

### Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613  
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

**Project Title:** City of Bishop Sewer Trunk Replacement Project

Lead Agency: City of Bishop Contact Person: David Grah  
Mailing Address: 377 West Line Street Phone: 760-873-8458  
City: Bishop Zip: 93514 County: INYO

**Project Location:** County: INYO City/Nearest Community: Bishop  
Cross Streets: East Line Street, First Street, Poleta Road Zip Code: 93514  
Longitude/Latitude (degrees, minutes and seconds): -118 ° 22 ' 37.1 " N / 37 ° 21 ' 15.0 " W Total Acres: 1.15  
Assessor's Parcel No.: 008-010-14, -15; 008-260-01,-02,-03 Section: 8 Twp.: 7S Range: 33E Base: MDBM  
Within 2 Miles: State Hwy #: 395 Waterways: Bishop Creek Canal  
Airports: Bishop/Eastern Sierra Region Railways: \_\_\_\_\_ Schools: \_\_\_\_\_

**Document Type:**

CEQA:  NOP  Draft EIR NEPA:  NOI Other:  Joint Document  
 Early Cons  Supplement/Subsequent EIR  EA  Final Document  
 Neg Dec (Prior SCH No.) \_\_\_\_\_  Draft EIS  Other: USACE 404  
 Mit Neg Dec Other: \_\_\_\_\_  FONSI CDFW Streambed

**Local Action Type:**

General Plan Update  Specific Plan  Rezone  Annexation  
 General Plan Amendment  Master Plan  Prezone  Redevelopment  
 General Plan Element  Planned Unit Development  Use Permit  Coastal Permit  
 Community Plan  Site Plan  Land Division (Subdivision, etc.)  Other: \_\_\_\_\_

**Development Type:**

Residential: Units \_\_\_\_\_ Acres \_\_\_\_\_  Transportation: Type \_\_\_\_\_  
 Office: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  Mining: Mineral \_\_\_\_\_  
 Commercial: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  Power: Type \_\_\_\_\_ MW \_\_\_\_\_  
 Industrial: Sq.ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  Waste Treatment: Type Replacement line MGD 2.7  
 Educational: \_\_\_\_\_  Hazardous Waste: Type \_\_\_\_\_  
 Recreational: \_\_\_\_\_  Other: \_\_\_\_\_  
 Water Facilities: Type \_\_\_\_\_ MGD \_\_\_\_\_

**Project Issues Discussed in Document:**

Aesthetic/Visual  Fiscal  Recreation/Parks  Vegetation  
 Agricultural Land  Flood Plain/Flooding  Schools/Universities  Water Quality  
 Air Quality  Forest Land/Fire Hazard  Septic Systems  Water Supply/Groundwater  
 Archeological/Historical  Geologic/Seismic  Sewer Capacity  Wetland/Riparian  
 Biological Resources  Minerals  Soil Erosion/Compaction/Grading  Growth Inducement  
 Coastal Zone  Noise  Solid Waste  Land Use  
 Drainage/Absorption  Population/Housing Balance  Toxic/Hazardous  Cumulative Effects  
 Economic/Jobs  Public Services/Facilities  Traffic/Circulation  Other: \_\_\_\_\_

**Present Land Use/Zoning/General Plan Designation:**

Agriculture and Public Facilities/Unzoned but adjacent to R-1 and P (Residential and Public Districts)/General Commercial

**Project Description:** *(please use a separate page if necessary)*

The City of Bishop proposes to replace 2,500 linear feet of the existing 60 year old gravity sewer trunk line that connects to the wastewater treatment plant with a new 18-inch diameter line. The project also includes the replacement of an existing water crossing (Bishop Creek Canal). A new line (28 linear feet associated with canal crossing) will be installed under the irrigation canal. The replacement line will be constructed entirely within the existing City property and easement, although some grading and other activities will occur off the property and easement. The replacement line will be installed at a 0.175% slope to provide for a 1.5 to 2 foot deeper crossing with the Bishop Creek Canal to reduce risk to water quality. The project site slopes generally to the east/south east and is primarily undeveloped and vegetated with grasses, shrubs, and a few scattered trees.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

**Reviewing Agencies Checklist**

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".  
If you have already sent your document to the agency please denote that with an "S".

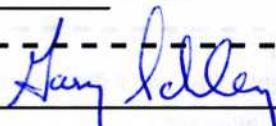
- |  |   |
|--|---|
| <input type="checkbox"/> Air Resources Board                         | <input type="checkbox"/> Office of Historic Preservation                                    |
| <input type="checkbox"/> Boating & Waterways, Department of          | <input type="checkbox"/> Office of Public School Construction                               |
| <input type="checkbox"/> California Emergency Management Agency      | <input type="checkbox"/> Parks & Recreation, Department of                                  |
| <input type="checkbox"/> California Highway Patrol                   | <input type="checkbox"/> Pesticide Regulation, Department of                                |
| <input type="checkbox"/> Caltrans District # _____                   | <input type="checkbox"/> Public Utilities Commission  |
| <input type="checkbox"/> Caltrans Division of Aeronautics            | <input checked="" type="checkbox"/> Regional WQCB #6 _____                                  |
| <input type="checkbox"/> Caltrans Planning                           | <input type="checkbox"/> Resources Agency   |
| <input type="checkbox"/> Central Valley Flood Protection Board       | <input type="checkbox"/> Resources Recycling and Recovery, Department of                    |
| <input type="checkbox"/> Coachella Valley Mtns. Conservancy          | <input type="checkbox"/> S.F. Bay Conservation & Development Comm.                          |
| <input type="checkbox"/> Coastal Commission                          | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers & Mtns. Conservancy                |
| <input type="checkbox"/> Colorado River Board                        | <input type="checkbox"/> San Joaquin River Conservancy                                      |
| <input type="checkbox"/> Conservation, Department of                 | <input type="checkbox"/> Santa Monica Mtns. Conservancy                                     |
| <input type="checkbox"/> Corrections, Department of                  | <input type="checkbox"/> State Lands Commission   |
| <input type="checkbox"/> Delta Protection Commission                 | <input type="checkbox"/> SWRCB: Clean Water Grants  |
| <input type="checkbox"/> Education, Department of                    | <input type="checkbox"/> SWRCB: Water Quality   |
| <input type="checkbox"/> Energy Commission                           | <input type="checkbox"/> SWRCB: Water Rights  |
| <input checked="" type="checkbox"/> Fish & Game Region #6 _____      | <input type="checkbox"/> Tahoe Regional Planning Agency                                     |
| <input type="checkbox"/> Food & Agriculture, Department of           | <input type="checkbox"/> Toxic Substances Control, Department of                            |
| <input type="checkbox"/> Forestry and Fire Protection, Department of | <input type="checkbox"/> Water Resources, Department of                                     |
| <input type="checkbox"/> General Services, Department of             |   |
| <input type="checkbox"/> Health Services, Department of              | <input checked="" type="checkbox"/> Other: <u>US Army Corps of Engineers - 404 Permit</u>   |
| <input type="checkbox"/> Housing & Community Development             | <input checked="" type="checkbox"/> Other: <u>Los Angeles Department of Water and Power</u> |
| <input type="checkbox"/> Native American Heritage Commission         |   |

**Local Public Review Period (to be filled in by lead agency)**

Starting Date 1 April 2016 Ending Date 9 May 2016

**Lead Agency (Complete if applicable):**

Consulting Firm: <u>R O Anderson Engineering</u>	Applicant: <u>City of Bishop</u>
Address: <u>1603 Esmeralda Avenue</u>	Address: <u>377 West Line Street</u>
City/State/Zip: <u>Minden, NV 89423</u>	City/State/Zip: <u>Bishop, CA 94514</u>
Contact: <u>ATTN: Coleen Shade</u>	Phone: <u>760-873-8458</u>
Phone: <u>530-318-8777</u>	

Signature of Lead Agency Representative:  Date: 4/4/16

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.



**CITY OF BISHOP**  
77 West Line Street, Bishop, California 93514  
P.O. Box 1236, Bishop, California 93515  
City Hall 760-873-5863 Public Works 760-873-8458  
publicworks@cityofbishop.com

**DRAFT NEGATIVE DECLARATION OF ENVIRONMENTAL IMPACT**

**Date:** 1 April 2016

**Subject:** Draft Negative Declaration of Environmental Impact and Initial Study

**Project Title:** Environmental Review / City of Bishop Sewer Trunk Replacement Project

**Project Proponent:** City of Bishop  
377 West Line Street  
Bishop, California 93515

**Project Location:** The existing sewer trunk line is located in Bishop, California (see Vicinity Map). The City is located at the northern end of the Owens Valley, with the proposed project alignment running east/west near the southeastern boundary of the City. The project area lies almost entirely within Section 8 of Township 7 South, Range 33 East (T7S, R33E) of the Mount Diablo Baseline and Meridian (MDBM), with a portion of the project area located in Section 7 from approximately the location of the Bishop Creek Canal (Canal) west to where the proposed project alignment begins in the Clarke Street area. The project area is generally bounded by East Line Street and Poleta Road to the north, the Eastern Sierra Communities Service District (ESCSD) sewer service line to the south, Airport Road to the east, and First Street to the west. As proposed, there may be traffic control and bypass pumping west of First Street but no ground disturbing activities. Sewer treatment plants for both the City and Eastern Sierra Community Sewer District (ESCSD) are located at the south east end of the proposed project alignment, while developed neighborhoods are located west of the Canal and north of the project alignment along Johnston Drive. The sewer trunk line starts near the east end of Clarke Street at First Street and crosses under the Canal, above a major sewer branch line for the ESCSD, and then heads easterly to the City sewage treatment plant. The line traverses a City owned parcel and several parcels owned by the Los Angeles Department of Water and Power (LADWP). The trunk line is generally within a 20 foot wide easement as it traverses the LADWP parcels. The easement extends from where the trunk leaves City of Bishop property approximately 350 feet east of the Canal to where it terminates at the City Sewage Treatment Plant parcel. The city property and easement on LADWP land are annexed into the City of Bishop. Temporary construction activities will extend outside of the city annexed area into jurisdiction of Inyo County.

