--018-000, and 057-240--019-000

Figure 3. CNDDB and Critical Habitat Map

Prepared: Melissa Nugent Date: 4/18/2019 MXD: Fig3_CNDDB_NevCounty_057-240-013-017-018-019

Appendix E

USDA Soils Map



SOIL TYPE - Nevada County Soils *
ArC - Argonaut gravelly loam, 2 to 15 percent slopes
BoC - Boomer loam, 5 to 15 percent slopes
BrD - Boomer, hard bedrock - Rock outcrop complex, 5 to 30 percent slopes
BrE - Boomer, hard bedrock - Rock outcrop complex, 15 to 60 percent slopes
CkF - Chaix-Rock outcrop complex, 30 to 75 percent slopes
SoC - Sobrante loam, 2 to 15 percent slopes

SOIL TYPE - Placer County Soils *
116 - Auburn-Argonaut-Rock outcrop complex, 2 to 15 percent slopes
119 - Auburn-Sobrante-Rock outcrop complex, 2 to 30 percent slopes
124 - Boomer - Rock outcrop complex, 5 to 30 percent slopes
125 - Boomer - Rock outcrop complex, 15 to 50 percent slopes
128 - Boomer variant very stony sandy loam, 15 to 50 percent slopes
178 - Riverwash
179 - Rock outcrop

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Environmental Consulting LLC
Nevada City, CA

Parcel Nos.: 057-130-013-000, 057-240-017-000, 057-240--018-000, and 057-240--019-000

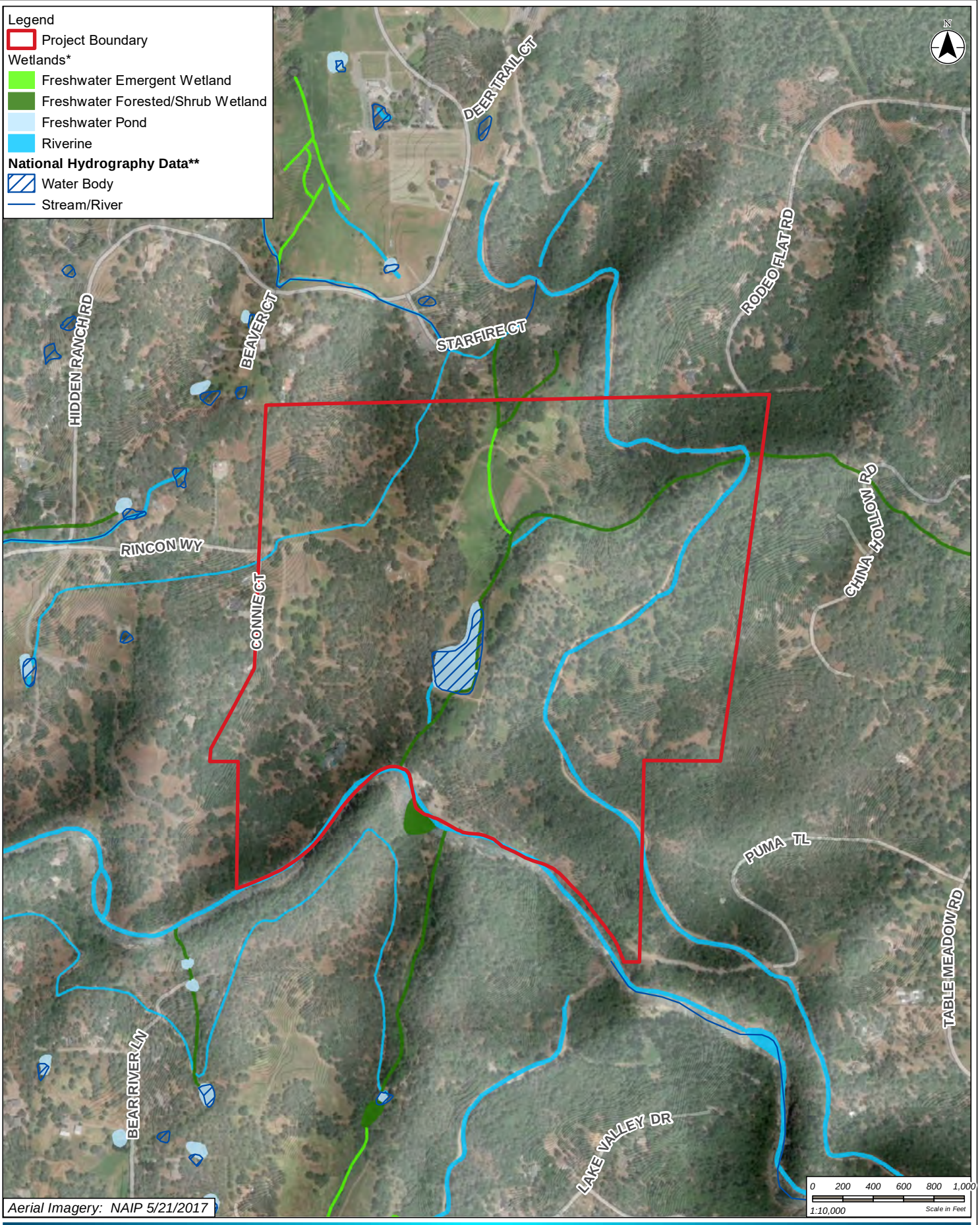
Figure 4. Soils Map

* Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online. Accessed 03/06/2019

Prepared: Melissa Nugent 4/21/2019 C:\2019_Matsuzak\20190417_NevCounty_057-130-013_240-017-018-019\mxd\Fig4_Soils_NevCounty_057-130-013_240-017-018-019.mxd

Appendix F

National Wetland Inventory (NWI) Map



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Nevada City, CA

* Data downloaded from https://www.fws.gov/wetlands/Data/Data-Download.html 3/6/2019
** National Hydrography Dataset (NHD) downloaded from http://nhd.usgs.gov March, 2019

Parcel Nos.: 057-130-013-000, 057-240-017-000, 057-240--018-000, and 057-240--019-000

NOTE: Wetlands and NHD water features on this map have been adjusted approximately 296 feet west and 49 feet north to properly overlay the aerial image used in this map. As such, the feature locations are consodered accurate with respect to the aerial imagery.

