Appendix C

Biological Resources Assessment

HELIX
Environmental Planning

East Line Street Bridge Replacement Project

Biological Resources Assessment

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Prepared for:

Lumos & Associates, Inc.
9222 Prototype Drive
Reno, NV 89521

Prepared by:

HELIX Environmental Planning, Inc.
Iron Point Road, Suite 130
Folsom, CA 95630

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Acronyms and Abbreviations

BRA	Biological Resources Assessment
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CSA	California Special Animals
CWA	Clean Water Act
DBH	diameter at breast height
FESA	Federal Endangered Species Act
HCP	Habitat Conservation Plan
HELIX	HELIX Environmental Planning, Inc.
IPaC	Information for Planning and Consultation
LADWP	Los Angeles Department of Water and Power
MBTA	Migratory Bird Treaty Act
MSL	mean sea level
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NPPA	Native Plant Protection Act
NRCS	Natural Resource Conservation Service
OHWM	ordinary high water mark
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SSC	Species of Special Concern
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) conducted a Biological Resources Assessment (BRA) for the approximately 1.99-acre East Line Street Bridge Replacement Project (Project) on June 15, 2023. The Project is located on East Line Street, partially in the City of Bishop and unincorporated Inyo County, California (Study Area). The Study Area is situated in portions of Sections 5 to 8 of Township 7 South and Range 33 East on the U.S. Geological Survey (USGS) *Bishop, California* 7.5-minute quadrangle map. The approximate center of the Study Area is latitude 37.3615516° and longitude -118.3859454, NAD 83, and is at an elevation that ranges from approximately 4,130 to 4,140 feet above mean sea level (msl).

The 1.99-acre Study Area is located along the eastern edge of urban development within the City of Bishop, California and consists primarily of Bishop Creek Canal and developed/disturbed areas that include paved and unpaved roadways, as well as disturbed roadsides. The Study Area is comprised of developed/disturbed land (1.68 acres) and Bishop Creek Canal (0.31 acre and 554 linear feet). Surrounding land uses include single- and multi-family residences, municipal utilities, wild lands, and rangelands used for livestock grazing.

The purpose of this BRA is to assess the general biological resources on the Study Area; assess the suitability of the Study Area to support special-status species and sensitive vegetation communities or habitats; analyze potential impacts to biological resources that could occur as a result of the proposed project; and provide suggested mitigation measures to avoid and/or reduce such impacts to less than significant.

Known or potential sensitive biological resources within, or immediately adjacent to, the Study Area include:

- Potential habitat for California Endangered Species Act (CESA) Threatened species, including Swainson's hawk (*Buteo swainsoni*);
- Potential habitat for California Department of Fish and Wildlife (CDFW) Species of Special Concern, including Owens sucker (*Catostomus fumeiventris*), Owens speckled dace (*Rhinichthys osculus*), burrowing owl (*Athene cunicularia*), northern harrier (*Circus hudsonius*), loggerhead shrike (*Lanius ludovicianus*), and pallid bat (*Antrozous pallidus*);
- Potential habitat for special-status birds including CDFW watch-list species Cooper's hawk (*Accipiter cooperii*) and other nesting migratory birds and raptors;
- Sensitive habitats, including potential waters of the U.S. and State that are subject to regulation by the USACE, RWQCB, and CDFW.

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1.0 INTRODUCTION

This report summarizes the findings of a Biological Resources Assessment (BRA) completed by HELIX Environmental Planning, Inc. (HELIX) for the for approximately 1.99-acre East Line Street Bridge Replacement Project, located on East Line Street, partially in the City of Bishop and unincorporated Inyo County, California (Appendix A, Figure 1). This document characterizes the on-site physical features, plant communities present, and the common plant and wildlife species occurring or potentially occurring in the Study Area. In addition, the suitability of habitats to support special-status species and sensitive habitats are analyzed, as well as any potential impacts to biological resources that could occur as a result of development of the proposed project. Where applicable, mitigation measures are provided to avoid and/or reduce any such impacts to less than significant.

1.1 PROJECT DESCRIPTION

The East Line Bridge Replacement project will remove and replace the existing 18.5-foot long by 30-foot wide bridge with a 30-foot long by 60-foot wide bridge. The new bridge will accommodate two 12-foot lanes, 8-foot shoulders/bike lanes, and 10-foot sidewalks.

2.0 REGULATORY FRAMEWORK

Federal, State, and local environmental laws, regulations, and policies relevant to the California Environmental Quality Act (CEQA) review process are summarized below. Applicable CEQA significance criteria are also addressed in this section.

2.1 FEDERAL REGULATIONS

2.1.1 Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) enforces the provisions stipulated within the Federal Endangered Species Act of 1973 (FESA; 16 U.S. Code [USC] 1531 et seq.). Species identified as federally threatened or endangered (50 CFR 17.11, and 17.12) are protected from take, defined as direct or indirect harm, unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present in the study area and determine whether the proposed project will jeopardize the continued existence of or result in the destruction or adverse modification of critical habitat of such species (16 USC 1536 (a)[3], [4]). Other federal agencies designate species of concern (species that have the potential to become listed), which are evaluated during environmental review under the National Environmental Policy Act (NEPA) or CEQA although they are not otherwise protected under FESA.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all non-native species. Section 16 USC 703–712 of the Act states “unless and except as permitted by regulations, it shall be unlawful at any time, by any

means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill" a migratory bird. A migratory bird is any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the Migratory Bird Treaty Act, of which 58 are legal to hunt.

2.1.3 The Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (Eagle Act) prohibits the taking or possession of and commerce in bald and golden eagles with limited exceptions. Under the Eagle Act, it is a violation to "*take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or in any manner, any bald eagle commonly known as the American eagle, or golden eagle, alive or dead, or any part, nest, or egg, thereof.*" Take is defined to include pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, and disturb. Disturb is further defined in 50 CFR Part 22.3 as "*to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.*"

2.2 STATE JURISDICTION

2.2.1 California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to FESA but pertains to State-listed endangered and threatened species. CESA requires state agencies to consult with the California Department of Fish and Wildlife (CDFW) when preparing CEQA documents. The purpose is to ensure that State lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code §2080). CESA directs agencies to consult with CDFW on projects or actions that could affect listed species. It also directs CDFW to determine whether jeopardy would occur and allows CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows CDFW to authorize exceptions to the State's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code §2081).

2.2.2 California Department of Fish and Game Code

A number of species have been designated as "Fully Protected" species under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the Fish and Game Code (FGC) but are not listed as endangered (Section 2062) or threatened (Section 2067) species under CESA. Except for take related to scientific research, all take of fully protected species is prohibited. The California Fish and Game Code defines take as "*hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.*" Additionally, Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibits the killing of birds or the destruction of bird nests.

2.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA), enacted in 1977, allows the Fish and Game Commission to designate plants as rare or endangered. The NPPA prohibits take of endangered or rare native plants, with some exceptions for agricultural and nursery operations and emergencies. Vegetation removal from canals, roads, and other sites, changes in land use, and certain other situations require proper advance notification to CDFW.

2.3 JURISDICTIONAL WATERS

2.3.1 Federal Jurisdiction

On May 25, 2023, the U.S. Supreme Court issued a decision in the case of *Sackett v. Environmental Protection Agency* (Supreme Court of the United States, 2023) which will ultimately influence how federal waters are defined. The May 25, 2023, Supreme Court decision in *Sackett v. Environmental Protection Agency* determined that "the CWA extends to only those 'wetlands with a continuous surface connection to bodies that are "waters of the U.S." in their own right,' so that they are 'indistinguishable' from those waters." The U.S. Environmental Protection Agency (USEPA) and the U.S. Army Corps of Engineers (USACE) are reviewing the decision to determine next steps.

Unless considered an exempt activity under Section 404(f) of the Federal Clean Water Act, any person, firm, or agency planning to alter or work in "waters of the U.S.," including the discharge of dredged or fill material, must first obtain authorization from the USACE under Section 404 of the Clean Water Act (CWA; 33 USC 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from USACE (33 USC 403). Activities exempted under Section 404(f) are not exempted within navigable waters under Section 10.

The Clean Water Act (33 U.S. Code (USC) 1251-1376) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. obtain a state certification that the discharge complies with other provisions of CWA. The Regional Water Quality Control Board (RWQCB) administers the certification program in California and may require State Water Quality Certification before other permits are issued.

Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S.

Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the USEPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there were no practicable alternative that would have less adverse impacts.

2.3.2 State Jurisdiction

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification. The State of California Water Quality Certification (WQC) Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the Federal CWA. Although the CWA is a federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Boards are the authorities that certify that issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE permits for fill and dredge discharges within waters of the U.S., and now also implements the State's wetland protection and hydromodification regulation program under the Porter Cologne Water Quality Control Act.

On May 28, 2020, the SWRCB implemented the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), which was subsequently revised April 6, 2021, for inclusion in the Water Quality Control Plan for Ocean Waters of California, and the Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries for Waters of the U.S. (SWRCB 2019). The procedures consist of four major elements:

I. A wetland definition;

II. A framework for determining if a feature that meets the wetland definition is a water of the state;

III. Wetland delineation procedures; and

IV. Procedures for the submittal, review, and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities.

Under the Procedures and the State Water Code (Water Code §13050(e)), "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." "Waters of the State" includes all "Waters of the U.S."

More specifically, a wetland is defined as: "*An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation*." The wetland definition encompasses the full range of wetland types commonly recognized in California, including some features not protected under federal law, and reflects current scientific understanding of the formation and functioning of wetlands (SWRCB 2019).

The Procedures define the following wetlands as waters of the State:

1. Natural wetlands;
2. Wetlands created by modification of a surface water of the State; and

3. Artificial wetlands that meet any of the following criteria:

    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;

    b. Specifically identified in a water quality control plan as a wetland or other water of the state;

    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or

    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

        i. Industrial or municipal wastewater treatment or disposal,
        ii. Settling of sediment,
        iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
        iv. Treatment of surface waters,
        v. Agricultural crop irrigation or stock watering,
        vi. Fire suppression,
        vii. Industrial processing or cooling,
        viii. Active surface mining, even if the site is managed for interim wetlands functions and values,
        ix. Log storage,
        x. Treatment, storage, or distribution of recycled water,
        xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits), or
        xii. Fields flooded for rice growing.

Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to Waters of the State, which includes Waters of the U.S. and non-federal Waters of the State, requires filing of an application under the Procedures.

California Department of Fish and Wildlife

CDFW is a trustee agency that has jurisdiction under Section 1600 et seq. of the California Fish and Game Code. Under Sections 1602 and 1603, a private party must notify CDFW if a proposed project will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds… except when the department has been notified pursuant to Section 1601." Additionally, CDFW asserts jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over four inches in diameter at breast height (DBH). If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an

agreement with CDFW identifying the approved activities and associated mitigation measures. Generally, CDFW recommends applying for a Streambed Alteration Agreement (SAA) for any work done within the lateral limit of water flow or the edge of riparian vegetation, whichever is greater.

2.4 CEQA SIGNIFICANCE

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 included in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, 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 the 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 the CDFW or USFWS;

- Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- 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; and

- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), 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. The reason for this is that 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.

2.4.1 California Native Plant Society

The California Native Plant Society (CNPS) maintains a rank of plant species native to California that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the *Inventory of Rare and Endangered Vascular Plants of California*. Potential

impacts to populations of CNPS-ranked plants receive consideration under CEQA review. The following identifies the definitions of the CNPS Rare Plant Ranking System:

- Rank 1A: Plants presumed Extinct in California and either rare or extinct elsewhere
- Rank 1B: Plants Rare, Threatened, or Endangered in California and elsewhere
- Rank 2A: Plants presumed extirpated in California but common elsewhere
- Rank 2B: Plants Rare, Threatened, or Endangered in California, but more common elsewhere
- Rank 3: Plants about which we need more information – A Review List
- Rank 4: Plants of limited distribution – A Watch List

All plants appearing on CNPS Rank 1 or 2 are considered to meet CEQA Guidelines Section 15380 criteria. The CDFW, in consultation with the CNPS assigns a California Rare Plant Rank (CRPR) to native species according to rarity; plants with a CRPR of 1A, 1B, 2A, or 2B are generally considered special-status species under CEQA. Furthermore, the CNPS CRPR include levels of threat for each species. These threat ranks include the following:

0.1 - Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat);

0.2 - Moderately threatened in California (20 to 80% occurrences threatened/moderate degree and immediacy of threat); and

0.3 - Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

Threat ranks do not designate a change of environmental protections, so that each species (i.e., CRPR 1B.1, CRPR 1B.2, CRPR 1B.3, etc.), be fully considered during preparation of environmental documents under CEQA.

2.4.2 California Department of Fish and Wildlife Species of Concern

Additional fish, amphibian, reptile, bird, and mammal species may receive consideration by CDFW and lead agencies during the CEQA process, in addition to species that are formally listed under FESA and CESA or listed as fully protected. These species are included on the *Special Animals List*, which is maintained by CDFW. This list tracks species in California whose numbers, reproductive success, or habitat may be in decline. In addition to "Species of Special Concern" (SSC), the *Special Animals List* includes species that are tracked in the California Natural Diversity Database (CNDDB) but warrant no legal protection. These species are identified as "California Special Animals" (CSA).

2.5 LOCAL POLICIES AND REGULATIONS

2.5.1 City of Bishop General Plan

The Conservation/Open Space Element of the City of Bishop General Plan identifies significant natural and man-made resources that exist within the City and surrounding area and provides policies and actions for the preservation and best utilization of those resources. The Conservation/Open Space Element includes the following policies specific to biological resources:

- The City shall require appropriate mitigation measures to protect any rare, threatened, or endangered plant or animal species.
- The CEQA environmental review process shall be utilized for all new development projects to identify or mitigate potentially significant impacts to the City's natural resources.
- The City shall require referral of development projects located in sensitive resource areas to the Department of Fish and Game (Wildlife) for their review and comment.
- The City will cooperate with government agencies, private groups, and individuals in the preservation and enhancement of the Owens Valley natural resources.
- Maintain a buffer or setback of 50 feet from Bishop Creek measured from the stream. Developed areas on private lands are excluded from these setback provisions. However, development is discouraged in such areas.
- The natural vegetation and habitat along the existing canals and ditches should be maintained and preserved. Channelization of streams and ditches should be considered only when the public health and safety is threatened.
- The City shall cooperate with the Lahontan Regional Water Quality Control Board in protecting the water quality of the Bishop aquifers.
- The City shall encourage the undergrounding of existing overhead utility lines. The undergrounding of utilities in new construction shall be required to the maximum extent feasible.
- Trees located along roadways should be preserved or replaced if maintenance requires their removal. Similar landscaping should be considered in conjunction with the development of additional roads.

2.5.2 Owens Valley Land Management Plan

The LADWP owns and manages approximately 250,000 acres in Inyo County, mainly within the Owens Valley floor. Approximately 75 percent of LADWP land in Inyo County is open to the public for recreational uses such as fishing, hiking, hunting, nature studies, photography, painting, and other daytime recreational uses. LADWP's Owens Valley Land Management Plan (OVLMP) provides management direction for resources on all LADWP lands in the County (excluding the LORP area discussed above). Resource management issues include water supply, habitat, recreation, and land use.

The OVLMP provides a framework for implementing management prescriptions through time, monitoring the resources, and adaptively managing changed land and water conditions.

3.0 METHODS

Available information pertaining to the natural resources of the region was reviewed prior to conducting the field survey. The following published information was reviewed for this BRA:

- California Department of Fish and Wildlife (CDFW). 2023. *California Natural Diversity Database* (CNDDB); For: *Bishop, CA* and eight surrounding USGS 7.5-minute series quadrangles, Sacramento, CA. Accessed [July 11, 2023];

- California Native Plant Society (CNPS). 2023. *Inventory of Rare and Endangered Plants* (online edition, v8-03 0.45) For: *Bishop, CA* and eight surrounding USGS 7.5-minute series quadrangles, Sacramento, CA. Accessed [July 11, 2023];

- U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS). 2023. *Web Soil Survey*. Available at: http://websoilsurvey.sc.egov.usda.gov. Accessed [July 11, 2023];

- U.S. Fish and Wildlife Service (USFWS). 2023. *Information for Planning and Consultation* (IPaC) *East Line Street Bridge Replacement Project.* Accessed [July 11, 2023]; and

- U.S. Geological Survey (USGS). 2023 *Bishop, California*. 7.5-minute series topographic quadrangle. U.S. Department of Interior.

Prior to conducting the biological field survey, existing information concerning known habitats and special-status species that may occur in the Study Area was reviewed, including queries of applicable resource agency databases. The results of the database queries are summarized in Appendix B. The biological field survey was conducted on June 15, 2023, by HELIX biologist Greg Davis. The weather during the field survey was partly cloudy with an average temperature of between 70° and 75° Fahrenheit. The Study Area was systematically surveyed on foot to ensure total search coverage, with special attention given to portions of the Study Area with the potential to support special-status species and sensitive habitats. Binoculars were used to further extend site coverage and identify species observed. All plant and animal species observed were recorded (Appendix C), and all biological communities occurring on-site were characterized. All resources of interest were mapped with a Global Positioning System (GPS)-capable tablet equipped with a GPS receiver running ESRI Collector for ArcGIS® with sub-meter accuracy.

Following the field survey, the potential for each species (including special-status species) identified in the database queries to occur within the Study Area was determined based on the site survey, soils, elevational and geographic ranges, habitats present within the Study Area, and species-specific information, as shown in Appendix D.

In addition to the biological field survey, an aquatic resources delineation was conducted for the Study Area on July 16, 2023, in accordance with the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (USACE 2008a), and the *Field Guide to the Identification of the Ordinary High Water*

Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008b). The methodology for the aquatic resources delineation is further described under a separate cover (HELIX 2023).

4.0 RESULTS

4.1 SITE LOCATION AND DESCRIPTION

The approximately 1.99-acre Study Area is located on East Line Street in the City of Bishop in Inyo County, California, and can be located within portions of Sections 5 – 8, of Township 7 South and Range 33 East on the U.S. Geological Survey (USGS) *Bishop, California* 7.5-minute quadrangle map (Appendix A, Figure 1). The approximate center of the Study Area is latitude 37.3615516° and longitude -118.3859454 °, NAD 83, and is located at an elevation that ranges from approximately 4,130 feet to 4,140 feet above msl, as shown in Appendix A, Figure 2.