**Project Description:** The City collects wastewater from within its jurisdictional boundaries and transports it via a gravity sanitary sewer trunk line to the City of Bishop Wastewater Treatment Plant. The City proposes to replace the existing sewer trunk line for several reasons including a change in grade in about the middle of its length which causes settlement problems, being too shallow where it crosses the canal making it vulnerable to damage, being too low where it enters the sewer plant, and being

**City of Bishop Sewer Trunk Replacement  
Negative Declaration**

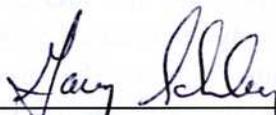
approximately 60 years old and nearing the end of its useful life. The new trunk line will be constructed entirely within the existing city property and easement although some grading and other activities will occur off the property and easement.

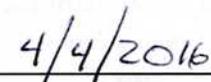
The City proposes to construct a new 18-inch diameter trunk line on a continuous 0.00175 feet per foot (0.175%) slope to provide a deeper canal crossing that would also allow the new trunk to cross under the existing ESCSD branch line with an inverted siphon, and bring the new trunk into the plant at a higher elevation. Based on the preliminary engineering report (R.O. Anderson Engineering 2013), this is the preferred alternative and includes the options of an intertie with the ESCSD line, a diversion manhole with the ability to bypass the headworks, and new lines in Clarke Street and First Street.

Overall the trunk line is approximately 2,500 feet in length. The existing line is shallow below natural grade with dirt mounding over its alignment to provide cover in portions of the eastern half of the project area. The majority of the project site is undeveloped and vegetated with grasses, shrubs and a few scattered trees. The project site generally slopes to the east/southeast at a very mild grade.

**Proposed Findings:** Based upon the Initial Study and Environmental Evaluation of the proposed project, the project involves no potential for adverse effect, either individually or cumulatively, on wildlife, native plants, streams, water courses, scenic or historic resources and human beings.

The review period for the Draft Negative Declaration expires <sup>9</sup>~~X~~ May 2016.

  
\_\_\_\_\_  
Gary Schley, Planning Director

  
\_\_\_\_\_  
Date

**City of Bishop Sewer Trunk Replacement  
Environmental Checklist/Draft Initial Study**

**CITY OF BISHOP**

**ENVIRONMENTAL CHECKLIST FORM/INITIAL STUDY**

1. Project title:

*Environmental Review / City of Bishop Sewer Trunk Replacement*

2. Lead agency name and address:

*City of Bishop  
377 West Line Street  
Bishop, California 93514*

3. Contact person and phone number:

*David Grah, Director of Public Works (760)873-8458*

4. Project location:

*Bishop, California 93514  
Inyo Assessor Parcel Numbers 008-260-01, 008-260-02 008-260-03, 008-010-14, and 008-010-15*

5. Project sponsor's name and address:

*David Grah, Director of Public Works  
377 West Line Street  
Bishop, California 93514*

6. General plan designation:

*City of Bishop – Residential  
Inyo County – Agriculture*

7. Land Use:

*City of Bishop – Medium Density Residential  
Inyo County – Agriculture and Public Service Facilities*

**Zoning:**

*City of Bishop - R-1 (adjacent to alignment) and R-2  
Inyo County – Agriculture and Public Service Facilities*

**City of Bishop Sewer Trunk Replacement  
Environmental Checklist/Draft Initial Study**

8. Description of project:

*The City collects wastewater from within its jurisdictional boundaries and transports it via a gravity sanitary sewer trunk line to the City of Bishop Wastewater Treatment Plant. The City proposes to replace the existing sewer trunk line for several reasons including a change in grade in about the middle of its length which causes settlement problems, being too shallow where it crosses the canal making it vulnerable to damage, being too low where it enters the sewer plant, and being approximately 60 years old and nearing the end of its useful life. The new trunk line will be constructed entirely within the existing city property and easement although some grading and other activities will occur off the property and easement.*

*The city proposes to construct a new 18-inch diameter trunk line on a continuous 0.00175 feet per foot (0.175%) slope to provide a deeper canal crossing that would also allow the new trunk to cross under the existing ESCSD branch line with an inverted siphon, and bring the new trunk into the plant at a higher elevation. Based on the preliminary engineering report (R.O. Anderson Engineering, 2013) this is the preferred alternative and includes the options of an intertie with the ESCSD line, a diversion manhole with the ability to bypass the headworks, and new lines in Clarke Street and First Street.*

*Overall the trunk is approximately 2500 feet in length. The existing line is shallow below natural grade with dirt mounding over its alignment to provide cover in portions of the eastern half of the project area. The majority of the project site is undeveloped and vegetated with grasses, shrubs and a few scattered trees. The project site generally slopes to the east/southeast at a very mild grade.*

9. Surrounding land uses and setting:

*The linear public facility project area is adjacent to single-family residences at its west end. There is also a small subdivision to the north of the western project area adjacent to the trunk line. The land uses within these adjacent areas are R-1 and R-2 density. To the east and south, adjacent to the project area, the county-designated land use and zoning include agriculture (A) and public service facilities (PF). This land is predominately used for stock animal grazing.*

10. Other public agencies whose approval is required:

*Los Angeles Department of Water and Power Easement*

*California Department of Fish and Wildlife Streambed Notification (potentially a 1602 Streambed Alteration Agreement may be needed) for Bishop Creek Irrigation Canal crossing*

*Lahontan Regional Water Quality Control Board 401 Water Quality Certification and Erosivity Waiver to California Statewide NPDES Construction Permit*

*U.S. Army Corps of Engineers CWA Section 404 Nationwide Permit*

**City of Bishop Sewer Trunk Replacement  
Environmental Checklist/Draft Initial Study**

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

There are no environmental factors listed below that would be potentially affected by this project, no resource is checked "Potentially Significant Impact" as indicated by the checklist analyses on the following pages.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry	<input type="checkbox"/>	Air Quality
<input type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Geology/Soils
<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards and Hazardous Materials	<input type="checkbox"/>	Hydrology/Water Quality
<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources	<input type="checkbox"/>	Noise
<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services	<input type="checkbox"/>	Recreation
<input type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Utilities/Service Systems	<input type="checkbox"/>	Mandatory Findings of Significance

**DETERMINATION:**

On the basis of this initial evaluation:

- ◆ **I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.**

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Gary Schley – Planning Director

Date 4/4/16

**City of Bishop Sewer Trunk Replacement  
Environmental Checklist/Draft Initial Study**

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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Issues:

I. AESTHETICS -- Would the project:

a) Have a substantial adverse effect on a scenic vista? ◆

***No Impact.** The project includes the replacement of an existing sewer trunk line and the alignment will be relocated within 50 feet of the existing line. The linear alignment is predominantly within an easement over Los Angeles Department of Water and Power (LADWP) land. As are the conditions today, the new line will be backfilled and re-vegetation along the new and old alignments will be allowed to take place naturally. The project will not have a negative effect upon any existing scenic vistas.*

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? ◆

***No Impact.** Although the project is in a scenic region, there are no scenic resources within the proposed project area; therefore there will be no substantial damage to any scenic resources.*

c) Substantially degrade the existing visual character or quality of the site and its surroundings? ◆

***Less than Significant Impact.** The proposed project includes the relocation of an existing sewer trunk line. There will be a short term impact due to the excavation, backfill, and grading actions, which are required to install the new trunk line. This will create a linear disturbance that will be evident until vegetation is reestablished. Upon the reestablishment of native vegetation there will be no long term effects.*

**City of Bishop Sewer Trunk Replacement  
Environmental Checklist/Draft Initial Study**

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?



*No Impact. The project will not create a new source of substantial light or glare, and will therefore have no impact.*

II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?



*No Impact. The project is located on lands that have a land use designation of Agriculture in the Inyo County General Plan. Inyo County's general plan's Land Use Element does not differentiate between Prime, Unique or Farmland of Statewide Importance. However, the sewer trunk line replacement project will not convert existing Agriculture designated lands to a non-agriculture use.*

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?



*No Impact. The City of Bishop zoning for the site is none and Public (P). Public districts apply to land that is owned by a governmental agency and is in some form of public use, including open space, parks, schools and other public buildings and facilities. The agriculture land-use designation in the Inyo County General Plan allows for public and quasi-public*

**City of Bishop Sewer Trunk Replacement  
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Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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*uses on agriculture lands as long as the use does not constitute a conflict with the use or conversion of the agriculture land use. The proposed relocation of the existing sewer trunk line and replacement with a new pipe line will not have a long term effect on the existing agriculture uses. There are no Farmland or Williamson Act contracts within Inyo County.*

c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?



**No Impact.** *There are no other changes to the area designated agriculture that would result in the conversion of the land within the project area to a non-agricultural use.*

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?



**No Impact.** *California law requires that all counties participate in an Air Pollution Control District (APCD). The Great Basin Unified Air Pollution Control District (GBUAPCD) encompasses the counties of Alpine, Mono and Inyo. Local APCD are encouraged to tailor their regulations to their local air pollution issues. The GBUAPCD regulates the following seven criteria pollutants: Ozone (O3), Carbon Monoxide (CO), Lead, two types of Particulate Matter (PM-10 and PM-2.5), Sulfur Oxides (Sox) and Nitrogen Oxides (NOx). The primary air pollutant identified within the District is PM-10. There are three State Implementation*

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*Plans (SIP) developed within the District to control and mitigate violations of Federal PM-10 standards. The project area does not fall within a SIP. The project will not create any significant levels of any air contaminant and therefore will not be in conflict with or obstruct implementation of any applicable air quality plan.*

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?



***Less than Significant Impact.*** Air quality impacts would be limited to construction-related fugitive dust from constructing activities only. Limited to the duration of the construction (120 days maximum), GBUAPCD rules (Rules 400 and 401) governing construction related activities and fugitive dust requires the implementation of best management practices (keeping soils moist, for example) to reduce any potential effects to a less than significant level.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?



***Less than Significant Impact.*** Dust from construction activities could potentially be generated and would consist of PM-10, a criteria pollutant. The compliance with BMP requirements and the use of source control and sediment and erosion control BMPs will reduce and minimize any potential effects to a less than significant level.

d) Expose sensitive receptors to substantial pollutant concentrations?



***Less than Significant Impact.*** No air pollutants will be generated by the project at any significant levels and

**City of Bishop Sewer Trunk Replacement  
Environmental Checklist/Draft Initial Study**

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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*therefore, no sensitive receptors will be exposed to significant air pollution concentrations.*

e) Create objectionable odors affecting a substantial number of people?



***Less than Significant Impact.***  
*Generation of odors could potentially occur during construction activities from the heavy machinery used and from sewer-related smells. Some construction at First and Clark Streets will be within 5 to 20 feet of residential properties. However, the duration, if any, would not exceed 30 days at any one location along the linear route and would not occur near any sensitive receptors (the project largely occurs in and adjacent to the agriculturally designated land use).*

**IV. BIOLOGICAL RESOURCES –**

Would the project:

a) 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 California Department of Fish and Game or U.S. Fish and Wildlife Service?



