Appendix E Biological Resources Assessment

Biological Resources Assessment
for the
Amador County Unified School District Project

Amador County, California

Prepared For:

Amador County Unified School District

Prepared By:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS
2525 Warren Drive
Rocklin, California 95677

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
Argonaut BSA	Argonaut High School BSA
BCC	Birds of Conservation Concern
BRA	Biological Resources Assessment
BSA	Biological Study Area

Term	Description
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Ranks
CWA	Clean Water Act
DBH	Diameter at breast height
ESA	Endangered Species Act
HCP	Habitat Conservation Plan
Ione BSA	Ione Junior High School BSA
LSAA	Lake or Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
MCV	A Manual of California Vegetation
MDBM	Mount Diablo Base and Meridian
MSL	Mean sea level
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
Project	Amador County United School District Project
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
Sutter Creek BSA	Sutter Creek Elementary School BSA
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service (USFWS)

1.0 INTRODUCTION

At the request of Amador County Unified School District, ECORP Consulting, Inc. has conducted a Biological Resources Assessment (BRA) for the proposed Amador County United School District Project (Project) located in Amador County, California. The results of this assessment will support environmental review of the Project in accordance with the California Environmental Quality Act (CEQA) and provide the basis for identifying appropriate measures to lessen or avoid significant impacts to biological resources.

1.1 Project Description

Amador County Unified School District proposes to consolidate eight schools into six campuses to enhance educational opportunities, counseling, and other support services by focusing resources on fewer facilities and maintain District financial stability by consolidating resources for efficient program administration. Following is a brief description of the proposed changes at each of the six campuses that will remain open. Ione Elementary School and Sutter Creek Primary School will be closed.

Amador High School will combine with Argonaut High School at the Argonaut High School campus. Improvements to the Argonaut High School campus include a kitchen renovation, a gymnasium and locker room renovation and expansion, improving Americans with Disabilities Act accessibility throughout the campus, addition of a new two-story 10-classroom building, and addition of five portable classroom buildings relocated from Jackson Junior High School and Ione Elementary School.

Ione Junior High School and Jackson Junior High School will consolidate into one junior high school and will be relocated to the existing Amador High School campus for a countywide comprehensive 7th and 8th grade facility. No site improvements are proposed for the Amador High School campus.

The existing Jackson Junior High School will become a Preschool-to-Transitional Kindergarten center. No physical improvements are proposed at this campus.

Ione Elementary School will relocate to the existing Ione Junior High School campus and will add back 6th grade students. Site improvements at the Ione Junior High School campus include a new circle loop for kindergarten students and one for 1st through 6th grade students.

Jackson Elementary School will add back 6th grade students. No site improvements are proposed for the Jackson Elementary School campus.

Sutter Creek Elementary School will be expanded to become a Transitional Kindergarten to 6th grade campus. Site improvements include moving 10 classrooms from the Sutter Creek Primary School campus to the Sutter Creek Elementary School campus.

In summary, three of the campuses (Sutter Creek Elementary, Ione Junior High School, and Argonaut High School) require construction to accommodate an increased enrollment of students.

1.2 Biological Study Area

This Biological Resources Assessment focuses on the three campuses with site improvements (hereafter, Biological Study Areas [BSAs]). The campuses with site improvements comprise Sutter Creek Elementary, Ione Junior High School, and Argonaut High School. Each BSA is described below.

The 0.97-acre Sutter Creek Elementary School BSA (Sutter Creek BSA) corresponds to a portion of Section 6, Township 06 North, and Range 11 East (Mount Diablo Base and Meridian [MDBM]) of the "Amador City, California" 7.5-minute quadrangle (USGS 1962a; Figure 1a). The approximate center of the BSA is located at 38.398904° North and -120.811679° West within the Upper Mokelumne watershed (Hydrological Unit Code 18040012; Natural Resources Conservation Service [NRCS] et al. 2016).

The 0.46-acre Ione Junior High School BSA (Ione BSA) corresponds to unsectioned portion of the Arroyo Seco Land Grant within the "Ione, California" 7.5-minute quadrangle (USGS 1962b; Figure 1b). The approximate center of the BSA is located at 38.348058° North and -120.936024° West within the Upper Mokelumne watershed (Hydrological Unit Code 18040012; NRCS et al. 2016).

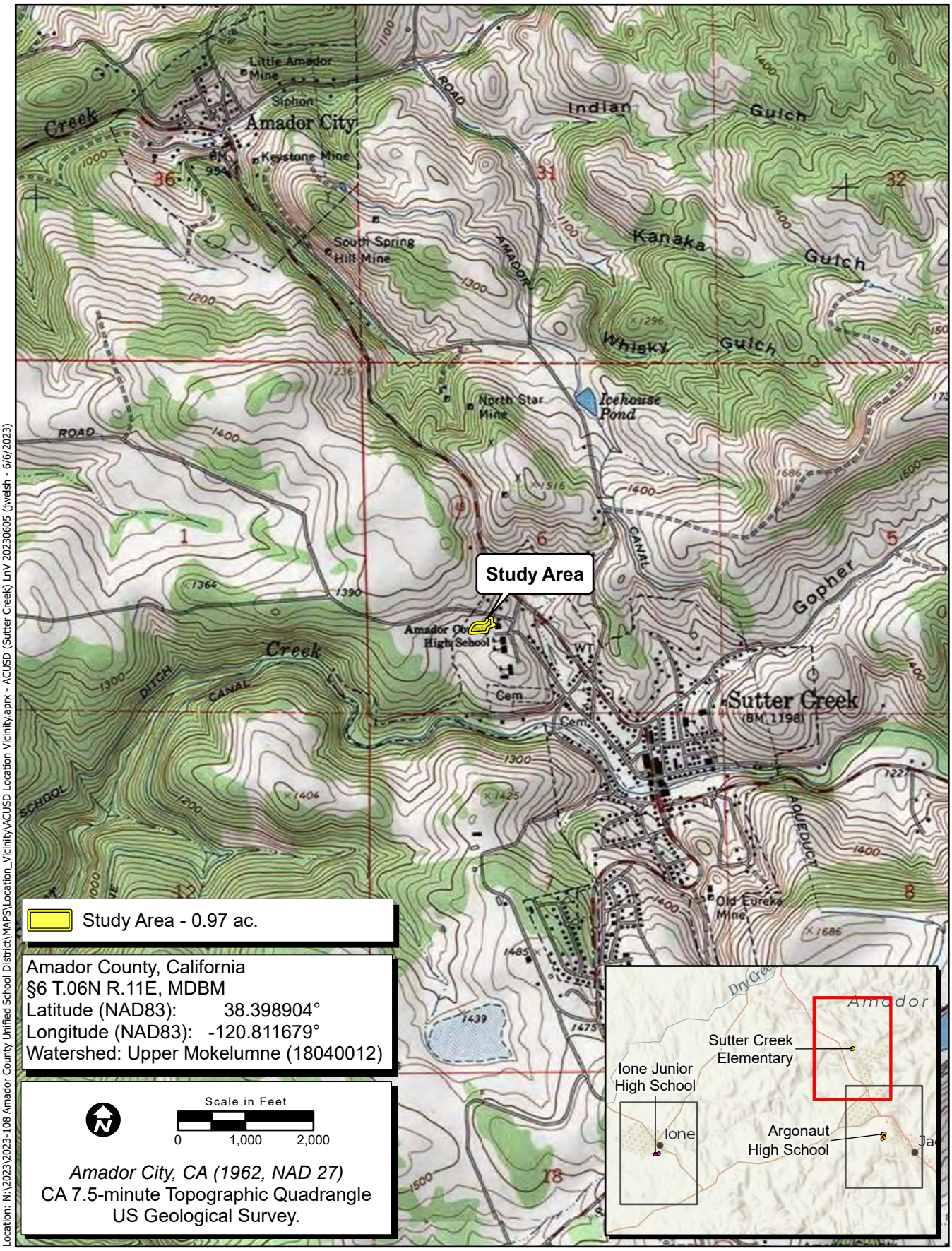
The 1.28-acre Argonaut High School BSA (Argonaut BSA) corresponds to a portion of Section 20, Township 06 North, and Range 11 East (MDBM) of the "Jackson, California" 7.5-minute quadrangles (USGS 1962c; photo-inspected 1973; Figure 1c). The approximate center of the BSA is located at 38.354974° North and -120.792611° West within the Upper Mokelumne watershed (Hydrological Unit Code 18040012; NRCS et al. 2016).

1.3 Purpose of this Biological Resources Assessment

The purpose of this BRA is to assess the potential for occurrence of special-status plant and animal species or their habitats, and other sensitive or protected resources such as migratory birds, sensitive natural communities, riparian habitats, oak woodlands, and potential waters of the U.S. or State, including wetlands, within the BSAs. This assessment does not include determinate field surveys conducted according to agency-promulgated protocols. The conclusions and recommendations presented in this report are based upon a review of available literature and site reconnaissance.

For the purposes of this assessment, special-status species are defined as plants or animals that:

- are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act (ESA);
- are listed or candidates for future listing as threatened or endangered under the California ESA;
- meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines;
- are identified as a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW);



Location: N:\2023\2023-108 Amador County Unified School District\MAPS\Location_Vicinity\ACUSD Location Vicinity.aprx - ACUSD (Sutter Creek) LnV 20230605 (jwelsh - 6/6/2023)

Map Date: 6/6/2023
Sources: ESRI, USGS

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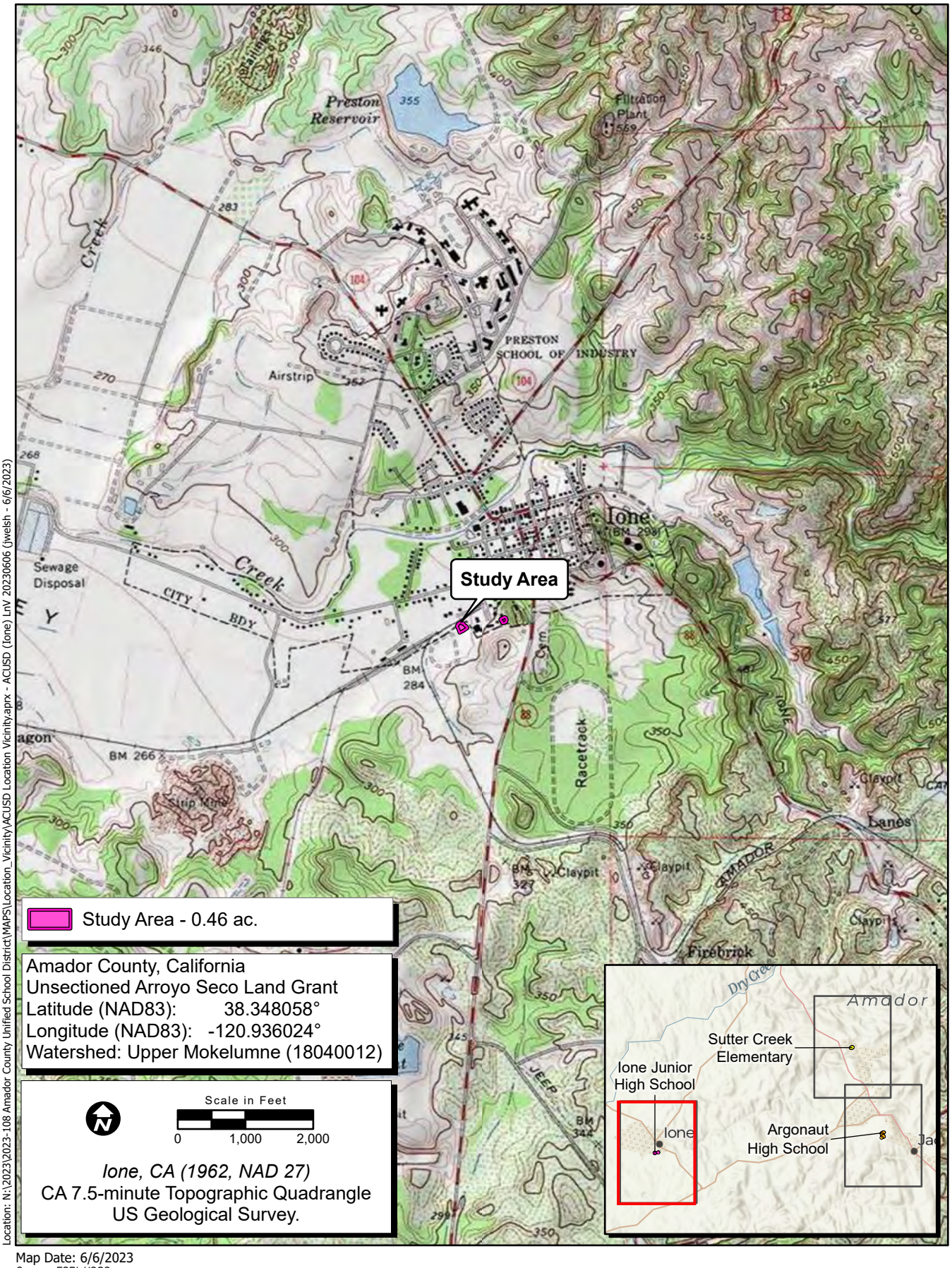
Figure 1a. Sutter Creek BSA Location and Vicinity
2023-108 Amador County Unified School District



Map Date: 6/6/2023
Sources: ESRI, USGS

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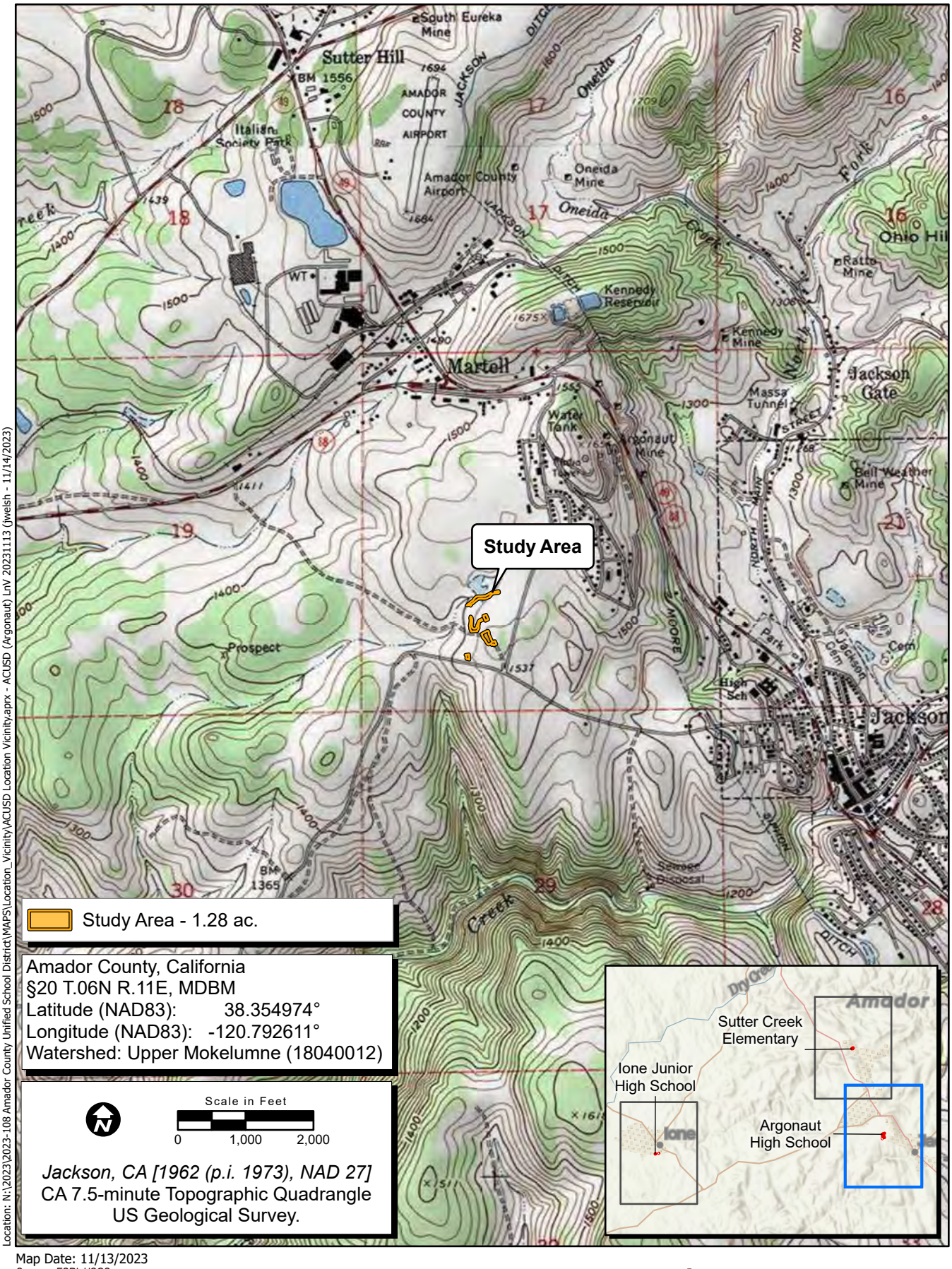
Figure 1b. Ione BSA Location and Vicinity

2023-108 Amador County Unified School District



Location: N:\2023\2023-108 Amador County Unified School District\MAPS\Location_Vicinity\ACUSD Location Vicinity.aprx - ACUSD (Argonaut) LnV 20231113 (jwelsh - 11/14/2023)

Map Date: 11/13/2023
Sources: ESRI, USGS

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Figure 1c. Argonaut BSA Location and Vicinity
2023-108 Amador County Unified School District

- are birds identified as Birds of Conservation Concern (BCC) by the U.S. Fish and Wildlife Service (USFWS);
- are plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" or "rare, threatened, or endangered in California but more common elsewhere" (California Rare Plant Ranks [CRPRs] 1 and 2);
- are plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.); or
- are fully protected in California in accordance with the California Fish and Game Code, Sections 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes).