Figure 5. Wetlands Map

Prepared: Melissa Nugent 4/21/2019 C:\2019_Matsuzak\20190417_NevCounty_057-130-013_240-017-018-019\mxd\Fig5_Wetlands_NevCounty_057-130-013_240-017-018-019.mxd

Appendix G

Impact Assessment Figures

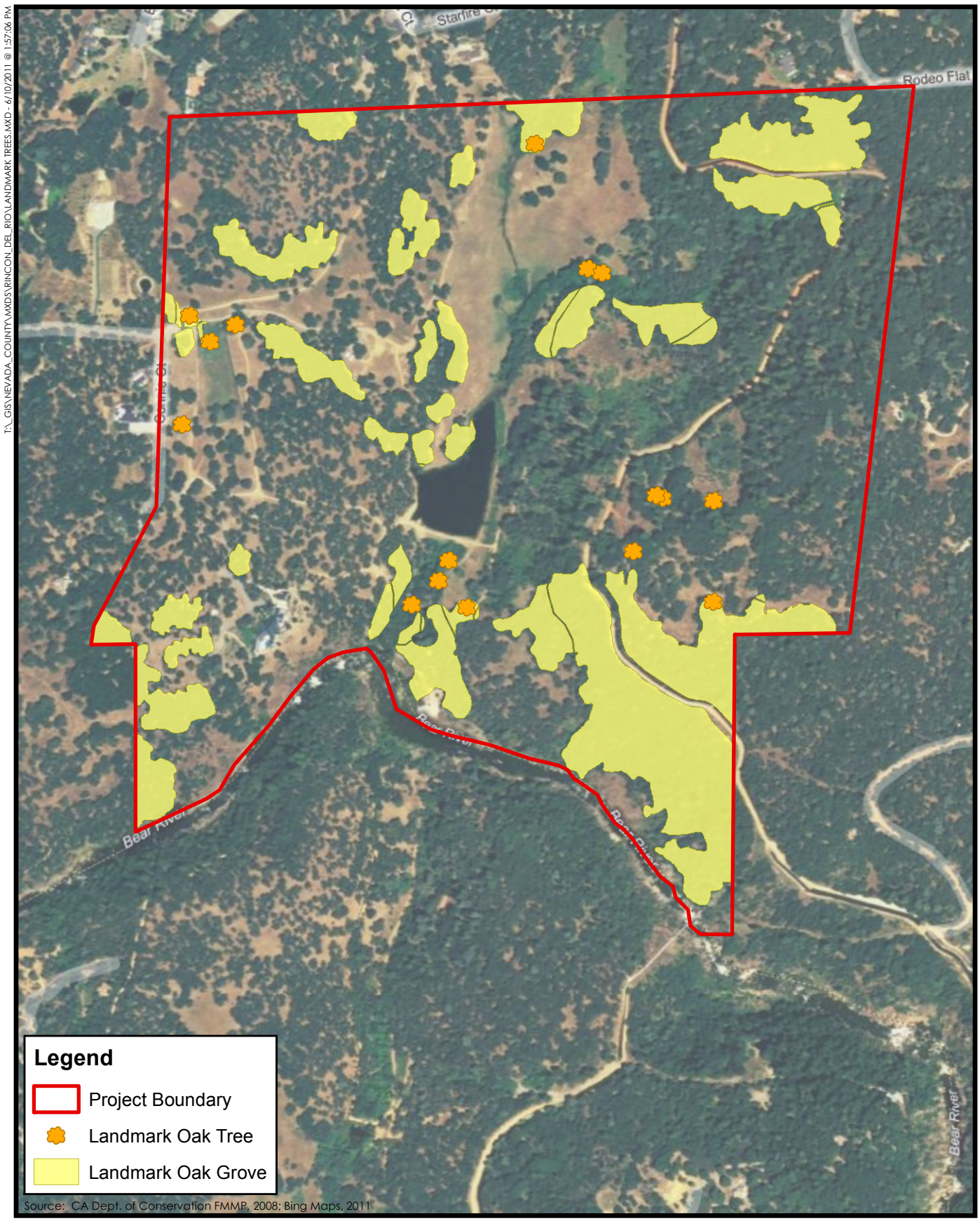
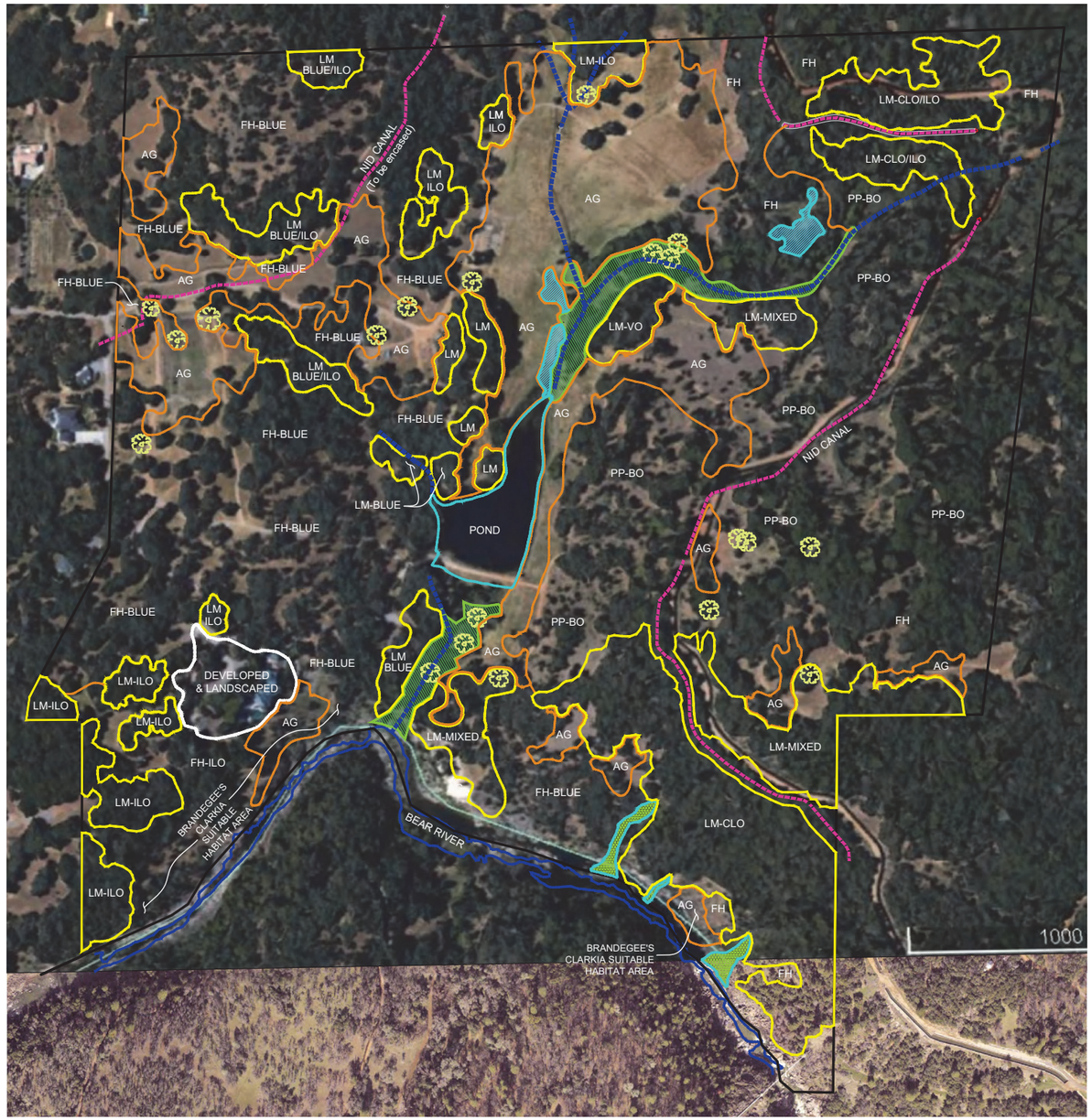


Figure 3.4-3
Landmark Trees and Oak Grove within the Project Site

BIOLOGICAL RESOURCES MAP

RINCON DEL RIO



0 100 200

SCALE: 1" = 200

NOTES:

1. SEE REPORT TEXT FOR DISCUSSION OF BRANDEGEE'S CLARKIA HABITAT.

2. MOST WOODLAND AREAS HAVE MIXED-SPECIES CANOPY. MAP NOTATIONS INDICATE PREDOMINANT SPECIES (NOT ONLY ONE PRESENT).

LEGEND:

FH	FOOTHILL HARDWOOD (SPECIES)*
PP-BO	PONDEROSA PINE - BLACK OAK
AG	ANNUAL GRASSLAND & PASTURE
LM	LANDMARK OAK GROVE (SPECIES)*
	LANDMARK OAK TREE
FR	FOOTHILL RIPARIAN
FEW	FRESHWATER EMERGENT WETLAND
WM	WET MEADOW
	SEASONAL TRIBUTARY
	ARTIFICIAL WATERCOURSE (NID)
	PERENNIAL RIVER (BEAR RIVER)

*SPECIES:

BLUE	BLUE OAK
CLO	CANYON LIVE OAK
ILO	INTERIOR LIVE OAK
VO	VALLEY OAK
NOT STATED	MIXED SPECIES

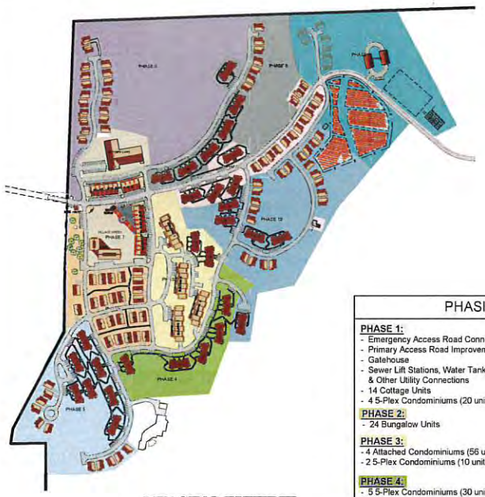
SCO PLANNING ENGINEERING & SURVEYING

140 LITTON DRIVE, SUITE 240, GRASS VALLEY, CA 95945
10800 DONNER PASS ROAD, SUITE 302, TRUCKEE, CA 96161
(530) 272-5841

OVERALL SITE PLAN

RINCON DEL RIO SENIOR LIVING

BEING A PORTION OF THE SOUTH 1/2 SECTION 33, TOWNSHIP 14 NORTH, RANGE 8 EAST AND THE NORTH 1/2 SECTION 4, TOWNSHIP 13 NORTH, RANGE 8 EAST, M.D.B. & M. WITHIN NEVADA COUNTY, CALIFORNIA
MAY, 2019



PHASING EXHIBIT

SCALE: 1" = 250'

PHASING & UNIT COUNT

PHASE 1:
- Emergency Access Road Connection
- Primary Access Road Improvements
- Gatehouse
- Sewer Lift Stations, Water Tank & Other Utility Connections
- 14 Cottage Units
- 4 5-Plex Condominiums (20 units)

PHASE 2:
- 24 Bungalow Units

PHASE 3:
- 4 Attached Condominiums (56 units)
- 2 5-Plex Condominiums (10 units)

PHASE 4:
- 5 5-Plex Condominiums (30 units)

PHASE 5:
- 11 Cottage Units
- 7 5-Plex Condominiums (35 units)

PHASE 6:
- 17 Cottage Units

PHASE 7:
- Village Service Center
- Group House Memory Care
- Pool/ Fitness Center
- Art Studio

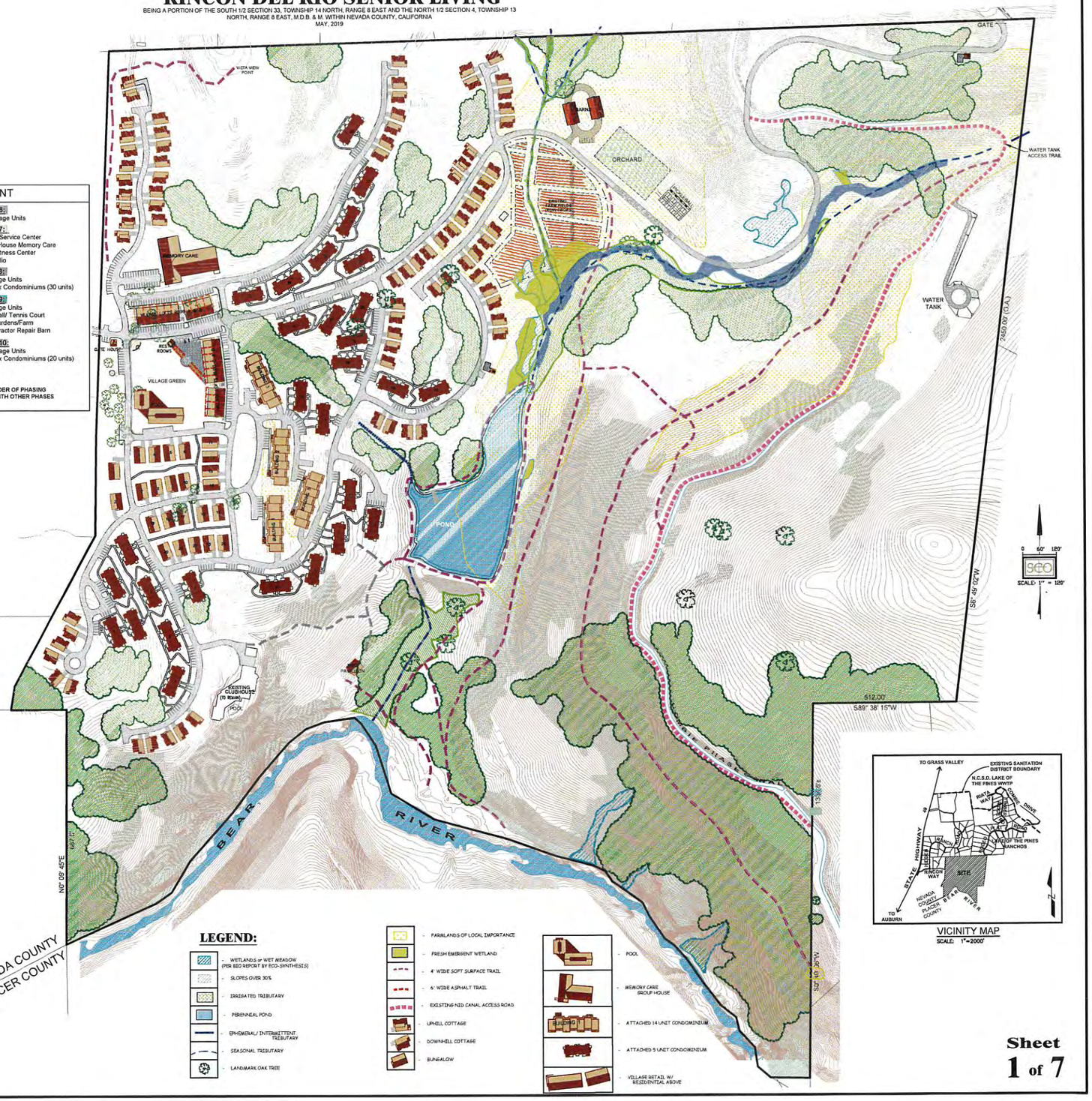
PHASE 8:
- 9 Cottage Units
- 6 5-Plex Condominiums (30 units)

PHASE 9:
- 7 Cottage Units
- Pickleball/ Tennis Court
- Row Gardens/Farm
- Auto/ Tractor Repair Barn

PHASE 10:
- 20 Cottage Units
- 5 5-Plex Condominiums (20 units)
- Lodge

PHASING NOTE:

1. THIS IS A PHASED PROJECT. THE ORDER OF PHASING MAY BE MODIFIED AND/OR COMBINED WITH OTHER PHASES TO MEET MARKET CONDITIONS.