***Less Than Significant Impact.*** *Based on the database research (California Fish and Wildlife Natural Diversity Database and the species list obtained from the U.S. Fish and Wildlife Services for Inyo County dated May 10, 2014) and reconnaissance conducted May 12, 2014 there are no candidate, sensitive or special status species known or observed within or adjacent to the project area. The trenching, trunk line installation and backfilling will be conducted during the fall and winter after any potential migratory bird species have fledged any potential young of the year.*

*Roosting bats are expected to be present in the Fremont cottonwood trees adjacent*

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*to the project area during the spring and summer season, however, the project is not expected to remove any trees or affect breeding or rearing activity.*

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?



***Less Than Significant Impact.*** *The project includes replacing an old and at risk sewer line that crosses the Bishop Creek Canal (see IVa above). The canal does provide habitat for fish and a Section 1600 review (a streambed alteration notification) will be conducted by California Department of Fish and Wildlife. The City of Bishop will enter into a Streambed Alteration Agreement if the California Department of Fish and Wildlife finds it necessary.*

*The replacement of the existing at-risk trunk line will remove the potential for impacts to water quality and aquatic fauna from a sewer line leak or break. The replacement with a new and deeper line with concrete armoring will provide separation from the channel's aquatic habitat. Because dewatering will need to be accommodated to implement the project, there will be a short-term disturbance (30 days) of the canal bed and immediate surroundings. With the implementation of BMPs, such as coffer dam constructed with materials to prevent sedimentation and water quality impacts outside of the area of disturbance, no significant effects will occur.*

*The canal, a man-made feature, has steep banks that are periodically mowed with very little in the way of riparian vegetation in the vicinity of the trunk line crossing. Manholes and structures will be removed and relocated outside of the canal riparian corridor. Concrete will armor the canal at the crossing location*

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*(8 linear feet) and rock rip rap will be placed along the bottom and sides of the canal for approximately 12 linear feet adjacent and below the concrete armored section. Any riparian vegetation removed outside of the area to be armored will be replaced with in-kind or similar native riparian plant material.*

*It has been determined that with the installation of BMPs during the implementation of the project no significant impact will occur to habitat or other sensitive natural communities.*

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?



***Less Than Significant Impact.*** *The Sewer Trunk Replacement project includes working in jurisdictional waters of the U.S at the point the existing sewer trunk line crosses the Bishop Creek Canal. The removal of the existing at-risk trunk line will reduce the potential for impacts to water quality and aquatic fauna from a sewer line leak or break. Because dewatering is necessary to construct the project, there will be a short-term disturbance (30 days) to the canal and its immediate surroundings. With the implementation of BMPs (coffer dam and measures to prevent sedimentation, water quality and habitat impacts outside of the area of disturbance, site restoration post implementation), the project will present no significant impacts.*

d) 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



**City of Bishop Sewer Trunk Replacement  
Environmental Checklist/Draft Initial Study**

Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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native wildlife nursery sites?

**Less than Significant Impact.** *The project will not interfere with fish or wildlife migration in the long term. Construction of the project will interfere with migration during the short term construction process (30 days). The short duration of this interference and the time of year it is expected to occur should mean that actual impacts are small or nonexistent. There are no mapped or observed wildlife migratory corridors or native wildlife nursery sites within or adjacent to the project area. With BMPs in place (such as a coffer dam and measures to prevent sedimentation, water quality and habitat impacts outside of the area of disturbance, site restoration post implementation, the project will present no significant impacts.*

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?



**No Impact.** *The project is consistent will all ordinances protecting biological resources. There will be no impact.*

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?



**No Impact.** *The project is not located with any area covered under a Habitat Conservation Plan or Natural Community Conservation Plan and will not conflict with any local or regional habitat conservation plan.*

**V. CULTURAL RESOURCES -- Would the project:**

a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?



**No Impact.** *A Phase II archaeological inventory and subsurface testing was*

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*conducted for the project area from May 29, 2014 through June 2, 2014 (see Phase II Archaeological Report). Diagnostic artifacts indicated a site in the project area was used as an informal dump from 1910 through the early 1940s. The surface of the site, however, lacks spatial integrity and the dump will not offer new data towards the history of the town development, the community, or sanitation for the City of Bishop, California. A California Register of Historical Resources listing is not recommended for the inventoried area. Never the less, should any prehistoric or Native American or significant historic resources be uncovered during project implementation, work will cease immediately and both the SHPO and the local Paiute Tribe entity will be notified. The City of Bishop will be responsible for any coordination needed and mitigation required through SHPO and the Paiute Tribe to reduce impacts to a less than significant level. Work will not continue until the contractor is authorized to do so.*

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?



**No Impact.** *Based on the findings of the Phase II investigation the site is not considered historically significant. Substantial evidence was not found that:*

- *Associates the site with events that have significant contributions to the broad patterns of California's history or cultural heritage;*
- *Associates the site with the lives of persons important in our past;*
- *Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or*
- *Yields, or may be likely to yield, information important in prehistory or history.*

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c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?



***No Impact.** (See V.b.) The project will not destroy any unique paleontological resource or site or unique geologic feature.*

d) Disturb any human remains, including those interred outside of formal cemeteries?



***No impact.** No human remains have been discovered, nor are any expected to exist on this project site. If, in the very unlikely circumstances, human remains are discovered, work will be immediately stopped and the Inyo County Coroner, the State Historic Preservation Office (SHPO) and the Native American Heritage Commission (NAHC) will be notified. No work that could compromise the site/remains will continue until authorization is granted.*

VI. GEOLOGY AND SOILS -- Would the project:

a) Expose people or structures to potential substantial adverse effects, including risk of loss injury, or death involving

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.



***Less than Significant Impact.** The project alignment crosses one mapped earthquake fault and is adjacent to the southern terminus of a second mapped fault, as based on approximate location delineated on the Alquist-Priolo Earthquake Fault Zoning Map. The project constitutes the replacement of an existing older sewer trunk line. The new line will be located along the same*

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alignment and 10 to 20 feet to the south of the existing line. The project includes no new structures and therefore does not institute any new or greater risk to humans. The new sewer trunk line will be designed to meet industry standards for earthquake stability.

ii) Strong seismic ground shaking?



**Less than significant Impact.** Although seismic ground shaking is possible the potential is considered less than significant.

iii) Seismic-related ground failure, including liquefaction?



**Less Than Significant Impact.** Although seismic ground shaking is possible, ground failure and liquefaction is not typical for the location and has not been mapped as a risk based the California Geological Survey GIS.

iv) Landslides?



**No Impact.** The project area contains little to no topographic relief nor do the adjacent lands within 2 to 3 miles. Therefore, there is no potential for landslides to affect the project area.

b) Result in substantial soil erosion or the loss of topsoil?



**No Impact.** The existing sewer trunk alignment currently shows no evidences of erosive effects. The new line will create no greater impacts than those existing.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?



**No Impact.** The project area has little to no topographic relief nor do the adjacent lands within 2 to 3 miles. Existing conditions show no evidence of unstable soils and project implementation will not have a negative effect on the current

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*geologic unit or soil stability.*

d) Be located on expansive soil creating substantial risks to life or property?



**No Impact.** *The Geotechnical investigations in the project area do not indicate expansive soils.*

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?



**No Impact.** *The project is an element of the City of Bishop wastewater treatment infrastructure. The objectives of the project include upgrading the existing sewer trunk and reducing the risk of a pipe rupture and sewage spill. The City of Bishop wastewater treatment facility will provide service for this project; therefore, the project will have no need for a septic tank or waste water disposal system.*

**VII. GREENHOUSE GAS EMISSIONS:**

a) Generate greenhouse gas emission, either directly or indirectly, that may have a significant impact on the environment?



**Less Than Significant Impact.** *Construction activities will produce greenhouse gasses due to emissions from diesel operated machinery as well as the daily commute of construction workers. The generation of the emission will be limited to the short construction duration (120 days) and, therefore, will have negligible impacts to State greenhouse gas reduction goals.*

b) Conflict with applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?



**No Impact.** *There are no locally adopted greenhouse gas reduction targets, nor are they required for County's that are not party to a Metropolitan Planning Organization or MPO. The only*

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*additional generation of greenhouse emission as a result of this project will be limited to the short construction duration (120 days) and, therefore, will have negligible impacts to State greenhouse gas reduction goals.*

**VIII. HAZARDS AND HAZARDOUS MATERIALS**

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?



***Less Than Significant Impact.** The only hazardous materials associated with the project are fuels used for construction equipment. After construction is complete, estimated to take 120 days, there will be no resulting new or additional hazardous materials in the project area.*

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?



***Less Than Significant Impact.** The only hazardous materials associated with the project are fuels used for construction equipment. After construction is complete, estimated to take 120 days, there will be no resulting new or additional hazardous materials in the project area or potential for upset.*

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?



***No Impact.** The project area is located more than one-quarter mile from any*

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*public school.*

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?



**No Impact.** *The project site is not listed as a hazardous materials site, therefore, having no impact.*

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?



**No Impact.** *The project area is located within two miles of a public airport. The Inyo County Comprehensive Airport Land Use Plan (CLUP) recognizes that the areas between the City and the main runway clear zone contain lands with the following land use designations; agriculture, recreation and natural resource lands. The sewer trunk project lies within and is consistent with the above mentioned uses and poses no safety hazard for people residing or working in the area.*

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?



**No Impact.** *There is no private airstrip within the vicinity.*

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?



**No Impact.** *The project is located on undeveloped land and poses no interference with adopted emergency response plan or evacuation plans.*

h) Expose people or structures to a



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significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

*No Impact. The project area is within a rural area with the largest portion of the area adjacent to the land use designation agriculture. The sewer trunk project will replace the existing underground line with a new underground line posing no new or increased risk from wildland fire dangers.*

**IX. HYDROLOGY AND WATER QUALITY**

Would the project:

a) Violate any water quality standards or waste discharge requirements?



*Less Than Significant Impact. The bypass pumping of wastewater will be necessary for the construction of portions of the replacement project as will the dewatering and bypass (by pumping or piping) of the Bishop Creek Canal in the area where the sewer trunk crosses the canal. These temporary conditions during construction will be mitigated through the employment of best management practices that will ensure water quality and waste discharge requirements will be met.*

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level Which would not support existing land uses or planned uses for which permits have been granted)?