The Study Area, and surrounding area, has a history of municipal utility management associated with the Los Angeles Department of Water and Power (LADWP), as well as urban growth of the City of Bishop. Based on a review of historic aerial imagery (NETR 2023), the site is relatively unchanged since 1977. The alignment of the canal is in the same location dating back to 1947, however the roads that parallel the canal appear to have been widened between 1947 and 1977. The current extent of development and rural areas within/adjacent to the Study Area appear to be relatively the same as they were in 1977. An aerial image of the Study Area is included in Appendix A, Figure 3.

4.2 PHYSICAL FEATURES

4.2.1 Topography and Drainage

Terrain throughout the Study Area is comprised of generally flat land. Bishop Creek Canal originates at North Fork Bishop Creek to the north and is conveyed south through the Study Area underneath East Line Street. Elevations on the site range from approximately 4,130 feet to 1,440 feet above msl.

The Study Area is in the Crowley Lake watershed (USGS Hydrologic Unit Code (HUC-8) 18090102). Bishop Creek Canal flows south from the Study Area though a system of irrigation and diversion canals managed by the LADWP, which are ultimately tributary to the Owens River. Although a majority of the flow from the Owens River is diverted into the Los Angeles Aqueduct, there still remains a continuous surface water connection to the historic Owens Lake basin, which is a traditional navigable waters of the U.S.

4.2.2 Soils

The NRCS has mapped two soil units within the Study Area: Dehy loam, 0 to 2 percent slopes and Dehy-Dehy calcareous complex, 0 to 2 percent slopes (Appendix A, Figure 4). The general characteristics and properties associated with these soil types are described below. All soils in the Study Area are derived from alluvium of mixed rock sources (NRCS 2023).

Dehy loam, 0 to 2 percent slopes: this consociation is a somewhat poorly-drained soil derived from mixed alluvium that occurs on alluvial fans and floodplain terraces. A typical profile is loam and sandy clay loam to a depth of 19 inches, a depth to restrictive feature of more than 80 inches, and a depth to water table of 24 to 36 inches. The frequency of flooding is “rare,” and the frequency of ponding is

"none." Dehy loam soil is classified as prime farmland if drained and irrigated. This soil is listed on the national list of hydric soils in Inyo County when occurring in channels and alluvial fans.

Dehy-Dehy calcareous complex, 0 to 2 percent slopes: this complex is associated with somewhat poorly drained soils derived from mixed alluvium that occur on alluvial fans and floodplain terraces. A typical profile is loamy sand, sandy clay loam, and sandy loam to a depth of 36 inches, a depth to restrictive feature of more than 80 inches, and a depth to water table of 24 to 36 inches. The frequency of flooding is "rare," and the frequency of ponding is "none." Dehy-Dehy calcareous complex soil is classified as prime farmland if drained and irrigated. This soil is listed on the national list of hydric soils in Inyo County when occurring in channels and alluvial fans.

4.3 BIOLOGICAL COMMUNITIES

The Study Area is subject to heavy anthropogenic influence and lacks a natural biological community. Upland portions of the Study Area consist of approximately 1.68 acres of developed/disturbed land. In addition to the developed/disturbed community, there is approximately 0.31 acre, and 554 linear feet, of the Bishop Creek Canal within the Study Area, which is further described in Section 4.4. A comprehensive list of all plant and wildlife species observed within the Study Area is provided in Appendix C. Representative site photographs are included in Appendix E.

4.3.1 Developed/Disturbed

Due to the historic development of the Bishop Creek Canal and its associated roadways, along with the paved East Line Street alignment, the Study Area is characterized by one upland community that consists of approximately 1.68 acres of developed/disturbed lands (Appendix A, Figure 5). Non-paved areas of the site consist primarily of barren, compacted soil that is utilized as an access road for the Bishop Creek Canal. The Study Area is relatively void of vegetation aside from patches of mostly non-native vegetation at the base of utility poles, in roadside fill, and along fence lines of the adjacent properties to the east. Vegetation immediately adjacent to the canal, where present, appears to be routinely managed through mowing activities. Although no particular plant species appear to be dominant within this community, non-native grasses and forbs such as hare barley (*Hordeum murinum* ssp. *leporinum*), cheatgrass (*Bromus tectorum*), Russian thistle (*Salsola tragus*), and redstem filaree (*Erodium cicutarium*) persist throughout areas influenced by the canal. Isolated patches of native vegetation also occur along the fence lines of the adjacent properties to the east, which includes wild licorice (*Glycyrrhiza lepidota*), hemp dogbane (*Apocynum cannibinum*), annual bursage (*Ambrosia acanthicarpa*), rubber rabbitbrush (*Ericameria nauseosa*), alkali sacaton (*Sporobolus airoides*), beardless wildrye (*Elymus triticoides*), and saltgrass (*Distichlis spicata*).

4.4 AQUATIC RESOURCES

4.4.1 Bishop Creek Canal

A total of 0.31 acre (554-linear feet) of Bishop Creek Canal was mapped within the Study Area, which flows in a uniformly linear constructed channel from north to south and passes underneath the East Line Street bridge. Both the North and South Forks of Bishop Creek converge with the Bishop Creek Canal, where water managed by the LADWP is conveyed south toward the Owens River. South of Bishop, water from the Bishop Creek Canal is directed into a network of irrigation channels and canals that have a hydrologic connection to the Owens River. Although the vegetation within Bishop Creek Canal appears

to be routinely managed, some emergent plant species are present along its margins, which include tule (*Schoenoplectus acutus*), annual beard grass (*Polypogon monspeliensis*), common horsetail (*Equisetum arvense*), Baltic rush (*Juncus balticus*), and Mexican lovegrass (*Eragrostis mexicana*).

4.5 SPECIAL-STATUS SPECIES

Special-status species are plant and wildlife species that have been afforded special recognition and protection by federal, State, or local resource agencies or organizations. These species are generally of relatively limited distribution and may require specialized habitat conditions. Special-status species are defined as meeting one or more of the following criteria:

- Listed or proposed for listing under CESA or FESA;
- Protected under other regulations (e.g., MBTA);
- Included on the CDFW Special Animals List or Watch List;
- Identified as Rare Plant Rank 1 to 2 by CNPS; or
- Receive consideration during environmental review under CEQA.

Special-status species considered for this analysis are based on queries of the CNDDB, USFWS, and CNPS ranked species (online versions) for the *Bishop, CA USGS* quadrangle and eight surrounding quadrangles. Appendix C includes the common name and scientific name for each species, regulatory status (federal, State, local, CNPS), habitat descriptions, and potential for occurrence within the Study Area. The following set of criteria has been used to determine each species' potential for occurrence within the Study Area:

Will Not Occur: Species is either sessile (i.e., plants) or so limited to a particular habitat that it cannot disperse on its own and/or habitat suitable for its establishment and survival does not occur on the Study Area;

Not Expected: Species moves freely and might disperse through or across the Study Area, but suitable habitat for residence or breeding does not occur in the Study Area, potential for an individual of the species to disperse through or forage in the site cannot be excluded with 100 percent certainty;

Presumed Absent: Habitat suitable for residence and breeding occurs in the Study Area; however, focused surveys conducted for the current project were negative;

May Occur: Species was not observed on the site and breeding habitat is not present, but the species has the potential to utilize the site for dispersal;

High: Habitat suitable for residence and breeding occurs in the Study Area and the species has been recorded recently in or near the Study Area, but was not observed during surveys for the current project; and

Present: The species was observed during biological surveys for the current project and is assumed to occupy the Study Area or utilize the Study Area during some portion of its life cycle.

Only those species that are known to be present, have a high potential to occur, or may occur are discussed further in the following sections.

4.5.1 Listed and Special-status Plants

According to the database query, 57 listed and/or special-status plant species have the potential to occur on or in the vicinity of the Study Area (CDFW 2023). Based on field observations, published information, and literature review, no special-status plants have potential to occur within the Study Area. Many special-status plant species in the vicinity of the Study Area occur at high elevations or within mesic alkaline sites that are not present in the Study Area. Although calcareous soils are mapped within the Study Area by the NRCS, which are alkaline soils that have excess concentrations of calcium carbonate, the site lacks specific habitat requirements (i.e., Great Basin scrub, chenopod scrub, Mojavean desert scrub, etc.) to support regionally occurring special-status plant species.

4.5.2 Listed and Special-status Wildlife

According to the database query, 32 listed and/or special-status wildlife species have the potential to occur on-site or in the vicinity of the Study Area (CDFW 2023). Based on field observations, published information, and literature review, eight special-status wildlife species have the potential to occur within the Study Area: Owens sucker (*Catostomus fumeiventris*), Owens speckled dace (*Rhinichthys osculus* ssp. *2*), Cooper's hawk (*Accipiter cooperii*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), northern harrier (*Circus hudsonius*), loggerhead shrike (*Lanius ludovicianus*), and pallid bat (*Antrozous pallidus*). These species are discussed in more detail below.

Special-Status Wildlife That Have a High Potential to Occur

Owens Sucker (CDFW Species of Special Concern)

Owens sucker is widespread and common throughout the Owens River system, including Bishop Creek, Rock Creek, Convict Lake, and Crowley Lake. It is considered secure with low concern but is retained on the list of species of special concern because of its limited geographic range (Moyle et al. 2015).

Owens sucker inhabits streams and lakes throughout the Owens River watershed and is the dominant species in many pools and ponds (Moyle et al. 2015). This species is primarily found in cool water streams where it is found in long reaches with few riffles or rapids and a fine substrate, and often in off-channel pools. In lakes, Owens sucker is abundant near the bottom. It appears to tolerate the presence of non-native species such as brown trout and bass. Owens suckers feed at night on a diet of aquatic insects, algae, detritus, and organic matter. Adults occur in cool permanent streams with deep (1+ meter) pools (Moyle et al. 2015). The larvae of this species are abundant in weedy edges and backwaters of streams. This species spawns in gravelly riffles in tributary streams; lacustrine populations spawn in springs and gravel patches along lake shores, as well as in tributary streams (Moyle et al. 2015).

Bishop Creek Canal within the Study Area provides marginal habitat for this species. Given that this species is known to occur in waterways that are hydrologically connected to the canal, including South Fork Bishop Creek, China Slough, and ditches, this species could occasionally be present within the Study Area. There are thirteen documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, with the closest being associated with China Slough 0.27 mile southwest of the site (CDFW 2023).

Owens Speckled Dace (CDFW Species of Special Concern)

Owens speckled dace is known to occupy a range of aquatic habitats, including cool water streams, ditches, and hot spring systems, although they are rarely found in habitats exceeding 29° Celsius. Spawning occurs in gravel and the fry congregate in warm shallow areas, often in channels with rocks and emergent vegetation. Owens speckled dace appears to be excluded from most of its wide ecological range by non-native predatory fishes and habitat modifications that reduce vegetative cover (Moyle et al. 2015).

Bishop Creek Canal within the Study Area provides marginal habitat for this species. Given that this species is known to occur in anthropogenically altered waterways that are hydrologically connected to the canal, including South Fork Bishop Creek, China Slough, and ditches, this species could occasionally be present within the Study Area. There are eight documented CNDDB reported occurrences of this species, which are presumed to be extant, within a 5-mile radius of the Study Area, with the closest being associated with China Slough 0.27 mile southwest of the site (CDFW 2023).

Special-Status Wildlife That May Occur

Burrowing Owl (CDFW Species of Special Concern)

Burrowing owl is a California Species of Special Concern. Burrowing owl is a small ground-dwelling owl that occurs in western North America from Canada to Mexico and east to Texas and Louisiana. Although in certain areas of their range, burrowing owls are migratory; these owls are predominantly non-migratory in California. Burrowing owls generally inhabit gently sloping areas, characterized by low, sparse vegetation (Poulin et al. 2011). The breeding season for burrowing owls is from March to August, peaking in April and May (Zeiner et al. 1990). Burrowing owls nest in burrows in the ground, often in old ground squirrel burrows. Burrowing owls are also known to use artificial burrows including pipes, culverts, and nest boxes.

Given that the site is mostly developed, and no mammal burrows were observed during the biological reconnaissance survey on June 15, 2015, the Study Area does not provide suitable nesting habitat for this species. However, the undeveloped land directly to the east could have mammal burrows suitable for nesting. This species could also occur in flight foraging within or adjacent to the Study Area. There is one historic documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is located approximately 3.35 miles northeast of the site (CDFW 2023). The next nearest documented CNDDB occurrence, which is also the most recent record in Inyo County (2017), is located approximately 7.85 miles to the southeast (CDFW 2023). Although suitable nesting habitat is not present within the Study Area, there is potential for direct and indirect effects to burrowing owl if this species were to nest adjacent to Study Area.

Cooper's Hawk (CDFW Species of Special Concern)

Cooper’s hawk is a California Species of Special Concern. Cooper’s hawk nests in woodlands and is very tolerant of urban and suburban areas. This species can be found in large urban parks with urban forests or in isolated trees in industrial strips and parks. Cooper’s hawk preys on medium sized birds and small mammals; urban areas may provide increased access to prey species such as pigeons and doves (Stout and Rosenfield 2010). Foraging occurs in open woodland and habitat edges, often of an interrupted or marginal type (Zeiner et al. 1990). In wildland areas, this species primarily nests in riparian growths of deciduous trees, such as canyon bottoms on river flood plains.

Cooper's hawk was not observed during the biological survey on June 15, 2023. Although there are no suitable nesting trees within the bounds of the Study Area, urban trees adjacent to the site provide suitable nesting habitat and this species could also forage within and around the site. Additionally, the Study Area is within this species' year-round range. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, however there are numerous iNaturalist observations of this species within the City of Bishop (CDFW 2023, iNaturalist 2023). If Cooper's hawk were to nest adjacent to the project site prior to construction, impacts to nesting could occur through noise, vibration, and the presence of construction equipment and personnel. Project activities such as clearing and grubbing, grading, or other earthwork during the breeding season (February 1 through August 31) could result in forced nest abandonment due to noise and other disturbance. Forced failure of a Cooper's hawk nest as a result of construction would be a potentially significant impact.

Swainson's Hawk (CESA Threatened)

Swainson's hawk is a State threatened species. This species is a long-distance migrant with nesting grounds in western North America. Swainson's hawks arrive in California between March and early April to establish breeding territories. Although the Central Valley accommodates for approximately 95 percent of the Swainson's hawk population in California, small breeding populations also occur in the Great Basin deserts and valleys of northeastern California, the Owens Valley of eastern California, and Antelope Valley in the Mojave Desert of southern California (CDFW 1988). Breeding occurs from late March to late August, peaking in late May through July (Zeiner et al. 1990). Within the Owens Valley, Swainson's hawk has been documented nesting in isolated trees, including windrows, or riparian woodlands next to open scrublands, grasslands, alkali meadows, or agricultural fields. This species typically nests near riparian areas, such as those associated with the Owens River, canals, and reservoirs. In the Owens Valley, the most commonly used trees include Fremont cottonwood (*Populus fremontii*), willows (*Salix* sp.), black locust (*Robinina pseudoacacia*), and elm trees (*Ulmus* sp.) (CDFW 2023). Nest locations are usually in close proximity (up to a 10-mile radius) to suitable foraging habitats, which include fallow fields, all types of grasslands, irrigated pastures, alfalfa and other hay crops, and low-growing row crops, especially post-harvest when the height of the vegetation is short and easy to observe prey (Bechard et al. 2010). Swainson's hawks leave their breeding grounds to return to their wintering grounds in late August or early September (Bloom and Van De Water 1994).

Swainson's hawk was not observed during the biological survey on June 15, 2023. Although there are no suitable nesting trees within the bounds of the Study Area, trees adjacent to the site provide suitable nesting habitat and this species could also forage within and around the site. There are six documented CNDDB reported occurrences of this species, that are presumed to be extant, within a 5-mile radius of the Study Area, with the closest being 3.60 miles northeast of the site (CDFW 2023). If Swainson's hawk were to nest adjacent to the project site prior to construction, impacts to nesting could occur through noise, vibration, and the presence of construction equipment and personnel. Project activities such as clearing and grubbing, grading, or other earthwork during the breeding season (February 1 through August 31) could result in forced nest abandonment due to noise and other disturbance. Forced failure of a Cooper's hawk nest as a result of construction would be a potentially significant impact.

Northern Harrier (CDFW Species of Special Concern)

Northern Harrier is a California Species of Special Concern. This species is widespread throughout North America from southern Canada to northern Mexico and is a year-round resident in California. Population sizes increase during the non-breeding season due to over-wintering migrants. Northern harrier is also considered to be somewhat nomadic and will range widely even during nesting season. Northern harriers breed in a variety of open habitats including marshes, wet meadows, weedy shorelines, grasslands, weed fields, pastures, sagebrush flats, desert sinks, and croplands. Northern harrier nests on the ground in patches of dense, tall vegetation in undisturbed areas. Breeding occurs from March to August. Northern harriers feed on a wide variety of vertebrate prey, including rodents, songbirds, waterfowl, and lizards.

Northern harrier was not observed during the biological survey on June 15, 2023. Although there is no suitable nesting habitat within the bounds of the Study Area, meadows, and pastures adjacent to the site provide suitable nesting habitat and this species could also forage within and around the site. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, however there is an iNaturalist observation of this species approximately 1.5 miles east of the site at the East Line Street Cemetery (CDFW 2023, iNaturalist 2023). If northern harrier were to nest adjacent to the project site prior to construction, impacts to nesting could occur through noise, vibration, and the presence of construction equipment and personnel. Project activities such as clearing and grubbing, grading, or other earthwork during the breeding season (March 1 through August 31) could result in forced nest abandonment due to noise and other disturbance. Forced failure of a northern harrier nest as a result of construction would be a potentially significant impact.

Loggerhead Shrike (CDFW Species of Special Concern)

The range of the loggerhead shrike extends throughout the U.S. and southern Canada, and it is a year-round resident throughout most of its California range. This species prefers open habitats with scattered shrubs, trees, posts, or other perches. It can be found in shrublands or open woodlands with bare ground, or sparse herbaceous cover and is often found in open cropland. Loggerhead shrikes hunt in open areas of short grasses, forbs, or bare ground, and impale prey on thorns or barbed wire. Prey includes large insects, as well as various small reptiles, amphibians, rodents, and birds.