2.0 REGULATORY SETTING

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The federal ESA protects plants and animals that are listed as endangered or threatened by the USFWS or the National Marine Fisheries Service (NMFS). Section 9 of the ESA prohibits the taking of listed wildlife, where take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, the ESA prohibits removing or possessing any listed plant on federal land, maliciously damaging or destroying any listed plant in any area, or removing, cutting, digging up, damaging, or destroying any such species in knowing violation of state law (16 U.S. Code [USC] 1538). Under Section 7 of ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its designated Critical Habitat. Through consultation and the issuance of a Biological Opinion, the USFWS may issue an incidental take statement allowing take of a listed species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The protections of the MBTA extend to disturbances that result in abandonment of a nest with eggs or young. As authorized by the MBTA, the USFWS may issue permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of migratory birds in Section 3513 of the California Fish and Game Code.

2.1.3 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940 (as amended) provides for the protection of bald eagle and golden eagle by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit [16 USC 668(a); 50 CFR 22]. The USFWS may authorize take of bald eagles and golden eagles for activities where the take is associated with, but not the purpose of, the activity and cannot practicably be avoided (50 CFR 22.26).

2.2 State or Local Regulations

2.2.1 California Fish and Game Code

2.2.1.1 California Endangered Species Act

The California ESA (California Fish and Game Code §§ 2050-2116) generally parallels the main provisions of the federal ESA, but unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called *candidates* by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. *Take* is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Section 2081 allows CDFW to authorize incidental take permits if species-specific minimization and avoidance measures are incorporated to fully mitigate the impacts of the project.

2.2.1.2 Fully Protected Species

The state of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the state and/or federal ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code § 4700 for mammals, § 3511 for birds, § 5050 for reptiles and amphibians, and § 5515 for fish) provide that fully protected species may not be taken or possessed at any time. CDFW prohibits any state agency from issuing incidental take permits for fully protected species. CDFW may issue licenses or permits for take of these species for necessary scientific research or live capture and relocation, and may allow incidental take for lawful activities carried out under an approved Natural Community Conservation Plan within which such species are covered.

2.2.1.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 was created with the intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by CDFW and provided in California Fish and Game Code §§ 1900-1913. The Fish and Wildlife Commission has the authority to designate native plants as *endangered* or *rare* and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code §§ 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.2.1.4 California Fish and Game Code Special Protections for Birds

Sections 3503, 3513, and 3800 of the California Fish and Game Code specifically protect birds. Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Subsection 3503.5 prohibits the take, possession, or destruction of any birds in the orders Strigiformes (owls) or

Falconiformes (hawks and eagles), as well as their nests and eggs. Section 3513 prohibits the take or possession of any migratory nongame bird as designated in the MBTA. Section 3800 states that, with limited exceptions, it is unlawful to take any nongame bird, defined as all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds. These provisions, along with the federal MBTA, serve to protect all nongame birds and their nests and eggs, except as otherwise provided in the code.

2.2.1.5 Lake or Streambed Alteration Agreements

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The notification must incorporate proposed measures to protect affected fish and wildlife resources. During their review, CDFW may suggest additional protective measures. A Lake or Streambed Alteration Agreement (LSAA) is the final proposal mutually agreed upon by CDFW and the applicant. Projects that require an LSAA often also require a permit from the U.S. Army Corps of Engineers (USACE) under Section 404 of the CWA. The conditions of the Section 404 permit and the LSAA frequently overlap in these instances.

2.2.2 California Oak Woodlands Conservation Act

The California Oak Woodlands Conservation Act was passed in 2001 to address loss of oak woodland habitats throughout the state. As a result of the Act, the Oak Woodland Conservation Program was established to provide funding for conservation and protection of California oak woodlands. Public Resources Code Section 21083.4 went into effect as of January 1, 2005, and requires lead agencies to analyze potential effects to oak woodlands during the CEQA process. If it is determined that a project may have a significant effect on oak woodlands, the lead agency must implement one of several mitigation alternatives, including conservation of oak woodlands through conservation easements, planting or restoration of oak woodlands, contribution of funds to the Oak Woodlands Conservation Fund, or other appropriate mitigation measures.

2.2.3 Porter-Cologne Water Quality Act

The Regional Water Quality Control Board (RWQCB) implements water quality regulations under the federal Clean Water Act (CWA) and the Porter-Cologne Water Quality Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction Permits for projects that disturb one or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan. Under the Porter-Cologne Water Quality Act, the RWQCB also regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the state" (Water Code 13260(a)). Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050 (e)). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State, that are not

regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of a Waste Discharge Requirements for these activities.

2.2.4 California Environmental Quality Act

Per CEQA Guidelines Section 15380, a species not protected on a federal or state list may be considered rare or endangered if the species meets certain specified criteria. These criteria follow the definitions in the federal and California ESAs, and Sections 1900-1913 of the California Fish and Game Code, which deal with rare or endangered plants or animals. Section 15380 was included in the CEQA Guidelines primarily to deal with situations where a project under review may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW.

2.2.4.1 CEQA Significance Criteria

Sections 15063-15065 of the CEQA Guidelines address how an impact is identified as significant. Generally, impacts to listed (rare, threatened, or endangered) species are considered significant. Assessment of "impact significance" to populations of nonlisted species (e.g., SSC) usually considers the proportion of the species' range that will be affected by a project, impacts to habitat, and the regional and population level effects.

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Pursuant to Appendix G, impacts to biological resources would normally be considered significant if the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on federally protected Waters of the U.S. including wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA because although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

2.2.4.2 Species of Special Concern

SSC are defined by the CDFW as a species, subspecies, or distinct population of an animal native to California that are not legally protected under ESA, the California ESA or the California Fish and Game Code, but currently satisfy one or more of the following criteria:

- The species has been completely extirpated from the state or, as in the case of birds, it has been extirpated from its primary seasonal or breeding role.
- The species is listed as federally (but not state) threatened or endangered, and meets the state definition of threatened or endangered but has not formally been listed.
- The species has or is experiencing serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status.
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that if realized, could lead to declines that would qualify it for state threatened or endangered status.

SSC are typically associated with threatened habitats. Projects that result in substantial impacts to SSC may be considered significant under CEQA.

2.2.4.3 USFWS Bird of Conservation Concern

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the USFWS "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under ESA." To meet this requirement, the USFWS published a list of BCC (USFWS 2021) for the U.S. The list identifies the migratory and nonmigratory bird species (beyond those already designated as federally threatened or endangered) that represent USFWS' highest conservation priorities. Depending on the policy of the lead agency, projects that result in substantial impacts to BCC may be considered significant under CEQA.

2.2.4.4 California Rare Plant Ranks

The CNPS maintains the Inventory of Rare and Endangered Plants of California (CNPS 2014), which provides a list of plant species native to California that are threatened with extinction, have limited distributions, or low populations. Plant species meeting one of these criteria are assigned to one of six

CRPRs. The rank system was developed in collaboration with government, academia, nongovernmental organizations, and private sector botanists, and is jointly managed by CDFW and the CNPS. The CRPRs are currently recognized in the California Natural Diversity Database (CNDDB). The following are definitions of the CNPS CRPRs:

- Rare Plant Rank 1A – presumed extirpated in California and either rare or extinct elsewhere
- Rare Plant Rank 1B – rare, threatened, or endangered in California and elsewhere
- Rare Plant Rank 2A – presumed extirpated in California, but more common elsewhere
- Rare Plant Rank 2B – rare, threatened, or endangered in California but more common elsewhere
- Rare Plant Rank 3 – a review list of plants about which more information is needed
- Rare Plant Rank 4 – a watch list of plants of limited distribution

Additionally, the CNPS has defined Threat Ranks that are added to the CRPR as an extension. Threat Ranks designate the level of threat on a scale of 1 through 3, with 1 being the most threatened and 3 being the least threatened. Threat Ranks are generally present for all plants ranked 1B, 2B, or 4, and for the majority of plants ranked 3. Plant species ranked 1A and 2A (presumed extirpated in California), and some species ranked 3, which lack threat information, do not typically have a Threat Rank extension. The following are definitions of the CNPS Threat Ranks:

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

Factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Rank; and differences in Threat Ranks do not constitute additional or different protection (CNPS 2014). Depending on the policy of the lead agency, substantial impacts to plants ranked 1A, 1B, or 2 are typically considered significant under CEQA Guidelines Section 15380. Significance under CEQA is typically evaluated on a case-by-case basis for plants ranked 3 or 4.

2.2.4.5 Sensitive Natural Communities

Sensitive natural communities are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. CDFW maintains the California Natural Community List (CDFW 2023a), which provides a list of vegetation alliances, associations, and special stands as defined in *A Manual of California Vegetation* (MCV; CNPS 2023a), along with their respective state and global rarity ranks, if applicable. Natural communities with a state rarity rank of 1, 2, or 3 are considered sensitive natural communities. Depending on the policy of the lead agency, impacts to sensitive natural communities may be considered significant under CEQA.

2.2.4.6 Wildlife Movement Corridors and Nursery Sites

Impacts to wildlife movement corridors or nursery sites may be considered significant under CEQA. As part of the California Essential Habitat Connectivity Project, CDFW and the California Department of Transportation maintain data on Essential Habitat Connectivity areas. This data is available in the CNDDB. The goal of this project is to map large intact habitat or natural landscapes and potential linkages that could provide corridors for wildlife. In urban settings, riparian vegetated stream corridors can also serve as wildlife movement corridors.

Nursery sites include but are not limited to concentrations of nest or den sites such as heron rookeries, bat maternity roosts, and mule deer critical fawning areas. These data are available through CDFW's Biogeographic Information and Observation System database or as occurrence records in the CNDDB and are supplemented with the results of the field reconnaissance. No nursery sites were recorded by CNDDB within any of the three BSAs (CDFW 2023b).

2.2.5 Jackson City Criteria for Tree Removal

The Jackson City, California Municipal code, Section 17.40.120 Criteria for Tree Removal, requires that all developments shall conserve trees. It requires that development proposals calling for the removal of trees with 8 inches or greater diameter at breast height (DBH) be approved by the Planning Commission. It also states that oak trees greater than 16 inches DBH shall be mitigated for by replacement with like species at a minimum ratio of three trees planted for every one tree removed (Jackson City 2023).

2.2.6 Ione City Protection of Heritage Trees

The Ione City, California Municipal code, Section 8.20 Protection of Tree Stock on Undeveloped Property and Heritage Trees and Street Trees on Developed Property, requires that permits be obtained from the City manager for the removal of any heritage tree. A heritage tree is defined as any tree that is over 16 inches DBH.

2.2.7 Sutter Creek Municipal Code

Section 13.24.130 of the Sutter Creek Municipal Code, "Tree landscaping plans for building permits, site plans, use permits and grading permits," states that no building permits, site plans, use permits or grading permits for any type of improvements will be issued unless a tree and landscaping plan has been approved by the planning commission.

3.0 METHODS

3.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review of existing available information for the BSAs and vicinity. Literature sources included current and historical aerial imagery, previous biological studies conducted for the area (if any), topographic mapping, soil survey mapping available from the NRCS Web Soil Survey (NRCS 2023), and USFWS National Wetlands Inventory (NWI 2021) mapping. To identify special-status plant and wildlife species that have been documented in or near the BSAs, the following resources were reviewed:

- CNDDB data for the "Ione, Jackson, and Amador City, California" 7.5-minute quadrangles and the surrounding 12 quadrangles (CDFW 2023a);
- CNPS Rare Plant Inventory data for the "Ione, Jackson, and Amador City, California" 7.5-minute quadrangles and the surrounding 12 quadrangles (CNPS 2023b);
- USFWS Information for Planning and Consultation Resource Report List for the BSA (USFWS 2023);
- NMFS Resources data for the "Ione, Jackson, and Amador City, California" 7.5-minute quadrangles (NMFS 2023).

The results of the database queries are provided in Appendix A. The species identified in the literature review is further evaluated for its potential to occur in each BSA in Section 4 based on available information concerning species habitat requirements and distribution, occurrence data, and the findings of the site reconnaissance.

3.2 Biological Reconnaissance Survey

ECORP staff biologists Jennifer West and Stephanie Castle conducted the site reconnaissance visit on June 23, 2023. The biologists visually assessed the BSAs while walking meandering transects through all portions of the site. Areas that were not accessible by foot were scanned using binoculars for suitable habitat. The following biological resource information was collected:

- Characteristics and approximate boundaries of vegetation communities and other land cover types;
- Plant and animal species or their sign directly observed;
- Types and approximate extents of aquatic resources observed;
- Potential wildlife movement corridors; and
- Incidental observations of special habitat features such as burrows, active raptor nests, and potential bat roost sites.

Special attention was given to identifying those portions of the BSAs with the potential to support special-status species or sensitive habitats. Data were recorded on a Global Positioning System unit, field notebooks, and/or maps. Photographs were taken during the survey to provide visual representation of the conditions within the BSAs.

4.0 RESULTS

4.1 Site Characteristics and Land Use

The BSAs include three separate locations within Amador County. All three locations are within existing school campuses and therefore have a high degree of disturbance and surrounding urbanization. The school campuses include facilities such as permanent and temporary buildings, auditoriums, parking lots, playgrounds, sports fields, and small patches of remaining oak woodlands.

The three BSAs are all situated in the Northern Sierra Nevada Foothills Region of the California floristic province (Baldwin et al. 2012). The average winter low temperature is 40.4 degrees Fahrenheit (˚F), and the average summer high temperature is 94.6˚F; the average annual precipitation is approximately 22.86 inches at the Camp Pardee station, which is approximately 10 miles from the BSA (National Oceanic and Atmospheric Administration [NOAA] 2023).

The Sutter Creek BSA is situated at an elevational range of approximately 1,285 to 1,295 feet above mean sea level (MSL) and consists of a paved playground and part of a maintained sports field with a dirt border between these areas that contains ruderal weeds and sylvicultural trees.

The Ione BSA is situated at an elevational range of approximately 290 to 315 feet above MSL and consists of a parking lot with mixed conifer trees on the border and a dirt storage lot where large storage boxes and sheds are located, bordered by some scattered native oak trees and nonnative trees.

The Argonaut BSA is situated at an elevational range of approximately 1,515 to 1,545 feet above MSL and consists of rolling terrain oak woodlands with rock outcroppings between existing buildings, paved walkways, and parking lots with ruderal borders. The BSA in this location also includes a small orchard with various fruit and nut trees.