VICINITY MAP
SCALE: 1"=2000'

LEGEND:

- WETLANDS or WET MEADOW (PER BIO REPORT BY ECO-SYNTHESIS)
- SLOPES OVER 30%
- IRRIGATED TRIBUTARY
- PERENNIAL POND
- EPHEMERAL/ INTERMITTENT TRIBUTARY
- SEASONAL TRIBUTARY
- LANDMARK OAK TREE
- FARMLANDS OF LOCAL IMPORTANCE
- FRESH EMERGENT WETLAND
- 4' WIDE SOFT SURFACE TRAIL
- 6' WIDE ASPHALT TRAIL
- EXISTING NID CANAL ACCESS ROAD
- UPHILL COTTAGE
- DOWNHILL COTTAGE
- BUNGALOW
- POOL
- MEMORY CARE GROUP HOUSE
- ATTACHED 14 UNIT CONDOMINIUM
- ATTACHED 5 UNIT CONDOMINIUM
- VILLAGE RETAIL W/ RESIDENTIAL ABOVE

Rincon del Rio Proposed Project Revisions

Building Type	No. of Buildings	No. of Units	Unit Size	Building Size (sf)	Parking
Residential Independent Living					
Cottages	78	78	1785-2600 sf	Varies	78 Resident 78 Guest
Bungalows	24	24	1750	Varies	24 Resident 24 Guest
5 unit Condo	29	145			150 Resident 94 Guest
14 unit Condos	4	56	1300	28,000	56 Resident 24 Guest
Subtotals	**135**	**303**	–	–	**528**
Residential Nursing Care					
Group House Memory Care	1	22	88 Beds	46,000*	44
Subtotals	**1**	**22**	–	–	**44**
Village Center					
Support Retail	4			30,000	100
Residential Loft Condominiums		20	1,500		20 Residential 7 Guest
Subtotals	**4**	**20**	–	–	**127**
Total Residential Units		323			
Common Area Support Services					
Clubhouse (Existing Building)	1			14,000	8
Pool Building/Classroom/ Gathering	1			10,000	18
Community Barn	2		2,800		6
Gatehouse	1			935	
Subtotals	**5**	–	–	–	**32**
Totals	**145**	**345**			**731**

SCO Planning, Engineering & Surveying
140 Litton Drive, Suite 240
Grass Valley, CA 95945
T 530.272.5841 / F 530.273.5880
www.scopeinc.net

PROJECT INFORMATION:

OWNER / APPLICANT:
YOUNG ENTERPRISES, L.P.
P.O. BOX 6828
AUBURN, CA 95602
CONTACT PERSON: CAROL YOUNG
(530) 269-1047

PLANNING & ENGINEERING:
SCO PLANNING & ENGINEERING, INC.
140 LITTON DRIVE SUITE 240
GRASS VALLEY, CA 95945
(530) 272-5841
CONTACT PERSON: MARTIN WOOD, P.L.S. OR DALE CREIGHTON, A.I.C.P.

ASSESSOR'S PARCELS:
057-240-017-000; 057-240-018-000; 057-240-019-000; 057-130-013-000

LAND AREA:
318± AC

ZONING / GENERAL PLAN:
CCRC

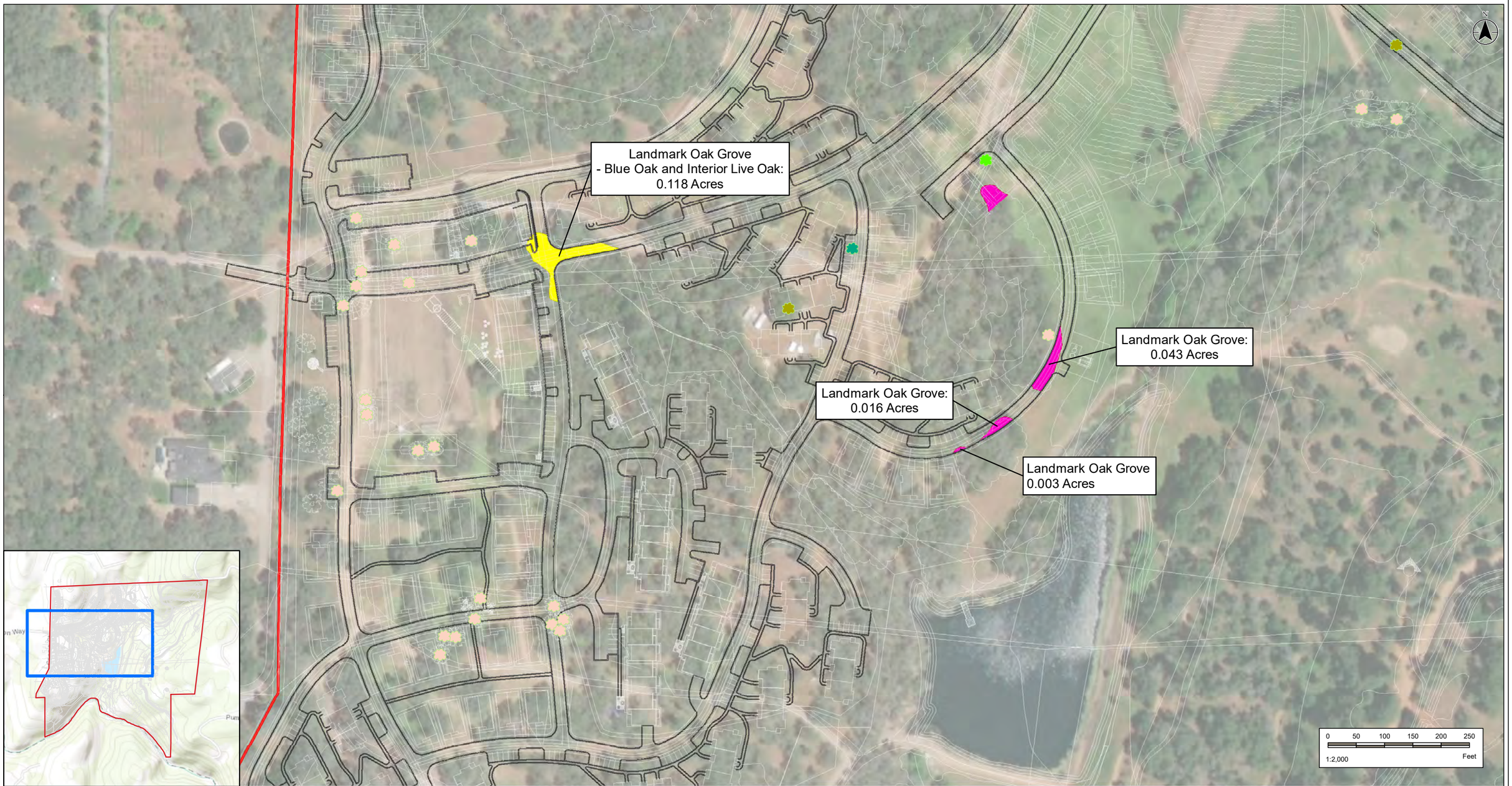
FIRE PROTECTION:
HIGGINS FIRE PROTECTION DISTRICT