Suitable breeding habitat includes shrublands or open woodlands with grass cover or bare ground. Loggerhead shrikes are uncommon breeders in the Owens Valley but have been known to utilize tall stands of sagebrush and bitterbrush, usually on the flats or gently sloping terrain of valleys and dry washes (Shuford and Metropulos 1996). Loggerhead shrike habitat includes alfalfa fields, grasslands, non-rice crops, oak groves, orchards, pastures, ponds and seasonally wet areas, riparian areas, disturbed areas, rural residential development, tree groves, and canals.

Loggerhead shrike was not observed during the biological survey on June 15, 2023. This species could nest in trees and shrubs adjacent to the Study Area and forage in open habitats such meadows, pastures, or ruderal areas. Barbed wire fences are abundant along the eastern boundary of the Study Area, which could serve as food cache sites. There are no CNDDB reported occurrences within a 5-mile radius of the Study Area, however there are three iNaturalist observations of this species within 1 mile of the site (CDFW 2023, iNaturalist 2023). While this species could nest within the vicinity of the Study Area and potentially be impacted by the proposed project during the nesting season, project implementation would not eliminate suitable foraging or nesting habitat for this species, and the Study Area would continue to provide suitable foraging habitat after project completion.

Pallid Bat (CDFW Species of Special Concern)

Pallid bat is a California Species of Special Concern. This species is mostly found in desert habitats, including scrub and canyons with rocky outcrops, and in oak woodland, savannah, and riparian habitats generally below 2,000 meters (6,562 feet). Maternity roosts occur in rock crevices, in buildings and in other man-made structures. Day roosting sites include caves, crevices, mines, and occasionally in hollow trees and buildings, while nighttime roosts may occur in more open areas, such as porches or open buildings (Zeiner et al. 1990).

There is one reported CNDDB occurrence for this species within five miles of the Study Area, which is located approximately 4.28 miles to the northeast (CDFW 2023). The species was not observed onsite during the biological surveys. Although the underside of the East Line Street bridge was not visible, cracks between the wood and concrete could provide suitable roosting habitat for this species. Additionally, the canal and surrounding areas provide suitable foraging habitat within the Study Area for this species. However, there is minimal freeboard between the canal water level and the bridge deck, and the area is subject to frequent vehicle and foot traffic, which may deter this species from utilizing the bridge for roosting. Therefore, this species has a low potential to occur within the Study Area.

Potential adverse effects of the proposed project on pallid bat could include harm to individual pallid bat and roost disturbance/loss of active roosting sites. If any pallid bat were present in the project area at the time of construction, harm of individuals could occur as a result of contact with construction equipment or personnel and roost disturbance/loss of active roost could result in displacement of individuals subjecting them to increased chance of predation or mortality. Harm to individual pallid bats would be considered a potentially significant impact.

Nesting Migratory Birds and Raptors

Migratory birds are protected under the MBTA of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10; this also includes feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Additionally, Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., hawks, owls, eagles, and falcons), including their nests or eggs; and Section 3513 specifically states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

A number of migratory birds and raptors have the potential to nest in or adjacent to the Study Area. Many birds were observed within the Study Area during the field survey and suitable nest locations include trees, shrubs, grass, and bare ground. Habitat such as cavities in trees and tree snags may provide habitat for cavity nesting birds. Therefore, nesting birds are expected to occur within the Study Area during the nesting season (generally February 1 to August 31).

4.6 SENSITIVE HABITATS

Sensitive habitats include those that are of special concern to resource agencies or those that are protected under CEQA; Section 1600 of the California Fish and Game Code, which includes riparian areas; and/or Sections 401 and 404 of the Clean Water Act, which include wetlands and other waters of the U.S. Sensitive habitats or resource types within the Study Area are discussed below.

4.6.1 Aquatic Resources

A total of 0.31 acre (554 linear feet) of aquatic resources have been delineated in the Study Area consisting of Bishop Creek Canal. This feature is likely considered a water of the U.S. and water of the State subject to USACE and RWQCB jurisdiction under Sections 404 and 401 of the CWA. Bishop Creek Canal may also fall under the jurisdiction of Section 1600 of the California Fish and Game Code. A formal aquatic resource delineation was conducted in conjunction with this biological resources assessment and is detailed under a separate cover.

4.6.2 Wildlife Migration Corridors

Wildlife corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. This fragmentation of habitat can also occur when a portion of one or more habitats is converted into another habitat; for instance, when woodland or scrub habitat is altered or converted into grasslands after a disturbance such as fire, mudslide, or construction activities. Wildlife corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

The Study Area is divided by East Line Street and is situated on the outskirts of the City of Bishop urban influence, with undeveloped lands extending to the east. Although wildlife may disperse through the Study Area on a local level, the Study Area is not considered a wildlife migration or movement corridor.

4.7 IMPACTS TO BIOLOGICAL COMMUNITIES

Development of the proposed project would result in impacts to biological communities that have potential to support special-status species. Impacts to biological communities are summarized in Table 1, *Summary of Biological Community Impacts*, below, and are depicted in Figure 6, *Impacts to Biological Communities* (Appendix A). Impacts to biological communities, including aquatic resources, are subject to regulatory agency jurisdiction as described in Section 5.2.1 below.

Table 1
SUMMARY OF BIOLOGICAL COMMUNITY IMPACTS

Biological Community	Proposed Impacts (acres)*	Avoided Area (acres)*	Total Area (acres)
Bishop Creek Canal	0.029	0.281	0.31
Developed/Disturbed	0.412	1.268	1.68
TOTAL	0.44	1.55	1.99

* Acreages calculated at 3 significant digits and subsequently rounded

5.0 IMPACTS AND RECOMMENDED MITIGATION

5.1 SPECIAL-STATUS WILDLIFE

5.1.1 Owens Sucker and Owens Speckled Dace

The Study Area contains suitable habitat for special-status fish species within the Bishop Creek Canal. If present within the Study Area, this species could be impacted by the proposed project through ground disturbing activities. To avoid potential impacts to Owens sucker and Owens speckled dace, the following measures are recommended if dewatering is required:

- The project proponent will prepare a dewatering plan that complies with all applicable permit conditions. In addition to the dewatering plan, the project proponent will have a fish relocation plan prepared by a qualified biologist that will be submitted to CDFW for approval.

- Water diversion activities will be conducted under the supervision of a qualified biologist. The biologist will survey the area to be dewatered immediately after installation of the dewatering device and prior to the continuation of dewatering activities, or as specified in the fish relocation plan. In the event that fish are encountered during the dewatering process, a CDFW approved biologist will relocate the fish as specified in the plan. Captured fish, or other aquatic species, will be transported and released into the Bishop Creek Canal, or other designated location, up or downstream of the construction zone. The plan may include procedures for dealing with non-native fish or other aquatic species.

In addition to the recommended measures stated above, a qualified biologist should conduct a workers environmental awareness training to all project-related personnel prior to the initiation of work. The training should include identification of special-status fish species with potential to occur within the project site, required practices before the start of construction, general measures that are being implemented to protect the species as they relate to the project, penalties for non-compliance, and boundaries of the permitted disturbance zones. Upon completion of the training, all construction personnel should sign a form stating that they have attended the training and understand all the measures. Proof of this instruction should be kept on file with the biologist on-site and the project proponent.

5.1.2 Burrowing Owl

Burrowing owl has a low potential to occur within the Study Area due to the lack of suitable burrows and heavily compacted soil, however the adjacent, undeveloped properties immediately to the east could support this species. Although no burrowing owls were observed during the biological surveys, the species does have limited potential to occupy the land immediately adjacent to the Study Area in the future. The project proponent should conduct a take avoidance survey between 14 and 30 days prior to commencement of construction, in accordance with the 2012 California Department of Fish and Wildlife Staff Report on Burrowing Owl Mitigation (2012 Staff Report) (CDFW 2012). The survey area includes an approximately 500-foot (150-meter) buffer around the footprint of work activities, where access is permitted. If the surveys are negative, then no additional measures are recommended.

If active burrows are observed within 500 feet of the footprint of work activities, an impact assessment should be prepared and submitted to the CDFW, in accordance with the 2012 Staff Report. If it is determined that project activities may result in impacts to occupied burrows and/or burrowing owl habitat, the project proponent should consult with CDFW and develop a detailed mitigation plan such that the habitat acreage, number of burrows, and burrowing owls impacted are replaced. The mitigation plan should be based on the requirements set forth in Appendix A of the 2012 Staff Report.

Additionally, a qualified biologist should conduct an environmental awareness training to all project-related personnel prior to the initiation of work. The training should follow the same guidelines as the training described in Section 5.1.1, above.

5.1.3 Swainson's Hawk

Although no Swainson's hawks were observed during the biological survey, this species could nest in the trees adjacent to the Study Area and could forage within the Study Area. Ground-disturbing construction activities could potentially cause the disruption and/or failure of active nests adjacent to the Study Area, if present, however implementation of the project is not anticipated to reduce foraging habitat for this species.

If development activities are expected to occur during the nesting season, then a pre-construction raptor survey for Swainson's hawk is recommended to determine if any birds or active nests are present within 0.5-mile of the Study Area. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success. Prior to initiation of construction activities during the Swainson's hawk breeding season (March 1 through September 15), the project proponent shall determine the presence of active Swainson's hawk nests in and within 0.5-mile of the project site using the most recent published survey protocols (i.e., three surveys by a qualified biologist in each of the two periods preceding the construction start date; SHTAC 2000). If an active Swainson's hawk nest is discovered, the applicant shall initiate consultation with CDFW to determine what measures need to be implemented in order to ensure that nesting hawks remain undisturbed. The measures selected would depend on many variables, including the distance of activities from the nest, the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. If no active nests are discovered, no further action is required. Additionally, a qualified biologist should conduct environmental awareness training with all project-related personnel prior to the initiation of work. The training should follow the same guidelines as training described in Section 5.1.1, above.

5.1.4 Nesting Migratory Birds and Raptors

Cooper's hawk, northern harrier, and loggerhead shrike have the potential to forage within and nest adjacent to the Study Area. Other migratory birds and raptors protected under federal, State, and/or local laws and policies have potential to nest and forage within and adjacent to the Study Area. Although no active nests were observed during the field survey, the Study Area and adjacent properties contain suitable habitat to support a variety of nesting birds within trees, shrubs, grass, and on bare ground. If project activities take place during the nesting season (February 1 to August 31), nesting birds may be impacted. Construction activities and construction-related disturbance (e.g., noise, vibration, increased human activity) could adversely affect these species if they were to nest in the Study Area or in suitable habitat adjacent to Study Area through loss of reproductive success, forced fledging, or nest abandonment, which would be a potentially significant impact. If project activities take place outside of the nesting season, no mitigation measures for nesting birds are required. If project activities occur during the nesting season, the following measures are recommended to avoid or minimize impacts to nesting birds:

- To avoid impacts to nesting birds, all ground disturbing activity should be completed between September 1 and January 31, if feasible.

- If development activities occur during the nesting bird season, then a qualified biologist should conduct a pre-construction nesting bird survey no more than 14 days prior to initiation of project activities. The survey area should include suitable raptor nesting habitat within 500-feet of the project boundary (inaccessible areas outside of the Study Area can be surveyed from the site or from public roads using binoculars or spotting scopes). A 0.5-mile survey buffer would be implemented for Swainson's hawk, as described in Section 5.1.3. Areas that have been inactive for more than 14 days during the avian breeding season must be re-surveyed prior to resumption of project activities. If no active nests are identified, no further mitigation is required. If active nests are identified, the following measure should be implemented:

    - A species-specific buffer (typically 75 to 100-feet for non-raptors, and to 250 to 500 feet for raptors) should be established by a qualified biologist around active nests and no construction activities within the buffer should be allowed until a qualified biologist has determined that the nest is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest, or the nest has failed). Encroachment into the buffer may occur at the discretion of a qualified biologist. Any encroachment into the buffer should be monitored by a qualified biologist to determine whether nesting birds are being impacted.

- A qualified biologist should conduct an environmental awareness training to all project-related personnel prior to the initiation of work. The training should follow the same guidelines as the special-status described in Section 5.1.1, above.

5.1.5 Pallid Bat

If pallid bat is roosting in the Study Area at the time of construction, construction activities and construction-related disturbance (e.g., noise, vibration, increased human activity) could adversely affect pallid bat by direct harm or by causing individuals to leave the roost under suboptimal conditions and

exposing them to stress or increased chance of predation, which would be a potentially significant impact. To avoid potential impacts to this species, the following measures are recommended:

A qualified wildlife biologist should conduct surveys for special-status bats during the appropriate time of day to maximize detectability to determine if bat species are roosting near the work area no more than 14 days prior to beginning ground disturbance and/or construction. Survey methodology may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or use of ultrasonic detectors (e.g., Anabat, etc.). The type of survey will depend on the condition of the potential roosting habitat. If no bat roosts are found, then no further study is required.

- If evidence of bat use is observed, then the number and species of bats using the roost will be determined. Bat detectors may be used to supplement survey efforts.

- If roosts are determined to be present and have the likelihood to be disturbed by construction, then a qualified biologist will determine if the bats should be excluded from the roosting site before work adjacent to the roost occurs. A mitigation program addressing compensation, exclusion methods, and roost removal procedures will be developed prior to implementation if exclusion is recommended. Exclusion methods may include use of one-way doors at roost entrances (bats may leave, but not reenter), or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young).

- A qualified biologist should conduct an environmental awareness training to all project-related personnel prior to the initiation of work. The training should follow the same guidelines as the training described in Section 5.1.1, above.

5.2 AQUATIC RESOURCES

The Bishop Creek Canal (0.31 acre and 554 linear feet) within the Study Area is likely to be considered a water of the U.S. and State subject to USACE and RWQCB jurisdiction under Sections 404 and 401 of the CWA, and likely subject to CDFW jurisdiction under Section 1600 of the Fish and Game Code. Additionally, consultation with the LADWP may be required prior to the implementation of the project. A formal aquatic resources delineation has been prepared as a component of this Project to assist in quantifying impacts to the canal and will be submitted to the appropriate resource agencies to determine the extent of jurisdiction. The project proponent will be required to apply for appropriate permits to fill aquatic resources and any mitigation measures contained in the permits will require implementation prior to working within or filling any on-site features deemed subject to regulation.

Portions of Bishop Creek Canal that are anticipated to be avoided during the implementation of project activities should have their boundaries clearly marked and avoided during construction. Highly visible material, such as orange construction fencing should be constructed along the boundary of canal establish an appropriate no-disturbance buffer, as appropriate. Erosion control measures should also be implemented around these habitats and all other measures outlined in the Project's Storm Water Pollution Prevention Plan (SWPPP) and other general construction permits should be followed.

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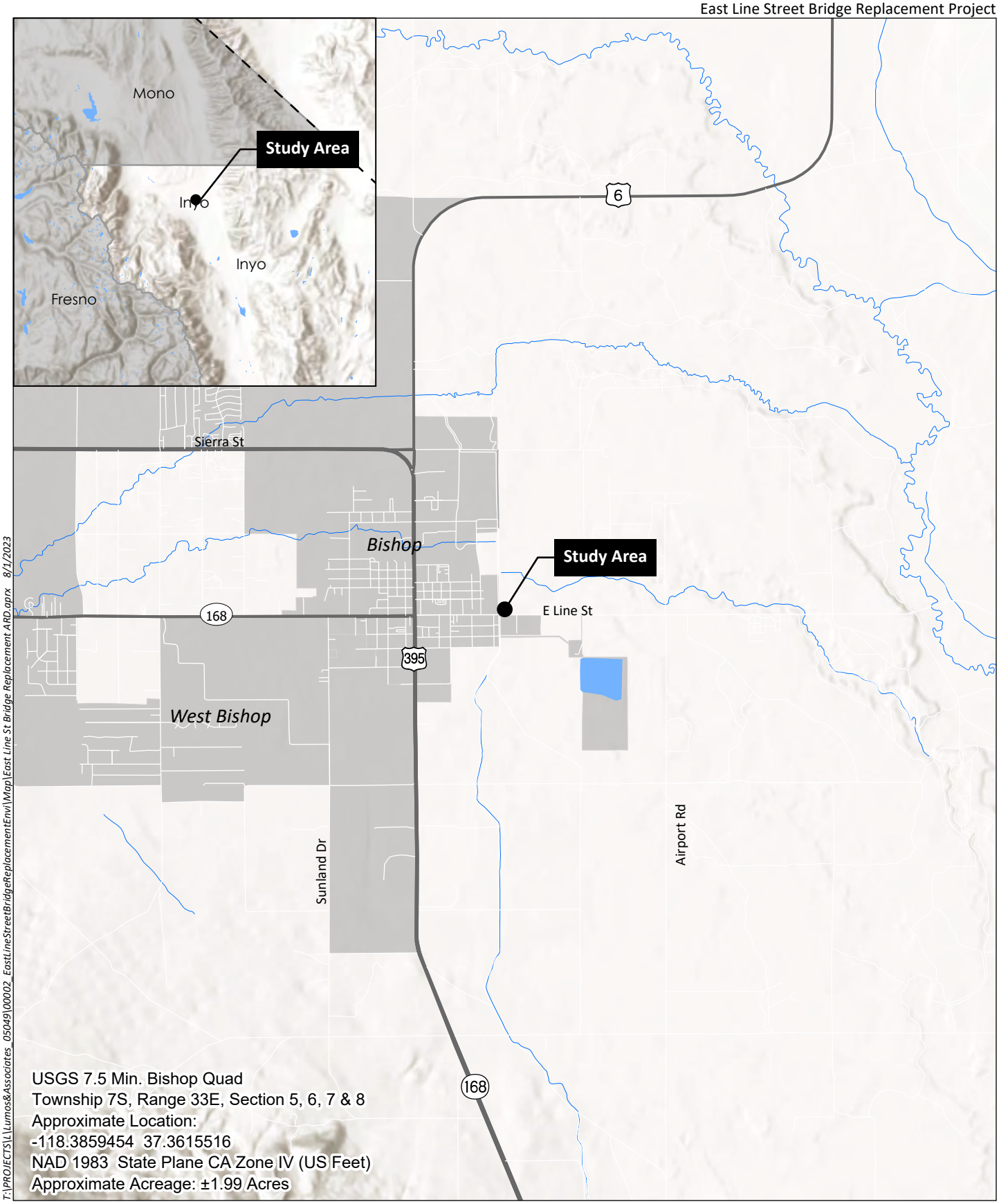
Appendix A