Undeveloped portions of the BSAs primarily include blue oak woodland in the Argonaut BSA and disturbed land cover types in all three BSA locations. Vegetation communities and plant species composition are described in further detail below.

Land uses surrounding the BSAs include residential, urban, rural land uses, and undeveloped areas. Figure 2 provides an overview of the land use setting for each BSA, including existing land uses within and adjacent to the BSAs.

Representative photographs of the BSAs are provided in Appendix B.

4.2 Soils

Soil survey mapping for the BSAs was obtained from the NRCS Web Soil Survey accessed on June 28, 2023 (Figure 3). Table 1 provides an overview of the soil series mapped within each BSA and key features of the soil series, such as hydric rating or presence of serpentine or gabbroic soil material.

Map Contents

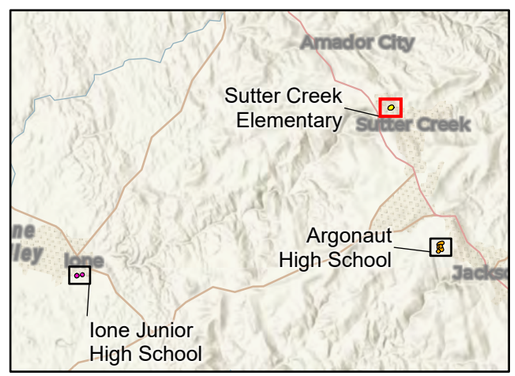
Study Area

- Sutter Creek Elementary BSA - 0.84 ac.

Land Use Type

- School
- Undeveloped
- Urban/Residential

Sources: Amador County, ESRI, Maxar (2022)



Location: N:\2023\2023-108 Amador County Unified School District\MAPS\Landuse\ACUSD Landuse aprx - ACUSD Project Setting 20231113 (jwelsh - 11/14/2023)

Map Date: 11/14/2023

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Scale in Feet
0 100 200

Figure 2. BSA Setting

2023-108 Amador County Unified School District

Map Contents

Study Area

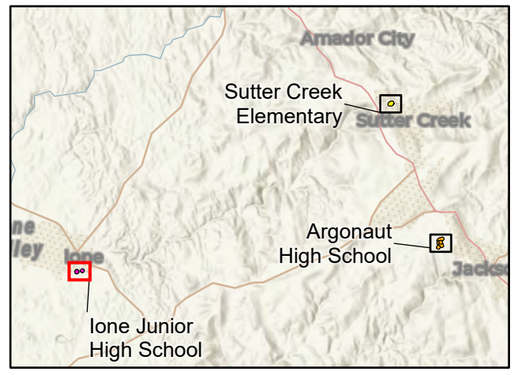
Ione Junior High School BSA - 0.46 ac.

Land Use Type

School

Urban/Residential

Sources: Amador County, ESRI, Maxar (2022)



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Map Date: 11/14/2023

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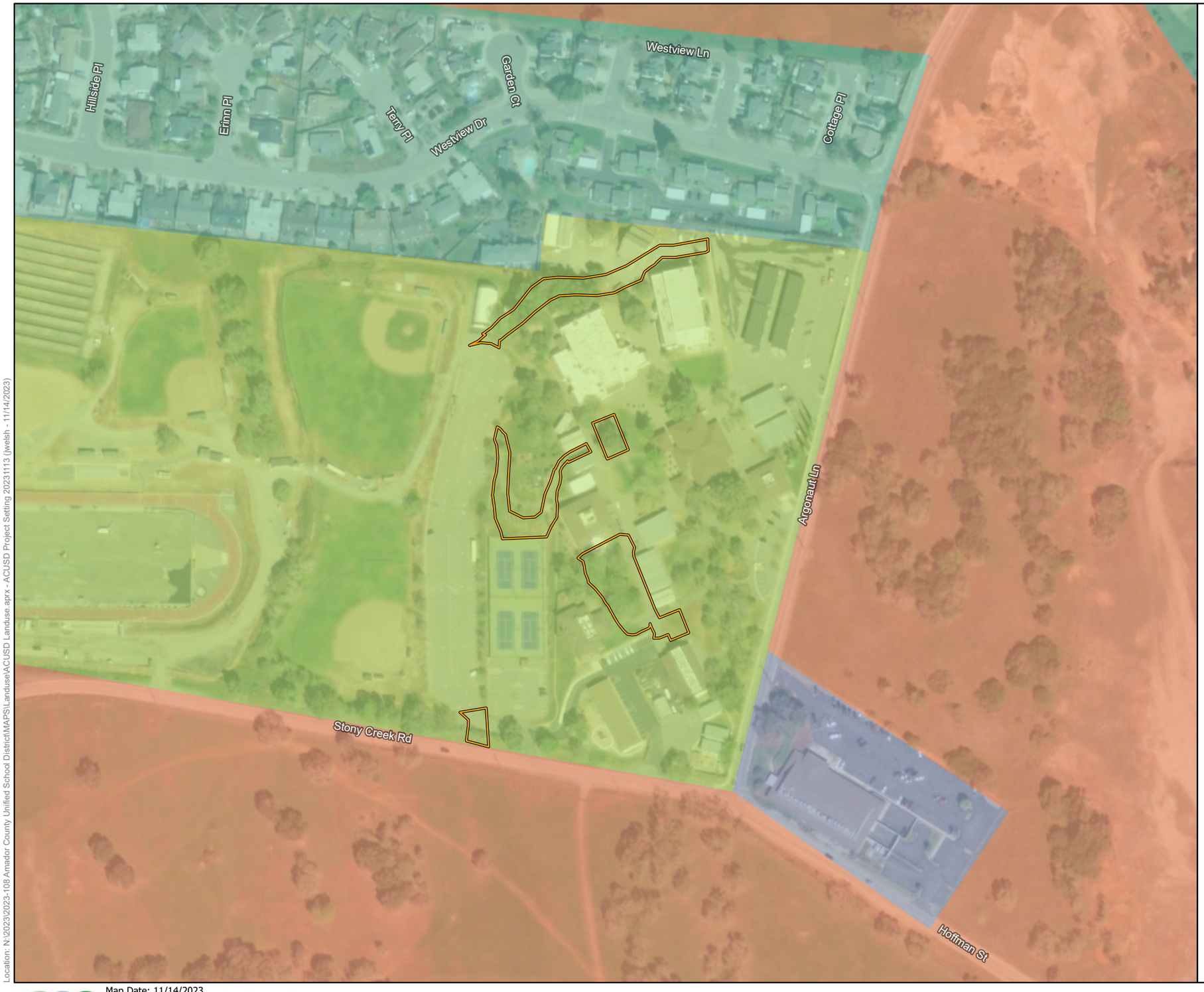
Scale in Feet
0 100 200

Figure 2. BSA Setting



Map Contents

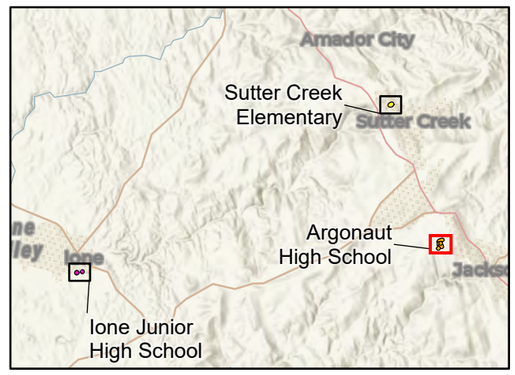
Study Area

- Argonaut High School BSA - 1.28 ac.

Land Use Type

- Residential
- School
- Undeveloped
- Urban

Sources: Amador County, ESRI, Maxar (2022)



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Map Date: 11/14/2023

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Scale in Feet
0 100 200

Figure 2. BSA Setting

2023-108 Amador County Unified School District

Map Contents

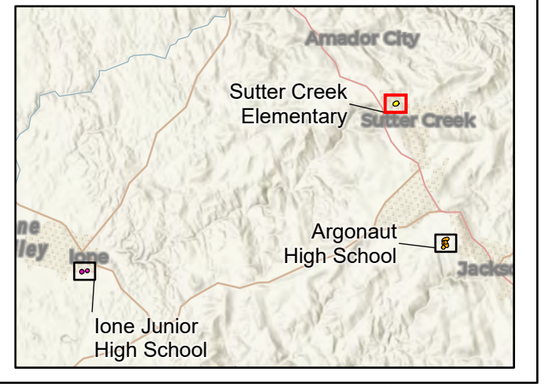
Study Area

Sutter Creek Elementary BSA - 0.84 ac.

NRCS Soil Type within Study Area

AsD - Auburn very rocky silt loam, 3 to 31 percent slopes

Sources: Amador County, ESRI, Maxar (2022), USDA NRCS SSURGO (2019)



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Map Date: 11/14/2023

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Scale in Feet
0 100 200

Figure 3. Natural Resources Conservation Service Soils (Page 1 of 3)
2023-108 Amador County Unified School District

Map Contents

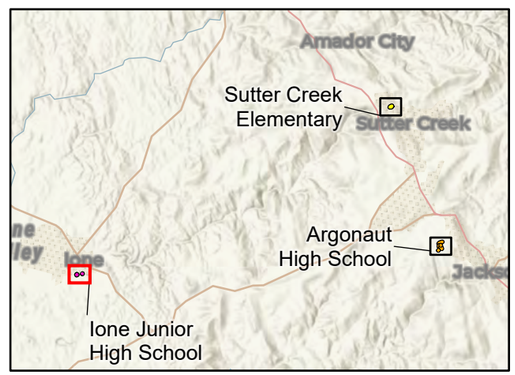
Study Area

- Ione Junior High School BSA - 0.46 ac.

NRCS Soil Type within Study Area

- Mt - Mokelumne soils and alluvial land
- RbD - Red Bluff-Mokelumne complex, 5 to 16 percent slopes

Sources: Amador County, ESRI, Maxar (2022), USDA NRCS SSURGO (2019)



Location: N:\2023\2023-108 Amador County Unified School District\MAPS\Soils_and_Geology\ACUSD Soils and Geology.aprx - ACUSD Soils 20231113 (jwelsh - 11/14/2023)

Map Date: 11/14/2023

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Scale in Feet
0 100 200

Figure 3. Natural Resources Conservation Service Soils (Page 2 of 3)
2023-108 Amador County Unified School District

Map Contents

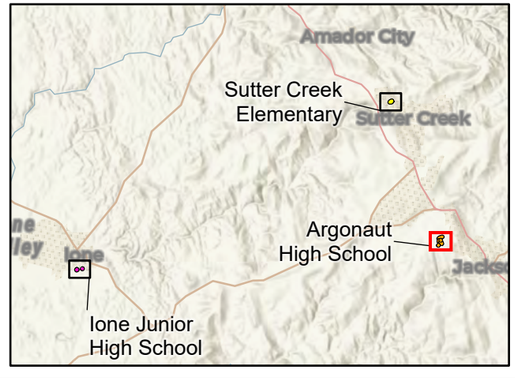
Study Area

Argonaut High School BSA - 1.28 ac.

NRCS Soil Type within Study Area

AxD - Auburn-Argonaut very rocky silt loams, 3 to 31 percent slopes

Sources: Amador County, ESRI, Maxar (2022), USDA NRCS SSURGO (2019)



Location: N:\2023\2023-108 Amador County Unified School District\MAPS\Soils_and_Geology\ACUSD Soils and Geology.aprx - ACUSD Soils 20231113 (jwelsh - 11/14/2023)

Map Date: 11/14/2023

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Scale in Feet
0 100 200

Figure 3. Natural Resources Conservation Service Soils (Page 3 of 3)
2023-108 Amador County Unified School District

Table 1. Soil Series Mapped in the BSAs		
BSA Location	**Map Unit**	**Key Features**
Sutter Creek Elementary School	AsD – Auburn very rocky silt loam, 3 to 31% slopes	None
Argonaut High School	AxD – Auburn-Argonaut very rocky silt loams, 3 to 31% slopes	None
Ione Junior High School	Mt – Mokelumne soils and alluvial land	None
Ione Junior High School	Rbd – Red Bluff-Mokelumne complex, 5 to 16% slopes	None

4.3 Vegetation Communities and Land Cover Types

Vegetation communities were qualitatively assessed and mapped during this assessment based on dominant plant composition. As the BSAs are within previously developed school sites, all sections of the BSAs generally consist of the developed/disturbed land cover type (Figure 4). Smaller vegetation communities existing within these areas were classified based on the classification systems presented in the online MCV database (CNPS 2023a). A full list of plants observed in the BSAs can be found in Appendix C. A description of the vegetation communities and land cover types found in the BSAs is provided below.

4.3.1 Disturbed/Developed

The disturbed or developed land cover type was found within all three BSAs and was composed of paved areas with buildings, parking lots, and walkways, maintained lawns and planted trees, and patches or strips of natural vegetation on the edges of developed areas. The Ione BSA contains a small grouping of native oak trees, including blue oak and interior live-oak trees, as well as nonnative species, bordering a storage lot. The remaining portions of the disturbed or developed areas were either devoid of vegetation or dominated by nonnative ruderal herbaceous species. Small patches of annual grassland vegetation occur between or adjacent to the developed sections within each of the BSAs. Species found within these small patches of annual grassland included brome fescue (*Festuca bromoides*), foxtail (*Hordeum murinum*), rose clover (*Trifolium hirtum*), and medusahead (*Elymus caput-medusae*), among others. The annual grassland patches most resemble the *Avena* spp. – *Bromus* spp. Herbaceous Semi-natural Alliance (CNPS 2023a) but are not large enough to be mapped as a separate vegetation community. The *Avena* spp. – *Bromus* spp. Herbaceous Semi-natural Alliance is not considered a sensitive natural community (CDFW 2023a).

4.3.2 Blue Oak Woodland

The blue oak woodland community is found within sections of the Argonaut BSA and is comprised of blue oak (*Quercus douglasii*) and California buckeye (*Aesculus californica*). The understory consists of those species observed in the annual grassland community associated with the disturbed/developed areas.

Map Contents

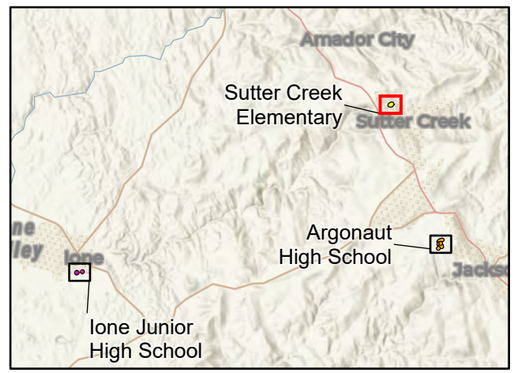
Study Area

Sutter Creek Elementary BSA - 0.84 ac.

Vegetation Communities and Land Cover Types

Developed

Sources: Amador County, ESRI, Maxar (2022)



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Map Date: 11/14/2023

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Scale in Feet
0 100 200

Figure 4. Land Cover/Vegetation Communities (Page 1 of 3)
2023-108 Amador County Unified School District

Map Contents

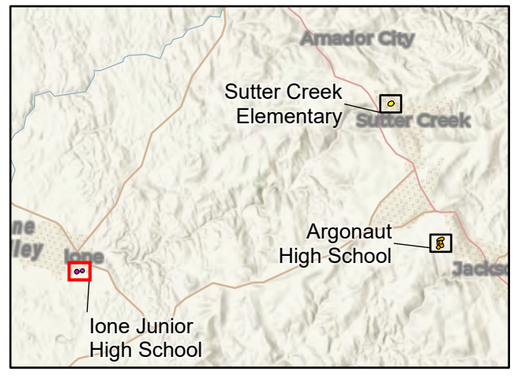
Study Area

Ione Junior High School BSA - 0.46 ac.