WATER:
NEVADA IRRIGATION DISTRICT

ELECTRICAL & GAS UTILITIES:
PACIFIC GAS & ELECTRIC

TELEPHONE:
AT&T

SEWAGE DISPOSAL:
LAKE OF THE PINES TREATMENT PLAN



Project Boundary

Planned Emergency Access Road

Site Plan

Individual Landmark Oak Trees

- Blue Oak
- Interior Live Oak
- Valley Oak
- Landmark Oak

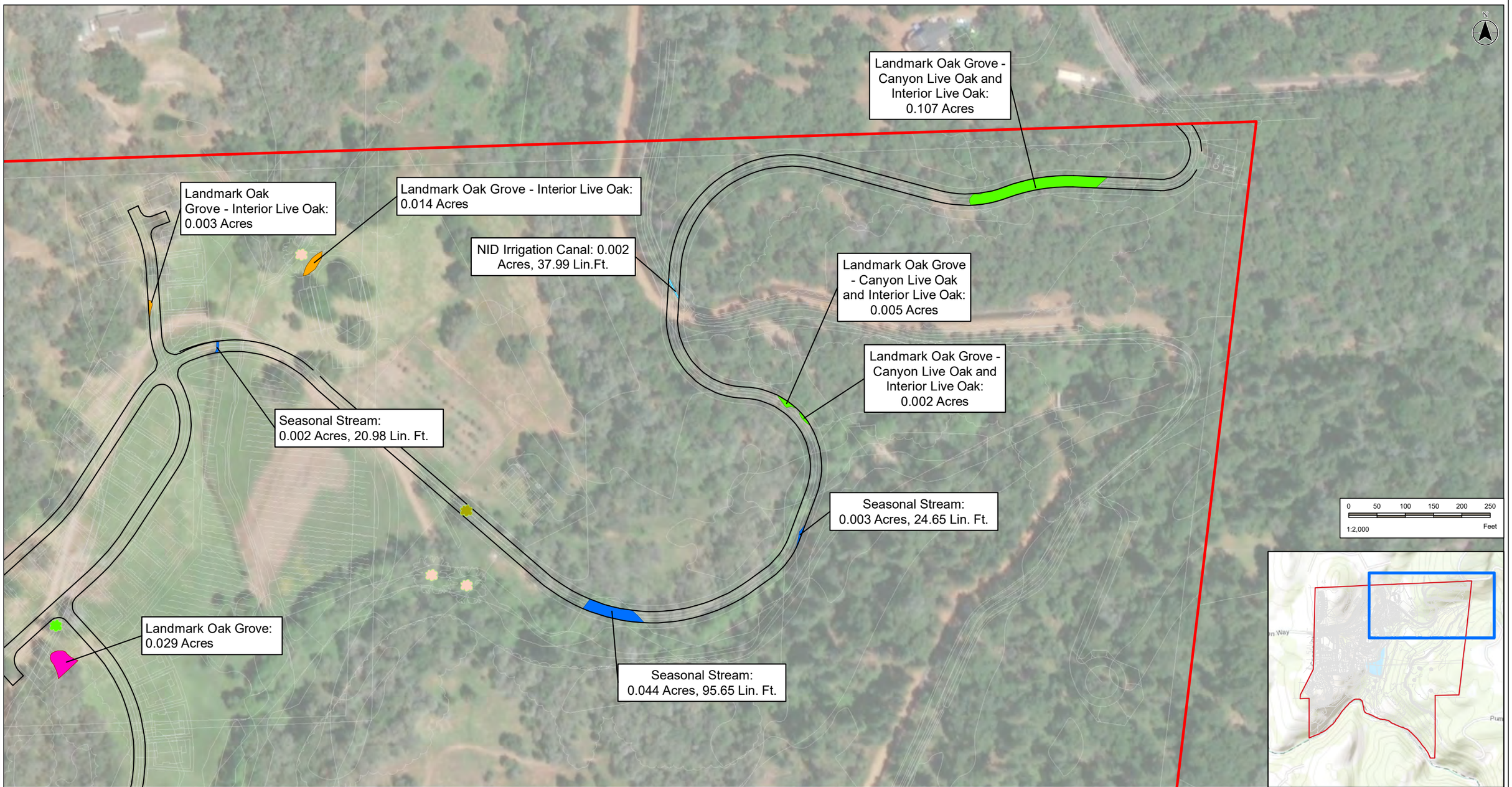
Impacts (Sitewide Totals)

- Landmark Oak Grove (0.91 Ac.)
- Landmark Oak Grove - Blue Oak and Interior Live Oak (0.118 Ac.)

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

Parcel Nos.: 057-130-013-000, 057-240-017-000, 057-240--018-000, and 057-240--019-000

Prepared: Melissa Nugent Date: 5/3/2019 MXD: Impacts_NW_NevadaCounty_057-130-013_240-017-018-019