*Less Than Significant Impact. There will be no permanent impacts to ground water supplies as a consequence of implementing the sewer trunk replacement project. Short-term (30 days) dewatering of short*

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*portions of the alignment may be needed during construction, however, this will have no significant effects to nearby wells and no impacts to the local groundwater table level.*

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?



**No Impact.** *Mounding of clean fill material will be necessary in limited sections of the project alignment, mostly in eastern sections. The project will follow the natural slope of the project area so that the existing drainage pattern within the project area will remain largely unchanged and will not alter any drainage pattern, course of a stream or river or cause any substantial erosion.*

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?



**Less Than Significant Impact.** *There is the potential that flood waters could pond temporarily during construction; however, the design has considered and avoided ponding of floodwaters and stormwater. Due to the flat topography and the alignment of the trunk line with the slope across the project site, there will be no aggravated flood conditions. The project will not alter the existing drainage pattern or increase the amount of surface runoff creating flooding on or off site.*

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?



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***No Impact.** The project does not create runoff or contribute to additional runoff by creating changes in topography that could change runoff patterns within or outside of the project area. The project is to be located mostly within unimproved agricultural lands where there is no existing stormwater infrastructure, and therefore, no infrastructure to be overwhelmed. The project will not alter the existing drainage pattern or increase the amount of surface runoff to exceed the stormwater drainage system capacity.*

f) Otherwise substantially degrade water quality?



***Less Than Significant Impact.** The objective of the project is to replace an aging sewer trunk line to reduce risks from ruptures and other pipe integrity issues. The new line will be constructed at a deeper depth below Bishop Creek Canal providing a greater buffer between the canal bed and the top of the pipe. The design will prevent cross contamination of flows.*

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?



h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?



*g – h **No Impact.** The project site is not within a 100-year flood hazard area and therefore, will have no adverse impact.*

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of failure of a levee or dam.



***Less Than Significant Impact.** Flooding due to a dam failure at this project site is a possibility according to the inundation*

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*maps prepared by Southern California Edison. This possibility is so remote it is considered a less than significant impact.*

j) Inundation by seiche, tsunami, or mudflow?



**No Impact.** *This project site is not subject to seiche, tsunami, or mudflow, therefore will have no adverse impact.*

X. LAND USE AND PLANNING -  
Would the project:



a) Physically divide an established community?

**No Impact.** *The sewer trunk replacement project consists of replacing the existing trunk line starting near the eastern end of Clark Street at First Street. It will run through city property and existing easement with LADWP across and adjacent to agriculture and public service designated lands, terminating at the City's sewer plant. The linear facility will be constructed below ground. The proposed project will not divide the City of Bishop.*

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?



**No Impact.** *Based on the review of the City's and the County's General Plans and zoning ordinances this project is consistent with all applicable land use plans, policies and regulations. Portions of the project site are not zoned by the City but the remaining is zoned Public (P). This project is consistent with the goals and policies of the City's General Plan.*

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?



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***No Impact.** The proposed project does not take place within or adjacent to a habitat conservation plan or community conservation plan and will have no conflict with any conservation plan or community conservation plan in the region.*

**XI. MINERAL RESOURCES --** Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?



***No Impact.** The construction of the new trunk line replacement does not affect the availability of any known or unknown mineral resources.*

b) Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?



***No Impact.** No mineral resource recovery sites are identified in the City or County General Plans or other land use plans for the project area or adjacent lands.*

**XII. NOISE --** Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?



***Less Than Significant Impact.** There is a possibility that new permanent machinery where the new trunk line crosses the ESCSD branch line may generate noise. However, this project will not produce noise beyond the standards set by the City's Municipal Code (Section 8.12). Construction activities would be the only new source of noise and this noise would be limited to the duration of the construction. Construction noise will comply with both the City's and County's requirements that limit construction to the*

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hours between 7:00 am and 8 p.m. The project contractor would be responsible for complying with the noise limits, and a primary contact for responding to noise complaints would be designated.

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?



**Less Than Significant Impact.** The project itself will not create ground borne noise or vibration. There is potential for this to occur during construction. Based on local ordinances, construction will be limited to the hours between 7:00 a.m. and 8:00 p.m. The project contractor would be responsible for complying with the noise limits, and a primary contact for responding to noise complaints would be designated.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?



**No Impact.** This project will not increase the vicinity ambient noise levels, and therefore, will not have an adverse impact.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?



**Less Than Significant Impact.** Construction activities will temporarily increase ambient noise levels in the project vicinity. The noise will be limited in durations (construction scheduled to take 120 days) and frequency (consistent with daily construction period).

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?



**No Impact.** The public airport located within two miles of the project site should

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*not expose people in the area to excessive noise levels, the area will remain under the land use designations of agriculture and public service facility.*

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?



**No Impact.** *The project is not near a private airstrip.*

**XIII. POPULATION AND HOUSING --**  
Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?



**No Impact.** *The proposed project neither proposes new development or infrastructure that expands the capacity to support future development. The replacement of the existing 60+ year old sewer trunk line will reduce the risk ruptures and other upsets to the sewer system. The existing trunk line has a capacity of between 2.5 million gallons per day (mgd) and 4.9 mgd. The new trunk line will have a capacity of 3.0 mgd.*

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?



**No Impact.** *The proposed project has no effect on existing residential units and is located within an area outside of a residential designated/mapped land use.*

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?



**No Impact.** *As stated in XIII.d above, the proposed project has no effect on existing residential units and is located within an area outside of a residential*

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*designated/mapped land use. There are no existing structures housing people that will be affected, therefore, no cause for displacement.*

**XIV. PUBLIC SERVICES --**

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection? ◆  
***No Impact.** The proposed project provides improvements to an existing public linear facility which will not impact fire protection services.*

Police protection? ◆  
***No Impact.** The proposed project provides improvements to an existing public linear facility which will not impact the City of Bishop Police Department or County Sherriff.*

Schools? ◆  
***No Impact.** The proposed project provides improvements to an existing public linear facility which will not impact the school aged population of the area.*

Parks? ◆  
***No Impact.** The proposed project provides improvements to an existing public linear facility which will not impact the city's parks.*

Other public facilities? ◆  
***No Impact.** The proposed project will not substantially impact other*

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*public facilities.*

**XV. RECREATION --**

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?



**No Impact.** *The proposed project replaces an existing public linear facility which will not significantly impact the use of local public parks. However, the Bishop Creek Canal is used extensively for recreation, mostly walking, bike riding, and running. It is likely recreation traffic will need to be passed through the site during construction.*

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?



**No Impact.** *The sewer trunk replacement project does not increase the capacity for development that would require the addition of recreational facilities.*

**XVI. TRANSPORTATION/TRAFFIC --**

Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?



**Less Than Significant Impact.** *The proposed project will not cause a substantial increase in traffic to existing traffic. However, the construction of the sewer trunk replacement will cause an insignificant increase in traffic along First Street and East Line Street within the City of Bishop, and Poleta Road outside of the City of Bishop. Minor delays due to large vehicle movement associated with the construction of the*

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*project are possible. The potential impact to local traffic is considered less than significant.*

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?



***Less Than Significant Impact.*** Only during the proposed project's construction, which will last 120 days, will there be potential for constrictions at the intersection of Clarke Street and First Street that may affect level of service for a short and determined amount of time. Traffic will still be able to navigate one lane of the intersection and alternative routes are available.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?



***No Impact.*** The proposed project will not create a change in air traffic patterns or an increase in air traffic levels.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?



***Less Than Significant Impact.*** The sewer trunk line replacement project creates no new transportation hazards because the project proposes no permanent change to any of the City Streets. However, during the proposed project's construction, which will last 120 days, there may be potential for constrictions at the intersection of Clarke Street and First Street which will temporarily cause traffic patterns to change, alternate routes taken and narrowing of the travel way. Due to the temporary nature of the construction and the best management practices that will be employed by the contractor (well signed construction zone and clearly

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*identified detour route alternatives) the propose project will not create significant hazards due to design or incompatible uses.*

e) Result in inadequate emergency access?



**Less Than significant Impact.** *The replacement of the existing sewer trunk line will not create inadequate emergency access. However, during the proposed project's construction, which will last 120 days, there may be potential for constrictions at the intersection of Clarke Street and First Street which will temporarily cause traffic patterns to change, alternate routes taken, and narrowing of the travel way. Due to the temporary nature of the construction, compliance with local emergency agency conditions of approval and the best management practices that will be employed by the contractor (well signed construction zone, clearly identified detour route alternatives and flaggers) there will be a less than significant impact to emergency access.*

f) Result in inadequate parking capacity?



**No Impact.** *The replacement of the existing sewer trunk line will create no need for additional parking.*

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?



**No Impact.** *The replacement of the existing sewer trunk line poses no conflict with adopted policies, plans or programs supporting alternative transportation programs.*

**XVII. UTILITIES AND SERVICE SYSTEMS --** Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?



**No Impact.** *The objective of the sewer*

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*trunk line replacement project is to reduce the risks associated with the old trunk line by constructing a new line that provides for better grades, improved connections and greater depth distance to insure flow separation between the trunk line and Bishop Creek Canal. The new line does not affect wastewater treatment capacity.*

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?



***No Impact.** The replacement of the existing sewer trunk line does not affect the exiting plant's capacity.*

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?



***No Impact.** The proposed project will not result in increases of storm water drainage within the undeveloped lands within which the existing sewer trunk will be replaced. No storm water facilities are located within the existing alignment and there is no need to construct new storm water drainage facilities with the replacement project.*

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?



***No Impact.** The existing City water supply is currently adequate and will continue to be adequate to serve the project. The City will provide the water needed for construction dust suppression. Water needs during construction will be less than significant and no new water or impact to water supplies will occur. The water system will not require new or expanded entitlements to provide this service.*

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e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?

***No Impact.** The City proposes to replace the wastewater conveying infrastructure which will not affect the waste water treatment plant capacity.*

f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?



***Less Than Significant Impact.** During construction a small amount of materials may be taken to the landfill in the form of removed existing improvements. The project will not generate solid waste in excess of the existing conditions. Construction related solid waste will be transported to Inyo County Sunland Landfill which has adequate solid waste capacity for the proposed project. Excavated soils that cannot be used on site would be transported to a location that meets all applicable regulations.*

g) Comply with federal, state, and local statutes and regulations related to solid waste?



***No Impact.** The project will comply with all federal, state and local statutes and regulation related to solid waste.*

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE --**

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?