Vegetation Communities and Land Cover Types

Developed

Sources: Amador County, ESRI, Maxar (2022)



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Map Date: 11/14/2023

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Scale in Feet
0 100 200

Figure 4. Land Cover/Vegetation Communities (Page 2 of 3)
2023-108 Amador County Unified School District

Map Contents

Study Area

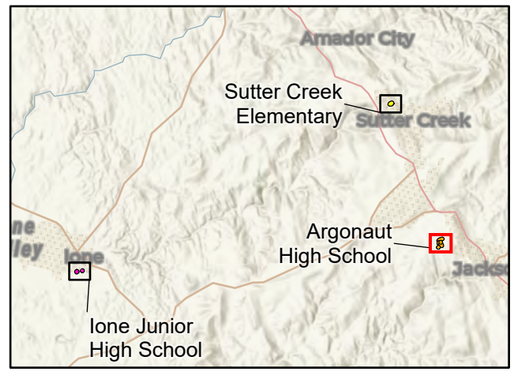
Argonaut High School BSA - 1.28 ac.

Vegetation Communities and Land Cover Types

Developed

Oak Woodlands

Sources: Amador County, ESRI, Maxar (2022)



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Map Date: 11/14/2023

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Scale in Feet
0 100 200

Figure 4. Land Cover/Vegetation Communities (Page 3 of 3)
2023-108 Amador County Unified School District

The blue oak woodland community can be characterized as the *Quercus douglasii* Forest & Woodland Alliance as classified by the MCV (CNPS 2023a). This alliance is not considered a sensitive natural community (CDFW 2023a), and the blue oak woodland within the BSA does not resemble any known sensitive associations.

4.4 Aquatic Resources

The desktop review of the NWI showed no mapped aquatic features within the BSAs (Figure 5). Note that the NWI inventory mapping is based on data prepared from the analysis of high altitude imagery in conjunction with collateral data sources and field work. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site is needed to confirm wetland boundaries and classifications.

The nearest NWI-mapped aquatic resource is a riverine feature north of Argonaut BSA. This feature is seen on page 3 of Figure 5. As shown on Figure 3, the feature has been previously filled and realigned as a result of school and residential construction.

A preliminary aquatic resources assessment to identify potential Waters of the U.S. and State was conducted within the BSAs concurrent with the reconnaissance-level field assessment. No potential aquatic resources were observed within any of the BSAs.

4.5 Wildlife

The vegetation communities in the BSAs provide habitat for a variety of wildlife species adapted to urban or rural environments. Wildlife species observed included barn swallows at the Ione BSA; red-shouldered hawk, killdeer, and turkey vulture at the Sutter Creek BSA; house sparrow and mourning dove at the Argonaut BSA. Other species typically associated with the land use types and vegetation communities found in the BSAs include western gray squirrel (*Sciurus griseus*), Virginia opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), California scrub jay (*Aphelocoma californica*), house finch (*Haemorhous mexicanus*), and mule deer (*Odocoileus hemionus*). A full list of wildlife species observed in the BSAs is provided in Appendix D.

4.6 Special-Status Species

Table 2 presents the special-status plant and animal species identified through the database queries and literature review. For each species, the table provides the listing status, a brief description of habitat requirements and/or species ecology, a determination of the potential to occur onsite, and the rationale for that determination. The potential for each species to occur onsite was assessed using the following criteria:

- **Present** – Species was observed during the site visit or is known to occur within the BSA based on documented occurrences within the CNDDB or other literature.

Map Contents

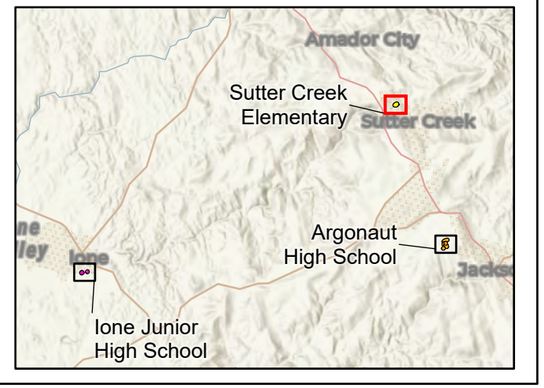
Study Area

Sutter Creek Elementary BSA - 0.84 ac.

Aquatic Resource Type

Riverine

Sources: Amador County, ESRI, Maxar (3/14/2022), USFWS NWI (May 2022)



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Map Date: 11/13/2023

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Scale in Feet
0 100 200

Figure 5. National Wetlands Inventory

Map Contents

Study Area

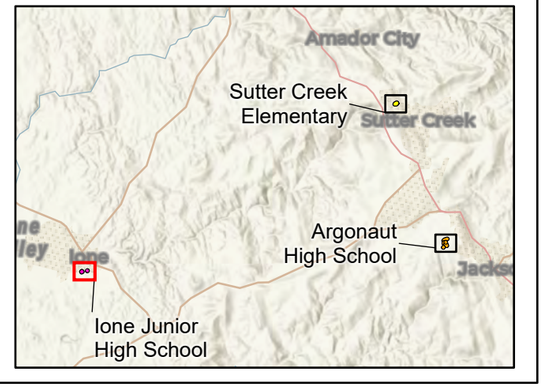
Ione Junior High School BSA - 0.46 ac.

Aquatic Resource Type

Freshwater Pond

Riverine

Sources: Amador County, ESRI, Maxar (3/14/2022), USFWS NWI (May 2022)



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Map Date: 11/13/2023

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Scale in Feet
0 100 200

Figure 5. National Wetlands Inventory

Map Contents

Study Area

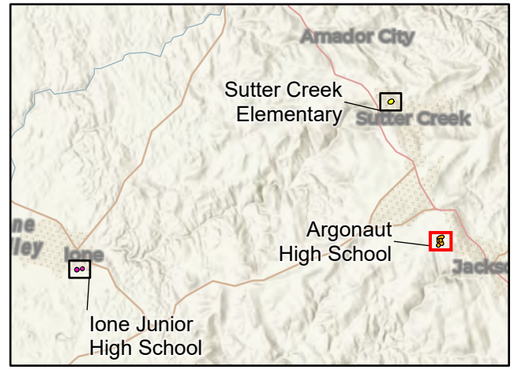
Argonaut High School BSA - 1.28 ac.

Aquatic Resource Type

Freshwater Pond

Riverine

Sources: Amador County, ESRI, Maxar (3/14/2022), USFWS NWI (May 2022)



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Map Date: 11/13/2023

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Scale in Feet
0 100 200

Figure 5. National Wetlands Inventory

2023-108 Amador County Unified School District

- **Potential to Occur** – Suitable habitat (including soils and elevation requirements) occurs in the BSA and the species is known or expected to occur in the BSA vicinity based on available data sources or professional knowledge/experience.
- **Low Potential to Occur** – Marginal or limited amounts of habitat occur, or the species is not known to occur in the vicinity of the BSA based on CNDDB records and other available information.
- **Absent** – No suitable habitat (including soils and elevation requirements) and the species is not known to occur within the vicinity of the BSA based on CNDDB records and other documentation.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Plants					
Ione manzanita *(Arctostaphylos myrtifolia)*	FT	–	1B.2	Chaparral and cismontane woodlands associated with very acidic, nutrient–poor, coarse soils typical of the Ione Formation. Elevation: 195'–1,905' Bloom Period: November–March	Low potential to occur. The Ione Study Area occurs on the Ione Formation (Wagner et al. 1981); however, this species typically grows in chaparral which is absent. The patch of oak trees within the Ione BSA may provide suitable habitat for this species.
Big–scale balsamroot *(Balsamorhiza macrolepis)*	–	–	1B.2	Chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine soils. Elevation: 150'–5,100' Bloom Period: March–June	Low potential to occur. The oak woodland within the Argonaut BSA and the patch of oak trees in the Ione BSA may provide suitable habitat for this species; however, the only occurrence in the vicinity is historic. There is one CNDDB recorded occurrence of this species within 5 miles of the search area.
Hoover's calycadenia *(Calycadenia hooveri)*	–	–	1B.3	Rocky soils in cismontane woodland and valley and foothill grassland. Elevation: 215'–985' Bloom Period: July–September	Low potential to occur. The oak woodlands within the Argonaut BSA and the patch of oak trees in the Ione BSA may provide suitable habitat for this species, but the few occurrences in the vicinity are historic.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Red Hills soaproot *(Chlorogalum grandiflorum)*	–	–	1B.2	Serpentine or gabbroic soils in chaparral, cismontane woodland, and lower montane coniferous forest, occasionally on non–ultramafic soils, often on historically disturbed sites. Elevation: 805'–5,545' Bloom Period: May–June	Potential to occur. The oak woodlands in the Argonaut BSA, patch of oak trees in the Ione BSA, and the disturbed areas in the Argonaut, Ione, and Sutter Creek BSAs may provide suitable habitat for this species. Potential to occur is lower at the Ione BSA due to its lower elevation.
Dwarf downingia *(Downingia pusilla)*	–	–	2B.2	Mesic areas in valley and foothill grassland, and vernal pools. Species has also been found in disturbed areas such as tire ruts and scraped depressions (CDFW 2021). Elevation: 5'–1,460' Bloom Period: March–May	Absent. No suitable habitat within the BSAs.
Ione buckwheat *(Eriogonum apricum* var. *apricum)*	FE	CE	1B.1	Openings in chaparral communities found on Ione soils. Elevation: 195'–475' Bloom Period: July–October	Absent. There is no chaparral within the BSAs.
Irish Hill buckwheat *(Eriogonum apricum* var. *prostratum)*	FE	CE	1B.1	Openings in chaparral communities found on Ione soils. Elevation: 295'–395' Bloom Period: June–July	Absent. There is no chaparral within the BSAs.
Tuolumne button–celery *(Eryngium pinnatisectum)*	–	–	1B.2	Vernal pools and other mesic conditions in cismontane woodland and lower montane coniferous forests. Elevation: 230'–3,000' Bloom Period: May–August	Absent. No suitable habitat within the BSAs.
Stanislaus monkeyflower (*Erythranthe marmorata)*	–	–	1B.1	Cismontane woodland and lower montane coniferous forest. Elevation: 330'–2,955' Bloom Period: March–May	Low potential to occur. The oak woodlands within the Argonaut BSA and the patch of oak trees in the Ione BSA may provide suitable habitat for this species, but the few occurrences in the vicinity are historic. There is one CNDDB recorded occurrence of this species within 5 miles of the search area.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Boggs Lake hedge–hyssop *(Gratiola heterosepala)*	–	CE	1B.2	Marshes, swamps, lake margins, and vernal pools. Elevation: 35'–7,790' Bloom Period: April–August	Absent. No suitable habitat within the BSAs.
Parry's horkelia *(Horkelia parryi)*	–	–	1B.2	Ione and other soil formations in chaparral and cismontane woodlands. Elevation: 260'–3,510' Bloom Period: April–September	Potential to occur. The oak woodlands within the Argonaut BSA and the patch of oak trees in the Ione BSA may provide suitable habitat for this species. Potential to occur is lower at the Ione BSA due to lower elevation. There are seven CNDDB recorded occurrences of this species within 5 miles of the search area.
Legenere *(Legenere limosa)*	–	–	1B.1	Various seasonally inundated areas including wetlands, wetland swales, marshes, vernal pools, artificial ponds, and floodplains of intermittent drainages (USFWS 2005). Elevation: 5'–2,885' Bloom Period: April–June	Absent. No suitable habitat within the BSAs.
Pincushion navarretia *(Navarretia myersii* ssp. *myersii)*	–	–	1B.1	Often acidic soils in vernal pools. Elevation: 65'–1,085' Bloom Period: April–May	Absent. No suitable habitat within the BSAs.
Patterson's navarretia (*Navarretia paradoxiclara*)	–	–	1B.3	Vernally mesic areas, openings, and often drainages within meadows and seeps on serpentine substrates. Elevation: 490'–1,410' Bloom Period: May–June	Absent. No suitable habitat within the BSAs.
Sacramento Orcutt grass *(Orcuttia viscida)*	FE	CE	1B.1	Vernal pools. Elevation: 100'–330' Bloom Period: April–July	Absent. No suitable habitat within the BSAs.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Sanford's arrowhead *(Sagittaria sanfordii)*	–	–	1B.2	Shallow marshes and freshwater swamps. Elevation: 0'–2,135' Bloom Period: May–October	Absent. No suitable habitat within the BSAs.
Prairie wedge grass *(Sphenopholis obtusata)*	–	–	2B.2	Meadows and seeps, and mesic areas in cismontane woodland. Elevation: 985'–6,560' Bloom Period: April–July	Absent. No suitable habitat within the BSAs.
Invertebrates					
Crotch bumble bee *(Bombus crotchii)*	–	CC	–	Primarily nests underground in open grassland and scrub habitats from the California coast east to the Sierra Cascade and south to Mexico. Survey Period: March-September	Absent. No suitable habitat within the BSAs.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	–	–	Vernal pools/wetlands. Survey Period: November–April when surface water is present.	Absent. No suitable habitat within the BSAs.
Monarch butterfly (*Danaus plexippus*)	FC	–	–	Overwinters along coastal California in wind-protected groves of eucalyptus, Monterey pine and cypress with nearby nectar and water sources; disperses in spring throughout California. Adults breed and lay eggs during the spring and summer, feeding on a variety of nectar sources; eggs are laid exclusively on milkweed plants.	Absent. No overwintering habitat within the BSAs.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT	–	–	Found exclusively on its host plant, the elderberry shrub, in riparian and oak woodland/ oak savannah habitats of California's Central Valley from Shasta to Madera counties.	Absent. No elderberry host plants found within the BSAs.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FE	–	–	Vernal pools/wetlands. Survey Period: November-April when surface water is present.	Absent. No suitable habitat within the BSAs.
Fish					
Steelhead (CA Central Valley DPS) (*Oncorhynchus mykiss irideus*)	FT	–	–	Fast-flowing, well-oxygenated rivers and streams below dams in the Sacramento and San Joaquin River systems. Survey Period: N/A	Absent. No suitable habitat within the BSAs.
Amphibians					
California red-legged frog (*Rana draytonii*)	FT	–	SSC	Lowlands and foothills of the northern and southern Coast Ranges and Sierra Nevada. Found in deep standing or flowing water with dense shrubby or emergent riparian vegetation; requires 11-20 weeks of permanent water for larval development. Adults require aestivation habitat to endure summer dry down. Survey Period: January – Sept.	Absent. No suitable habitat within the BSAs.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Foothill yellow-legged frog East/Southern Sierra Clade (*Rana boylii*)	FC	CE	SSC	Partly shaded shallow streams and riffles in variety of habitats. Needs cobble-sized substrate for egg-laying and at least 15 weeks of permanent water to attain metamorphosis. Can be active all year in warmer locations; become inactive or hibernate in colder climates. Sierra Nevada from South Fork American River to Tehachapi Mountains. Survey Period: May–October.	Absent. No suitable habitat within the BSAs.
Western spadefoot (*Spea hammondii*)	–	–	SSC	California endemic species of vernal pools, swales, and seasonal wetlands in grassland, scrub and woodland habitats throughout the Central Valley and South Coast Ranges. Prefers open areas with sandy or gravelly soils. Survey Period: Winter-Spring.	Absent. No suitable habitat within the BSAs.
California tiger salamander (Central California DPS) (*Ambystoma californiense*)	FT	CT	CDFW WL	Breeds in vernal pools and seasonal wetlands in grassland or oak woodland habitats; adults are terrestrial using underground refuges such as ground squirrel or gopher burrows. Central Valley and Inner Coast Range. Survey Period: Winter-Spring.	Absent. No suitable habitat within the BSAs.
Reptiles					
Northwestern pond turtle (*Actinemys marmorata*)	–	–	SSC	Requires basking sites and upland habitats up to 0.5 km from water for egg laying. Uses ponds, streams, detention basins, and irrigation ditches. Survey Period: April-September	Absent. No suitable habitat within the BSAs.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Giant garter snake (*Thamnophis gigas*)	FT	CT	–	Freshwater ditches, sloughs, and marshes in the Central Valley. Almost extirpated from the southern parts of its range. Survey Period: April-October	Absent. No suitable habitat within the BSAs.
Birds					
Western grebe *(Aechmophorus occidentalis)*	–	–	BCC	Winters on salt or brackish bays, estuaries, sheltered sea coasts, freshwater lakes, and rivers. Nests on freshwater lakes and marshes with open water bordered by emergent vegetation. Nesting: June-August	Absent. No suitable habitat within the BSAs.
Clark's grebe *(Aechmophorus clarkii)*	–	–	BCC	Winters on salt or brackish bays, estuaries, sheltered sea coasts, freshwater lakes, and rivers. Breeds on freshwater to brackish marshes, lakes, reservoirs and ponds, with a preference for large stretches of open water fringed with emergent vegetation. Nesting: June-August	Absent. No suitable habitat within the BSAs.
Allen's hummingbird *(Selasphorus sasin)*	–	–	BCC	Breeds along narrow coastal band from SW Oregon south to Santa Barbara and Ventura counties. Channel Islands. Migratory subspecies winter in Mexico, and *sedentarius* resident on Channel Islands and coastal southern California. Breeding occurs in coastal scrub, riparian habitat, mixed evergreen or live oak woodlands. Nesting: February-June	Absent. Does not breed in the region.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
California gull (nesting colony) *(Larus californicus)*	–	–	BCC, CDFW WL	Nesting occurs in the Great Basin, Great Plains, Mono Lake, and south San Francisco Bay. Breeding colonies located on islands on natural lakes, rivers, or reservoirs. Winters along Pacific Coast from southern British Columbia south to Baja California and Mexico. In California, winters along coast and inland (Central Valley, Salton Sea). Nesting: April-August	Absent. No nesting habitat within the BSAs.
Golden eagle (*Aquila chrysaetos*)	–	–	CFP, CDFW WL	Nesting habitat includes mountainous canyon land, rimrock terrain of open desert and grasslands, riparian, oak woodland/ savannah, and chaparral. Nesting occurs on cliff ledges, river banks, trees, and human-made structures (e.g. windmills, platforms, and transmission towers). Breeding occurs throughout California, except the immediate coast, Central Valley floor, Salton Sea region, and the Colorado River region, where they can be found during Winter. Nesting: February-August	Absent. No suitable nesting or foraging habitat within the BSAs.
Bald eagle (*Haliaeetus leucocephalus*)	De-listed	CE	CFP	Typically nests in forested areas near large bodies of water in the northern half of California; nest in trees and rarely on cliffs; wintering habitat includes forest and woodland communities near water bodies (e.g., rivers, lakes), wetlands, flooded agricultural fields, open grasslands. Nesting: February-September	Absent. No suitable nesting or foraging habitat within the BSAs.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Swainson's hawk (*Buteo swainsoni*)	–	CT	–	Nesting occurs in trees in agricultural, riparian, oak woodland, scrub, and urban landscapes. Forages over grassland, agricultural lands, particularly during disking/harvesting, irrigated pastures. Nesting: March-August	Absent. BSAs are outside species range.
Burrowing owl *(Athene cunicularia)*	–	–	BCC, SSC	Nests in burrows or burrow surrogates in open, treeless, areas within grassland, steppe, and desert biomes. Often with other burrowing mammals (e.g., prairie dogs, California ground squirrels). May also use human-made habitat such as agricultural fields, golf courses, cemeteries, roadside, airports, vacant urban lots, and fairgrounds. Nesting: February-August	Absent. No suitable habitat in the BSAs due to foothill location and level of disturbance.
Great gray owl *(Strix nebulosa)*	–	CE	–	Found in the Cascade and Sierra Nevada Ranges south to Fresno County. Nesting occurs in deciduous and coniferous forests adjacent to meadows (in California, at elevations between 750-2,250 meters). Nest in broken-topped dead trees, old raptor nests, mistletoe brooms, or human-made platforms. Nesting: March-July	Absent. No suitable habitat within the BSAs.
Nuttall's woodpecker *(Dryobates nuttallii)*	–	–	BCC	Resident from northern California south to Baja California. Nests in tree cavities in oak woodlands and riparian woodlands. Nesting: April-July	Potential. The patch of oak trees in the Ione BSA and the oak woodlands in the Argonaut BSA may provide suitable nesting habitat for this species.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Yellow-billed magpie (*Pica nuttallii*)	–	–	BCC	Endemic to California; found in the Central Valley and coast range south of San Francisco Bay and north of Los Angeles County; nesting habitat includes oak savannah in large expanses of open ground; also found in urban parklike settings. Nesting: April-June	Potential. Larger trees within the Argonaut and Ione BSAs may provide suitable nesting habitat for this species.
Oak titmouse (*Baeolophus inornatus*)	–	–	BCC	Nests in tree cavities within dry oak or oak-pine woodland and riparian; where oaks are absent, they nest in juniper woodland, open forests (gray, Jeffrey, Coulter, pinyon pines and Joshua tree). Nesting: March-July	Potential. The trees in the Argonaut and Ione BSAs may provide suitable nesting habitat for this species.
Bank swallow (*Riparia riparia*)	–	CT	–	Nests colonially along coasts, rivers, streams, lakes, reservoirs, and wetlands in vertical banks, cliffs, and bluffs in alluvial, friable soils. May also nest in sand, gravel quarries and road cuts. In California, breeding range includes northern and central California. Nesting: May-July	Absent. No suitable nesting habitat within the BSAs.
Wrentit (*Chamaea fasciata*)	–	–	BCC	Coastal sage scrub, northern coastal scrub, chaparral, dense understory of riparian woodlands, riparian scrub, coyote brush and blackberry thickets, and dense thickets in suburban parks and gardens. Nesting: March-August	Absent. No suitable habitat within the BSAs.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
California thrasher (*Toxostoma redivivum*)	–	–	BCC	Resident and endemic to coastal and Sierra Nevada-Cascade foothill areas of California. Nests are usually well hidden in dense shrubs, including scrub oak, California lilac, and chamise. Nesting: February-July	Absent. No suitable habitat within the BSAs.
Lawrence's goldfinch (*Spinus lawrencei*)	–	–	BCC	Breeds in Sierra Nevada and inner Coast Range foothills surrounding the Central Valley and the southern Coast Range to Santa Barbara County east through southern California to the Mojave Desert and Colorado Desert into the Peninsular Range. Nests in arid and open woodlands with chaparral or other brushy areas, tall annual weed fields, and a water source (e.g. small stream, pond, lake), and to a lesser extent riparian woodland, coastal scrub, evergreen forests, pinyon-juniper woodland, planted conifers, and ranches or rural residences near weedy fields and water. Nesting: March-September	Potential. The weedy edges in the Argonaut and Ione BSAs may provide suitable nesting habitat for this species.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Grasshopper sparrow (*Ammodramus savannarum*)	–	–	BCC, SSC	In California, breeding range includes most coastal counties south to Baja California; western Sacramento Valley and western edge of Sierra Nevada region. Nests in moderately open grasslands and prairies with patchy bare ground. Avoids grasslands with extensive shrub cover; more likely to occupy large tracts of habitat than small fragments; removal of grass cover by grazing often detrimental. Nesting: May-August	Absent. No suitable nesting habitat within the BSAs.
Belding's savannah sparrow (*Passerculus sandwichensis beldingi*)	–	CE	BCC	Resident coastally from Point Conception south into Baja California; coastal salt marsh. Year-round resident; nests March-August	Absent. The BSAs are outside of species range.
Tricolored blackbird (*Agelaius tricolor*)	–	CT	BCC, SSC	Breeds locally west of Cascade-Sierra Nevada and southeastern deserts from Humboldt and Shasta counties south to San Bernardino, Riverside and San Diego counties. Central California, Sierra Nevada foothills and Central Valley, Siskiyou, Modoc and Lassen counties. Nests colonially in freshwater marsh, blackberry bramble, milk thistle, triticale fields, weedy (mustard, mallow) fields, giant cane, safflower, stinging nettles, tamarisk, riparian scrublands and forests, fiddleneck and fava bean fields. Nesting: March-August	Absent. No suitable nesting habitat within the BSAs.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Bullock's oriole (*Icterus bullockii*)	–	–	BCC	Breeding habitat includes riparian and oak woodlands. Nesting: March-July	Potential. The oak woodland in the Argonaut BSA may provide suitable nesting habitat for this species. The high level of disturbance and small patch of oak trees at the Ione BSA does not provide suitable nesting habitat for this species.
Saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*)	–	–	BCC, SSC	Breeds in salt marshes of San Francisco Bay; winters San Francisco south along coast to San Diego County. Nesting: March-July	Absent. The BSAs are outside of species range.
Mammals					
Pallid bat *(Antrozous pallidus)*	–	–	SSC	Crevices in rocky outcrops and cliffs, caves, mines, trees (e.g. basal hollows of redwoods, cavities of oaks, exfoliating pine and oak bark, deciduous trees in riparian areas, and fruit trees in orchards). Also roosts in various human structures such as bridges, barns, porches, bat boxes, and human occupied as well as vacant buildings (WBWG 2017). Active Period: April-September	Potential. Trees and structures within the Ione and Argonaut BSAs may provide suitable roosting habitat for this species.