Project Boundary
Planned Emergency Access Road
Site Plan

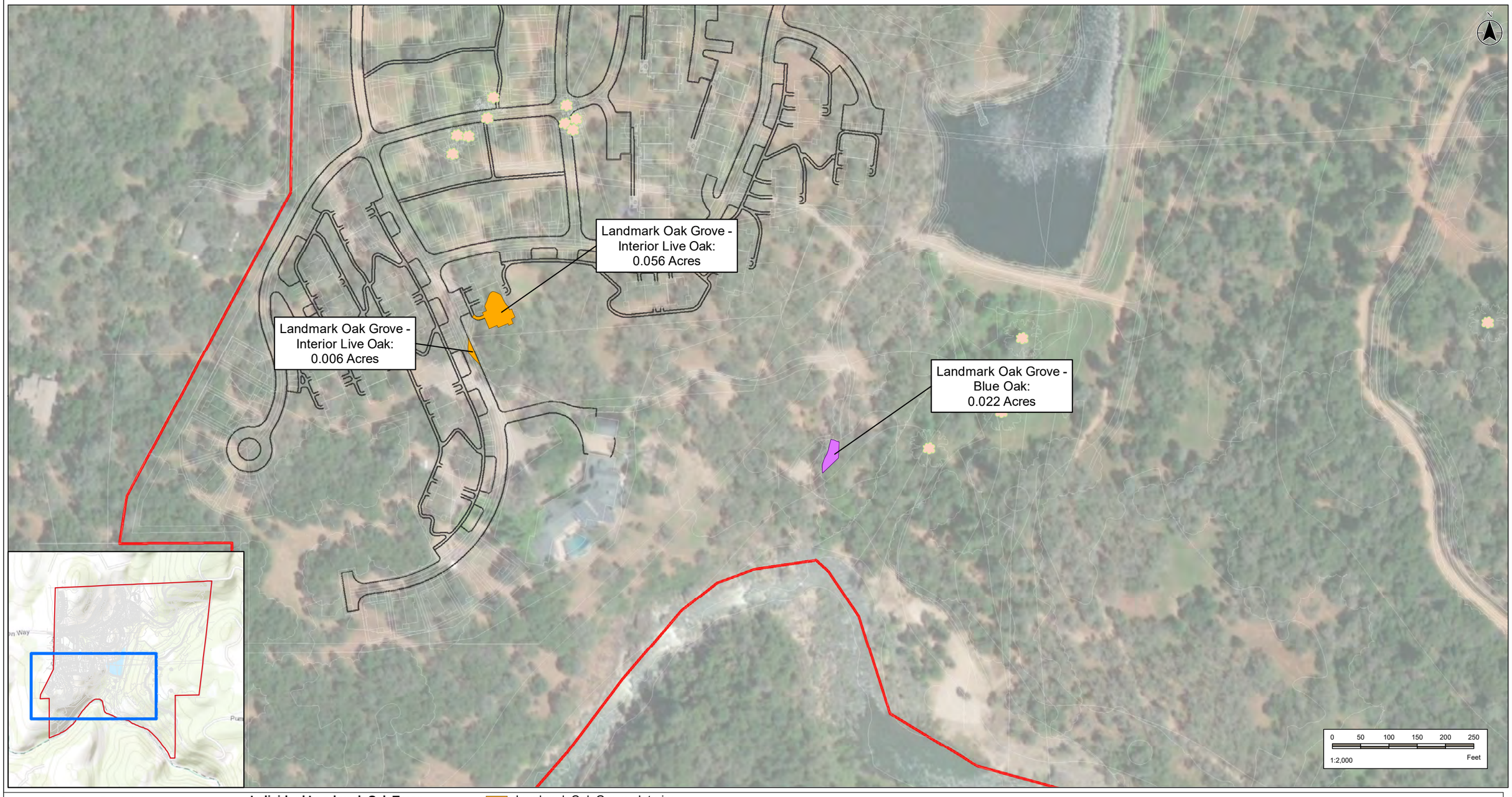
Individual Landmark Oak Trees
Interior Live Oak
Valley Oak
Landmark Oak

Impacts (Sitewide Totals)
Landmark Oak Grove (0.91 Ac.)
Landmark Oak Grove - Canyon Live Oak and Interior Live Oak (0.114 Ac.)
Landmark Oak Grove - Interior Live Oak (0.079 Ac.)
NID Irrigation Canal (0.002 Acres, 37.99 Linear Feet)
Seasonal Stream (0.049 Acres, 141.28 Linear Feet)

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

Parcel Nos.: 057-130-013-000, 057-240-017-000, 057-240--018-000, and 057-240--019-000

Prepared: Melissa Nugent Date: 5/3/2019 MXD: Impacts_NE_NevadaCounty_057-130-013_240-017-018-019



Project Boundary

Planned Emergency Access Road

Site Plan

Individual Landmark Oak Trees

Landmark Oak

Impacts (Sitewide Totals)

Landmark Oak Grove - Blue Oak (0.022 Ac.)

Landmark Oak Grove - Interior Live Oak (0.079 Ac.)

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

Parcel Nos.: 057-130-013-000, 057-240-017-000, 057-240--018-000, and 057-240--019-000

Prepared: Melissa Nugent Date: 5/3/2019 MXD: Impacts_SW_NevadaCounty_057-130-013_240-017-018-019

Appendix H

CNDDB Occurrence Report and USFWS IPaC Species List

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Mapndx IS (32843 OR 43411 OR 78643 OR 78940 OR A0445)

Map Index Number: A0445
Key Quad: Auburn (3812181)
Occurrence Number: 44
EO Index: 102007
Element Code: ABNKD06071
Occurrence Last Updated: 2016-06-10

Scientific Name: *Falco peregrinus anatum*
Common Name: American peregrine falcon

Listing Status: **Federal:** Delisted
*** SENSITIVE *** **State:** Delisted
CNDDB Element Ranks: **Global:** G4T4
State: S3S4

Rare Plant Rank:
Other Lists: CDF_S-Sensitive
CDFW_FP-Fully Protected
USFWS_BCC-Birds of Conservation Concern

General Habitat:
NEAR WETLANDS, LAKES, RIVERS, OR OTHER WATER; ON CLIFFS, BANKS, DUNES, MOUNDS; ALSO, HUMAN-MADE STRUCTURES.

Micro Habitat:
NEST CONSISTS OF A SCRAPE OR A DEPRESSION OR LEDGE IN AN OPEN SITE.

Last Date Observed: 2015-03-19
Last Survey Date: 2015-03-19
Owner/Manager:
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Good
Trend: Unknown

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:
CLIFFS IN OLD LIMESTONE QUARRY NOW USED FOR RECREATION; ROCK CLIMBERS UNAWARE OF BIRDS WERE CLIMBING CLOSE TO EYRIE ON DATE SURVEYED. ACTIVE QUARRY OPERATIONS IMMEDIATELY SOUTH.

Threats:

General:

PLSS:
Accuracy: 80 meters
Area (acres): 5
UTM:
Latitude/Longitude:
Elevation (feet): 1,161

County Summary:	Quad Summary:
El Dorado	Auburn (3812181)

Sources:

ALV15F0002 ALVARADO, C. - FIELD SURVEY FORM FOR FALCO PEREGRINUS ANATUM 2015-04-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 32843
EO Index: 9232
Key Quad: Lake Combie (3912111)
Element Code: ARAAD02030
Occurrence Number: 467
Occurrence Last Updated: 1996-02-23

Scientific Name: *Emys marmorata*
Common Name: western pond turtle

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable
USFS_S-Sensitive

General Habitat:
A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.

Micro Habitat:
NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed: 1988-08-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1988-08-18
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
WOLF CREEK ABOVE WOLF ROAD; NORTHWEST OF LAKE OF THE PINES.

Detailed Location:

Ecological:

Threats:

General:
4 CAPTURED, 1 RELEASED AND 3 RETAINED BY D.C. HOLLAND ON 18 AUGUST 1988.

PLSS: T14N, R08E, Sec. 21 (M)
Accuracy: nonspecific area
Area (acres): 93
UTM: Zone-10 N4324870 E665091
Latitude/Longitude: 39.05732 / -121.09198
Elevation (feet): 1,260

County Summary:
Nevada

Quad Summary:
Lake Combie (3912111)

Sources:

HOL88U0003 HOLLAND, D.C. - ANNUAL REPORT OF SPECIMENS TAKEN UNDER SCIENTIFIC COLLECTING PERMITS #2169 AND 2169A. 1988-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 78643
Key Quad: Gold Hill (3812182)
Occurrence Number: 1217
EO Index: 79570
Element Code: ARAAD02030
Occurrence Last Updated: 2010-04-29

Scientific Name: *Emys marmorata*
Common Name: western pond turtle

Listing Status: **Federal:** None
*** SENSITIVE *** **State:** None
CNDDB Element Ranks: **Global:** G3G4
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable
USFS_S-Sensitive

General Habitat:

A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.

Micro Habitat:

NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed: 2010-04-19
Last Survey Date: 2010-04-19
Owner/Manager:
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Excellent
Trend: Unknown

Location:

SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:

PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:

HABITAT CONSISTS OF BLUE OAK WOODLAND WITH A NETWORK OF PONDS AND SEASONAL CREEKS.