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*Less Than Significant Impact. Base on the project's initial assessment, there is no potential risk that the project will cause significant environmental degradation. The replacement trunk line will follow the existing alignment with no more than at 50 foot deviation from the original pipeline placement. Based on both database research and field exploration during the second week of May, 2014, no mapped or observed fish, wildlife or vegetation species of interest (special status, candidate, or endangered) and no suitable habitat was observed. The project will not permanently reduce habitat presently used by any species. The ground disturbance needed to construct the trunk line does have the potential to temporarily displace species that use the project area for foraging, nesting or rearing young. However, the project will initiate construction in the fall, which will avoid any nesting and rearing activity and also coincide with low flow periods in the canal. The construction activity will span a time frame of 120 days.*

*Based a records review and field surveys (Week of May 5<sup>th</sup>), the archaeology resources within the project area are not of significant value and do not represent examples of major periods of California History or prehistory. Since the project crosses the location of a dump site, it is probable that other historic items will be uncovered. However, because they are not eligible nothing further needs to be done. Never the less, should any prehistoric or Native American resources be uncovered during project implementation, work will cease immediately and both the SHPO and the local Native American entity will be notified. Work will not continue until the contractor is authorized to do so.*

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental



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effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

*No Impact. The potential impacts are not cumulatively considerable to effect past, current, or future projects.*

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?



*No Impact. Based on the initial assessment of this project, there are no environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.*



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5 June 2014

Ms. Coleen Shade  
RO Anderson Engineering  
595 Tahoe Keys Blvd, Suite A-2  
South Lake Tahoe, CA 96150

RE: City of Bishop Sewer Trunk Replacement Biological Assessment Memorandum

Dear Ms. Shade:

This memorandum documents the potential for sensitive biological resources to occur on the project site, such those considered sensitive under the California Environmental Quality Act or those subject to regulation by a resource agency, requiring a permit or other formal authorization for project-related impacts (i.e. US Fish and Wildlife Service or California Department of Fish and Wildlife). The results of the literature review and field reconnaissance are outlined below. A description of the biological setting of the site and surrounding area is included below (vegetation communities, wildlife movement/migration corridors, special status species, sensitive natural communities, and potentially jurisdictional waters and wetlands). Impacts are discussed that would result from implementation of the Bishop Sewer Trunk Replacement that is proposed for the project site.

The City of Bishop is proposing to replace a sewer trunk line and associated manholes and construct a new inverted siphon on the east edge of town between the Bishop Creek Canal and the City of Bishop Wastewater Treatment Plant. The Project will be located within an easement on both City of Bishop Parcels and also multiple parcels owned by the Lost Angeles Department of Water and Power. The new sewer trunk line is required as the existing pipeline has aged and is approaching the end of its useful life. Figure 1 identifies the location of the proposed sewer trunk line replacement in relation to the Inyo County and the City of Bishop. For a discussion and a detailed outline of the proposed City of Bishop Sewer Trunk Replacement Project, please refer to the Preliminary Engineering Report prepared for the City of Bishop. The City is implementing Alternative D (R.O. Anderson Engineering, Inc. 2013).

### ***DATABASE SEARCH***

The Project site is located within the United States Geological Survey (USGS) Bishop 7.5-minute topographic quadrangle. The California Department of Fish and Wildlife

Natural Diversity Database (CNDDDB 2014) for records of special-status species occurrences within the Bishop 7.5 min Quad map and surrounding 7.5 min Quads (Fish Slough, Laws and Poleta Canyon) was run on 10 May 2014. Additionally a species list was obtained from the US Fish and Wildlife Service for Inyo County on 10 May 2014 and a report was run for the Bishop 7.5 min Quad Map to focus the data from USFWS. Additionally, the California Native Plant Society (CNPS) database was searched for sensitive and rare plants in Riparian forest habitat in the nine 7.5 min Quad Maps surrounding and including Bishop CA between the elevation 5,500' and 3,500 feet in elevation. The database query results and a copy of the USFWS letter are available in Appendix A.

### ***SITE RECONNAISSANCE SURVEY***

A reconnaissance level field survey to assess habitat conditions and evaluate the site's potential to support special-status plant and/or animal species was performed by Sierra Ecotone Solutions (SES) biologists on 12 May 2014. SES biologists Amy Parravano and Garth Alling walked the project area in order to perform the visual survey to record the existing vegetation types, wildlife habitat presence of sensitive natural communities and the approximately location of and extent of wetland features. A detailed botanical survey was performed to the extent possible as well as a passive survey for wildlife species observed within the project area. Photographs of the project site are provided in Appendix B along with a map identifying the photograph locations.

### **RESULTS**

Table 1 below summarizes the database searches noted above for species that may occur in the project area, provides a general habitat description and determines if suitable habitat is present onsite.

<b>Table 1</b>				
<b>Regional Species and Habitats of Concern</b>				
<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description (Zeiner et al 1990 and Calflora 2014)</b>	<b>Habitat Present/Absent/Unknown</b>	<b>Rationale</b>
<b>Fish</b>				
<i>Gila bicolor snyderi</i> Owens tui chub	FE	Historically known to occur in the Owens valley The Owens tui chub prefers water with low velocities such as portions of the Owens River, associated tributaries, springs, sloughs, drainage ditches, and irrigation canals with dense aquatic vegetation for cover and habitat for insect food items (USFWS 2009).	P	Historical suitable habitat is present within the project area as the Bishop Creek Canal crosses the project area.
<b>Amphibians</b>				
<i>Rana muscosa</i> Mountain yellow-legged frog	FE	Streams, lakes, and ponds in montane riparian, lodgepole pine, subalpine conifer and wet meadow habitats. Always encountered within a few feet of water. Tadpoles may require 2 - 4 years to complete their aquatic development.	A	No suitable habitat within the project area. The Bishop Creek Canal flowing across the project area does not contain suitable habitat.
<b>Birds</b>				
<i>Vireo bellii pusillus</i> least Bell's vireo	FE	Found in desert riparian habitats in California, usually found near water but also inhabits thickets along dry, intermittent streams. (Kus 2002)	P	Suitable <i>Salix sp.</i> and <i>Populus fremontii</i> provide marginal habitat in the area on either side of the proposed project location.

<b>Table 1</b>				
<b>Regional Species and Habitats of Concern</b>				
<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description (Zeiner et al 1990 and Calflora 2014)</b>	<b>Habitat Present/Absent/Unknown</b>	<b>Rationale</b>
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	FE	The southwestern willow flycatcher breeds in relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands including lakes and reservoirs. In most instances, the dense vegetation occurs within the first 10 to 13 feet above ground. Habitat patches must be at least 0.25 ac in size and at least 30 feet wide.	A	Dense riparian vegetation in immediate area surrounding the project does not constitute suitable habitat for the species.
<b>Mammals</b>				
<i>Martes pennanti</i> Pacific fisher	FC	Extensive forested areas with continuous canopy in higher elevations. Avoids entering open areas that have no overstory or shrub cover.	A	No suitable habitat within the project area due to the absence of forested areas and habitat.
<i>Ovis Canadensis californiana</i> Sierra Nevada bighorn sheep	FE	Feeds in open habitats, such as rocky barrens, meadows, and low, sparse brush lands adjacent to steep rugged terrain for escape, lambing and bedding (Zeiner et al 1990).	A	Suitable habitat within the project area does not exist due to close proximity with urban environments and lack of steep rugged terrain for escape.
<b>Plants and Fungi</b>				
<i>Astragalus lentiginosus</i> var. <i>piscinensis</i> Fish Slough milk-vetch	FT	Found in desert spring-fed wetland ecosystem, consisting of alkali habitat, located in Inyo and Mono counties	A	Alkali salt flats not located within project area. Alkali meadow area not suitable for this species.
<i>Angelica kingie</i> King's angelica	4.2	Pinyon-Juniper Woodland, wetland-riparian from 1680-3130m (Calflora 2014)	A	No Pinyon-Juniper Woodland or wetland areas within project area.
<i>Antennaria pulchella</i> beautiful pussy-toes	4.3	Found in Alpine Fell-fields, wetland-riparian areas from 3010 to 3740 m (Calflora 2014)	A	Site is located below typical elevation range for this species. Alpine Fell-fields not present.

<b>Table 1</b>				
<b>Regional Species and Habitats of Concern</b>				
<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description (Zeiner et al 1990 and Calflora 2014)</b>	<b>Habitat Present/ Absent/Unknown</b>	<b>Rationale</b>
<i>Astragalus argophyllus</i> var. <i>argophyllus</i> silver-leaved milk-vetch	2B.2	Alkali Sink, wetland-riparian, meadows and playas. 200-1440m (Calflora 2014)	P	Suitable alkali meadow habitat present onsite
<i>Boechera pygmaea</i> Tulare County rockress	4.3	A perennial herb found in high elevations with limited distribution to the west of Owens Valley. 2140-3270m	A	Site is located below typical elevation range for this species.
<i>Botrychium crenulatum</i> sacaloped moonwort	2B.2	It usually grows in saturated soils of seeps and along the stabilized margins of small streams, often among dense herbaceous vegetation.	P	Suitable habitat exists along the banks of Bishop Creek Ditch.
<i>Calochortus excavates</i> Inyo county startulip	1B.1	Found in shadescale scrub and meadows. 1170-1960m.	P	Potentially suitable habitat located onsite in the form of alkali meadow habitat.
<i>Carex scirpoidea</i> ssp. <i>Pseudoscirpoidea</i> western single-spiked sedge	2B.2	Found in Subalpine Forest, Alpine Fell-fields between 2370-3660m. (Calflora 2014)	A	Site is located below typical elevation range for this species. Subalpine forest and Alpine Fell-fields not present.
<i>Cleomella brevipes</i> short-pedicelled cleomella	4.2	Alkali Sink, wetland-riparian, meadows and playas. 200-2090m (Calflora 2014)	P	Suitable alkali meadow habitat present onsite
<i>Cryptantha glomeriflora</i> clustered-flowered cryptantha	4.3	Yellow Pine Forest, Red Fir Forest, Lodgepole Forest, Subalpine Forest. 2230-3450m. (Calflora 2014)	A	Site is located below typical elevation range for this species. Yellow Pine Forest, Red Fir Forest, Lodgepole Forest, Subalpine Forest not present onsite.
<i>Dodecatheon pulchellum</i> beautiful shooting star	4.2	Sagebrush Scrub, wetland-riparian. 460-2450m. (Calflora 2014)	A	Sagebrush Scrub not present onsite.
<i>Draba praealta</i> tall draba	2B.3	Found in wetland-riparian areas between 2820 to 3760m. (Calflora 2014)	A	Site is located below typical elevation range for this species.