Table 2. Special-Status Species Evaluation

Common Name (Scientific Name)	Status			Habitat Description/ Species Ecology	Potential To Occur Onsite
	FESA	CESA/ NPPA	Other		
Townsend's big-eared bat *(Corynorhinus townsendii)*	–	–	SSC	Occurs throughout the west and is distributed from the southern portion of British Columbia south along the Pacific coast to central Mexico and east into the Great Plains, with isolated populations occurring in the central and eastern United States. It has been reported in a wide variety of habitat types ranging from sea level to 3,300 meters. Habitat associations include: coniferous forests, mixed meso-phytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Roosting can occur within caves, mines, buildings, rock crevices, trees. Active Period: April-September	Low potential. The trees and structures within the Ione and Argonaut BSAs may provide suitable roosting habitat for this species but habitat is considered marginal due to a high level of disturbance.

Notes: CDFW = California Department of Fish and Wildlife, USFWS = U.S. Fish and Wildlife Service, WBWG = Western Bat Working Group.

Status Codes

FESA	Federal Endangered Species Act
CESA	California Endangered Species Act
FE	FESA listed, Endangered
FT	FESA listed, Threatened
FC	Candidate for FESA listing as Threatened or Endangered
BCC	USFWS Bird of Conservation Concern (USFWS 2021)
CE	CESA- or NPPA listed, Endangered
CT	CESA- or NPPA-listed, Threatened
CC	Candidate for CESA listing as Endangered or Threatened
CFP	California Fish and Game Code Fully Protected Species (§ 3511-birds, § 4700-mammals, §5050-reptiles/amphibians)
SSC	CDFW Species of Special Concern
CDFW WL	CDFW Watch List
1B	CRPR/Rare or Endangered in California and elsewhere
2B	CRPR/Plants rare, threatened, or endangered in California but more common elsewhere
0.1	Threat Rank/Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2	Threat Rank/Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3	Threat Rank/Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)
Delisted	Formally Delisted

4.6.1 Plants

The following plants may have potential to occur onsite and therefore further information is provided below.

4.6.1.1 Ione Manzanita

Ione manzanita (*Arctostaphylos myrtifolia*) is listed as threatened pursuant to the federal ESA, is not listed pursuant to the California ESA, and is designated as a CRPR 1B.2 species. This perennial evergreen shrub occurs in chaparral and cismontane woodlands associated with very acidic, nutrient-poor, coarse soils typical of the Ione Formation. Ione manzanita blooms from November through March and is known to occur at elevations ranging from 195 to 1,905 feet above MSL. Ione manzanita is endemic to California; the current range for this species includes Amador and Calaveras counties (CNPS 2023b).

There are three mapped CNDDB occurrences of this species located within 5 miles of the search area (CDFW 2023a). The patch of remnant oak woodland within the Ione BSA may provide marginally suitable habitat for this species. Ione manzanita has low potential to occur within the Ione BSA and is absent from the Argonaut and Sutter Creek BSAs.

4.6.1.2 Big-Scale Balsamroot

Big-scale balsamroot (*Balsamorhiza macrolepis*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.2 species. This species is an herbaceous perennial that occurs in chaparral, cismontane woodlands, valley and foothill grassland, and sometimes on serpentinite soils. Big-scale balsamroot blooms from March through June and is known to occur at elevations ranging from 150 to 5,100 feet above MSL. Big-scale balsamroot is endemic to California; the current range of this species includes Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama, and Tuolumne counties (CNPS 2023b).

There is one mapped CNDDB occurrence of this species located within 5 miles of the search area (CDFW 2023a). The oak woodland within the Argonaut and Ione BSAs may provide suitable habitat for this species; however, the only occurrence in the vicinity is historic. Big-scale balsamroot has low potential to occur within the Argonaut and Ione BSAs and is absent from the Sutter Creek BSA.

4.6.1.3 Hoover's Calycadenia

Hoover's calycadenia (*Calycadenia hooveri*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.3 species. This plant is an herbaceous annual that occurs in rocky soils in cismontane woodland and valley and foothill grassland. Hoover's calycadenia blooms from July through September and is known to occur at elevations ranging from 215 to 985 feet above MSL. Hoover's calycadenia is endemic to California; the current range for this species includes Calaveras, Madera, Merced, Mariposa, San Joaquin, and Stanislaus counties (CNPS 2023b).

There are no mapped CNDDB occurrences of this species located within 5 miles of the search area (CDFW 2023a). The oak woodlands within the Argonaut and Ione BSAs may provide marginally suitable habitat

for this species, but the few occurrences in the vicinity are historic. Hoover's calycadenia has low potential to occur within the Argonaut and Ione BSAs and is absent from the Sutter Creek BSA.

4.6.1.4 Red Hills Soaproot

Red Hills soaproot (*Chlorogalum grandiflorum*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.2 plant. This species is a bulbiferous perennial herb that typically occurs on serpentinite, gabbroic, and other soils in chaparral, cismontane woodland, and lower montane coniferous forest communities. Red Hills soaproot blooms from May through June and is known to occur at elevations ranging from 805 to 5,545 feet above MSL. Red Hill soaproot is endemic to California; the current range of this species includes Amador, Calaveras, El Dorado, Placer, and Tuolumne counties (CNPS 2023b).

There are no mapped CNDDB occurrences of this species located within 5 miles of the search area (CDFW 2023a). The oak woodlands and ruderal areas within the Argonaut and Ione BSAs and the ruderal areas within the Sutter Creek BSAs may provide suitable habitat for this species. The potential to occur is lower at the Ione BSA due to lower elevation. Red hills soaproot has potential to occur within the three BSAs.

4.6.1.5 Stanislaus Monkeyflower

Stanislaus monkeyflower (*Erythranthe marmorata*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in cismontane woodland and lower montane coniferous forests. Stanislaus monkeyflower blooms from March through May and is known to occur at elevations ranging from 330 to 2,955 feet above MSL. Stanislaus monkeyflower is endemic to California; its current range includes Amador, Calaveras, Fresno, Stanislaus, and Tuolumne counties (CNPS 2023b).

There is one CNDDB recorded occurrence of this species within 5 miles of the search area. The oak woodlands within the Argonaut and Ione BSAs may provide marginally suitable habitat for this species; however, the few occurrences in the vicinity are historic. Stanislaus Monkeyflower has low potential to occur within the Argonaut and Ione BSAs and is absent from the Sutter Creek BSA.

4.6.1.6 Parry's Horkelia

Parry's horkelia (*Horkelia parryi*) is not listed pursuant to either the federal or California ESAs but is designated as a CRPR 1B.2 species. This species is a small, herbaceous perennial that occurs in chaparral and cismontane woodlands and is associated with very acidic, nutrient-poor, coarse soils typical of the Ione Formation. Parry's horkelia blooms from April through September and is known to occur at elevations ranging from 260 to 3,510 feet above MSL. Parry's horkelia is endemic to California; the current range for this species includes Amador, Calaveras, El Dorado, Mariposa, and Tuolumne counties (CNPS 2023b).

There are seven CNDDB recorded occurrences of this species within 5 miles of the search area. The oak woodlands within the Argonaut and Ione BSAs may provide suitable habitat for this species. Parry's

horkelia has potential to occur within the Argonaut and Ione BSAs and is absent from the Sutter Creek BSA.

4.6.2 Wildlife

The following wildlife may have potential to occur onsite and therefore further information is provided below.

4.6.2.1 Nuttall's Woodpecker

The Nuttall's woodpecker (*Dryobates nuttallii*) is not listed or protected under either the California or federal ESAs but is considered a USFWS BCC. They are residents from Siskiyou County south to Baja California. Nuttall's woodpeckers nest in tree cavities primarily within oak woodlands, but also can be found in riparian woodlands (Lowther et al. 2020). Breeding occurs from April through July.