Threats:

THREATS INCLUDE RURAL RESIDENTIAL USE AND POSSIBLE PESTICIDE USE IN ORCHARD UPSTREAM.

General:

PLSS:
UTM:
Accuracy: nonspecific area
Latitude/Longitude:
Area (acres): 167
Elevation (feet): 270

County Summary:	Quad Summary:
Placer	Gold Hill (3812182)

Sources:

DOB10F0001 DOBROVOLNY, L. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR ACTINEMYS MARMORATA 2010-04-19

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 43411
EO Index: 43411
Key Quad: Lake Combie (3912111)
Element Code: PDONA05053
Occurrence Number: 9
Occurrence Last Updated: 2008-12-10

Scientific Name: *Clarkia biloba ssp. brandegeeae*
Common Name: Brandegee's clarkia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.2
Other Lists: BLM_S-Sensitive

CNDDB Element Ranks: **Global:** G4G5T4
State: S4

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST.

Micro Habitat:

OFTEN IN ROADCUTS. 75-915 M.

Last Date Observed: 1916-06-04
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1916-06-04
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

BEAR RIVER. WEST OF MCCARTHY FLAT, BOTH SIDES OF HIGHWAY 49, NEVADA COUNTY.

Detailed Location:

LOCATION VAGUE: GIVEN AS "BEAR RIVER, NEVADA COUNTY, 1400 FEET". MAPPED AS BEST GUESS BY CNDDB ALONG THE BEAR RIVER WEST OF MCCARTHY FLAT ON BOTH SIDES OF HIGHWAY 49.

Ecological:

UPPER SONORAN ZONE.

Threats:

General:

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1916 COLLECTION BY HALL; NEEDS FIELDWORK.

PLSS: T14N, R08E, Sec. 33 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-10 N4320192 E664883
Latitude/Longitude: 39.01523 / -121.09552
Elevation (feet): 1,400

County Summary:	Quad Summary:
Nevada, Placer	Lake Combie (3912111)

Sources:

HAL16S0008 HALL, H. - HALL #10155 UC #194917, POM #32325 1916-06-04

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 78940
EO Index: 79901
Key Quad: Lake Combie (3912111)
Element Code: PDONA05053
Occurrence Number: 95
Occurrence Last Updated: 2010-05-26

Scientific Name: *Clarkia biloba ssp. brandegeeae*
Common Name: Brandegee's clarkia

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 4.2
Other Lists: BLM_S-Sensitive

CNDDB Element Ranks: **Global:** G4G5T4
State: S4

General Habitat:

CHAPARRAL, CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST.

Micro Habitat:

OFTEN IN ROADCUTS. 75-915 M.

Last Date Observed: 2009-06-19
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-06-19
Occurrence Rank: Good
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ALONG THE EAST SIDE OF HIGHWAY 49 BETWEEN AUBURN AND GRASS VALLEY, ABOUT 1 AIR MILE NORTHWEST OF BEAR RIVER HIGH SCHOOL.

Detailed Location:

JUST SOUTH OF WOLF CREEK. MAPPED IN THE APPROXIMATE NW 1/4 OF THE NE 1/4 OF SECTION 21.

Ecological:

PLANTS ARE GROWING AT BASE OF GRASSY ROAD BANK ON THE EAST SIDE OF THE HIGHWAY.

Threats:

General:

100'S OF PLANTS OBSERVED IN 2009.

PLSS: T14N, R08E, Sec. 21, NE (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4324937 E665232
Latitude/Longitude: 39.05790 / -121.09033
Elevation (feet): 1,300

County Summary:	Quad Summary:
Nevada	Lake Combie (3912111)

Sources:

NOS09F0010 NOSAL, T. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 2) - FIELD SURVEY FORM FOR CLARKIA BILOBA SSP. BRANDEGEEAE 2009-06-19

IPaC **U.S. Fish & Wildlife Service**

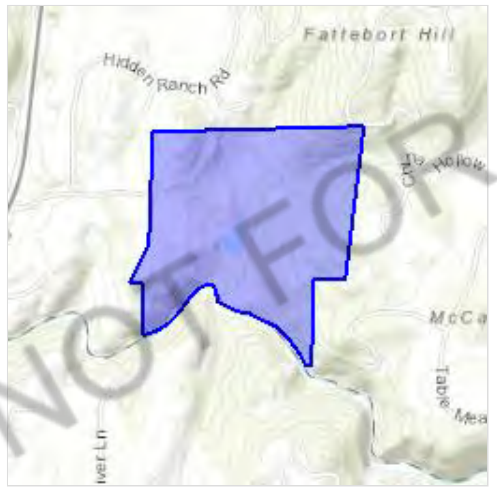
IPaC resource list

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 and Placer counties, California



Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(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 species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

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

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

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

Amphibians

NAME	STATUS

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

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened

Flowering Plants

NAME	STATUS
Stebbins' Morning-glory Calystegia stebbinsii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3991	Endangered

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 below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php

- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

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

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

NAME	BREEDING SEASON (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.)
Bald Eagle Haliaeetus leucocephalus 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	Breeds Jan 1 to Aug 31
California Thrasher Toxostoma redivivum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Lewis's Woodpecker Melanerpes lewis — Breeds Apr 20 to Sep 30
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9408

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Rufous Hummingbird selasphorus rufus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8002

Song Sparrow Melospiza melodia — Breeds Feb 20 to Sep 5
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Spotted Towhee Pipilo maculatus clementae — Breeds Apr 15 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/4243

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie Pica nuttalli — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9726

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.