<b>Table 1</b>				
<b>Regional Species and Habitats of Concern</b>				
<b>Common Name Scientific Name</b>	<b>Status</b>	<b>General Habitat Description (Zeiner et al 1990 and Calflora 2014)</b>	<b>Habitat Present/ Absent/Unknown</b>	<b>Rationale</b>
<i>Ericameria albid</i> white-flowered rabbitbrush	4.2	Shadscale Scrub, Alkali Sink. 390-2240m. (Calflora 2014)	P	Suitable alkali meadow and scrub habitat present onsite.
<i>Fimbristylis thermalis</i> hot springs fimbriatylis	2B.2	freshwater-marsh, springs, meadows. 200-1370m. (Calflora 2014)	P	Suitable habitat present along edges of Bishop Creek Canal.
<i>Ivesia kingii</i> var. <i>kingie</i> alkali ivesia	FT, 2B.2	Sagebrush Scrub, Alkali Sink, wetland-riparian between 1270-2150m. (Calflora 2014)	P	Suitable alkali meadow and scrub habitat present onsite.
<i>Lupinus padre-crowleyi</i> Father Crowley's lupine	1B.2	Habitat is granitic, often rocky, soil within Sagebrush Scrub, Lodgepole Pine Forest, Red Fir Forest, Riparian Scrub, and Riparian Forest communities, 7,800-10,200' on the east side of the Sierra Nevada (Calflora 2014)	A	Site is located below typical elevation range for this species. Suitable sagebrush scrub, lodgepole pine, red fir and riparian scrub not present.
<i>Minuartia stricta</i> bog sandwort	2B.3	Alpine Fell-fields, wetland-riparian from 3160-3880m. (Calflora 2014)	A	Site is located below typical elevation range for this species. Alpine Fell-fields not present.
<i>Parnassia parviflora</i> small-flowered grass-of-Parnassus	2B.2	Wetland and riparian areas between 2140-2780m. (Calflora 2014)	A	Site is located below typical elevation range for this species.
<i>Phacelia inyoensis</i> Inyo phacelia	1B.2	Meadows and seeps between 1190-2160m. (Calflora 2014)	P	Suitable alkali meadow habitat present onsite
<i>Sidalcea covillei</i> Owens Valley checkerbloom	1B.1	Sagebrush Scrub and meadow areas between 1120-1610m	P	Suitable alkali meadow and scrub habitat present onsite.
<i>Solorina spongiosa</i> fringed chocolate chip lichen	2B.2	Occurring on mosses over soil (or rarely directly on rock or soil) in areas that are nearly perennially damp, in arctic, alpine, or subalpine, calcareous habitats.	A	Alpine or subalpine calcareous habitats not present onsite.

Table 1				
Regional Species and Habitats of Concern				
Common Name Scientific Name	Status	General Habitat Description (Zeiner et al 1990 and Calflora 2014)	Habitat Present/Absent/Unknown	Rationale
<i>Sidalcea covillei</i> alkali cord grass	4.2	Sagebrush Scrub, Freshwater Wetlands, wetland-riparian between 1210-2160m. (Calflora 2014)	P	Suitable alkali meadow habitat present onsite
<i>Sphenopholis obtusata</i> prairie wedge grass	2B.2	Foothill Woodland, wetland-riparian from 240-2870m. (Calflora 2014)	P	Suitable alkali meadow habitat present onsite
<i>Thelypodium integrifolium</i> ssp. <i>complanatum</i> foxtail thelypodium	2B.2	Wetland riparian areas from 1210-2370m (Calflora 2014)	P	Suitable alkali meadow habitat present onsite
<i>Viola pinetorum</i> var. <i>grisea</i> grey-leaved violet	1B.3	Lodgepole Forest, Subalpine Forest, Red Fir Forest from 1620-3130m. (Calflora 2014)	A	Lodgepole Forest, Subalpine Forest, Red Fir not present onsite.

C- Candidate, T-Threatened, E – Endangered, SSC- Species of Special Concern, FP - Fully Protected, CNPS Rank 1B, 2.1, 2.2, 2.3, 3, 4.2 SES 2014

Table 2 summarizes the preliminary list of plant species scientific names and common names identified during the reconnaissance survey conducted on 12 May 2014. Site is below elevation range for species that came up in the database search noted above. The timing of the survey coincided with documented blooming periods for several species that occur in alkali seep/springs/playas, freshwater marshes, riparian, and other wetland habitat types. However, these species were not observed during the survey and the disturbed condition of the seasonal alkali meadow would likely preclude the occurrence of these species. For the species documented from shrub-dominated and/or mesic grassland habitat within a similar elevation range as the Study Area, the timing of the survey would have been appropriate to detect these species.

Table 2	
Plant Species Observed During Site Survey	
Scientific Name	Common Name
<i>Ambrosia acanthicarpa</i>	Annual bursage
<i>Apocynum cannabinum</i>	Indian hemp
<i>Artemisia ludoviciana</i>	Silver wormwood
<i>Artemisia spinescens</i>	Budsage
<i>Asclepias speciosa</i>	Showy milkweed
<i>Atriplex canescens</i> var. <i>linearis</i>	Slenderleaf saltbush
<i>Atriplex lentiformis</i> ssp. <i>torreyi</i>	Torrey's saltbush

**Table 2**  
**Plant Species Observed During Site Survey**

<b>Scientific Name</b>	<b>Common Name</b>
<i>Atriplex prostrata</i>	Fat-hen
<i>Betula occidentalis</i>	Water birch
<i>Bromus tectorum</i>	Cheat grass
<i>Calyptidium monandrum</i>	Common pussypaws
<i>Cardaria pubescens</i>	Hoary cress
<i>Chenopodium strictum</i> var. <i>glaucophyllum</i>	White leaved goosefoot
<i>Cryptantha circumscissa</i>	Western forget me not
<i>Cynodon dactylon</i>	Bermuda grass
<i>Descurainia pinnata</i>	Pinnate tansy mustard
<i>Digitaria sanguinalis</i>	Crabgrass
<i>Distichlis spicata</i>	Salt grass
<i>Elymus cinereus</i>	Great basin wild rye
<i>Ericameria nauseosa</i> var. <i>oreophila</i>	Rubber rabbitbrush
<i>Ericameria nauseosa</i> var. <i>speciosa</i>	Rubber rabbitbrush
<i>Eriogonum maculatum</i>	Spotted buckwheat
<i>Glycyrrhiza lepidota</i>	Licorice
<i>Hordeum jubatum</i>	Fox tail barley
<i>Hordeum murinum</i> ssp. <i>glaucum</i>	Foxtail
<i>Iris missouriensis</i>	Western blue flag
<i>Iva axillaris</i>	Poverty weed
<i>Juncus balticus</i>	Baltic rush
<i>Lepidium fremontii</i> var. <i>fremontii</i>	desert pepperweed
<i>Lepidium latifolium</i>	broadleaved pepperweed
<i>Melilotus alba</i>	White sweet clover
<i>Mentzelia albicaulis</i>	White stemmed blazing star
<i>Monolepis nuttalliana</i>	Nuttall's poverty weed
<i>Nitrophila occidentalis</i>	Borax weed
<i>Poa pratensis</i>	Kentucky blue grass
<i>Populus fremontii</i>	Fremont cottonwood
<i>Rosa woodsii</i> ssp. <i>ultramontana</i>	Interior rose
<i>Salix exigua</i>	Narrowleaf willow
<i>Salix goodingii</i>	Gooding willow
<i>Salix laevigata</i>	Red willow
<i>Salsola</i> sp.	Russian thistle
<i>Sporobolus airoides</i>	Alkali sacaton
<i>Stipa hymenoides</i>	rice grass
<i>Thelypodium crispum</i> (best ID effort with no flowers – keyed by vegetative features. Cauline leaves are clasping and sagittate at leaf base; this taxonomic character	wavy leaved thelypodium

<b>Table 2 Plant Species Observed During Site Survey</b>	
<b>Scientific Name</b>	<b>Common Name</b>
distinguishes this species from the rare <i>T. integrifolium</i> ssp. <i>complanatum</i> )	
<i>Tiquilia nuttallii</i>	Nuttall's coldenia

SES 2014

Table 3 summarizes the preliminary list of wildlife species observed and identified during the reconnaissance survey on 12 May 2014.

<b>Table 3 Wildlife Species Observed</b>	
<b>Scientific Name</b>	<b>Common Name</b>
<b>Birds</b>	
<i>Anas platyrhynchos</i>	mallard
<i>Buteo jamaicensis</i>	red-tailed hawk
<i>Carpodacus mexicanus</i>	house finch
<i>Cathartes aura</i>	turkey vulture
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	common raven
<i>Dendroica coronata</i>	yellow-rumped warbler
<i>Empidonax wrightii</i>	gray flycatcher
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Falco sparverius</i>	American kestrel
<i>Melospiza melodia</i>	song sparrow
<i>Molothrus ater</i>	Brown-headed cowbird
<i>Picoides pubescens</i>	downy woodpecker
<i>Sturnus vulgaris</i>	European starling
<i>Troglodytes aedon</i>	house wren
<i>Turdus migratorius</i>	American robin
<i>Tyrannus verticalis</i>	western kingbird
<i>Zenaida macroura</i>	morning dove
<b>Reptiles</b>	
<i>Uta stansburiana</i>	side-blotched lizard

SES 2014

Wildlife species assemblage information was based upon existing documentation and information gathered from the *California Wildlife Habitat Relationships System* (CDFG 2008) and *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988). Wildlife habitats onsite include Desert Riparian, Alkali Desert Scrub and Urban. Plant communities in the Project area include Fremont Cottonwood Association, Alkali Meadow and Saltbrush-Rabbitbrush Scrub (nomenclature follows Sawyer Keeler Wolf 2009). Figure 2 identifies the habitat boundaries that have been mapped as a result of the

survey. Plant communities in the Project area include Alkali Meadow (0.47 acres), Fremont Cottonwood Association (0.38 acres) and Saltbrush-Rabbitbrush Scrub (12.72 acres). The Bishop Creek Canal (0.12 acres) crosses the study area and to the west of the canal exists urban habitat (0.69 acres). The project area is currently being used to pasture horses and mules. Based on the existing grazing activities, the site is currently heavily disturbed with numerous trails and pasture facilities and is bordered on all sides with fences.