There are no CNDDB recorded occurrences of this species within 5 miles of the search area. Oak trees in the Ione and Argonaut BSAs may provide suitable nesting habitat for this species. Nuttall's woodpecker has potential to occur within the Ione and Argonaut BSAs but is absent from the Sutter Creek BSA.

4.6.2.2 Yellow-Billed Magpie

The yellow-billed magpie (*Pica nuttalli*) is not listed pursuant to either the California or federal ESAs but is considered a USFWS BCC. This endemic species is a yearlong resident of the Central Valley and Coast Ranges from San Francisco Bay to Santa Barbara County. Yellow-billed magpies build large, bulky nests in trees in a variety of open woodland habitats, typically near grassland, pastures or cropland. Nest building begins in late January to mid-February, which may take up to 6 to 8 weeks to complete, with eggs laid from April through May, and fledging from May through June (Koenig and Reynolds 2020). The young leave the nest about 30 days after hatching (Koenig and Reynolds 2020). Yellow-billed magpies are highly susceptible to West Nile Virus, which may have been the cause of death to thousands of magpies during 2004-2006 (Koenig and Reynolds 2020).

There are no CNDDB recorded occurrences of this species within 5 miles of any of the search area. Larger trees within Ione and Argonaut BSAs may provide suitable nesting habitat for this species. Yellow-billed magpie has potential to occur within the Ione and Argonaut BSAs and is absent from the Sutter Creek BSA.

4.6.2.3 Oak Titmouse

Oak titmouse (*Baeolophus inornatus*) is not listed or protected under either the California or federal ESAs but is considered a USFWS BCC. Oak titmouse breeding range includes southwestern Oregon south through California's Coast, Transverse, and Peninsular ranges, western foothills of the Sierra Nevada, into Baja California; they are absent from the humid northwestern coastal region and the San Joaquin Valley (Cicero et al. 2020). They are found in dry oak or oak-pine woodlands but may also use scrub oaks or other brush near woodlands (Cicero et al. 2020). Nesting occurs during March through July.

There are no CNDDB recorded occurrences of this species within 5 miles of the search area. Larger trees within the Ione and Argonaut BSAs may provide suitable nesting habitat for this species. Oak titmouse has potential to occur within the Ione and Argonaut BSAs and is absent from the Sutter Creek BSA.

4.6.2.4 Lawrence's Goldfinch

Lawrence's goldfinch (*Spinus lawrencei*) is not listed pursuant to either the California or federal ESAs but is currently a USFWS BCC. Lawrence's goldfinches breed west of the Sierra Nevada-Cascade axis from Tehama, Shasta, and Trinity counties south into the foothills surrounding the Central Valley to Kern County; and on the Coast Range from Contra Costa County to Santa Barbara County (Watt et al. 2020). Lawrence's goldfinches nest in arid woodlands usually with brushy areas, tall annual weeds, and a local water source (Watt et al. 2020). Nesting occurs during March through September.

There are no CNDDB recorded occurrences of this species within 5 miles of the search area. The weedy edges in the Ione and Argonaut BSAs may provide suitable habitat for this species. Lawrence's goldfinch has potential to occur within the Ione and Argonaut BSAs and is absent from the Sutter Creek BSA.

4.6.2.5 Bullock's Oriole

Bullock's oriole (*Icterus bullockii*) is not listed pursuant to either the California or federal ESAs but is currently a USFWS BCC. In California, Bullock's orioles are found throughout the state except the higher elevations of mountain ranges and the eastern deserts (Small 1994). They are found in riparian and oak woodlands where nests are built in deciduous trees, but may also use orchards, conifers, and eucalyptus trees (Flood et al. 2020). Nesting occurs from March through July.

There are no CNDDB recorded occurrences of this species within 5 miles of any of the search area. The oak woodland in the Argonaut and Ione BSAs may provide suitable habitat for this species. Bullock's Oriole has potential to occur within the Argonaut and Ione BSAs and is absent from the Sutter Creek BSA.

4.6.2.6 Pallid Bat

The pallid bat (*Antrozous pallidus*) is not listed pursuant to either the federal or California ESAs; however, this species is considered an SSC by CDFW. The pallid bat is a large, light-colored bat with long, prominent ears and pink, brown, or grey wing and tail membranes. This species ranges throughout North America from the interior of British Columbia, south to Mexico, and east to Texas. The pallid bat inhabits low elevation (below 6,000 feet above MSL) rocky arid deserts and canyonlands, shrub-steppe grasslands, karst formations, and high elevation (above 7,000 feet above MSL) coniferous forest. This species roosts alone or in groups in the crevices of rocky outcrops and cliffs, caves, mines, trees, and in various human structures such as bridges and barns. The pallid bat is a feeding generalist that gleans a variety of arthropod prey from surfaces as well as capturing insects on the wing. Foraging occurs over grasslands, oak savannahs, ponderosa pine forests, talus slopes, gravel roads, lava flows, fruit orchards, and vineyards. Although this species utilizes echolocation to locate prey, they often use only passive acoustic cues. This species is not thought to migrate long distances between summer and winter sites (Western Bat Working Group [WBWG] 2017).

There are no CNDDB recorded occurrences of this species within 5 miles of the search area. The oak woodland and existing storage buildings in the Argonaut and Ione BSAs may provide suitable habitat for this species. Pallid bat has potential to occur within the Argonaut and Ione BSAs and is absent from the Sutter Creek BSA.

4.6.2.7 Townsend's Big-Eared Bat

The Townsend's big-eared bat (*Corynorhinus townsendii*) is not listed pursuant to either the California or federal ESAs; however, this species is considered an SSC by CDFW. The Townsend's big-eared bat is a fairly large bat with prominent bilateral noes lumps and large rabbit-like ears. This species occurs throughout the west and ranges from the southern portion of British Columbia south along the Pacific coast to central Mexico and east into the Great Plains. The Townsend's big-eared bat has been reported from a wide variety of habitat types and elevations from sea level to 10,827 feet above MSL. Habitats used include coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Its distribution is strongly associated with the availability of caves and cave-like roosting habitat including abandoned mines, buildings, bridges, rock crevices, and hollow trees. This species is readily detectable when roosting due to their habit of roosting pendant-like on open surfaces. The Townsend's big-eared bat is a moth specialist, composing more than 90 percent of its diet. Foraging habitat is generally edge habitats along streams adjacent to and within a variety of wooded habitats. This species often travels long distances when foraging and large home ranges have been documented in California (WBWG 2017).

There are no CNDDB recorded occurrences of this species within 5 miles of the search area. The trees and existing storage buildings in the Argonaut and Ione BSAs may provide suitable habitat for this species. Townsend's big-eared bat has potential to occur within the Argonaut and Ione BSAs and is absent from the Sutter Creek BSA.

4.7 Critical Habitat or Essential Fish Habitat

There is no Critical Habitat within any of the BSAs (CDFW 2023a).

No Essential Fish Habitat occurs within the "Amador City, Jackson, or Ione, California" 7.5-minute quadrangles (NOAA 2016).

4.8 Wildlife Movement Corridors or Nursery Sites

The Argonaut BSA and Sutter Creek BSA are both within mapped sections of Essential Habitat Connectivity Areas as mapped by CDFW; however, due to the previously developed nature of these BSAs, they do not have the potential to serve as a wildlife movement corridors for terrestrial wildlife species (CDFW 2023b).

No wildlife nursery sites have been documented within any of the BSAs (CDFW 2023a), and none were observed during the field assessment. Due to the disturbed nature of the BSAs, it is unlikely to support nursery sites aside from potential bat maternity colonies at the Argonaut and Ione BSAs.

5.0 IMPACT ASSESSMENT AND RECOMMENDATIONS

5.1 Special-Status Plants

The BSA supports potential habitat for special-status plants, as identified in Table 1. No special-status plants were found during field surveys; however, protocol-level surveys have not been conducted. If a special-status plant is found within a BSA, Project impacts could include damage or loss of individual plants, loss of occupied habitat, and indirect impacts such as disturbance from human encroachment and changes in habitat quality due to alteration of hydrology, erosion, and transport of soil, debris, or pollutants into occupied habitat.

The following measures are recommended to minimize potential impacts to special-status plants:

- The applicant shall perform special-status plant surveys of all three BSAs according to CDFW, CNPS, and USFWS protocols (California Department of Fish and Game 2009; CNPS 2014; USFWS 1996). Surveys shall be conducted throughout all suitable habitat within the Project footprints and a 50-foot buffer to address potential direct and indirect impacts of the Project.
- Surveys shall be conducted by a qualified biologist and timed according to the identifiable period for target species (typically the blooming period). To the extent feasible, known reference populations will be visited prior to surveys to confirm target species are evident and identifiable at the time of the survey.
- If no special-status plants are found, no further measures pertaining to special-status plants are necessary.
- If special-status plants are identified within a BSA, the Project shall be modified to the extent feasible to prevent disturbance or loss of special-status plants. Environmentally Sensitive Areas shall be established around sensitive plant populations in or adjacent to the BSA. Environmentally Sensitive Areas shall have a 50-foot buffer unless otherwise determined by a qualified biologist in coordination with the appropriate resource agency. Buffer distances may vary between species depending on listing status, rarity, and other factors. Environmentally Sensitive Areas will be clearly demarcated in the field, and no construction or ground-disturbing activities will occur within the boundaries of the delineated area.
- If special-status plant species are found and avoidance is not feasible, additional measures may be developed in consultation with CDFW, USFWS, and/or the CEQA lead agency. These measures may include restoration or permanent preservation of habitat for special-status plant species or translocation (via seed collection and/or transplantation) from planned impact areas to unaffected suitable habitat.
- If a state or federally listed threatened or endangered plant or a plant that is a candidate for state listing is found within a BSA, the applicant shall consult with CDFW and/or USFWS, as applicable, to determine appropriate avoidance and minimization measures. If the plants cannot be avoided, an incidental take permit and compensatory mitigation may be required.

5.1.1 Oak Trees

All three of the BSAs have trees that will likely require removal for construction. The Argonaut BSA is located within the City of Jackson, California. Tree removal outside of district property (for the driveway to Stony Creek) will need to comply with the Jackson City Ordinances for tree removal. No improvements are proposed within the Ione BSA or Sutter Creek BSA that would be subject to the local municipal codes for tree removal. To ensure the requirements of the Jackson Municipal Code are met, the following measures are recommended:

- Obtain the proper permits for any trees meeting ordinance requirements prior to removal and complete all required mitigation.

5.2 Nesting Birds (Including Raptors)

Suitable nesting and/or wintering and foraging habitat for several special-status birds is present within the Argonaut and Ione BSAs. These include Nuttall's woodpecker, yellow-billed magpie, oak titmouse, Lawrence's goldfinch, and Bullock's oriole. If present, the Project could result in harassment to nesting individuals and/or abandonment of active nests, and may temporarily disrupt foraging activities.

In addition to the above listed special-status birds, all native birds, including raptors, are protected under the California Fish and Game Code and the federal MBTA. Disturbances that harm, injure or kill nesting birds would result in a violation of these regulations. To avoid potential impacts to active nests, the following mitigation measures are recommended:

- Conduct a pre-construction nesting bird survey of all suitable habitats within and adjacent to the BSAs within 14 days prior to the commencement of construction during the nesting season (February 1 to August 31). The survey shall be conducted within a 300-foot radius of Project work areas for nesting raptors and a 100-foot radius for passerines.
- If active nests are found, a no-disturbance buffer shall be established around the nest. The buffer distance shall be established by a qualified biologist. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist. Once the young are independent of the nest, the buffer shall be removed.

5.3 Special-Status Bats

The large oak trees and storage structures in the Argonaut and Ione BSAs represent potential roosting habitat for pallid and Townsend's big-eared bats. If occupied bat roosts are present, removal of the habitat feature could result in injury or death of special-status bats. Removal during the maternity roosting season could result in the loss of an established maternity roosting site and injury or death of pups that are not yet able to fly. Removal of a roost site during the winter season could result in direct injury or death of special-status bats, particularly during time periods of colder weather or heavy rain, when bats are more likely to be in torpor. Impacts to special-status bats and maternity roost sites are considered significant under CEQA.

To avoid and minimize significant impacts to special-status bats or roosting colonies, the following mitigation measures are recommended:

- A focused bat roost survey and habitat assessment shall be conducted for the Argonaut and Ione BSAs by a qualified bat biologist. The initial survey shall be conducted as early in the planning process as possible, to allow for avoidance of Project-related impacts during critical periods of the bat's life cycle. During the survey, potential roost sites shall be evaluated and inspected for presence or sign of roosting bats. Surveys may be aided by the use of night-vision goggles or acoustic equipment to determine if roosting bats are present and to help aid in species identification.
- If use of the Argonaut and/or Ione BSAs by roosting bats is confirmed, identified bat roosting sites shall be avoided and protected in place to the extent feasible. A buffer area shall be established around the roost site to minimize disturbance of roosting bats. The size of the buffer area will depend on the species and type of roost present (e.g., maternity roost, day roost, hibernacula), and will be determined in consultation with CDFW.
- If avoidance is not possible, and a tree or structure with bat roosting habitat must be removed, the applicant shall consult with CDFW regarding appropriate avoidance and mitigation measures. Measures may include restrictions on timing or methods of roost removal to avoid potential injury or death of individual bats, as well as replacement of removed bat habitat features.
- In general, removal of bat roost sites shall be timed to occur outside of the maternity roosting season (generally April 1 to August 31) and only when nighttime low temperature are above 45°F and rainfall is less than 0.5 inch in 24 hours. If a maternity colony is present, it shall remain undisturbed until the young are volant (able to fly) and the colony has dispersed, as confirmed by a qualified bat biologist.
- Where feasible, bat exclusion devices or one-way doors may be used to exclude bats from roost sites prior to removal.
- Trees with identified bat roosting habitat shall be removed using a two-phase removal process conducted over two consecutive days. On the first day, tree limbs and branches will be removed, using chainsaws only. Removal will avoid limbs with cavities, cracks, crevices, or deep bark fissures. On the second day, the entire tree will be removed.
- Standing dead trees or snags with habitat features should be removed over a single day by gently lowering the tree or snag to the ground. The tree or snag shall be left undisturbed onsite for the next 48 hours.
- Removal and trimming of trees with potential roosting habitat shall be conducted in the presence of a biological monitor.