Figures



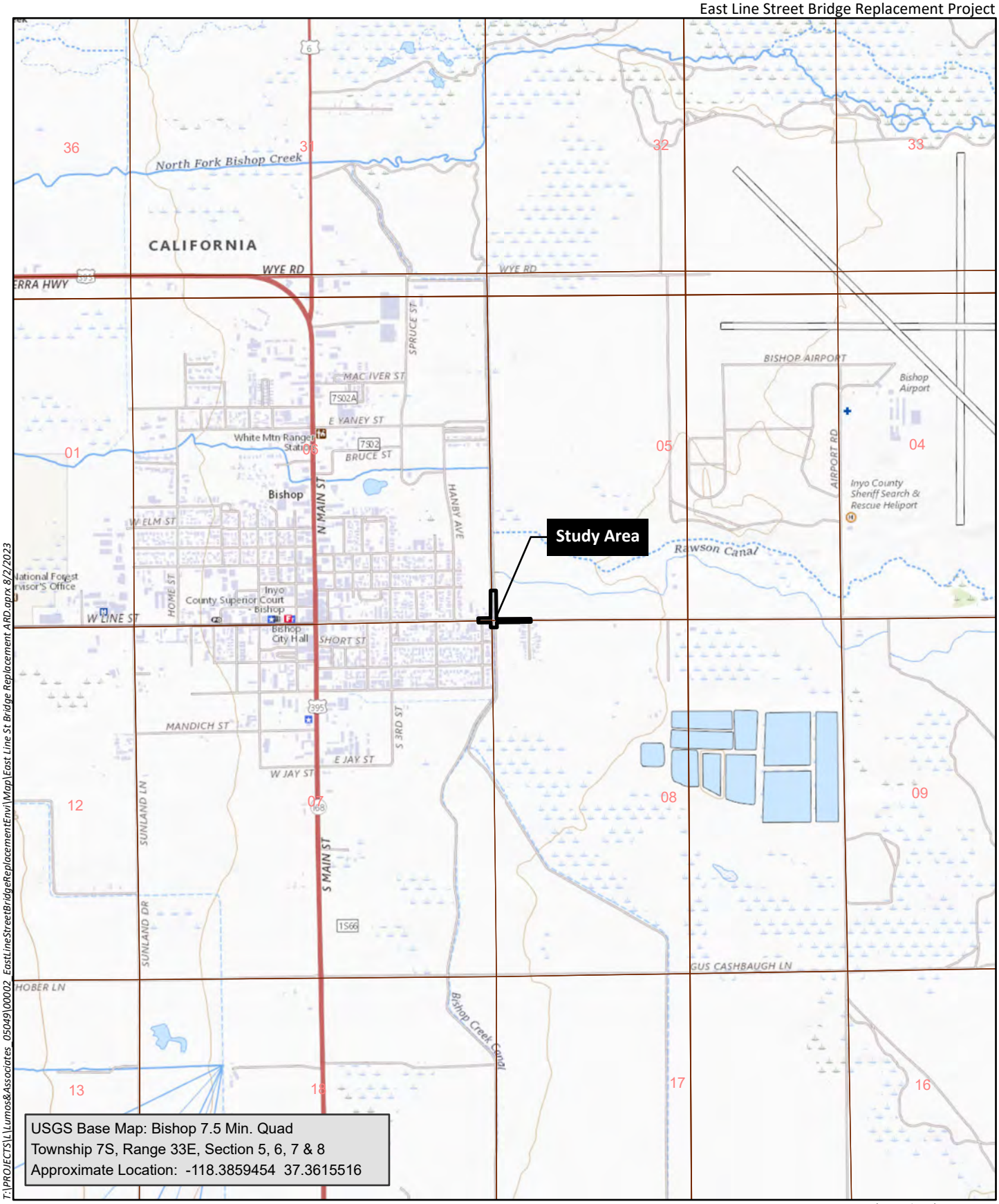
T:\PROJECTS\L\Lumos&Associates_05049\00002_EastLineStreetBridgeReplacementEnv\Map\East Line St Bridge Replacement ARD.aprx 8/1/2023

Source: Base Map Layers (Esri, USGS, NGA, NASA)

HELIX Environmental Planning

Site and Vicinity Map

Figure 1



USGS Base Map: Bishop 7.5 Min. Quad
Township 7S, Range 33E, Section 5, 6, 7 & 8
Approximate Location: -118.3859454 37.3615516

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0 2,000 Feet

Source: USGS, The National Map, 2023

HELIX Environmental Planning

USGS Topographic Map

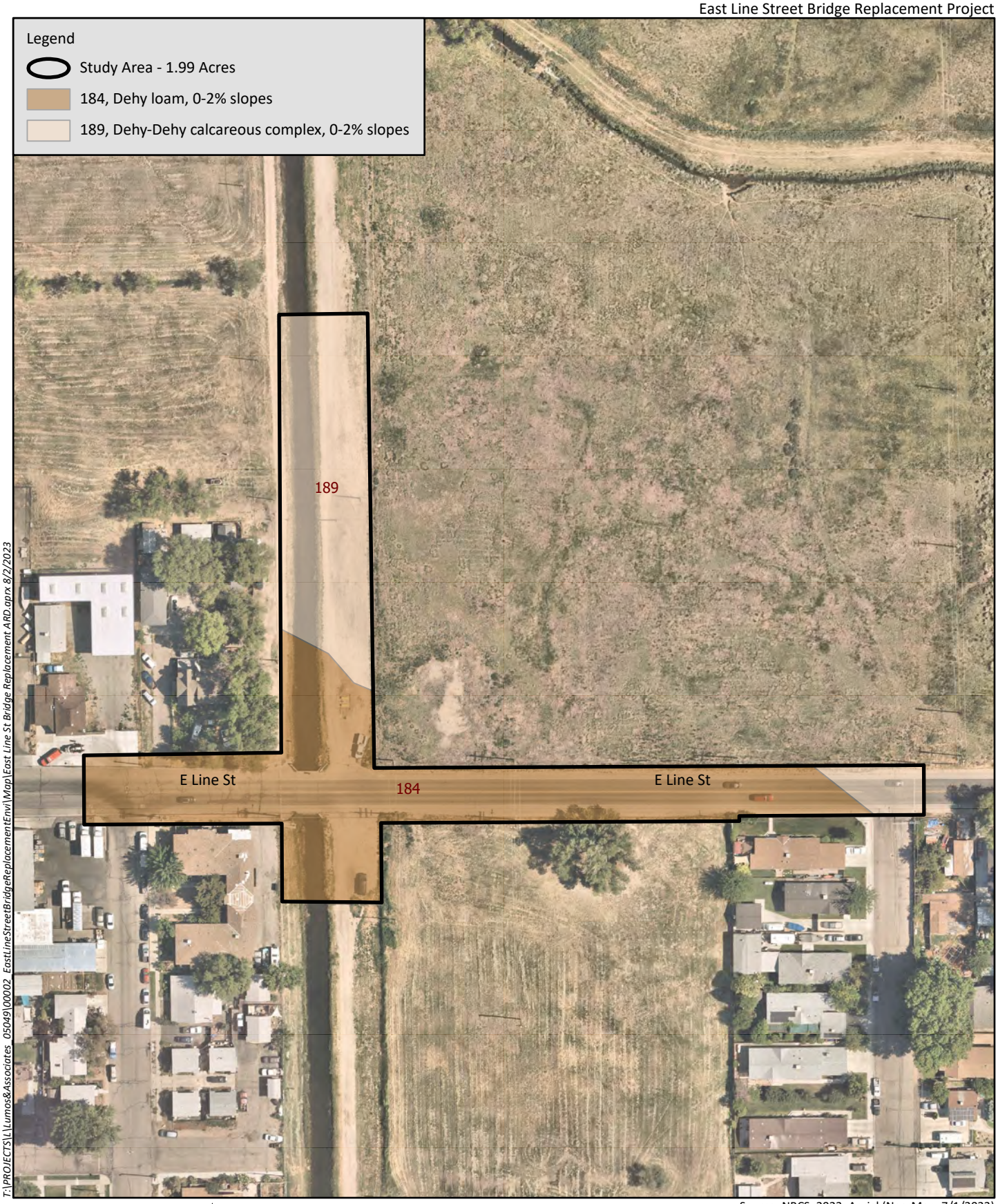
Figure 2

Source: Aerial (NearMap, 7/1/2023)

HELIX Environmental Planning

Aerial Map

Figure 3



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Source: NRCS, 2023; Aerial (NearMap, 7/1/2023)

HELIX Environmental Planning

Soils Map

Figure 4

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Source: Aerial (NearMap, 7/1/2023)

HELIX Environmental Planning

Biological Communities

Figure 5

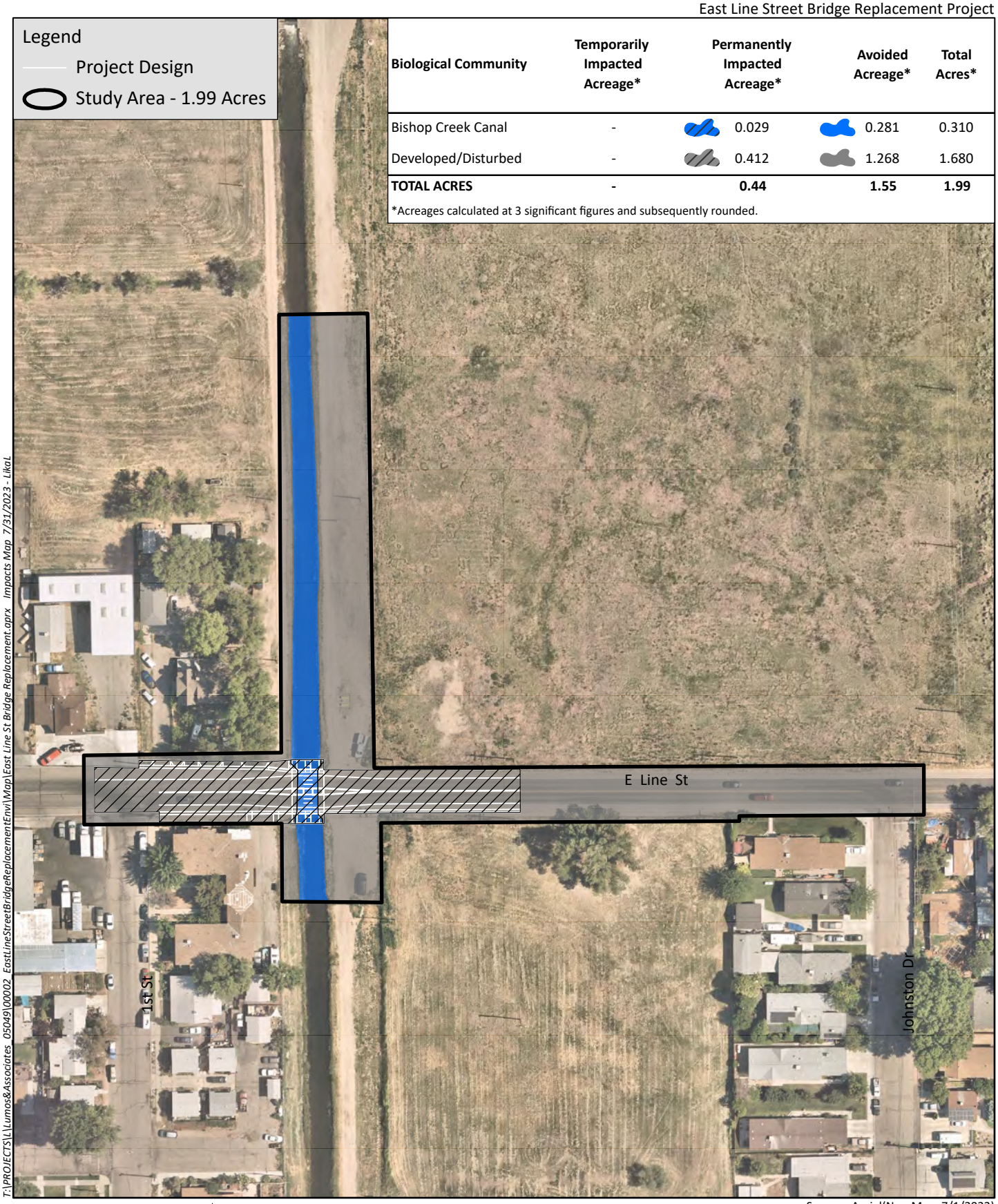
Legend

Project Design

Study Area - 1.99 Acres

Biological Community	Temporarily Impacted Acreage*	Permanently Impacted Acreage*	Avoided Acreage*	Total Acres*
Bishop Creek Canal	-	0.029	0.281	0.310
Developed/Disturbed	-	0.412	1.268	1.680
TOTAL ACRES	**-**	**0.44**	**1.55**	**1.99**

*Acreages calculated at 3 significant figures and subsequently rounded.



T:\PROJECTS\L\Lumos&Associates 05049\00002 EastLineStreetBridgeReplacementEnv\Map\East Line St Bridge Replacement.aprx Impacts Map 7/31/2023 - LikaL

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Source: Aerial(NearMap, 7/1/2023)

HELIX Environmental Planning

Impacts to Biological Communities

Figure 6

Appendix B

Database Lists of Regionally Occurring Special-status Species

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Reno Fish And Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147
Phone: (775) 861-6300 Fax: (775) 861-6301

In Reply Refer To:
Project Code: 2023-0103032
Project Name: East Line Street Bridge Replacement Project

July 11, 2023

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List
- Migratory Birds

OFFICIAL SPECIES LIST

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

This species list is provided by:

Reno Fish And Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147
(775) 861-6300

PROJECT SUMMARY

Project Code: 2023-0103032
Project Name: East Line Street Bridge Replacement Project
Project Type: Bridge - Replacement
Project Description: Project involves the replacement of an existing bridge crossing on the Bishop Creek Canal off East Line Street in Bishop, CA

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.3620011,-118.38596051787965,14z

Counties: Inyo County, California

ENDANGERED SPECIES ACT SPECIES

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

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

BIRDS

NAME	STATUS
Greater Sage-grouse *Centrocercus urophasianus* Population: Bi-State There is **proposed** critical habitat for this species. Species profile: https://ecos.fws.gov/ecp/species/8159	Proposed Threatened
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

FISHES

NAME	STATUS
Owens Pupfish *Cyprinodon radiosus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4982	Endangered
Owens Tui Chub *Gila bicolor ssp. snyderi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7289	Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

FLOWERING PLANTS

NAME	STATUS
Fish Slough Milk-vetch *Astragalus lentiginosus var. piscinensis*	Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/7947

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

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.

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

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

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

NAME	BREEDING SEASON
American White Pelican *pelecanus erythrorhynchos* 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/6886	Breeds Apr 1 to Aug 31
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 Dec 1 to Aug 31

NAME	BREEDING SEASON
Black Swift *Cypseloides niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
California Gull *Larus californicus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Cassin's Finch *Carpodacus cassinii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Evening Grosbeak *Coccothraustes vespertinus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Franklin's Gull *Leucophaeus pipixcan* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 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
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Lewis's Woodpecker *Melanerpes lewis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Olive-sided Flycatcher *Contopus cooperi* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Pinyon Jay *Gymnorhinus cyanocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420	Breeds Feb 15 to Jul 15

NAME	BREEDING SEASON
Rufous Hummingbird *selasphorus rufus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds Apr 15 to Jul 15
Sage Thrasher *Oreoscoptes montanus* 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/9433	Breeds Apr 15 to Aug 10
Virginia's Warbler *Vermivora virginiae* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9441	Breeds May 1 to Jul 31
Willet *Tringa semipalmata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

PROBABILITY OF PRESENCE SUMMARY

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

Probability of Presence (■)

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

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

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12

(0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

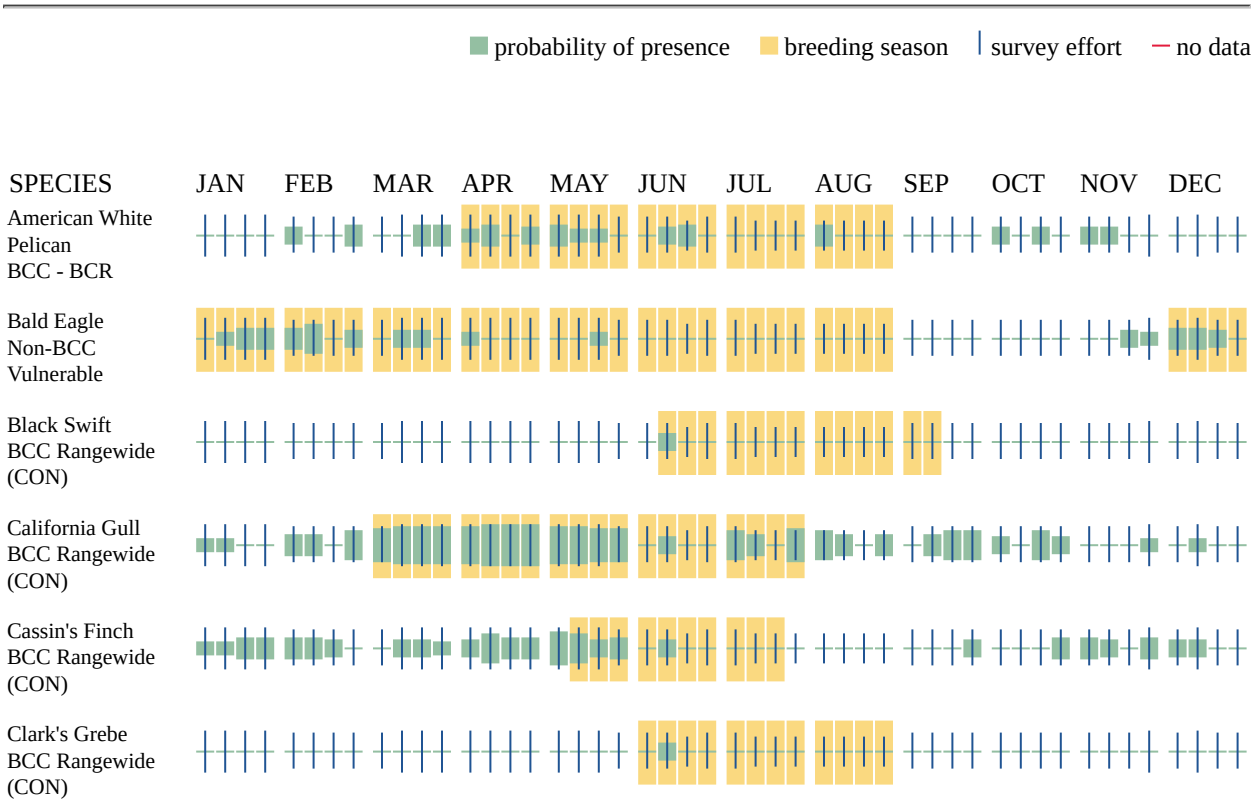
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

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

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

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

Survey Timeframe
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.