## **DISCUSSION**

### ***WILDLIFE***

Based on the information provided in Table 1 above and a reconnaissance survey of the site performed on 12 May 2014, the project area contains suitable habitat for the Owens tui chub and least Bell's vireo. The site reconnaissance survey did not detect any least Bell's vireo. The proposed project could potentially impact future nesting least Bell's vireo that may utilize the project site. Riparian vegetation adjacent to the project site contains suitable nesting habitat for least Bell's vireo. Construction during project activities could potentially impact suitable nesting habitat. Mature riparian forest is located within and adjacent to the project area dominated by Fremont cottonwood. No least Bell's vireo were detected during the reconnaissance survey. Due to the presence of brown-headed cowbird within the project site and the existing development (residential) to the west and north of the site, construction and operation of the Project is not likely to have an adverse impact on nesting least Bell's vireo (if present) if construction takes place outside the nesting season (August –April).

Bishop Creek Canal that flows through the project site from the north to the south contains marginal suitable habitat for Owens tui chub. The Owens tui chub is a member of the Cyprinidae family (minnow) and is endemic to the Owens basin in Inyo and Mono Counties, California. This small fish prefers slow-moving water that contains submerged vegetation for cover. While a fish survey was not performed for the Bishop Creek Canal, brown trout were observed in the creek and discussions with fisherman lining the creeks confirmed brown trout (*Salmo trutta*) are present in the canal. It should be noted the Owens tui chub is currently restricted to six isolated sites (USFWS 2009). While marginal suitable habitat is located in the Bishop Creek Canal, the probability is extremely low for Owens tui chub to be present as all known populations are isolated and populations are extinct throughout the remainder of their range (USFS 2009).

### ***SPECIAL STATUS PLANTS***

Plant species that are listed as endangered or threatened under the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA), or plant species that are proposed or candidates for listing as endangered or threatened, are protected by law and are considered special-status species. Plant species, which may not be listed as endangered, threatened, candidate, or proposed species under FESA or CESA, may be considered rare if assigned a rarity code by the California Native Plant Society (CNPS). The CNPS lists five categories of rarity (Lists 1A, 1B, 2, 3, and 4). Under CEQA, impact analyses are mandatory for List 1 and 2 species, but not for all List 3 and 4 species as some do not meet the definitions of the Federal Native Plant Protection Act or the California Endangered Species Act; however, List 3 and 4 impacts to these species are generally considered in most CEQA analyses and are recommended by the CNPS (2001). Based on the data compilation and background research, 25 special-status plant species were recorded to occur, or have the potential to occur, in the Project site vicinity (Table 1). Of these species, it has been determined that 13 species have no potential to occur, due to a lack of suitable habitat elements and/or because the site is located outside of species' documented elevation ranges. Based on the habitats present onsite, a total of 12 special-status plant species have the potential to occur within Project site.

A biological reconnaissance survey was performed on-site on 12 May 2013 to evaluate the suitability of onsite habitats to support the special status plants documented from the vicinity. During the site reconnaissance, a one focused plant survey was conducted by a qualified botanist following survey protocols issued by the CNPS (2001), CDFW (2000), and USFWS (1996). The habitat requirements of all species with potential to occur onsite were evaluated as compared to the conditions observed during the site survey. For purposes of this analysis, the 13 species listed above in Table 1 (*Astragalus argophyllus* var. *argophyllus*, *Botrychium crenulatum*, *Calochortus excavates*, *Cleomella brevipes*, *Ericameria albida*, *Fimbristylis thermalis*, *Ivesia kingii* var. *kingie*, *Phacelia inyoensis*, *Sidalcea covillei*, *Sidalcea covillei*, *Sphenopholis obtusata*, and *Thelypodium integrifolium* ssp. *complanatum*, ) have potential to be present onsite due to the presence of suitable habitat.

No special-status plants were encountered on the Project site during the 2014 site survey, therefore no further mitigation is required.

## ***SENSITIVE NATURAL COMMUNITIES***

Sensitive vegetation communities are natural communities and habitats that are either unique, of relatively limited distribution in the region, or of particularly high wildlife value. However, these communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies or regulations. The California Department of Fish and Wildlife (CDFW) ranks sensitive communities as 'threatened' or 'very threatened' and keeps records of their occurrences in its Natural Diversity Database. Sensitive plant communities are also identified by CDFW on their List of California Natural Communities. In addition,

streams, lakes, and riparian vegetation that are subject to jurisdiction by the CDFW under Sections 1600-1616 of the California Fish and Game Code are also regulated as sensitive communities. Impacts to sensitive natural communities identified in local or regional plans, policies, regulations or by the CDFW or the USFWS must be considered and evaluated under the California Environmental Quality Act (California Code of Regulations: Title 14, Div. 6, Chap. 3, Appendix G). According to a search of CNDDDB, no sensitive natural communities have been documented within the Project site. However, the Bishop Creek Canal supports (likely through transmissive losses) adjacent woody riparian habitat (*Salix sp. and Populus fremontii*), which is subject to regulation by CDFW.

## **WETLANDS**

The U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under Section 404 of the Clean Water Act (CWA) (33 USC 1344). Waters of the United States are defined in Title 33 CFR Part 328.3(a) and include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. Section 404 of the CWA requires a federal license or permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities). Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification from the state in which the discharge originates or would originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the affected waters at the point where the discharge originates or would originate. The responsibility for the protection of water quality in California rests with the Regional Water Quality Control Board (RWQCB).

On 12 May 2014, the Project site was assessed by biologists to determine if any wetlands and “waters” potentially subject to jurisdiction by the USACE, RWQCB, and CDFW were present. Based on the results of the site reconnaissance survey, no wetland areas are likely to occur within the project area. The Bishop Creek Canal however is connected directly to Bishop Creek, which then is a tributary to the Owens River. The Bishop Creek Canal is therefore likely a Water of the US and subject to US Army Corps of Engineers jurisdiction. The USFWS National Wetland Inventory (NWI) provides geospatial data and wetland maps generated through landscape-level aerial photographic interpretation and regional modeling. No wetlands or deepwater habitats have been mapped by the NWI within the Project site (USFWS 2014) as shown in Figure 3.

The City of Bishop should make efforts to avoid all jurisdictional features to the extent feasible. If waters regulated by CWA Section 404/401 are present (Bishop Creek Canal) and cannot be avoided by Project construction, this would result in an impact. Any

alterations of, or discharges into, waters of the United States, including Section 404 wetlands must be in conformance with the Sections 404 and 401 of the CWA via certification and/or permitting prior to any grading or construction that may impact jurisdictional area(s), as applicable.

### **REQUIRED PERMITTING**

The following permits are required prior to implementation of the Bishop Sewer Truck Replacement Project.

#### **California Department of Fish and Wildlife Section 1600 Notification**

The City of Bishop shall avoid the removal of California Department of Fish and Wildlife regulated riparian vegetation within the Project area. If the regulated vegetation cannot be avoided, the City of Bishop shall replace the loss of CDFW-regulated riparian vegetation through the submittal of a Lake or Streambed Alteration Notification Package to the CDFW. Provided the project is authorized by the CDFW through issuance of a 1602 Lake or Streambed Alteration Agreement, the City shall be required to comply with all CDFW permit provisions, which may include replacement and re-establishment of riparian vegetation in order to compensate for loss of riparian habitat.

#### **Clean Water Act Section 404/401 Water Quality Certification**

Under federal Clean Water Act (CWA) Section 401 every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain State Water Quality Certification (Certification) that the proposed activity will comply with state water quality standards. Most Certifications are issued in connection with U.S. Army Corps of Engineer (Corps) CWA section 404 permits for dredge and fill discharges. Though the majority of the project does not occur in a jurisdictional wetland, the sewer trunk replacement will cross the Bishop Creek Canal which is an activity that may result in a discharge to a water body and thus requires review under CWA Sections 401 and 404.

#### **Consistency with the Migratory Bird Treaty Act**

If project construction takes place during the nesting season between the months of April and August the City of Bishop shall protect existing active bird nests and/or nursery sites to be impacted by Project construction activities. The City shall develop an Active Raptor and Migratory Bird protection program (Program) to meet these needs. The Program shall include surveys, consultation, and protective actions. Pre-construction surveys, conducted during the nesting/breeding season immediately prior to initial Project construction (e.g., excavation, grading and vegetation removal), shall be conducted to identify any active raptor or migratory bird nest sites within the project area that may not have occurred previously. During initial construction activities (vegetation removal and

excavation for the construction), a qualified biological monitor shall be present to evaluate whether any raptors or migratory birds are occupying trees are within the project area. The biological monitor shall have the authority to stop construction near occupied trees or nursery sites if it appears to be having a negative impact on nursery sites, nesting raptors, migratory birds or their young observed within the construction zone. If construction must be stopped, the monitor shall consult with CDFW or USFWS (if applicable) staff within 24 hours to determine appropriate actions to restart construction while reducing impacts to identified nursery sites, raptors or migratory bird nests.