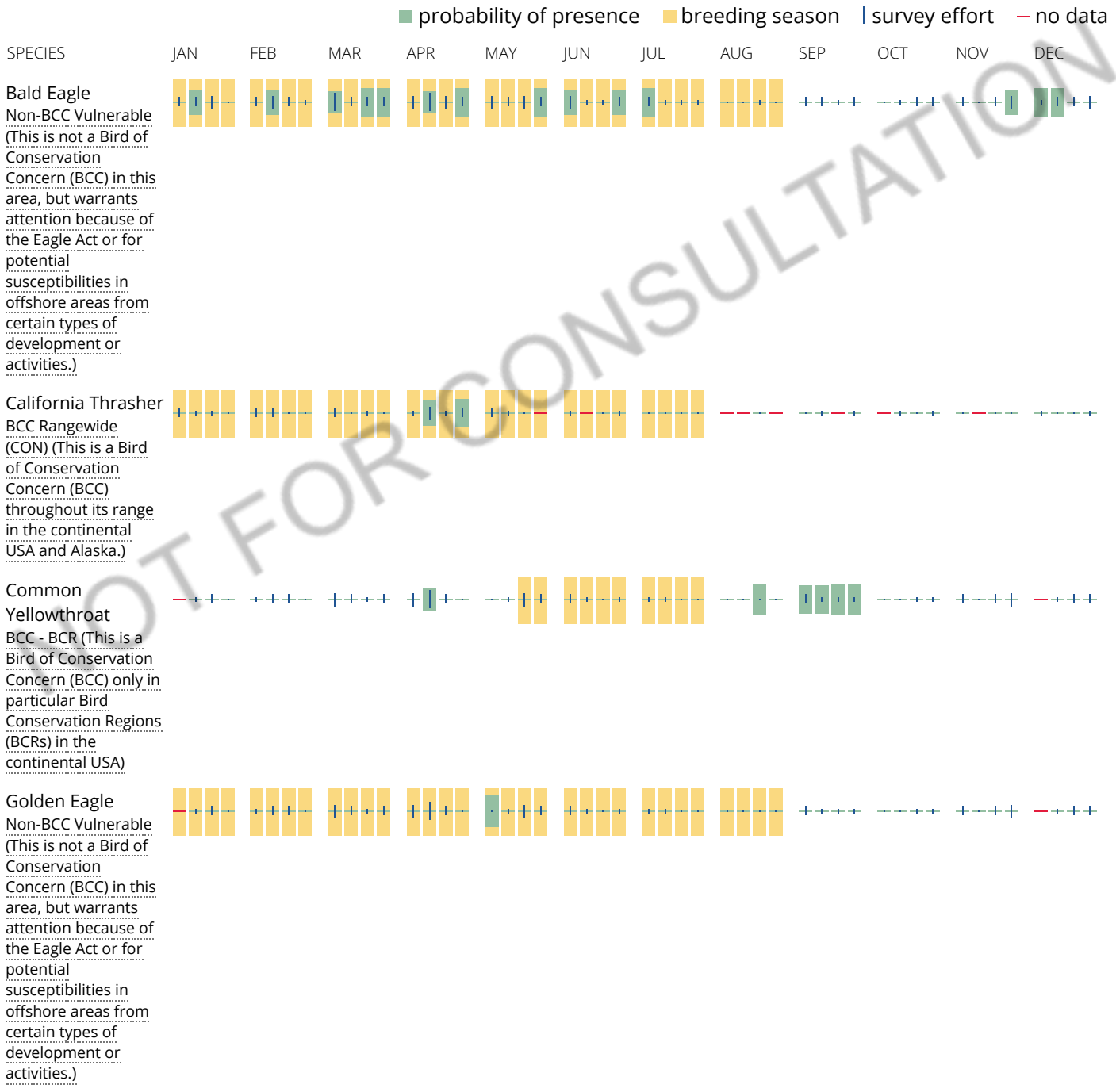
Survey Effort (|)

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.

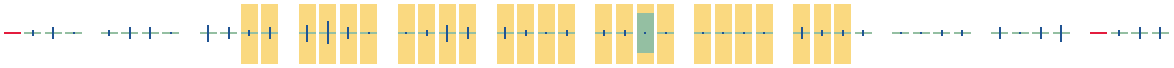
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

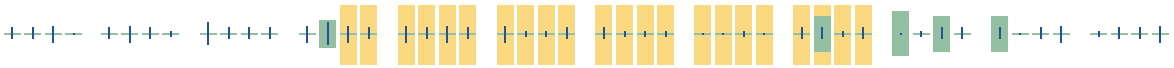
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



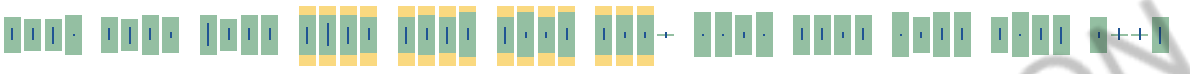
Lawrence's Goldfinch
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



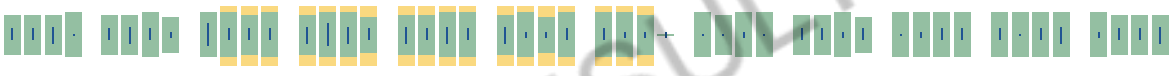
Lewis's Woodpecker
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Nuttall's Woodpecker
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

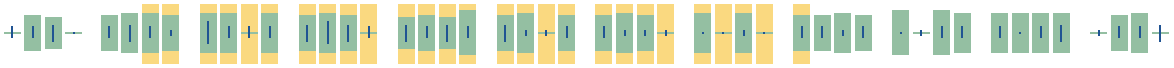


Oak Titmouse
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

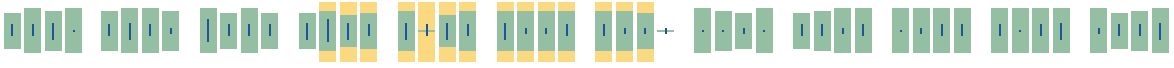


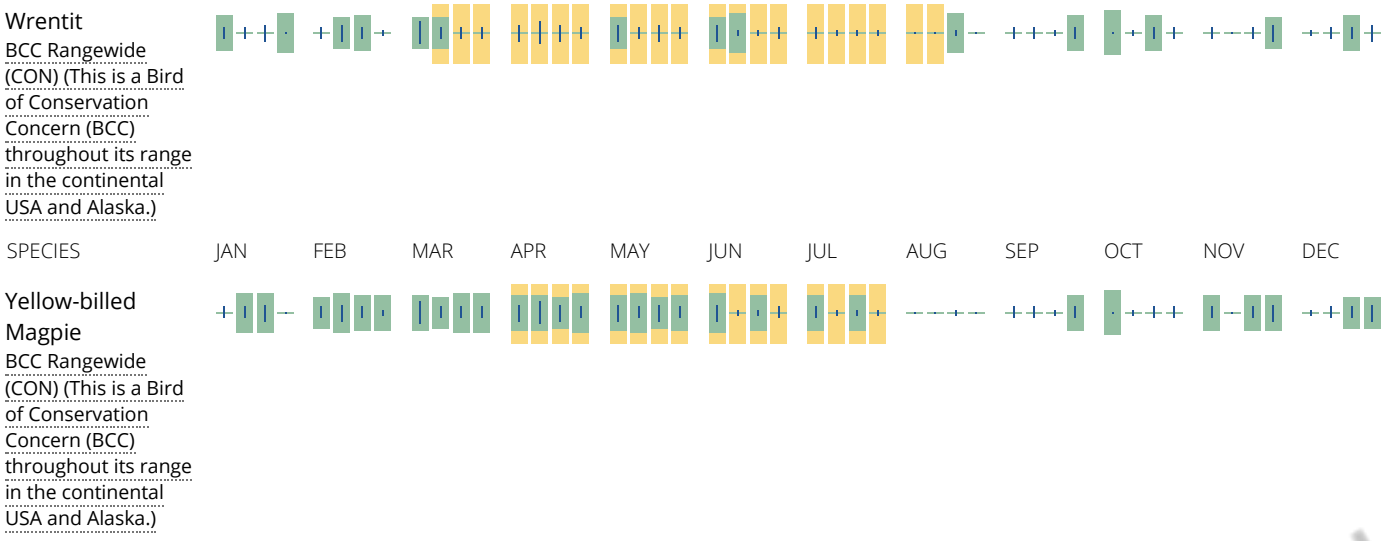
Rufous Hummingbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Song Sparrow
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Spotted Towhee
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)





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

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

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

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

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

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

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

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

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

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

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

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

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

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

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

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 EMERGENT WETLAND

- PEM1C

FRESHWATER FORESTED/SHRUB WETLAND

- PSSC
- PSSA
- PFOC

FRESHWATER POND

- PUBHh

RIVERINE

- R3UBH
- R2UBHx
- R5UBFx
- R4SBC

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.