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

MIGRATORY BIRDS FAQ

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

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

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

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

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

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

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

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

What are the levels of concern for migratory birds?

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

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

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

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

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

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of

certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

IPAC USER CONTACT INFORMATION

Agency: HELIX Environmental Planning
Name: Greg Davis
Address: 1677 Eureka Road, Suite 100
City: Roseville
State: CA
Zip: 95661
Email gregd@helixepi.com
Phone: 9164351202

Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Poleta Canyon (3711833) OR Big Pine (3711823) OR Laws (3711843) OR Fish Slough (3711844) OR Rovana (3711845) OR Coyote Flat (3711824) OR Tungsten Hills (3711835) OR Bishop (3711834) OR Mt. Thompson (3711825))

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAABB01040	***Anaxyrus canorus*** Yosemite toad	Threatened	None	G2G3	S2	SSC
AAABH01170	***Lithobates pipiens*** northern leopard frog	None	None	G5	S2	SSC
AAABH01340	***Rana sierrae*** Sierra Nevada yellow-legged frog	Endangered	Threatened	G1	S2	WL
ABNKC11011	***Circus hudsonius*** northern harrier	None	None	G5	S3	SSC
ABNKC12040	***Accipiter cooperii*** Cooper's hawk	None	None	G5	S4	WL
ABNKC12060	***Accipiter gentilis*** northern goshawk	None	None	G5	S3	SSC
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
ABNRB02022	***Coccyzus americanus occidentalis*** western yellow-billed cuckoo	Threatened	Endangered	G5T2T3	S1	
ABNSB10010	***Athene cunicularia*** burrowing owl	None	None	G4	S2	SSC
ABNSB13010	***Asio otus*** long-eared owl	None	None	G5	S3?	SSC
ABPAE33043	***Empidonax traillii extimus*** southwestern willow flycatcher	Endangered	Endangered	G5T2	S3	
ABPAU08010	***Riparia riparia*** bank swallow	None	Threatened	G5	S3	
ABPBX24010	***Icteria virens*** yellow-breasted chat	None	None	G5	S4	SSC
ABPBX45030	***Piranga rubra*** summer tanager	None	None	G5	S1	SSC
AFCJB1303J	***Siphateles bicolor snyderi*** Owens tui chub	Endangered	Endangered	G4T1	S1	
AFCJB3705F	***Rhinichthys osculus ssp. 2*** Owens speckled dace	None	None	G5T2Q	S2	SSC
AFCJC02090	***Catostomus fumeiventris*** Owens sucker	None	None	G3	S3	SSC

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AFCNB02090	***Cyprinodon radiosus*** Owens pupfish	Endangered	Endangered	G1	S2	FP
AMACC01110	***Myotis volans*** long-legged myotis	None	None	G4G5	S3	
AMACC01230	***Myotis ciliolabrum*** western small-footed myotis	None	None	G5	S3	
AMACC02010	***Lasionycteris noctivagans*** silver-haired bat	None	None	G3G4	S3S4	
AMACC05032	***Lasiurus cinereus*** hoary bat	None	None	G3G4	S4	
AMACC07010	***Euderma maculatum*** spotted bat	None	None	G4	S3	SSC
AMACC08010	***Corynorhinus townsendii*** Townsend's big-eared bat	None	None	G4	S2	SSC
AMACC10010	***Antrozous pallidus*** pallid bat	None	None	G4	S3	SSC
AMAEA0102L	***Ochotona princeps schisticeps*** gray-headed pika	None	None	G5T4	S2S4	
AMAEB03041	***Lepus townsendii townsendii*** western white-tailed jackrabbit	None	None	G5T5	S3?	SSC
AMAFF11033	***Microtus californicus vallicola*** Owens Valley vole	None	None	G5T3	S3	SSC
AMAJA03017	***Vulpes vulpes necator pop. 2*** Sierra Nevada red fox - Sierra Nevada DPS	Endangered	Threatened	G5TNR	S1	
AMAJF03010	***Gulo gulo*** wolverine	Proposed Threatened	Threatened	G4	S1	FP
ARACB01050	***Elgaria panamintina*** Panamint alligator lizard	None	None	G3	S3	SSC
CTT45310CA	***Alkali Meadow*** Alkali Meadow	None	None	G3	S2.1	
CTT52320CA	***Transmontane Alkali Marsh*** Transmontane Alkali Marsh	None	None	G3	S2.1	
CTT63510CA	***Water Birch Riparian Scrub*** Water Birch Riparian Scrub	None	None	GNR	SNR	
IIHYM24460	***Bombus morrisoni*** Morrison bumble bee	None	None	G3	S1S2	
IIHYM24480	***Bombus crotchii*** Crotch bumble bee	None	Candidate Endangered	G2	S2	
IIHYM73010	***Parnopes borregoensis*** Borrego parnopes cuckoo wasp	None	None	G1G2	S1S2	
IMBIV04220	***Anodonta californiensis*** California floater	None	None	G3Q	S2?	

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
IMGASJ0280	***Pyrgulopsis owensensis*** Owens Valley springsnail	None	None	G1G2	S1S2	
IMGASJ0290	***Pyrgulopsis perturbata*** Fish Slough springsnail	None	None	G1	S1	
IMGASJ0360	***Pyrgulopsis wongi*** Wong's springsnail	None	None	G2	S2	
NBMUS4U010	***Myurella julacea*** small mousetail moss	None	None	G5	S2	2B.3
NBMUS5S1B0	***Pohlia tundrae*** tundra thread moss	None	None	G3	S3	2B.3
NLT0028030	***Solorina spongiosa*** fringed chocolate chip lichen	None	None	G4G5	S1	2B.2
PDAST2R0K0	***Crepis runcinata*** fiddleleaf hawksbeard	None	None	G5	S3	2B.2
PDBOR0V0U0	***Plagiobothrys parishii*** Parish's popcornflower	None	None	G1	S1	1B.1
PDBRA060F0	***Boechera dispar*** pinyon rockcress	None	None	G3	S3	2B.3
PDBRA111F0	***Draba lonchocarpa*** spear-fruited draba	None	None	G5	S2S3	2B.3
PDBRA11210	***Draba praealta*** tall draba	None	None	G5	S3	2B.3
PDBRA112A0	***Draba sierrae*** Sierra draba	None	None	G3	S3	1B.3
PDBRA2N062	***Thelypodium integrifolium ssp. complanatum*** foxtail thelypodium	None	None	G5T4T5	S2	2B.2
PDCAC0D120	***Grusonia pulchella*** beautiful cholla	None	None	G4	S2	2B.2
PDCAR0E011	***Loeflingia squarrosa var. artemisiarum*** sagebrush loeflingia	None	None	G5T3	S2	2B.2
PDCAR0G0U0	***Sabulina stricta*** bog sandwort	None	None	G5	S3	2B.3
PDCHE040J0	***Atriplex gardneri var. falcata*** falcate saltbush	None	None	G4T4Q	S2S3	2B.2
PDCHE0P080	***Suaeda occidentalis*** western seablite	None	None	G5	S2	2B.3
PDFAB0F0S1	***Astragalus argophyllus var. argophyllus*** silver-leaved milk-vetch	None	None	G5T4	S2	2B.2
PDFAB0F802	***Astragalus serenoi var. shockleyi*** Shockley's milk-vetch	None	None	G4T3	S3	2B.2
PDFAB0FB9E	***Astragalus lentiginosus var. piscinensis*** Fish Slough milk-vetch	Threatened	None	G5T1	S1	1B.1

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDFAB2B2K2	***Lupinus magnificus var. hesperius*** Mcgee Meadows lupine	None	None	G3T1Q	S1	1B.3
PDFAB2B2Z0	***Lupinus padre-crowleyi*** Father Crowley's lupine	None	Rare	G2	S2	1B.2
PDFAB2B3B1	***Lupinus pusillus var. intermontanus*** intermontane lupine	None	None	G5T5?	S2	2B.3
PDHYD0C2F0	***Phacelia inyoensis*** Inyo phacelia	None	None	G2	S2	1B.2
PDLOA031S0	***Mentzelia torreyi*** Torrey's blazing star	None	None	G4	S2	2B.2
PDMAL11040	***Sidalcea covillei*** Owens Valley checkerbloom	None	Endangered	G2	S2	1B.1
PDONA03056	***Eremothera boothii ssp. intermedia*** Booth's hairy evening-primrose	None	None	G5T3T4	S3	2B.3
PDONA060R0	***Epilobium palustre*** marsh willowherb	None	None	G5	S2	2B.3
PDPGN06010	***Dedeckera eurekensis*** July gold	None	Rare	G3	S3	1B.3
PDPHR01010	***Erythranthe calcicola*** limestone monkeyflower	None	None	G3	S3	1B.3
PDPLM041T0	***Aliciella triodon*** coyote gilia	None	None	G5	S2	2B.2
PDRAN0L190	***Ranunculus hydrocharoides*** frog's-bit buttercup	None	None	G4	S1	2B.1
PDROS0X092	***Ivesia kingii var. kingii*** alkali ivesia	None	None	G4T3Q	S2	2B.2
PDROS18010	***Petrophytum caespitosum ssp. acuminatum*** marble rockmat	None	None	G5T2	S2	1B.3
PDROS1B2R0	***Potentilla morefieldii*** Morefield's cinquefoil	None	None	G2	S2	1B.3
PDSAX0P0A0	***Parnassia parviflora*** small-flowered grass-of-Parnassus	None	None	G5?	S2	2B.2
PDSOL0Q010	***Oryctes nevadensis*** Nevada oryctes	None	None	G3	S2	2B.1
PDVIO04431	***Viola pinetorum ssp. grisea*** grey-leaved violet	None	None	G4G5T3	S3	1B.2
PMCYP03C85	***Carex scirpoidea ssp. pseudoscirpoidea*** western single-spiked sedge	None	None	G5T5	S2	2B.2
PMCYP0B0N0	***Fimbristylis thermalis*** hot springs fimbristylis	None	None	G4	S1S2	2B.2
PMCYP0Q250	***Trichophorum pumilum*** little bulrush	None	None	G5	S3	2B.2

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PMJCG02040	***Triglochin palustris*** marsh arrow-grass	None	None	G5	S2	2B.3
PMLIL02061	***Allium atrorubens var. atrorubens*** Great Basin onion	None	None	G4T4	S2	2B.3
PMLIL0D0F0	***Calochortus excavatus*** Inyo County star-tulip	None	None	G2	S2	1B.1
PMPOA0X020	***Blepharidachne kingii*** King's eyelash grass	None	None	G4	S2	2B.3
PMPOA2H170	***Elymus scribneri*** Scribner's wheat grass	None	None	G5	S3	2B.3
PMPOA4Z1H0	***Poa lettermanii*** Letterman's blue grass	None	None	G4	S3	2B.3
PMPOA5T030	***Sphenopholis obtusata*** prairie wedge grass	None	None	G5	S2	2B.2
PMPOA6P010	***Elymus salina*** Salina Pass wild-rye	None	None	G5	S2S3	2B.3
PMPOT030Z0	***Potamogeton robbinsii*** Robbins' pondweed	None	None	G5	S3	2B.3
PPOPH010L0	***Botrychium crenulatum*** scalloped moonwort	None	None	G4	S3	2B.2

Record Count: 92

CNPS Rare Plant Inventory

California Native Plant Society

Search Results

57 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [**1A:1B:2A:2B:3**] , 9-Quad include [**3711833:3711823:3711843:3711844:3711845:3711824:3711835:3711834:3711825**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	CA RARE PLANT RANK	GENERAL HABITATS	MICROHABITATS	LOWEST ELEVATION (M)	HIGHEST ELEVATION (M)
Agrostis humilis	mountain bent grass	Poaceae	perennial herb	Jul-Sep	None	None	2B.3	Alpine boulder and rock field, Meadows and seeps, Subalpine coniferous forest	Carbonate (sometimes)	2670	3200
Aliciella triodon	coyote gilia	Polemoniaceae	annual herb	Apr-Jun	None	None	2B.2	Great Basin scrub, Pinyon and juniper woodland	Sandy (sometimes)	610	1700
Allium atrorubens var. *atrorubens*	Great Basin onion	Alliaceae	perennial bulbiferous herb	May-Jun	None	None	2B.3	Great Basin scrub, Pinyon and juniper woodland	Rocky (sometimes), Sandy (sometimes)	1200	2315
Arabis repanda var. *greenei*	Greene's rockcress	Brassicaceae	perennial herb	Jun-Aug	None	None	3.3	Subalpine coniferous forest, Upper montane coniferous forest	Granitic, Rocky (sometimes), Sandy (sometimes), Talus	2345	3600
Astragalus argophyllus var. *argophyllus*	silver-leaved milk-vetch	Fabaceae	perennial herb	May-Jul	None	None	2B.2	Meadows and seeps, Playas	Alkaline (sometimes)	1240	2350
Astragalus lentiginosus var. *piscinensis*	Fish Slough milk-vetch	Fabaceae	perennial herb	Jun-Jul	FT	None	1B.1	Playas (alkaline)		1130	1300
Astragalus serenoi var. *shockleyi*	Shockley's milk-vetch	Fabaceae	perennial herb	(Apr)May-Jul	None	None	2B.2	Chenopod scrub, Great Basin scrub, Pinyon and juniper woodland	Alkaline	1500	2320
Atriplex gardneri var. *falcata*	falcate saltbush	Chenopodiaceae	perennial herb	May-Aug	None	None	2B.2	Chenopod scrub, Great Basin scrub	Alkaline (often)	1200	1700

Blepharidachne kingii	King's eyelash grass	Poaceae	perennial herb	May	None	None	2B.3	Great Basin scrub (usually carbonate)		1065	2135
Boechera dispar	pinyon rockcress	Brassicaceae	perennial herb	Mar-Jun	None	None	2B.3	Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland	Granitic, Gravelly	1200	2540
Botrychium ascendens	upswept moonwort	Ophioglossaceae	perennial rhizomatous herb	(Jun)Jul-Aug	None	None	2B.3	Lower montane coniferous forest, Meadows and seeps	Mesic	1115	3045
Botrychium crenulatum	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	None	None	2B.2	Bogs and fens, Lower montane coniferous forest, Marshes and swamps (freshwater), Meadows and seeps, Upper montane coniferous forest		1268	3280
Calochortus excavatus	Inyo County star-tulip	Liliaceae	perennial bulbiferous herb	Apr-Jul	None	None	1B.1	Chenopod scrub, Meadows and seeps	Alkaline, Mesic	1150	2000
Carex scirpoidea ssp. *pseudoscirpoidea*	western single-spiked sedge	Cyperaceae	perennial rhizomatous herb	Jul-Sep	None	None	2B.2	Alpine boulder and rock field, Meadows and seeps, Subalpine coniferous forest (rocky)	Carbonate (often), Mesic	2990	3700
Chaetadelpha wheeleri	Wheeler's dune-broom	Asteraceae	perennial rhizomatous herb	Apr-Sep	None	None	2B.2	Desert dunes, Great Basin scrub, Mojavean desert scrub	Sandy	795	1900

Crepis runcinata	fiddleleaf hawksbeard	Asteraceae	perennial herb	May-Aug	None	None	2B.2	Mojavean desert scrub, Pinyon and juniper woodland	Alkaline, Mesic	1250	1975
Dedeckera eurekensis	July gold	Polygonaceae	perennial deciduous shrub	May-Aug	None	CR	1B.3	Mojavean desert scrub (carbonate)		1215	2200
Draba lonchocarpa	spear-fruited draba	Brassicaceae	perennial herb	Jun-Jul	None	None	2B.3	Alpine boulder and rock field (carbonate, scree)		3000	3295
Draba praealta	tall draba	Brassicaceae	perennial herb	Jul-Aug	None	None	2B.3	Meadows and seeps (mesic)		2500	3415
Draba sierrae	Sierra draba	Brassicaceae	perennial herb	Jun-Aug	None	None	1B.3	Alpine boulder and rock field (carbonate, granitic)		3500	4265
Elymus salina	Salina Pass wild-rye	Poaceae	perennial rhizomatous herb	May-Jun	None	None	2B.3	Pinyon and juniper woodland (rocky)		1350	2135
Elymus scribneri	Scribner's wheat grass	Poaceae	perennial herb	Jul-Aug	None	None	2B.3	Alpine boulder and rock field		2900	4200
Epilobium palustre	marsh willowherb	Onagraceae	perennial rhizomatous herb	Jul-Sep	None	None	2B.3	Bogs and fens, Meadows and seeps (mesic)		1285	2345
Eremothera boothii ssp. *intermedia*	Booth's hairy evening-primrose	Onagraceae	annual herb	(May)Jun	None	None	2B.3	Great Basin scrub (sandy), Pinyon and juniper woodland		1500	2150
Erythranthe calcicola	limestone monkeyflower	Phrymaceae	annual herb	Apr-Jun	None	None	1B.3	Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland	Carbonate (usually), Slopes (usually), Talus (usually)	915	2165
Fimbristylis thermalis	hot springs fimbristylis	Cyperaceae	perennial rhizomatous herb	Jul-Sep	None	None	2B.2	Meadows and seeps (alkaline, near hot springs)		110	1340