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LIST OF APPENDICES

Appendix A – Results of Database Queries

Appendix B – Representative Site Photographs

Appendix C – Plant Species Observed in All BSAs

Appendix D – Wildlife Species Observed in All BSAs

APPENDIX A

Results of Database Queries

Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Carbondale (3812141) OR Goose Creek (3812131) OR Clements (3812121) OR Wallace (3812028) OR Valley Springs (3812027) OR San Andreas (3812026) OR Mokelumne Hill (3812036) OR Pine Grove (3812046) OR Aukum (3812056) OR Fiddletown (3812057) OR Irish Hill (3812048) OR Latrobe (3812058) OR Jackson (3812037) OR Ione (3812038) OR Amador City (3812047))

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAAAA01181	***Ambystoma californiense pop. 1*** California tiger salamander - central California DPS	Threatened	Threatened	G2G3T3	S3	WL
AAABF02020	***Spea hammondii*** western spadefoot	None	None	G2G3	S3S4	SSC
AAABH01022	***Rana draytonii*** California red-legged frog	Threatened	None	G2G3	S2S3	SSC
AAABH01055	***Rana boylii pop. 5*** foothill yellow-legged frog - south Sierra DPS	Proposed Endangered	Endangered	G3T2	S2	
ABNGA04010	***Ardea herodias*** great blue heron	None	None	G5	S4	
ABNGA04040	***Ardea alba*** great egret	None	None	G5	S4	
ABNKC01010	***Pandion haliaetus*** osprey	None	None	G5	S4	WL
ABNKC10010	***Haliaeetus leucocephalus*** bald eagle	Delisted	Endangered	G5	S3	FP
ABNKC19070	***Buteo swainsoni*** Swainson's hawk	None	Threatened	G5	S4	
ABNKC22010	***Aquila chrysaetos*** golden eagle	None	None	G5	S3	FP
ABNKD06090	***Falco mexicanus*** prairie falcon	None	None	G5	S4	WL
ABNSB10010	***Athene cunicularia*** burrowing owl	None	None	G4	S3	SSC
ABNSB12040	***Strix nebulosa*** great gray owl	None	Endangered	G5	S1	
ABPAU08010	***Riparia riparia*** bank swallow	None	Threatened	G5	S3	
ABPBX24010	***Icteria virens*** yellow-breasted chat	None	None	G5	S3	SSC
ABPBXA0020	***Ammodramus savannarum*** grasshopper sparrow	None	None	G5	S3	SSC
ABPBXB0020	***Agelaius tricolor*** tricolored blackbird	None	Threatened	G1G2	S2	SSC
AFCHA0209K	***Oncorhynchus mykiss irideus pop. 11*** steelhead - Central Valley DPS	Threatened	None	G5T2Q	S2	

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AMACC08010	***Corynorhinus townsendii*** Townsend's big-eared bat	None	None	G4	S2	SSC
AMACC10010	***Antrozous pallidus*** pallid bat	None	None	G4	S3	SSC
AMAFJ01010	***Erethizon dorsatum*** North American porcupine	None	None	G5	S3	
ARAAD02030	***Emys marmorata*** western pond turtle	None	None	G3G4	S3	SSC
ARADB36150	***Thamnophis gigas*** giant gartersnake	Threatened	Threatened	G2	S2	
CARA2443CA	***Central Valley Drainage Hardhead/Squawfish Stream*** Central Valley Drainage Hardhead/Squawfish Stream	None	None	GNR	SNR	
CTT37D00CA	***Ione Chaparral*** Ione Chaparral	None	None	G1	S1.1	
CTT44110CA	***Northern Hardpan Vernal Pool*** Northern Hardpan Vernal Pool	None	None	G3	S3.1	
ICBRA03030	***Branchinecta lynchi*** vernal pool fairy shrimp	Threatened	None	G3	S3	
ICBRA03150	***Branchinecta mesovallensis*** midvalley fairy shrimp	None	None	G2	S2S3	
ICBRA06010	***Linderiella occidentalis*** California linderiella	None	None	G2G3	S2S3	
ICBRA10010	***Lepidurus packardi*** vernal pool tadpole shrimp	Endangered	None	G4	S3	
ICMAL05460	***Stygobromus gradyi*** Grady's Cave amphipod	None	None	G1	S1	
ICMAL05920	***Stygobromus grahami*** Graham's Cave amphipod	None	None	G2	S2	
IICOL48011	***Desmocerus californicus dimorphus*** valley elderberry longhorn beetle	Threatened	None	G3T2T3	S3	
IICOL55040	***Hydroporus leechi*** Leech's skyline diving beetle	None	None	G1?	S2S3	
IIHYM24260	***Bombus pensylvanicus*** American bumble bee	None	None	G3G4	S2	
IIHYM24480	***Bombus crotchii*** Crotch bumble bee	None	Candidate Endangered	G2	S2	
IIHYM35030	***Andrena blennospermatis*** Blennosperma vernal pool andrenid bee	None	None	G2	S1	
IIHYM72010	***Chrysis tularensis*** Tulare cuckoo wasp	None	None	G1G2	S2	
IIPLE23020	***Cosumnoperla hypocrena*** Cosumnes stripetail	None	None	G2	S2	

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
ILARA14080	***Banksula rudolphi*** Rudolph's cave harvestman	None	None	G1	S1	
PDAPI0Z0P0	***Eryngium pinnatisectum*** Tuolumne button-celery	None	None	G2	S2	1B.2
PDAST11061	***Balsamorhiza macrolepis*** big-scale balsamroot	None	None	G2	S2	1B.2
PDAST1P040	***Calycadenia hooveri*** Hoover's calycadenia	None	None	G2	S2	1B.3
PDCAM060C0	***Downingia pusilla*** dwarf downingia	None	None	GU	S2	2B.2
PDCAM0C010	***Legenere limosa*** legenere	None	None	G2	S2	1B.1
PDCIS020F0	***Crocanthemum suffrutescens*** Bisbee Peak rush-rose	None	None	G2?Q	S2?	3.2
PDERI04240	***Arctostaphylos myrtifolia*** Ione manzanita	Threatened	None	G1	S1	1B.2
PDONA05053	***Clarkia biloba ssp. brandegeeae*** Brandegee's clarkia	None	None	G4G5T4	S4	4.2
PDPGN080F1	***Eriogonum apricum var. apricum*** Ione buckwheat	Endangered	Endangered	G2T1	S1	1B.1
PDPGN080F2	***Eriogonum apricum var. prostratum*** Irish Hill buckwheat	Endangered	Endangered	G2T1	S1	1B.1
PDPHR01130	***Erythranthe marmorata*** Stanislaus monkeyflower	None	None	G2?	S2?	1B.1
PDPLM0C0X1	***Navarretia myersii ssp. myersii*** pincushion navarretia	None	None	G2T2	S2	1B.1
PDPLM0C150	***Navarretia paradoxiclara*** Patterson's navarretia	None	None	G2	S2	1B.3
PDROS0W0C0	***Horkelia parryi*** Parry's horkelia	None	None	G2	S2	1B.2
PDSCR0R060	***Gratiola heterosepala*** Boggs Lake hedge-hyssop	None	Endangered	G2	S2	1B.2
PMALI040Q0	***Sagittaria sanfordii*** Sanford's arrowhead	None	None	G3	S3	1B.2
PMLIL0G020	***Chlorogalum grandiflorum*** Red Hills soaproot	None	None	G3	S3	1B.2
PMPOA040K0	***Agrostis hendersonii*** Henderson's bent grass	None	None	G2Q	S2	3.2
PMPOA4G070	***Orcuttia viscida*** Sacramento Orcutt grass	Endangered	Endangered	G1	S1	1B.1
PMPOA5T030	***Sphenopholis obtusata*** prairie wedge grass	None	None	G5	S2	2B.2

Record Count: 60

Search Results

34 matches found. Click on scientific name for details

Search Criteria: Quad is one of
[**3812141:3812131:3812121:3812028:3812027:3812026:3812036:3812046:3812056:3812057:3812048:3812058:3812037:3812038:3812047**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Agrostis hendersonii	Henderson's bent grass	Poaceae	annual herb	Apr-Jun	None	None	G2Q	S2	3.2		1974-01-01	 ©2005 Steve Matson
Arctostaphylos myrtifolia	Ione manzanita	Ericaceae	perennial evergreen shrub	Nov-Mar	FT	None	G1	S1	1B.2	Yes	1974-01-01	 © 2006 Steve Matson
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	Yes	1974-01-01	 ©1998 Dean Wm. Taylor
Brodiaea rosea ssp. *vallicola*	valley brodiaea	Themidaceae	perennial bulbiferous herb	Apr-May(Jun)	None	None	G5T3	S3	4.2	Yes	2019-01-07	 © 2011 Steven Perry
Bryum chryseum	brassy bryum	Bryaceae	moss		None	None	G5	S3	4.3		2014-05-05	No Photo Available
Calycadenia hooveri	Hoover's calycadenia	Asteraceae	annual herb	Jul-Sep	None	None	G2	S2	1B.3	Yes	1980-01-01	No Photo Available
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	(Apr)May-Jun	None	None	G3	S3	1B.2	Yes	1974-01-01	No Photo Available
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	Onagraceae	annual herb	(Mar)May-Jul	None	None	G4G5T4	S4	4.2	Yes	2001-01-01	No Photo Available
Clarkia virgata	Sierra clarkia	Onagraceae	annual herb	May-Aug	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
Claytonia parviflora ssp. *grandiflora*	streambank spring beauty	Montiaceae	annual herb	Feb-May	None	None	G5T3	S3	4.2	Yes	2006-09-29	No Photo Available

Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	perennial evergreen shrub	Apr-Aug	None	None	G2?Q	S2?	3.2	Yes	1974-01-01	No Photo Available
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	GU	S2	2B.2		1980-01-01	 © 2013 Aaron Arthur
Eriogonum apricum var. *apricum*	Ione buckwheat	Polygonaceae	perennial herb	Jul-Oct	FE	CE	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
Eriogonum apricum var. *prostratum*	Irish Hill buckwheat	Polygonaceae	perennial herb	Jun-Jul	FE	CE	G2T1	S1	1B.1	Yes	1974-01-01	No Photo Available
Eriogonum tripodum	tripod buckwheat	Polygonaceae	perennial deciduous shrub	May-Jul	None	None	G4	S4	4.2	Yes	1974-01-01	 ©2008 Steven Perry
Eriophyllum confertiflorum var. *tanacetiflorum*	tansy-flowered woolly sunflower	Asteraceae	perennial shrub	May-Jul	None	None	G5T2?Q	S2?	4.3	Yes	2001-01-01	No Photo Available
Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	annual/perennial herb	May-Aug	None	None	G2	S2	1B.2	Yes	1974-01-01	 © 2007 Robert E. Preston, Ph.D.
Erythranthe inconspicua	small-flowered monkeyflower	Phrymaceae	annual herb	May-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	 © 2017 Debra L. Cook
Erythranthe marmorata	Stanislaus monkeyflower	Phrymaceae	annual herb	Mar-May	None	None	G2?	S2?	1B.1	Yes	1974-01-01	No Photo Available
Githopsis pulchella ssp. *serpentinicola*	serpentine bluecup	Campanulaceae	annual herb	May-Jun	None	None	G4T3	S3	4.3	Yes	2001-01-01	 © 2019 Barry Breckling
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	G2	S2	1B.2		1974-01-01	 ©2004 Carol W. Witham

Horkelia parryi	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G2	S2	1B.2	Yes	1974-01-01  © 2009 Barry Breckling
Jepsonia heterandra	foothill jepsonia	Saxifragaceae	perennial herb	Aug-Dec	None	None	G3	S3	4.3	Yes	1994-01-01  © 2014 Belinda Lo
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	Yes	1974-01-01  ©2000 John Game
Lilium humboldtii ssp. *humboldtii*	Humboldt lily	Liliaceae	perennial bulbiferous herb	May-Jul(Aug)	None	None	G4T3	S3	4.2	Yes	1994-01-01  © 2008 Sierra Pacific Industries
Navarretia myersii ssp. *myersii*	pincushion navarretia	Polemoniaceae	annual herb	Apr-May	None	None	G2T2	S2	1B.1	Yes	1994-01-01  © 2020 Leigh Johnson
Navarretia paradoxiclara	Patterson's navarretia	Polemoniaceae	annual herb	May-Jun(Jul)	None	None	G2	S2	1B.3	Yes	2016-04-27 No Photo Available
Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	G1	S1	1B.1	Yes	1974-01-01  © Rick York and CNPS
Perideridia bacigalupii	Bacigalupi's yampah	Apiaceae	perennial herb	Jun-Aug	None	None	G3	S3	4.2	Yes	1974-01-01 No Photo Available
Primula pauciflora	beautiful shootingstar	Primulaceae	perennial herb	Apr-Jun	None	None	G5	S3	4.2		2001-01-01  © 2008 Steve Matson
Ranunculus lobbii	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	None	None	G4	S3	4.2		1974-01-01 No Photo Available

Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01	 ©2013 Debra L. Cook
Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	Apr-Jul	None	None	G5	S2	2B.2		1974-01-01	No Photo Available
Trichostema rubisepalum	Hernandez bluecurls	Lamiaceae	annual herb	Jun-Aug	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available

Showing 1 to 34 of 34 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 7 June 2023].

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

Amador County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building

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.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

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

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened
Foothill Yellow-legged Frog Rana boylii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5133	Proposed Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS

Vernal Pool Fairy Shrimp Branchinecta lynchi Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Ione (incl. Irish Hill) Buckwheat Eriogonum apricum (incl. var. prostratum) Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8301	Endangered
Ione Manzanita Arctostaphylos myrtifolia Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1806	Threatened

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.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

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

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

There are bald and/or golden eagles in your project area.

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

Probability of Presence Summary

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

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey

effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

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

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

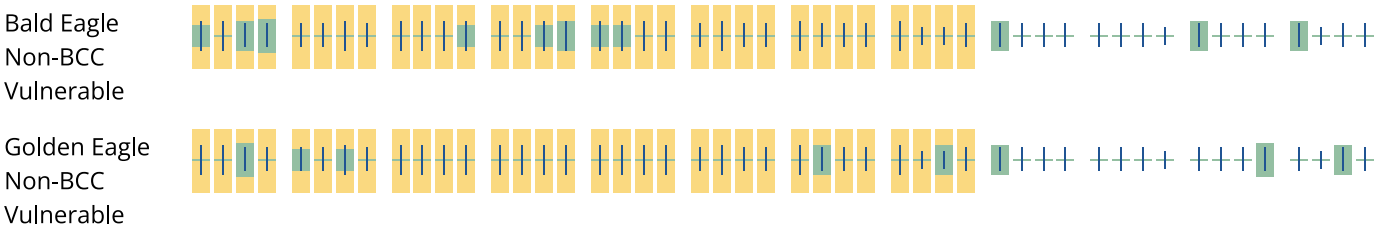
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

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

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

probability of presence breeding season survey effort no data

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence 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). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What 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. Please contact your local Fish and Wildlife Service Field Office if you have questions.

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 https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.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
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15

Bald Eagle Haliaeetus leucocephalus — 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.

Belding's Savannah Sparrow Passerculus sandwichensis beldingi — Breeds Apr 1 to Aug 15

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/8

Bullock's Oriole Icterus bullockii — Breeds Mar 21 to Jul 25

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

California Gull Larus californicus — Breeds Mar 1 to Jul 31

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

California Thrasher Toxostoma redivivum — Breeds Jan 1 to Jul 31

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

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

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

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 This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Nuttall's Woodpecker Picoides nuttallii 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	Breeds Apr 1 to Jul 20
Oak Titmouse Baeolophus inornatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Tricolored Blackbird Agelaius tricolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Western Grebe aechmophorus occidentalis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

Probability of Presence Summary

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

Probability of Presence (■)

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

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

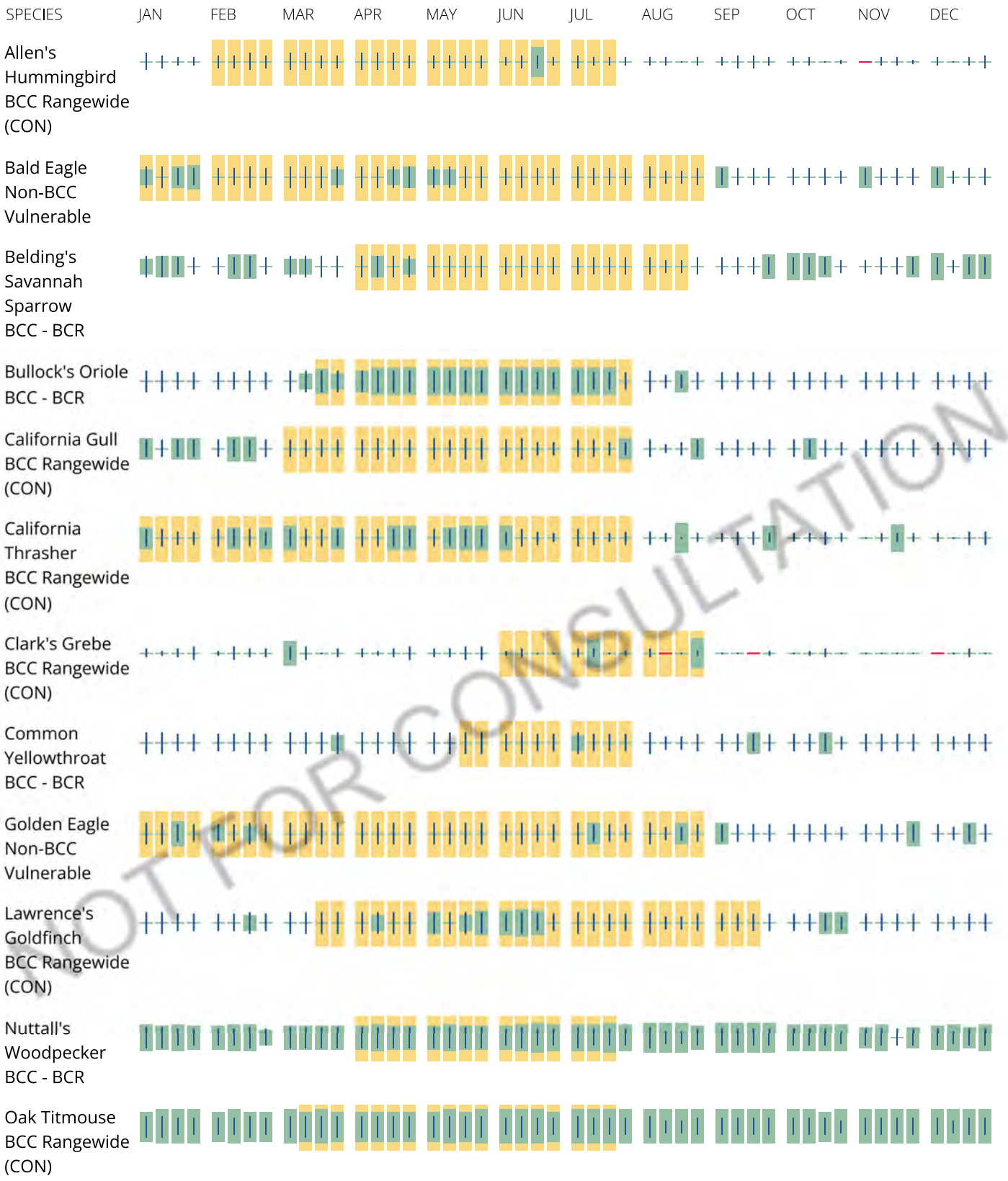
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