Grusonia pulchella	beautiful cholla	Cactaceae	perennial stem	May(Jun)	None	None	2B.2	Desert dunes, Great Basin scrub, Mojavean desert scrub	Sandy	1500	1980
Hecastocleis shockleyi	prickle-leaf	Asteraceae	perennial evergreen shrub	May-Jul	None	None	3	Chenopod scrub, Mojavean desert scrub	Carbonate (often), Rocky, Slopes, Washes	1200	2200
Hulsea vestita ssp. *inyoensis*	Inyo hulsea	Asteraceae	perennial herb	Apr-Jun	None	None	2B.2	Chenopod scrub, Great Basin scrub, Pinyon and juniper woodland	Rocky	1645	3000
Ivesia kingii var. *kingii*	alkali ivesia	Rosaceae	perennial herb	May-Aug	None	None	2B.2	Great Basin scrub, Meadows and seeps, Playas	Alkaline, Clay, Mesic	1200	2130
Loeflingia squarrosa var. *artemisiarum*	sagebrush loeflingia	Caryophyllaceae	annual herb	Apr-May	None	None	2B.2	Desert dunes, Great Basin scrub, Sonoran desert scrub	Sandy	700	1615
Lupinus magnificus var. *hesperius*	Mcgee Meadows lupine	Fabaceae	perennial herb	Apr-Jun	None	None	1B.3	Great Basin scrub, Upper montane coniferous forest	Sandy	1260	1830
Lupinus padre-crowleyi	Father Crowley's lupine	Fabaceae	perennial herb	Jul-Aug	None	CR	1B.2	Great Basin scrub, Riparian scrub, Upper montane coniferous forest	Decomposed granitic	2200	4000
Lupinus pusillus var. *intermontanus*	intermontane lupine	Fabaceae	annual herb	May-Jun	None	None	2B.3	Great Basin scrub (sandy)		1220	2060
Mentzelia inyoensis	Inyo blazing star	Loasaceae	perennial herb	Apr-Oct	None	None	1B.1	Great Basin scrub, Pinyon and juniper woodland	Carbonate (sometimes), Rocky	1158	1980

Mentzelia torreyi	Torrey's blazing star	Loasaceae	perennial herb	Jun-Aug	None	None	2B.2	Great Basin scrub, Mojavean desert scrub, Pinyon and juniper woodland	Alkaline, Rocky, Sandy, Volcanic (usually)	1170	2835
Myurella julacea	small mousetail moss	Pterigynandraceae	moss		None	None	2B.3	Alpine boulder and rock field, Subalpine coniferous forest		2700	3000
Oryctes nevadensis	Nevada oryctes	Solanaceae	annual herb	Apr-Jun	None	None	2B.1	Chenopod scrub, Mojavean desert scrub	Sandy	1100	2535
Parnassia parviflora	small-flowered grass-of-Parnassus	Parnassiaceae	perennial herb	Aug-Sep	None	None	2B.2	Meadows and seeps	Mesic	2000	2855
Petrophytum caespitosum ssp. *acuminatum*	marble rockmat	Rosaceae	perennial evergreen shrub	Aug-Sep	None	None	1B.3	Lower montane coniferous forest, Upper montane coniferous forest	Carbonate (sometimes), Granitic (sometimes), Rocky	1015	2300
Phacelia inyoensis	Inyo phacelia	Hydrophyllaceae	annual herb	Apr-Aug	None	None	1B.2	Meadows and seeps (alkaline)		915	3200
Plagiobothrys parishii	Parish's popcornflower	Boraginaceae	annual herb	Mar-Jun(Nov)	None	None	1B.1	Great Basin scrub, Joshua tree "woodland"	Alkaline, Mesic	750	1400
Poa lettermanii	Letterman's blue grass	Poaceae	perennial herb	Jul-Aug	None	None	2B.3	Alpine boulder and rock field (sandy, rocky)		3500	4265
Pohlia tundrae	tundra thread moss	Mielichhoferiaceae	moss		None	None	2B.3	Alpine boulder and rock field (gravelly, damp soil)		2700	3000
Potamogeton robbinsii	Robbins' pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	Jul-Aug	None	None	2B.3	Marshes and swamps (lakes, deep water)		1530	3300

Potentilla morefieldii	Morefield's cinquefoil	Rosaceae	perennial herb	Jul-Sep	None	None	1B.3	Alpine boulder and rock field (carbonate)		3265	4000
Ranunculus hydrocharoides	frog's-bit buttercup	Ranunculaceae	perennial herb (aquatic)	(May)Jun-Sep	None	None	2B.1	Marshes and swamps (freshwater)		1100	2700
Sabulina stricta	bog sandwort	Caryophyllaceae	perennial herb	Jul-Sep	None	None	2B.3	Alpine boulder and rock field, Alpine dwarf scrub, Meadows and seeps		2440	3960
Sarcobatus baileyi	Bailey's greasewood	Sarcobataceae	perennial deciduous shrub	Apr-Jul	None	None	2B.3	Chenopod scrub	Alkaline, Roadsides, Washes	1500	1600
Sidalcea covillei	Owens Valley checkerbloom	Malvaceae	perennial herb	Apr-Jun	None	CE	1B.1	Chenopod scrub, Meadows and seeps	Alkaline, Mesic	1095	1415
Solorina spongiosa	fringed chocolate chip lichen	Peltigeraceae	crustose lichen (terricolous)		None	None	2B.2	Meadows and seeps, Subalpine coniferous forest (seeps)	Carbonate	2895	2895
Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	Apr-Jul	None	None	2B.2	Cismontane woodland, Meadows and seeps	Mesic	300	2000
Suaeda occidentalis	western seablite	Chenopodiaceae	annual herb	Jul-Sep	None	None	2B.3	Great Basin scrub (alkaline, mesic)		1200	1500
Thelypodium integrifolium ssp. *complanatum*	foxtail thelypodium	Brassicaceae	annual/perennial herb	Jun-Oct	None	None	2B.2	Great Basin scrub, Meadows and seeps	Alkaline (sometimes), Mesic	1100	2500
Trichophorum pumilum	little bulrush	Cyperaceae	perennial rhizomatous herb	Aug	None	None	2B.2	Bogs and fens, Marshes and swamps, Riparian scrub	Carbonate, Streambanks	2860	3250

Triglochin palustris	marsh arrow-grass	Juncaginaceae	perennial rhizomatous herb	Jul-Aug	None	None	2B.3	Marshes and swamps (freshwater), Meadows and seeps, Subalpine coniferous forest	Mesic	2285	3700
Viola pinetorum ssp. *grisea*	grey-leaved violet	Violaceae	perennial herb	Apr-Jul	None	None	1B.2	Meadows and seeps, Subalpine coniferous forest, Upper montane coniferous forest		1500	3400

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Appendix C

Plant and Wildlife Species Observed in the Study Area

Family	Scientific Name	Common Name	Status/Rating[1]
Native			
Apocynaceae	*Apocynum cannabinum*	hemp dogbane	-
Asteraceae	*Ambrosia acanthicarpa*	annual bur-sage	-
	Artemisia douglasiana	mugwort	-
	Ericameria nauseosa	rubber rabbitbrush	-
Cyperaceae	*Schoenoplectus acutus*	tule	-
Equisetaceae	*Equisetum arvense*	common horsetail	-
Fabaceae	*Glycyrrhiza lepidota*	wild licorice	-
Juncaceae	*Juncus balticus*	Baltic rush	-
Poaceae	*Distichilis spicata*	saltgrass	-
	Elymus glaucus	blue wildrye	-
	Elymus triticoides	beardless wildrye	-
	Eragrostis mexicana	Mexican lovegrass	-
	Koeleria macrantha	June grass	-
	Sporobolus airoides	alkali sacaton	-
Rosaceae	*Rosa woodsii*	Woods' rose	-
Salicaceae	*Populus fremontii*	Fremont cottonwood	-
	Salix exigua ssp. *exigua*	narrow leaf willow	-
	Salix laevigata	polished willow	-
Non-native			
Apiaceae	*Lepidium appelianum*	hairy whitetop	Limited
Asteraceae	*Lactuca serriola*	prickly lettuce	-
Chenopodiaceae	*Atriplex prostrata*	fat-hen	-
	Salsola tragus	Russian thistle	Limited
Geraniaceae	*Erodium cicutarium*	red stemmed filaree	Limited
Lamiaceae	*Mentha pulegium*	pennyroyal	Moderate
Poaceae	*Bromus tectorum*	cheatgrass	High
	Cynodon dactylon	bermudagrass	Moderate
	Hordeum marinum ssp. *gussoneanum*	Mediterranean barley	Moderate
	Hordeum murinum ssp. *leporinum*	hare barley	Moderate
	Polypogon monspeliensis	annual beard grass	Limited
Polygonaceae	*Polygonum aviculare*	knotweed	-
	Rumex crispus	curly dock	Limited
Ulmaceae	*Ulmus* sp.	elm	-

[1] Cal-IPC Rating = Limited; Moderate; High

Family	Scientific Name	Common Name
Birds		
Anatidae	*Anas platyrhynchos*	mallard
Cardinalidae	*Passerina caerulea*	blue grosbeak
Cathartidae	*Cathartes aura*	turkey vulture
Columbidae	*Zenaida macroura*	mourning dove
Corvidae	*Corvus corax*	common raven
	Pica hudsonia	black-billed magpie
Fringillidae	*Haemorhous mexicanus*	house finch
	Spinus psaltria	lesser goldfinch
Hirundinidae	*Hirundo rustica*	barn swallow
Icteridae	*Euphagus cyanocephalus*	Brewer's blackbird
	Sturnella neglecta	western meadowlark
Mimidae	*Mimus polyglottos*	northern mockingbird
Passerellidae	*Pipilo maculatus*	spotted towhee
Sturnidae	*Sturnus vulgaris*	European starling
Troglodytidae	*Troglodytes aedon*	house wren
Turdidae	*Sialia mexicana*	western bluebird
	Turdus migratorius	American robin
Tyrannidae	*Sayornis nigricans*	black phoebe

Appendix D

Potential for Special-status Species in the Region to Occur in the Study Area

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Plants			
Agrostis humilis mountain bent grass	--/--/2B.3	A perennial herb found in alpine boulder and rock fields, meadows, seeps, and subalpine coniferous forest from 2,670 – 3,200 meters above mean sea level (msl). This species is a high elevation grass that sometimes occurs on calcareous substrates (CDFW 2023). Blooms July – September (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Aliciella triodon coyote gilia	--/--/2B.2	An annual herb found in Great Basin scrub and pinyon-juniper woodland from 610 – 1,700 meters above msl. Blooms April – June (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable Great Basin scrub or pinyon-juniper habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Allium atrorubens var. *atrorubens* Great Basin onion	--/--/2B.3	A perennial bulbiferous herb found on rocky or sandy soils in Great Basin scrub and pinyon-juniper woodland from 1,200 – 2,315 meters above msl. Blooms May – June (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable Great basin scrub or pinyon-juniper habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Arabis repanda var. *greenei* Greene's rockcress	--/--/3.3	A perennial herb found in granitic talus within upper montane- and subalpine coniferous forest from 2,345 – 3,600 meters above msl. Taxonomic status is uncertain; synonymous with *Boechera repanda* in Baldwin *et al.* (2012). Blooms June – August (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Astragalus argophyllus var. *argophyllus* silver-leaved milk-vetch	--/--/2B.2	A perennial herb found in saline or alkaline meadows, seeps, and playas from 1,240 – 2,350 meters above msl. Blooms May – July (CNPS 2023).	**Will not occur.** Although portions of the site have sandy, calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, mesic areas such as meadows, seeps, and playas are not present within the Study Area to support this species. It is also important to note that this species was not observed during the June 15, 2023, biological reconnaissance survey, which was conducted when this species is known to be identifiable and blooming. There are two documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, with the closest being 2.75 miles northeast of the site (CDFW 2023).
Astragalus lentiginosus var. *piscinensis* Fish Slough milk-vetch	FT/--/1B.1	A perennial herb found on alkaline playas from 1,130 – 1,300 meters above msl. Currently known only from Fish Slough. Blooms June – July (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the Study Area is outside of the known geographic range of this species. There is one documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is located approximately 4.70 miles north of the site (CDFW 2023).
Astragalus serenoi var. *shockleyi* Shockley's milk-vetch	--/--/2B.2	A perennial herb found on coarse, granitic alluvium in chenopod scrub, Great Basin scrub, and pinyon-juniper woodland from 1,500 – 2,320 meters above msl. Blooms (April) May – July (CNPS 2023).	**Will not occur.** The Study Area does not contain granitic alluvium or suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Atriplex gardneri var. *falcata* falcate saltbush	--/--/2B.2	A perennial herb found in chenopod scrub and Great Basin scrub from 1,200 – 1,700 meters above msl; often in alkaline microsites. Blooms May – August (CNPS 2023).	**Will not occur.** Although portions of the site have sandy, calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, chenopod scrub and Great Basin scrub habitat are not present within the Study Area to support this species. It is also important to note that this species was not observed during the June 15, 2023, biological reconnaissance survey, which was conducted when this species is known to be identifiable and blooming. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Blepharidachne kingii King's eyelash grass	--/--/2B.3	A perennial herb found in Great Basin scrub from 1,065 – 2,135 meters above msl. Known to occur on rocky slopes and alluvial fans, typically derived from limestone. Blooms May – June (Jepson eFlora 2023).	**Will not occur.** The Study Area does not contain rocky slopes, alluvial fans, or suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Boechera dispar pinyon rockcress	--/--/2B.3	A perennial herb found on gravelly granitic soils in Joshua tree woodland, pinyon-juniper woodland, and Mojavean desert scrub from 1,200 – 2,540 meters above msl. Blooms March – June (CNPS 2023).	**Will not occur.** The Study Area does not contain granitic soils or suitable habitat to support this species. There is one documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is historic record from 1927 that was mapped in the vicinity of Bishop due to the exact location being unknown (CDFW 2023). The next nearest record is approximately 6.40 miles to the southwest and is from 2006 (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Botrychium ascendens upswept moonwort	--/--/2B.3	A perennial non-flowering plant (pteridophyte) found in mesic lower montane coniferous forest and meadows and seeps from 1,115 – 3,045 meters above msl. Reproduces (June) July – August (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Botrychium crenulatum scalloped moonwort	--/--/2B.2	A perennial rhizomatous non-flowering plant (pteridophyte) found in bogs, fens, lower and upper montane coniferous forest, meadows and seeps, freshwater marshes, and swamps from 1,258 – 3,280 meters above msl. Reproduces June – September (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Calochortus excavatus Inyo County star-tulip	--/--/1B.1	A perennial bulbiferous herb found in mesic, alkaline microsites in chenopod scrub, meadows, and seeps from 1,150 – 2,000 meters above msl. Widely distributed throughout the Owens and Chalfant Valleys. Blooms April – July (CNPS 2023).	**Will not occur.** Although portions of the site have sandy, calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, mesic and chenopod scrub habitats are not present within the Study Area to support this species. Additionally, it is important to note that this species was not observed during the June 15, 2023, biological reconnaissance survey, which was conducted when this species is known to be identifiable and blooming. There are eleven documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, with the closest being 0.55 mile north of the site (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Carex scirpoidea ssp. *pseudoscirpoidea* western single-spiked sedge	--/--/2B.2	A perennial rhizomatous herb found in mesic, often carbonate, microsites in alpine boulder and rock fields, subalpine coniferous forest, meadows, and seeps from 2,990 – 3,700 meters above msl. Blooms July and September (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Chaetadelpha wheeleri Wheeler's dune-broom	--/--/2B.2	A perennial rhizomatous herb that is found in sandy substrates within desert dunes, Great Basin scrub, and Mojavean desert scrub from 795 – 1900 meters above msl. Blooms April – September (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Crepis runcinata fiddleleaf hawksbeard	--/--/2B.2	A perennial herb found in mesic, alkaline microsites in mojavean desert scrub and pinyon-juniper woodland from 1,250 – 2,195 meters above msl. Blooms May – August (CNPS 2023).	**Will not occur.** Although portions of the site have sandy, calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, mesic areas and suitable habitat is not present within the Study Area to support this species. Additionally, it is important to note that this species was not observed during the June 15, 2023, biological reconnaissance survey, which was conducted when this species is known to be identifiable and blooming. There are three documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, the nearest is a historic record from 1927 that was mapped in the vicinity of Bishop due to the exact location being unknown (CDFW 2023). The next nearest record is approximately 4.5 miles to the north and is from 1991 (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Dedeckera eurekensis July gold	--/SR/1B.3	A perennial deciduous shrub found on carbonate soils in Mojavean desert scrub from 1,215 – 2,200 meters above msl. Blooms May – August (CNPS 2023).	**Will not occur.** Although portions of the site have calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, Mojavean desert scrub habitat is not present within the Study Area to support this species. Additionally, it is important to note that this species was not observed during the June 15, 2023, biological reconnaissance survey, which was conducted when this species is known to be identifiable and blooming. There is one documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is located approximately 4.85 miles east of the site (CDFW 2023).
Draba lonchocarpa spear-fruited draba	--/--/2B.3	A perennial herb found on scree derived from carbonate substrates within alpine boulder and rock fields from 3,000 – 3,295 meters above msl. Blooms June – July (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Draba praealta tall draba	--/--/2B.3	A perennial herb found on mesic soils in meadows and seeps from 2,500 – 3,415 meters above msl. Blooms July – August (CNPS 2023)	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Draba sierrae Sierra draba	--/--/1B.3	A perennial herb found in granitic or carbonate substrates within alpine boulder and rock fields from 3,500 – 4,265 meters above msl. Blooms (May) June – August (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Elymus salina Salina Pass wild-rye	--/--/2B.3	A perennial rhizomatous herb found on rocky soils in pinyon-juniper woodland from 1,350 – 2,135 meters above msl. Blooms May – June (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located below the elevational range of this species. There is one documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is located approximately 4.85 miles north of the site (CDFW 2023).
Elymus scribneri Scribner's wheat grass	--/--/2B.3	A perennial herb found in alpine boulder and rock fields from 2,900 – 4,200 meters above msl. Blooms July – August (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Epilobium palustre marsh willowherb	--/--/2B.3	A perennial rhizomatous herb found in bogs, fens, and mesic meadows and seeps from 1,655 – 2,350 meters above msl. Blooms July – August (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Eremothera boothii ssp. *boothii* Booth's evening primrose	--/--/2B.3	An annual herb found in Joshua tree woodland and pinyon-juniper woodland from 815 – 2,400 meters above msl. Blooms April – September (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Erythranthe calcicola limestone monkeyflower	--/--/1B.3	An annual herb found usually on carbonate talus slopes in Mojavean desert scrub, pinyon-juniper woodland, and Joshua tree woodland from 915 – 2,165 meters above msl. Blooms April – June (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Fimbristylis thermalis hot springs fimbristylis	--/--/2B.2	A perennial rhizomatous herb found in alkaline microsites near hot springs from 110 – 1,340 meters above msl. Blooms July – September (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Grusonia pulchella beautiful cholla	--/--/2B.2	A perennial succulent found on sandy soils in Great Basin scrub and Mojavean desert scrub, and on desert dunes, from 1,500 – 1,980 meters above msl. Blooms in May (June) (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Hecastocleis shockleyi prickle-leaf	--/--/3	A perennial evergreen shrub found on rocky slope and washes, often derived from carbonate, within chenopod scrub and Mojavean desert scrub from 1,200 – 2,200 meters above msl. Blooms May – July (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Hulsea vestita ssp. *inyoensis* Inyo hulsea	--/--/2B.2	A perennial herb found on rocky soils in chenopod scrub, Great Basin scrub, and pinyon-juniper woodland from 1,645 – 3,000 meters above msl. Blooms April – June (CNPS 2023).	**Will not occur.** The Study Area does not contain rocky soils or suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Ivesia kingii var. *kingii* alkali ivesia	--/--/2B.2	A perennial herb found on mesic, alkaline, clay soils in Great Basin scrub, meadows, seeps, and playas from 1,200 – 2,130 meters above msl. Known from the Chalfant, Long, and northern Owens valleys. Blooms May – August (CNPS 2023).	**Will not occur.** The Study Area does not contain clay soils or suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Loeflingia squarrosa var. *artemisiarum* sagebrush loeflingia	--/--/2B.2	An annual herb found on sandy soils in Great Basin scrub and Sonoran Desert scrub, and on desert dunes, from 700 – 1,615 meters above msl. Blooms April – May (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Lupinus magnificus var. *hesperius* McGee Meadows lupine	--/--/1B.3	A perennial herb found on sandy soils in Great Basin scrub and upper montane coniferous forest from 1,260 – 1,830 meters above msl. Blooms April – June (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Lupinus padre-crowleyi Father Crowley's lupine	--/SR/1B.2	A perennial herb found on decomposed granite substrates in Great Basin scrub, riparian scrub, riparian forest, and upper montane coniferous forest from 2,200 – 4,000 meters above msl. Blooms June – August (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Lupinus pusillus var. *intermontanus* intermontane lupine	--/--/2B.3	An annual herb found on sandy soils in Great Basin scrub from 1,220 – 2,060 meters above msl. Blooms May – June (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Mentzelia inyoensis Inyo blazing star	--/--/1B.3	A perennial herb found on rocky, sometimes carbonate, soils in Great Basin scrub and pinyon-juniper woodland from 1,158 – 1,980 meters above msl. Blooms April – October (CNPS 2023).	**Will not occur.** The Study Area does not contain rocky soils or suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Mentzelia torreyi Torrey's blazing star	--/--/2B.2	A perennial herb found on alkaline sandy or rocky, usually volcanic, soils within Great Basin scrub, Mojavean desert scrub, and pinyon-juniper woodland from 1,170 – 2,835 meters above msl. Blooms June – August (CNPS 2023).	**Will not occur.** Although portions of the site have sandy, calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, Great Basin scrub, Mojavean desert scrub, and pinyon-juniper woodland habitat are not present within the Study Area to support this species. Additionally, it is important to note that this species was not observed during the June 15, 2023, biological reconnaissance survey, which was conducted when this species is known to be identifiable and blooming. There is one documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is located approximately 4.95 miles north of the site (CDFW 2023).
Myurella julacea small mousetail moss	--/--/2B.3	A moss found on damp rock and soil in alpine boulder and rock fields, and subalpine coniferous forest from 2,700 – 3,000 meters above msl. No blooming period (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Oryctes nevadensis Nevada oryctes	--/--/2B.1	An annual herb found on sandy soils in chenopod scrub and Mojavean desert scrub from 1,100 – 2,535 meters above msl. Widely distributed in Owens Valley. Blooms April – June (CNPS 2023).	**Will not occur.** Although portions of the site have sandy, calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, chenopod scrub and Mojavean desert scrub habitat are not present within the Study Area to support this species. Additionally, it is important to note that this species was not observed during the June 15, 2023, biological reconnaissance survey, which was conducted when this species is known to be identifiable and blooming. There are three documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, with the closest being 2.25 miles northeast of the site (CDFW 2023).
Parnassia parviflora small-flowered grass-of-parnassus	--/--/2B.2	A perennial herb found on mesic soils in meadows and seeps from 2,000 – 2,855 meters above msl. Blooms August – September (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Petrophytum caespitosum ssp. *acuminatum* marble rockmat	--/--/1B.3	A perennial evergreen shrub on carbonate or granitic, rocky soils in lower- and upper montane coniferous forests from 1,015 – 2,300 meters above msl. Blooms August – September (CNPS 2023).	**Will not occur.** The Study Area does not contain rocky soils or suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Phacelia inyoensis Inyo phacelia	--/--/1B.2	An annual herb found in alkaline meadows and seeps from 915 – 3,200 meters above msl. Widely distributed throughout Owens, Chalfant, and Long valleys. Blooms April – August (CNPS 2023).	**Will not occur.** Although portions of the site have sandy, calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, mesic habitat, such as meadows or seeps, is not present within the Study Area to support this species. Additionally, it is important to note that this species was not observed during the June 15, 2023, biological reconnaissance survey, which was conducted when this species is known to be identifiable and blooming. There is one documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is located approximately 4.75 miles north of the site (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Plagiobothrys parishii Parish's popcornflower	--/--/1B.1	An annual herb found in mesic alkaline microsites in Great Basin scrub and Joshua tree woodland from 750 – 1,400 meters above msl. Widely distributed in Owens Valley. Blooms March – June (November) (CNPS 2023).	**Will not occur.** Although portions of the site have sandy, calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, mesic sites, as well as Great Basin scrub and Joshua Tree woodland habitat, are not present within the Study Area to support this species. Additionally, it is important to note that this species was not observed during the June 15, 2023, biological reconnaissance survey, which was conducted when this species is known to be identifiable and blooming. There are two documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, with the closest being 1.65 miles northeast of the site (CDFW 2023). Both records are historic and are from over 45 years ago (CDFW 2023).
Poa lettermanii Letterman's blue grass	--/--/2B.3	A perennial herb found on sandy or rocky soils in alpine boulder and rock fields from 3,500 – 4,265 meters above msl. Blooms July – August (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Pohlia tundrae tundra thread moss	--/--/2B.3	A moss found on gravelly, damp soil in alpine boulder and rock fields from 2,700 – 3,000 meters above msl. No blooming period (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Potamogeton robbinsii Robbins' pondweed	--/--/2B.3	A perennial, aquatic rhizomatous herb found in deep water, lakes, marshes, and swamps from 1,530 – 3,300 meters above msl. Blooms July – August (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Potentilla morefieldii Morefield's cinquefoil	--/--/1B.3	A perennial herb found on carbonate substrates in alpine boulder and rock fields from 3,265 – 4,000 meters above msl. Blooms July – September (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Ranunculus hydrocharoides frog's-bit buttercup	--/--/2B.1	A perennial aquatic herb found in freshwater marshes and swamps from 1,100 – 2,700 meters above msl. Blooms (May) June – September (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable aquatic habitat to support this species. There is one documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is located approximately 1.05 miles northwest of the site (CDFW 2023).
Sabulina stricta bog sandwort	--/--/2B.3	A perennial herb found in alpine boulder and rock fields, alpine dwarf scrub, and meadows, and seeps from 2,440 – 3,960 meters above msl. Blooms July – September (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Sarcobatus baileyi Bailey's greasewood		A perennial deciduous shrub found in alkaline microsites in dry lakes, washes, and roadsides in chenopod scrub from 1,500 – 1,600 meters above msl. Known from the Fish Lake Valley and the Coso Range. Blooms April – July (CNPS 2023).	**Will not occur.** The Study Area is outside of the geographic and elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Sidalcea covillei Owens Valley checkerbloom	--/SE/1B.1	A perennial herb found in mesic alkaline microsites in chenopod scrub, meadows, and seeps from 1,095 – 1,415 meters above msl. Widely distributed throughout Owens Valley. Blooms April – June (CNPS 2023).	**Will not occur.** Although portions of the site have sandy, calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, mesic sites, as well as chenopod scrub habitat, are not present within the Study Area to support this species. Additionally, it is important to note that this species was not observed during the June 15, 2023, biological reconnaissance survey, which was conducted when this species is known to be identifiable and blooming. There are nine documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, with the closest being 0.25 miles north of the site (CDFW 2023).
Solorina spongiosa fringed chocolate chip lichen	--/--/2B.2	A crustose lichen found on moss mats in carbonate substrates at seeps in subalpine coniferous forest. Known from 1 location on Mount Thompson at 2,895 meters above msl. No blooming period (CNPS 2023).	**Will not occur.** The Study Area is outside of the known range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Sphenopholis obtusata prairie wedge grass	--/--/2B.2	A perennial herb found in mesic microsites in cismontane woodlands, meadows, and seeps from 300 – 2,000 meters above msl. Blooms April – July (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. There is one documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is located approximately 4.55 miles northeast of the site (CDFW 2023).
Suaeda occidentalis western seablite	--/--/2B.3	An annual herb found in alkaline mesic microsites in Great Basin scrub from 1,200 – 1,500 meters above msl. Blooms July – September (CNPS 2023).	**Will not occur.** Although portions of the site have sandy, calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, mesic areas, as well as Great Basin scrub habitat, are not present within the Study Area to support this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Thelypodium integrifolium ssp. *complanatum* foxtail thelypodium	--/--/2B.2	An annual or perennial herb found in alkaline or subalkaline mesic microsites in seeps and Great Basin scrub from 1,100 – 2,500 meters above msl. Widely distributed in northern Owens Valley and Long Valley. Blooms June – October (CNPS 2023).	**Will not occur.** Although portions of the site have sandy, calcareous soils mapped by the NRCS, which are alkaline soils with excess concentrations of calcium carbonate, mesic areas, as well as Great Basin scrub habitat, are not present within the Study Area to support this species. Additionally, it is important to note that this species was not observed during the June 15, 2023, biological reconnaissance survey, which was conducted when this species is known to be identifiable and blooming. There is one documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is located approximately 4.55 miles northeast of the site (CDFW 2023).
Trichophorum pumilum little bulrush	--/--/2B.2	A perennial rhizomatous herb found on carbonate substrates on riverbanks, bogs, fens, marshes, swamps, and riparian scrub from 2,860 – 3,250 meters above msl. Blooms in August (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Triglochin palustris marsh arrow-grass	--/--/2B.3	A perennial rhizomatous herb found in mesic microsites in meadows, seeps, marshes, and subalpine coniferous forests, and freshwater marshes and swamps from 2,285 – 3,700 meters above msl. Blooms July – August (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located well below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Viola pinetorum ssp. *grisea* grey-leaved violet	--/--/1B.2	A perennial herb found in meadows, seeps, subalpine coniferous forests, and upper montane coniferous forests from 1,500 – 3,400 meters above msl. Blooms April – July (CNPS 2023).	**Will not occur.** The Study Area does not contain suitable habitat to support this species. Additionally, the site is located below the elevational range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Wildlife			
Insects			
Bombus crotchii Crotch bumble bee	--/CE/--	Crotch bumble bee occurs in grassland and scrub habitats (CDFW 2019). New colonies are initiated by solitary queens, generally in the early spring, which typically occupy abandoned rodent burrows (CDFW 2019). This species is a generalist forager and has been reported visiting a wide variety of flowering plants. A short-tongued bumble bee; food plants include *Asclepias* spp., *Antirrhinum* spp., *Clarkia* spp., *Eschscholzia* spp., *Eriogonum* spp., *Chaenactis* spp., *Lupinus* spp., *Medicago* spp., *Phacelia* spp., and *Salvia* spp. (Koch et al. 2012). The flight period for queens in California is from February to October. New queens hibernate over the winter and initiate a new colony the following spring (CDFW 2019). Rare throughout its range and in decline in the Central Valley and southern California (CDFW 2019).	**Not expected.** The disturbed land within the Study Area does not provide suitable habitat to support underground colonies of this species. Most of the unpaved portions of the Study Area are heavily compacted either from vehicle use or roadside fill, and no mammal burrows were observed during the biological reconnaissance survey on June 15, 2023. This species could utilize the adjacent, undeveloped land to the east to establish underground colonies and could pass through the Study Area while foraging. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Danaus plexippus pop. 1 monarch - California overwintering population	FC/--/--	Overwintering populations of Monarch butterflies roost in wind protected tree groves, especially with Eucalyptus sp., and species of pine or cypress with nectar and water sources nearby. Winter roost sites extend along the coast from Mendocino County to Baja California. As caterpillars, monarchs feed exclusively on the leaves of milkweed (*Asclepias* sp.) (Nial et al. 2019 and USFWS 2020). Monarch butterfly migration routes pass east over the Sierra Nevada in the fall and back to the California coast in the spring (USFWS 2020). The overwintering population is located along the Coast while summer breeding areas occur in interior California and North America with spring breeding areas located further east (USFWS 2020).	**Not expected.** There is no suitable overwintering habitat within the Study Area and no larval food plants were observed within the Study Area during the June 15, 2023, biological reconnaissance survey. Given that there have been observations of monarch within Bishop, the species could pass through the site while foraging but is not anticipated to utilize the site for laying eggs due to the lack of larval host plants. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023). However, there are several monarch sightings reported within Bishop, CA in the Western Monarch Milkweed Mapper website (WMMM 2023).
Fishes			
Catostomus fumeiventris Owens sucker	--/--/SSC	A common fish (~15 mm in length) throughout the Owens River and Bishop Creek systems. Found in streams with long reaches, few riffles, and fine substrates with few cobbles, and found in lakes near the bottom, regardless of depth (Moyle *et al.* 2015).	**High.** Bishop Creek Canal within the Study Area provides marginal habitat for this species. Given that this species is known to occur in waterways that are hydrologically connected to the canal, including South Fork Bishop Creek, China Slough, and ditches, this species could occasionally be present within the Study Area. There are thirteen documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, with the closest being 0.27 miles southwest of the site (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Cyprinodon radiosus Owens pupfish	FE/SE/--	A small fish (< 2.5 inches in length) that is currently known from four locations: Fish Slough, Mule Springs, Well 368, and Warm Springs (USFWS 2009a). This species congregates in small schools, feeds mostly on aquatic insects, and spawns over soft substrates in the spring and summer. Non-native predators such as bass, brown trout, and bluegill pose a serious threat to this species (USFWS 2009a).	**Will not occur.** This species historically occurred in the Owens River, spring pools, sloughs, irrigation ditches, swamps, and flooded pastures within the Owens Valley from Fish Slough in Mono County to Lone Pine in Inyo County, however it is currently limited to four locations (USFWS 2009a). In addition, Bishop Creek Canal and other hydrologically connected waterways are known to support populations of non-native predators including trout, bullhead, and bass, which further decrease the likelihood of this species utilizing the canal. There are four documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, however all are considered to be extirpated or possibly extirpated (CDFW 2023). The nearest known extant population is located approximately 4.5 miles north at Fish Slough (USFWS 2009a).
Rhinichthys osculus ssp. *2* Owens speckled dace	--/--/SSC	A small (5-8 cm in length) fish that inhabits a variety of streams including small coldwater streams, hot spring systems, and irrigation ditches. Currently known from 3 locations: Fish Slough, Round Valley, and irrigation ditches in and around Bishop, CA. Persists where non-native predatory fishes are excluded (Moyle *et al.* 2015).	**High.** Bishop Creek Canal within the Study Area provides marginal habitat for this species. Given that this species is known to occur in anthropogenically altered waterways that are hydrologically connected to the canal, including South Fork Bishop Creek, China Slough, and ditches, this species could occasionally be present within the Study Area. There are eight documented CNDDB reported occurrences of this species, that are presumed to be extant within a 5-mile radius of the Study Area, with the closest being 0.27 mile southwest of the site (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Siphateles (=*Gila*) *bicolor snyderi* Owens tui chub	FE/SE/--	An endemic fish (1.5-18 cm) to the Owens Basin that inhabits clear, slow-moving water with aquatic vegetation and cover. Spawning occurs in late winter to early summer, usually over gravel or aquatic vegetation (USFWS 2009b).	**Will not occur.** This species is presumed extirpated in the wild or genetically swamped by hybridization with exotic Lahontan tui chub (USFWS 1998). It is currently restricted to six isolated sites, all of which have been artificially created or altered and include: Little Hot Creek Pond, Hot Creek Headwaters, Sotcher Lake, Upper Owens Gorge, White Mountain Research Station, and Mule Spring (USFWS 2009b). There are four documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, however three of these occurrences are considered to be extirpated (CDFW 2023). The nearest documented CNDDB reported occurrence is located at the White Mountain Research Station, which is approximately 3.3 miles to the east and is hydrologically isolated from the Study Area (CDFW 2023).
Amphibians			
Anaxyrus canorus Yosemite toad	FT/--/SSC	A high elevation toad that breeds in wet meadows and snowmelt pools from approximately 1,950 –3,400 meters above msl. This species has a maximum known upland movement of 1.09 miles from breeding ponds. In uplands, springheads and seeps are important upland habitats for this species. They also utilize ground cover, such as mammal burrows, logs, rocks (USFWS 2014).	**Will not occur.** The Study Area is outside of the known range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Lithobates pipiens northern leopard frog	--/--/SSC	A highly aquatic frog that is found near quiet, permanent and semi-permanent water in many habitats from sea level to 2,130 meters above msl. The native range of this species is east of the Sierra Nevada – Cascade Crest, other occurrences in California are considered to be introduced. This species requires shoreline cover, submerged/emergent aquatic vegetation for cover and reproduction, which occurs from December to June (Zeiner et al. 1990).	**Will not occur.** Bishop Creek Canal does not provide suitable breeding or refugia habitat for this species since it is a managed system that is relatively devoid of emergent vegetation and has a swift current. There are two documented CNDDB reported occurrences of this species, that are presumed to be extant, within a 5-mile radius of the Study Area (CDFW 2023). Both of these records are historic and are from over 50 years ago (CDFW 2023).
Rana sierrae Sierra Nevada yellow-legged frog	FE/ST/--	A high elevation frog that requires permanent water bodies that do not freeze solid over winter, which may include lakes, streams, tarns, and perennial plunge pools in intermittent streams. Habitats include montane riparian, lodgepole pine, subalpine conifer, and wet meadow habitats from 1,370 – 3,650 meters above msl (Zeiner et al. 1990).	**Will not occur.** The Study Area is outside of the known range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Reptiles			
Elgaria panamintina Panamint alligator lizard	--/--/SSC	Typically occurs near permanent water in canyons and damp gullies or in talus near dense vegetation. Occurs only in Inyo and southeastern Mono counties and its range includes the White and Inyo mountains to the north and west and in the Panamints to the south and east (Zeiner et al. 1990).	**Will not occur.** The Study Area does not provide suitable habitat for this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Birds			
Accipiter cooperii Cooper's hawk	--/--/WL	Nests in woodlands and urban trees. Preys on medium-sized birds and small mammals. Forages in open woodland and habitat edges (Zeiner et al. 1990).	**May occur.** The Study Area provides suitable foraging habitat for this species and the trees adjacent to the Study Area provide suitable nesting habitat. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, however there are numerous iNaturalist observations of this species within the City of Bishop (CDFW 2023, iNaturalist 2023).
Accipiter gentilis Northern goshawk	--/--/SSC	Nests and forages in mature and old-growth forest stands in a broad range of conifer and coniferous hardwood types, including Pacific Ponderosa, Jeffrey and lodgepole pine, mixed conifer, firs, and pinyon-juniper with relatively dense canopies. May also forage in meadow edges and open sagebrush. Nesting and fledgling period: March 1 – August 15 (Woodbridge and Hargis 2006).	**Not expected.** The Study Area does not provide suitable nesting habitat for this species. However, this species could occur in flight foraging over the Study Area. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Aquila chrysaetos golden eagle	--/--/FP	Typically occurs in rolling foothills, mountain areas, deserts, and other open habitats up to 3,822 meters above msl. Typically nests on cliff ledges or large trees in open areas in canyons. Will occasionally use other tall structures for nesting, such as electrical transmission towers. Prey consists mostly of rodents, carrion, birds, reptiles, and occasionally small livestock (Zeiner et al. 1990).	**Not expected.** The Study Area does not provide suitable nesting habitat for this species. However, this species could occur in flight foraging over the Study Area. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Asio otus long-eared owl	-- /--/SSC	Requires riparian habitat for roosting and nesting. Typically nests in open forests, such as conifer, oak, or pinyon-juniper forests, or in dense forests on the edge of grasslands or another open habitat. Will nest in old hawk or corvid nests, squirrel nests, woodrat nests or mistletoe brooms (Shuford and Gardali 2008). Usually forages in open habitat and rarely in wooded areas.	**Not expected.** The Study Area does not provide suitable nesting habitat for this species. However, this species could occur in flight foraging over the Study Area. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Athene cunicularia burrowing owl	--/--/SSC	Forages in grasslands, agricultural fields, and disturbed places where burrowing mammals are abundant with low and sparse vegetation. Nests in burrows, especially those of California ground squirrel (*Otospermophilus beecheyi*) but will use other refuge sites (Shuford and Gardali 2008). In the Central Valley of California, most foraging occurs within a 600-meter radius of the nest (Gervais et al. 2003).	**May occur.** Given that the site is mostly developed, and no mammal burrows were observed during the biological reconnaissance survey on June 15, 2015, the Study Area does not provide suitable nesting habitat for this species. However, the undeveloped land directly to the east could have mammal burrows suitable for nesting. This species could also occur in flight foraging within or adjacent to the Study Area. There is one historic documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is located approximately 3.35 miles northeast of the site (CDFW 2023). The next nearest documented CNDDB occurrence, which is also the most recent record in Inyo County (2017), is located approximately 7.85 miles to the southeast (CDFW 2023).
Buteo swainsoni Swainson's hawk	--/ST/--	Forages in grasslands, suitable grain or alfalfa fields, or livestock pastures adjacent to nesting habitat. Nests on large trees in open riparian habitat, scattered trees, or small groves of trees in open areas (CDFW 1994).	**May occur.** The Study Area provides suitable foraging habitat for this species and the trees adjacent to the Study Area provide suitable nesting habitat. There are six documented CNDDB reported occurrences of this species, that are presumed to be extant, within a 5-mile radius of the Study Area, with the closest being 3.60 miles northeast of the site (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Circus hudsonius northern harrier	--/--/SSC	Inhabits a variety of treeless habitats including freshwater marsh, brackish- and saltwater marsh, wet meadows, lake margins, grasslands, croplands, desert sinks, and sagebrush flats. Builds nests on large mounds of vegetation between March and August. Forages in most open habitats (Shuford and Gardali 2008).	**May occur.** The Study Area provides suitable foraging habitat for this species and the undeveloped land to the east of the Study Area could provide suitable nesting habitat. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT/SE/--	Occurs at isolated sites in Sacramento Valley in northern California, and along Kern and Colorado River systems in southern California. Frequents valley foothill and desert riparian habitats. Inhabits open woodlands with clearings, and riparian habitats with dense understory foliage along slow-moving drainages, backwaters, or seeps. Prefers dense willows for roosting but will use adjacent orchard in the Sacramento Valley (CDFW 2005).	**Will not occur.** Suitable riparian habitat for this species is not present in the Study Area. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Empidonax traillii extimus southwestern willow flycatcher	FE/SE/--	Nests in dense riparian habitats in southwestern North America. Forages within and above the riparian canopy, along the patch edge, in openings within the territory, above water, and glean from tall trees and herbaceous ground cover (USFWS 2002). Typically found below 8,500 feet above msl.	**Will not occur.** Suitable riparian habitat for this species is not present in the Study Area. There is one historic documented CNDDB reported occurrence from 1917 of this species within a 5-mile radius of the Study Area, which is located approximately 2.70 miles northeast of the site (CDFW 2023). There are three somewhat recent records of this species that are from 2003, which are located approximately 6.45 miles northwest of the site (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Falco mexicanus prairie falcon	--/--/WL	An uncommon permanent resident of the deserts, Central Valley, inner Coast Ranges, and Sierra Nevada in California. Primarily found in grasslands, rangelands, desert scrub, and some agricultural areas. Requires sheltered cliffs and ledges for cover. Dives from a perch or from flight to take prey on the ground (Zeiner et al. 1990).	**Not expected.** Suitable nesting habitat is not present in the Study Area, however this species could occur in flight foraging over the Study Area There is one historic documented CNDDB reported occurrence of this species within a 5-mile radius of the Study Area, which is located approximately 0.95 mile north of the site and is associated with the Fish Slough 7.5-minute quadrangle (CDFW 2023).
Haliaeetus leucocephalus Bald eagle	FD/SE/FP	Requires large bodies of water with an abundant fish population. Feeds on fish, carrion, small mammals, and water-fowl. Nests are usually located within a 1-mile radius of water. Nests are most often situated in large trees with a commanding view of the area (Zeiner et al. 1990).	**Not expected.** Suitable nesting habitat is not present in the Study Area. This species could nest in the region, and it could occur in flight traveling between nesting sites and foraging habitat in the Owens River. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Icteria virens Yellow-breasted chat	--/--/SSC	This species inhabits low dense riparian thickets of willow and blackberry as well as other brushy tangles near watercourses occurs in the Klamath and North Coast Ranges, in the Central Valley, and locally through the Peninsular and South Coast Ranges and Sierra Foothills. This species nests and forages within 10 feet of the ground.	**Will not occur.** Suitable riparian habitat for this species is not present in the Study Area. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Lanius ludovicianus Loggerhead shrike	--/--/SSC	Loggerhead shrike prefers open habitats with scattered shrubs, trees, posts, or other perches. It can be found in shrublands or open woodlands with bare ground, or sparse herbaceous cover. The loggerhead shrike is often found in open cropland, but nests in dense shrubs and small trees (Zeiner et al. 1988-1990).	**May occur.** The Study Area provides suitable foraging habitat for this species and the trees/shrubs adjacent to the Study Area could provide suitable nesting habitat. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Piranga rubra summer tanager	--/--/SSC	Breeds in mature, desert riparian habitat dominated by cottonwoods and willows, especially older, dense stands along rivers and streams (Zeiner et al. 1990).	**Will not occur.** Suitable riparian habitat for this species is not present in the Study Area. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Riparia riparia Bank swallow	--/ST/--	Found primarily in riparian and lowland habitat in California. Nests in colonies along cliffs or steep riverbanks in holes. In California, a majority of the population is situated along the Sacramento River and the Feather River. Other smaller populations persist near Monterey and north of Shasta counties (Zeiner et al. 1990).	**Will not occur.** Suitable habitat for this species is not present in the Study Area. There are two documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, with the closest being 1.55 miles northeast of the site (CDFW 2023).
Mammals			
Antrozous pallidus pallid bat	--/--/SSC	Occurs throughout California except for the high Sierra Nevada and the northern Coast Ranges. Habitats include grasslands, shrublands, woodlands, and forests from sea level to 6,000 feet. Most common in open, dry habitats with rocky areas for roosting; roosts also include cliffs, abandoned buildings, bird boxes, and under bridges (Bolster, ed. 1998).	**May occur.** The bridge over Bishop Creek Canal and adjacent buildings provides marginal roosting habitat for this species. There is one CNDDB reported occurrence within a 5-mile radius of the Study Area which is located approximately 4.28 miles northeast of the site (2023).
Corynorhinus townsendii Townsend's big-eared bat	--/--/SSC	Widely distributed throughout California except alpine and subalpine habitats. This species eats moths, beetle and other insects which it catches on the wing or by gleaning from vegetation. Typically found near water since it is poor at concentrating its urine. This species uses caves, mines, tunnels, buildings, and human made structures for roosting. Maternity roosts are typically in warm sites. Hibernation sites are typically cold, but not freezing. This species is very sensitive to disturbance and may abandon its roost after one visit (Zeiner et al. 1990).	**Not expected.** Due to the level of disturbance associated with vehicle and pedestrian traffic on East Line Street and the canal, it is unlikely that the bridge or surrounding areas provide suitable roosting habitat for this species. However, this species could forage within the Study Area at night and generally disperse through the area. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Euderma maculatum *Spotted bat*	--/--/SSC	Occurs in deserts, grasslands and mixed coniferous forests up to 10,000 feet. Forages over water or close to the ground primarily on moths. Prefers to roost in rocky cliffs and rock walls with crevices but may also use caves or buildings. This species also forages and roosts individually but may on occasion roost in groups. Spotted bat is considered to be one of the rarest mammals in North America (Zeiner et al. 1990).	**Not expected.** Given that this species prefers rocky cliffs near forest foraging sites, it is unlikely that this species will roost within, or immediately adjacent to, the Study Area. However, this species could pass through the site while dispersing or foraging. There are three documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, with the closest being 0.45 mile northwest of the site (CDFW 2023). All of three of these occurrences range from 1995 to 1996 and document individual foraging bats, but not roosting bats (CDFW 2023).
Gulo gulo California wolverine	FPT/ST/FP	Found in alpine, subalpine and riparian habitats in remote areas with low levels of human use. In the Sierra Nevada may also use red fir, mixed conifer and lodgepole forests, typically above 1,311 m amsl in areas that typically support deep snow through May in most years (Spencer and Rustigian-Romsos 2012). Dens in caves, cliffs, log hollows and/or burrows (Zeiner et al. 1990). Considered to be extirpated from California (Moriarity *et al.* 2009). Recent wolverine detections were determined to be dispersers from Idaho (Moriarity *et al.* 2009).	**Will not occur.** The Study Area does not provide suitable habitat for this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Lepus townsendii townsendii western white-tailed jackrabbit	--/--/SSC	An uncommon to rare year-round resident of the crest and upper eastern slope of the Sierra Nevada, primarily from the Oregon border south to Tulare and Inyo counties. Preferred habitats include sagebrush, subalpine conifer, juniper, alpine dwarf-shrub, and perennial grassland. Found in open areas with scattered shrubs and exposed flat-topped ridges above 2600 meters. Open meadows and flat-topped hills with open stands of trees, some brush, and herbaceous understory are preferred for summer feeding. Young or stunted conifers, or shrubs, are required for day-time cover. Winters are spent in areas with sagebrush, or in thickets of young trees (Zeiner et al. 1990).	**Will not occur.** The Study Area does not provide suitable habitat and is outside of the elevational range for this species. There is one historic CNDDB reported occurrence within a 5-mile radius of the Study Area from 1916, which is approximated to be just north of Bishop (CDFW 2023).
Microtus californicus vallicola Owens Valley vole	--/--/SSC	Found in mesic alkali meadows adjacent to aquatic habitats in the Owens Valley from 1,130 – 6,000 feet above msl (USFWS 1998). Requires friable soil for burrowing and forages on grasses, sedges, and herbs (USFWS 1998).	**Not expected.** The Study Area does not provide suitable habitat for this species; however, this species could utilize the undeveloped land to the east for foraging and burrowing. Therefore, this species could pass through the Study Area but is not anticipated to be impacted as a result of the project. There are three documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area, with the closest being 0.75 mile east of the site (CDFW 2023). All three records are historic accounts from over 50 years ago (CDFW 2023).