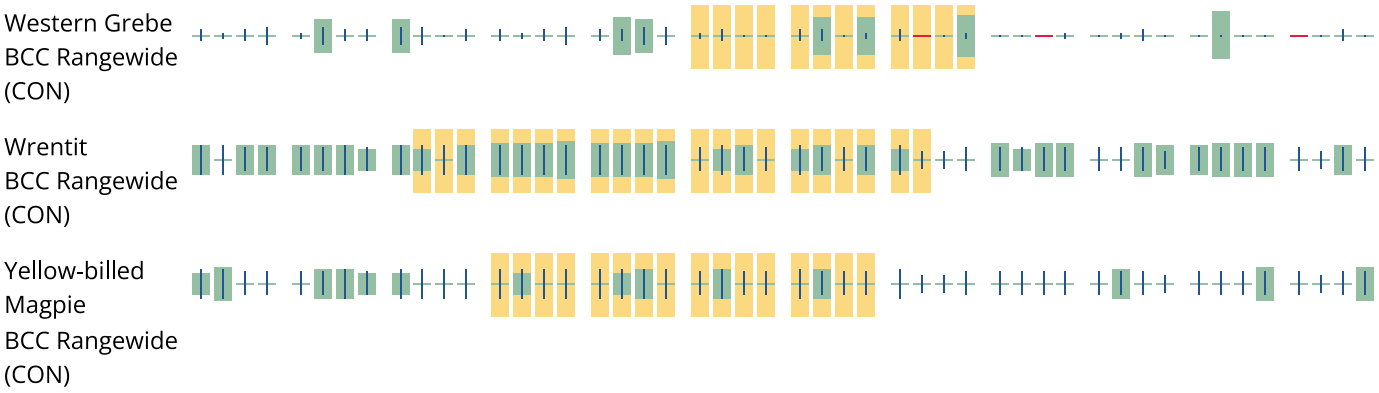
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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

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

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





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

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

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

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

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

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

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

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

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

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

Facilities

Wildlife refuges and fish hatcheries

Refuge and fish hatchery information is not available at this time

Wetlands in the National Wetlands Inventory (NWI)

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.

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

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.

National Marine Fisheries Service – West Coast Region – California

May 2022

Intersection of USGS 7.5" Quadrangles with NOAA Fisheries ESA Listed Species, Critical Habitat, Essential Fish Habitat, and MMPA Species Data within California

An "X" following a listed feature indicates it may be present. Identified resources may be present throughout the entire quadrangle of only a portion of it.

Quad Name **Ione**
Quad Number **38120-C8**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Jackson**
Quad Number **38120-C7**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -
CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -

Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

Quad Name **Amador City**
Quad Number **38120-D7**

ESA Anadromous Fish

SONCC Coho ESU (T) -
CCC Coho ESU (E) -
CC Chinook Salmon ESU (T) -
CVSR Chinook Salmon ESU (T) -
SRWR Chinook Salmon ESU (E) -
NC Steelhead DPS (T) -
CCC Steelhead DPS (T) -
SCCC Steelhead DPS (T) -
SC Steelhead DPS (E) -
CCV Steelhead DPS (T) - **X**
Eulachon (T) -
sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -
CCC Coho Critical Habitat -
CC Chinook Salmon Critical Habitat -
CVSR Chinook Salmon Critical Habitat -
SRWR Chinook Salmon Critical Habitat -
NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -
SCCC Steelhead Critical Habitat -
SC Steelhead Critical Habitat -
CCV Steelhead Critical Habitat -
Eulachon Critical Habitat -
sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -
Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

East Pacific Green Sea Turtle (T) -
Olive Ridley Sea Turtle (T/E) -
Leatherback Sea Turtle (E) -
North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

Blue Whale (E) -
Fin Whale (E) -
Humpback Whale (E) -
Southern Resident Killer Whale (E) -
North Pacific Right Whale (E) -
Sei Whale (E) -
Sperm Whale (E) -

ESA Pinnipeds

Guadalupe Fur Seal (T) -
Steller Sea Lion Critical Habitat -

Essential Fish Habitat

Coho EFH -
Chinook Salmon EFH - **X**
Groundfish EFH -
Coastal Pelagics EFH -
Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds
See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -
MMPA Pinnipeds -

APPENDIX B

Representative Site Photographs

Sutter Creek Elementary School BSA

Photo 1. Representative photo of the paved playground area within the BSA. Photo taken June 23, 2023, facing south.

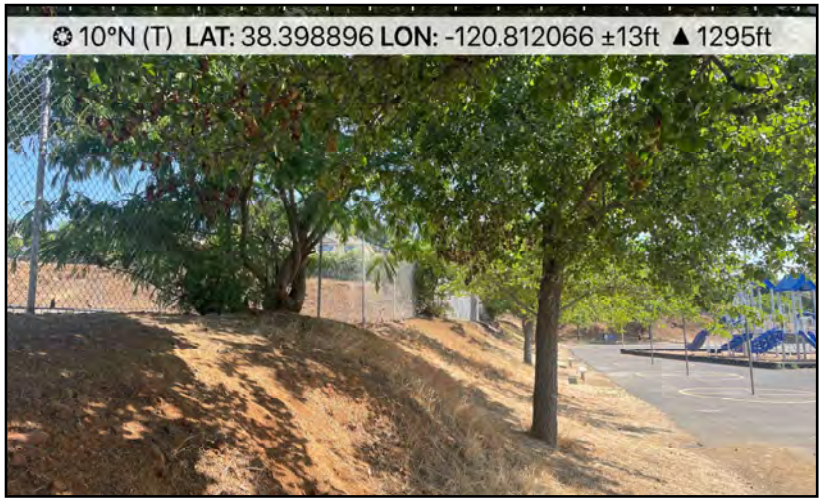


Photo 2. Representative photo of the dirt border between the playground and sports field in the BSA. Photo taken June 23, 2023, facing north.

Photo 3. Representative photo of storage containers and sheds bordering the southwest corner of the paved playground. Photo taken June 23, 2023, facing north.

Photo 4. Photo of the sports field on the west side of the BSA. Photo taken June 23, 2023, facing north.

Photo 5. Photo of the parking lot within the eastern section of the Ione BSA. Photo taken June 23, 2023, facing west.

Photo 6. Shed and storage container in western section of the Ione BSA. Photo taken June 23, 2023, facing southwest.

Photo 7. Additional storage containers and gravel lot in the western section of the Ione BSA. Photo taken June 23, 2023, facing west.

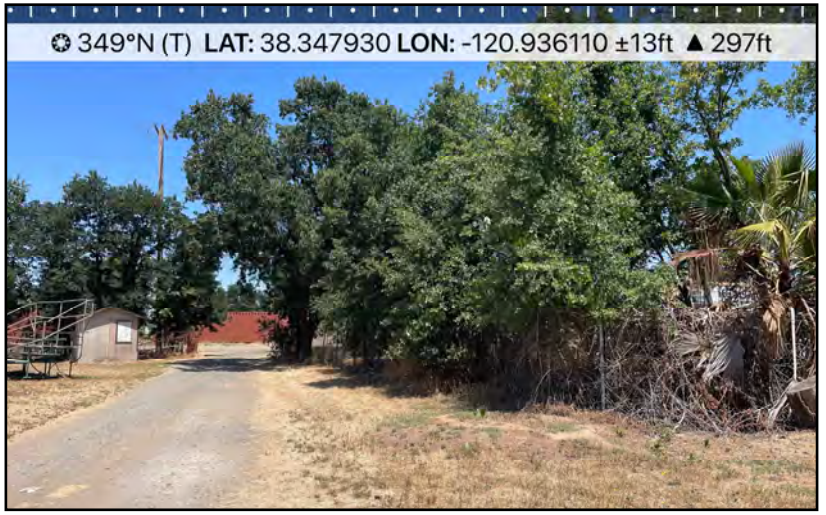


Photo 8. Photo of native and non-native trees bordering the western section of the Ione BSA. Photo taken June 23, 2023, facing north.

Photo 9. Photo of oak woodlands between temporary classrooms and school walkways. Photo taken June 23, 2023, facing south.

Photo 10. Ruderal grasses and oak woodlands by existing structures within the Argonaut BSA. Photo taken June 23, 2023, facing northwest.

Photo 11. Ruderal grasses and cultivated fruit trees next to paved walkway within the Argonaut BSA. Photo taken June 23, 2023, facing west.

Photo 12. Gravel road between existing buildings within the Argonaut BSA. Photo taken June 23, 2023, facing southwest.

APPENDIX C

Plant Species Observed in All BSAs

Amador County Unified School District Project

Plant Species Observed in All BSAs (June 23, 2023)

SCIENTIFIC NAME	COMMON NAME
ALTINGINACEAE	SWEET-GUM FAMILY
*Liquidambar styraciflua**	Sweetgum (cultivated)
APIACEAE	CARROT FAMILY
*Torilis arvensis**	Field hedge parsley
APOCYNACEAE	DOGBANE FAMILY
Asclepias fascicularis	Narrow-leaf milkweed
ARECACEAE	PALM FAMILY
Washingtonia sp.	Fan palm
ASTERACEAE	SUNFLOWER FAMILY
Baccharis pilularis	Coyote bush
*Carduus pycnocephalus**	Italian thistle
*Centaurea solstitialis**	Yellow star-thistle
Cynara cardunculus	Artichoke thistle
Erigeron sp.	Horseweed
Holocarpha virgata	Narrow tarplant
*Hypochaeris radicata**	Rough cat's-ear
*Lactuca serriola**	Prickly lettuce
*Silybum marianum**	Milk thistle
BORAGINACEAE	BORAGE FAMILY
Amsinckia sp.	Fiddleneck
BRASSICACEAE	MUSTARD FAMILY
*Capsella bursa-pastoris**	Shepherd purse
*Hirschfeldia incana**	Shortpod mustard
*Raphanus raphanistrum**	Yellow wild radish
CARYOPHYLLACEAE	PINK FAMILY
*Spergula arvensis**	Corn spurry
CHENOPODIACEAE	GOOSEFOOT FAMILY
*Chenopodium album**	White goosefoot
CONVOLVULACEAE	MORNING-GLORY FAMILY
*Convolvulus arvensis**	Field bindweed

Amador County Unified School District Project

Plant Species Observed (June 23, 2023)

SCIENTIFIC NAME	COMMON NAME
CYPERACEAE	SEDGE FAMILY
Cyperus eragrostis	Tall flatsedge
FABACEAE	LEGUME FAMILY
Acmispon americanus	Spanish clover
Albizia julibrissin	Silktree
*Medicago polymorpha**	Bur clover
*Trifolium glomeratum**	Clustered clover
*Trifolium hirtum**	Rose clover
*Vicia villosa**	Hairy vetch
FAGACEAE	OAK FAMILY
Quercus douglasii	Blue oak
Quercus lobata	Valley oak
*Quercus suber**	Cork oak
Quercus wislizeni	Interior live oak
GENTIANACEAE	GENTIAN FAMILY
Zeltnera muehlenbergii	Muehlenberg's centaury
IRIDACEAE	IRIS FAMILY
*Iris sp.**	Iris
LAMIACEAE	MINT FAMILY
Prunella vulgaris	Common selfheal
Salvia spathacea	Hummingbird sage
LYTHRACEAE	LOOSESTRIFE FAMILY
*Punica granatum**	Pomegranate (cultivated)
MALVACEAE	MALLOW FAMILY
*Malva parviflora**	Cheeseweed
MORACEAE	MULBERRY FAMILY
*Ficus carica**	Common fig
*Morus alba**	White mulberry
OLEACEAE	OLIVE FAMILY
Fraxinus latifolia	Oregon ash
Ligustrum japonicum	Japanese privet

Amador County Unified School District Project

Plant Species Observed (June 23, 2023)

SCIENTIFIC NAME	COMMON NAME
OLEACEAE	OLIVE FAMILY
*Olea europaea**	European olive
ONAGRACEAE	EVENING PRIMROSE FAMILY
Epilobium ciliatum	Hairy willow-herb
PAPAVERACEAE	POPPY FAMILY
Eschscholzia californica	California poppy
PINACEAE	PINE FAMILY
Pinus sabiniana	Gray pine
PLANTAGINACEAE	PLANTAIN FAMILY
*Plantago lanceolata**	English plantain
POACEAE	GRASS FAMILY
*Aegilops triuncialis**	Barbed goatgrass
*Avena fatua**	Wild oat
*Bromus diandrus**	Ripgut brome
*Bromus hordeaceus**	Soft brome
*Bromus madritensis**	Foxtail brome
*Cynodon dactlyon**	Bermuda grass
*Digitaria sanguinalis**	Hairy crabgrass
*Elymus caput-medusae**	Medusahead grass
*Festuca bromoides**	Brome fescue
*Festuca myuros**	Rat-tail fescue
*Hordeum murinum**	Foxtail barley
*Poa annua**	Annual bluegrass
*Poa pratensis**	Kentucky bluegrass
POLYGONACEAE	BUCKWHEAT FAMILY
*Rumex crispus**	Curly dock
ROSACEAE	ROSE FAMILY
Cotoneaster pannosus	Silverleaf cotoneaster
Prunus americana	American plum
*Prunus armeniaca**	Apricot (cultivated)
*Prunus avium**	Sweet cherry (cultivated)

Amador County Unified School District Project

Plant Species Observed (June 23, 2023)

SCIENTIFIC NAME	COMMON NAME
ROSACEAE	ROSE FAMILY
*Prunus domestica**	Plum (cultivated)
*Prunus persica**	Peach (cultivated)
Pyrocantha coccinea	Scarlet firethorn
Pyrocantha sp.	Firethorn
*Pyrus calleryana**	Callery pear
*Rubus armeniacus**	Himalayan blackberry
SAPINDACEAE	SOAPBERRY FAMILY
Aesculus californica	California buckeye
SIMAROUBACEAE	QUASSIA FAMILY
*Ailanthus altissima**	Tree-of-heaven
TAXODIACEAE	BALD CYPRESS FAMILY
Sequoia sempervirens	Coast redwood
VITACEAE	GRAPE FAMILY
Vitis californica	California wild grape

APPENDIX D

Wildlife Species Observed in All BSAs

Common Name	Scientific Name
Birds	
Mourning Dove	*Zenaida macroura*
Killdeer	*Charadrius vociferus*
Turkey Vulture	*Cathartes aura*
Red-shouldered Hawk	*Buteo lineatus*
California Scrub-Jay	*Aphelocoma californica*
Barn Swallow	*Hirundo rustica*
European Starling	*Sturnus vulgaris*
House Sparrow	*Passer domesticus*

Appendices

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