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Vulpes vulpes necator pop. 2 Sierra Nevada red fox – Sierra Nevada DPS	--/ST/--	Habitat consists of subalpine habitat characterized by a mosaic of high-elevation meadows, rocky areas, scrub vegetation, and woodlands. Has been documented migrating down to high elevation forested habitats below subalpine zones in the Sierra Nevada from 6,000 to 9,000 feet elevation in the Cascades (USFWS 2018). Opportunistic predator of rodents and lagomorphs and also eats seeds such as pine nuts. Currently in California, this species is limited to a small population near Sonora Pass and another near Mt. Lassen (USFWS 2018). These populations include hybrids.	**Will not occur**. The Study Area is outside of the known range of this species. There are no documented CNDDB reported occurrences of this species within a 5-mile radius of the Study Area (CDFW 2023).
Sensitive Natural Communities			
Alkali Meadow	--/--/--	Alkali meadows occur in areas with a shallow water table (1 – 3 meters deep) and alkaline soils (Sawyer and Keeler 1995). Alkali meadows in Owens Valley occur in a broad zone at the toe slopes of the giant alluvial fans coming down the west side of Owens Valley from the Sierra. Commonly present species include sacaton, saltgrass, beardless wild rye, Baltic rush, American licorice, and rabbitbrush.	**Will not occur.** This sensitive natural community is not present within the Study Area.
Transmontane Alkali Marsh	--/--/--	The Transmontane Alkali Marsh plant community is dominated primarily by Carex sp. and Juncus sp. although other wetland obligates are also occasionally present. These areas are inundated or saturated with water throughout the winter and spring. This plant community frequently occurs around natural drainage channels, levees, and irrigation ditches (The Nature Conservancy 1994).	**Will not occur.** This sensitive natural community is not present within the Study Area.

Species Name/ Common Name[1]	Status[2]	Habitat, Ecology and Life History	Potential to Occur
Water Birch Riparian Scrub	--/--/--	Water birch riparian scrub communities occur along intermittently saturated stream banks, alluvial terraces, and seeps. Soils are generally alluvial and range from fairly shallow, finely textured to gravelly/bouldery sands and loams. Water birch (*Betula occidentalis*) is dominant or co-dominant in the tall shrub or low tree canopy with other riparian species present in the understory (CNPS 2023).	**Will not occur.** This sensitive natural community is not present within the Study Area.

[1] Sensitive species reported in CNDDB or CNPS on the "*Poleta Canyon, Big Pine, Laws, Fish Slough, Rovana, Coyote Flat, Tungsten Hills, Bishop, and Mt. Thompson*" USGS quads, or in the USFWS list for the Study Area.

[2] Status is as follows: Federal (ESA) listing/State (CESA) listing/other CDFW status or CRPR. F = Federal; S = State of California; E = Endangered; T = Threatened; R = Rare; C = Candidate; FP=Fully Protected; FPT=Federally Proposed Threatened SSC=Species of Special Concern; WL=Watch List.

[3] Status in the Study Area is assessed as follows. **Will Not Occur**: Species is either sessile (*i.e.* plants) or so limited to a particular habitat that it cannot disperse on its own and/or habitat suitable for its establishment and survival does not occur on the Study Area; **Not Expected**: Species moves freely and might disperse through or across the Study Area, but suitable habitat for residence or breeding does not occur on the Study Area, potential for an individual of the species to disperse through or forage in the site cannot be excluded with 100% certainty; **Presumed Absent:** Habitat suitable for residence and breeding occurs on the Study Area; however, focused surveys conducted for the current project were negative; **May Occur**: Species was not observed on the site and breeding habitat is not present but the species has the potential to utilize the site for dispersal; **High**: Habitat suitable for residence and breeding occurs on the Study Area and the species has been recorded recently on or near the Study Area, but was not observed during surveys for the current project; **Present**: The species was observed during biological surveys for the current project and is assumed to occupy the Study Area or utilize the Study Area during some portion of its life cycle.

CRPR = California Rare Plant Rank: 1B – rare, threatened, or endangered in California and elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere; 3 – plants about which we need more information – A Review List. Extension codes: .1 – seriously endangered; .2 – moderately endangered; .3 – Not very threatened in California.

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Appendix E

Representative Site Photos

Photo 1. View of the of the East Line Street Bridge and Bishop Creek Canal looking south. Photo taken 6/15/2023.

Photo 2. View of the of the East Line Street Bridge and Bishop Creek Canal looking north. Photo taken 6/15/2023.

Photo 3. View of Bishop Creek Canal looking downstream to the south of the East Line Street Bridge. Photo taken 6/15/2023.

Photo 4. View of Bishop Creek Canal looking upstream to the north of the East Line Street Bridge. Photo taken 6/15/2023.

Photo 5. View of the unpaved access road along the canal north of East Line Street. Photo taken 6/15/2023.

Photo 6. View of the Bishop Creek Canal look south towards the East Line Street Bridge. Photo taken 6/15/2023.

Photo 7. View of the trees on the properties adjacent to the Study Area to the west of the canal. Photo taken 6/15/2023.

Photo 8. View looking west toward the bridge on East Line Street. Photo taken 6/15/2023.

Photo 9. View looking east from the bridge on East Line Street. Photo taken 6/15/2023.