## REFERENCES

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Sincerely,

Garth Alling  
Principal Biologist  
Sierra Ecotone Solutions, LLC

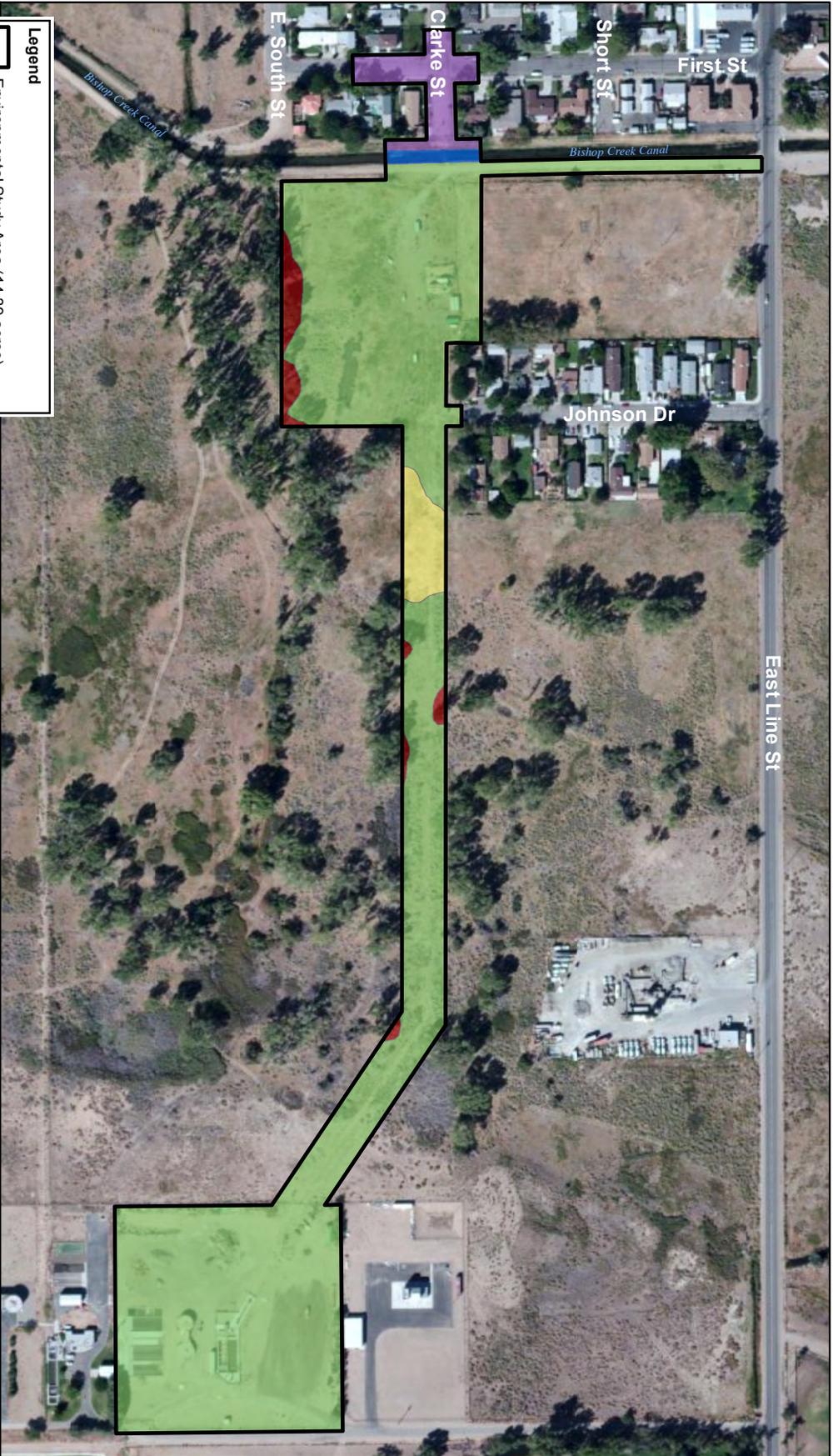
Attachments

- Figure 1 – Vicinity Map
- Figure 2 – Habitat Types
- Figure 3 – USFWS National Wetland Inventory Map
- Appendix A – Database Search Results

FIGURE 1- VICINITY MAP



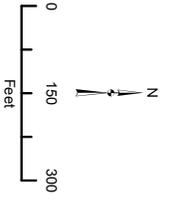
FIGURE 2 – HABITAT TYPES



**Legend**

[Black outline]	Environmental Study Area (14.39 acres)
[Yellow]	Alkali Meadow (0.47 acres)
[Blue]	Bishop Creek Canal (0.12 acres)
[Red]	Fremont Cottonwood Association (0.38 acres)
[Light Green]	Saltbrush-Rabbitbrush Scrub (12.72 acres)
[Purple]	Urban (0.69 acres)

Data sources: ROWAerom, ArcGIS Online World Imagery, Map date: May 16, 2014



SIERRA ECOTONE SOLUTIONS

CITY OF BISHOP  
 SANITARY SEWER TRUNK REPLACEMENT  
 Figure 2: Habitat Types

FIGURE 3- NATIONAL WETLANDS INVENTORY MAP



# U.S. Fish and Wildlife Service National Wetlands Inventory

Bishop Sewer  
Trunk Line

May 10, 2014



## Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

## Riparian

- Herbaceous
- Forested/Shrub

## Riparian Status

- Digital Data

User Remarks:

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

## APPENDIX A- DATABASE SEARCH RESULTS



United States Department of the Interior  
FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W-2605  
Sacramento, California 95825



May 10, 2014

Document Number: 140510025538

Garth Alling  
Sierra Ecotone Solutions LLC  
PO Box 1297  
Zephyr Cove, NV 89448

Subject: Species List for Bishop Sewer Trunk Line Replacement

Dear: Mr. Alling

We are sending this official species list in response to your May 10, 2014 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be August 08, 2014.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found [here](#).

Endangered Species Division



U.S. Fish & Wildlife Service  
Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in  
or may be Affected by Projects in the Counties and/or  
U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 140510025538

Current as of: May 10, 2014

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No quad species lists requested.

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County Lists

Inyo County

Listed Species

Fish

*Gila bicolor snyderi*  
Owens tui chub (E)

*Hypomesus transpacificus*  
delta smelt (T)

*Oncorhynchus (=Salmo) clarki seleniris*  
Paiute cutthroat trout (T)

*Oncorhynchus mykiss*  
Central Valley steelhead (T) (NMFS)

Amphibians

*Rana muscosa*  
Mountain yellow legged frog (PX)

*Rana sierrae*  
Mountain yellow legged frog (PX)

Birds

*Vireo bellii pusillus*  
Least Bell's vireo (E)

Mammals

*Ovis canadensis californiana*  
Sierra Nevada (=California) bighorn sheep (E)

Plants

*Astragalus lentiginosus var. piscinensis*  
Fish Slough milk-vetch (T)

## Proposed Species

### Amphibians

*Anaxyrus canorus*  
Yosemite toad (PX)

## Candidate Species

### Amphibians

*Bufo canorus*  
Yosemite toad (C)

*Rana muscosa*  
mountain yellow-legged frog (C)

### Mammals

*Martes pennanti*  
fisher (C)

### Plants

*Abronia alpina*  
Ramshaw sand-verbena (C)

## Key:

- (E) *Endangered* - Listed as being in danger of extinction.
- (T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
- (P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.
- Critical Habitat* - Area essential to the conservation of a species.
- (PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
- (C) *Candidate* - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) *Critical Habitat* designated for this species

## Important Information About Your Species List

### How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, or may be affected by projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

## Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

## Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our [Protocol](#) and [Recovery Permits](#) pages.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

## Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal [consultation](#) with the Service.  
During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.
- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

## Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or

seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [Map Room](#) page.

### Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

### Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. [More info](#)

### Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

### Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be August 08, 2014.

Report Date: May 21, 2014

## Listed Species

### Fish

Gila bicolor snyderi

Owens tui chub (E)

### Plants

Astragalus lentiginosus var. piscinensis

Fish Slough milk-vetch (T)

## Candidate Species

### Amphibians

Rana muscosa

mountain yellow-legged frog (C)

### Mammals

Martes pennanti

fisher (C)

---

## Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species



**Multiple Occurrences per Page**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



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**Query Criteria:** Federal Listing Status is (Endangered or Threatened or Proposed Endangered or Proposed Threatened or Candidate or Delisted)> AND </span>State Listing Status is (Endangered or Threatened or Rare or Delisted or Candidate Endangered or Candidate Threatened) and Quad is (Bishop (3711834) or Fish Slough (3711844) or Laws (3711843) or Poleta Canyon (3711833))



**Multiple Occurrences per Page**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b><i>Empidonax traillii extimus</i></b>		<b>Element Code:</b> ABPAE33043	
southwestern willow flycatcher			
<b>Listing Status:</b>	<b>Federal:</b> Endangered	<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T1T2
	<b>State:</b> Endangered		<b>State:</b> S1
	<b>Other:</b> ABC_WLBCC-Watch List of Birds of Conservation Concern		
<b>Habitat:</b>	<b>General:</b> RIPARIAN WOODLANDS IN SOUTHERN CALIFORNIA.		
	<b>Micro:</b> <input type="checkbox"/>		

<b>Occurrence No.</b>	52	<b>Map Index:</b>	66239	<b>EO Index:</b>	66321	<b>Element Last Seen:</b>	2003-06-25
<b>Occ. Rank:</b>	Excellent	<b>Presence:</b>	Presumed Extant	<b>Site Last Seen:</b>		2003-06-25	
<b>Occ. Type:</b>	Natural/Native occurrence	<b>Trend:</b>	Unknown	<b>Record Last Updated:</b>		2010-03-01	

**Quad Summary:** Fish Slough (3711844), Rovana (3711845)

**County Summary:** Inyo

<b>Lat/Long:</b>	37.39461 / -118.49775	<b>Accuracy:</b>	specific area
<b>UTM:</b>	Zone-11 N4139701 E367423	<b>Elevation (ft):</b>	4370
<b>PLSS:</b>	T06S, R32E, Sec. 30 (M)	<b>Acres:</b>	16.0

**Location:** HORTON CRK FROM PLEASANT VALLEY DAM RD W ABOUT 0.2 MI, & E OF PLEASANT VLY DAM RD ABOUT 0.25 MI S OF JCT WITH THE CRK.

**Detailed Location:** MAPPED TO PROVIDED COORDINATES. 2000 GENETIC STUDY BY PAXTON INDICATES THAT WILLOW FLYCATCHERS IN THE OWENS VALLEY AREA SHOULD BE CLASSIFIED AS SUBSPECIES EXTIMUS.

**Ecological:** NATIVE RIPARIAN FOREST DOM BY SALIX GOODINGII & SALIX EXIGUA WITH A WELL-DEVELOPED UNDERSTORY. WATER IS PRESENT YEAR-ROUND AT THIS SITE. MAINTAINED AS OPEN SPACE FOR WATERSHED PROTECTION; LIVESTOCK GRAZING & RECREATION ALLOWED.

**General:** NW: 1 PAIR ON 8 JUL 2001, 1 PAIR ON 30 JUN 2002, & A SINGLE BIRD ON 25 JUN 2003. NE: SINGLE BIRD ON 8 JUL 2001, SINGLE BIRD ON 17 MAY & 30 JUN 2002, & A PAIR ON 25 JUN 2003. S: 2 BIRDS ON 11 MAY 2002, WITH ONLY 1 SUBSEQUENTLY ON 30 JUN.

**Owner/Manager:** LADWP

<b>Occurrence No.</b>	66	<b>Map Index:</b>	01749	<b>EO Index:</b>	79300	<b>Element Last Seen:</b>	1917-07-13
<b>Occ. Rank:</b>	Unknown	<b>Presence:</b>	Presumed Extant	<b>Site Last Seen:</b>		2005-07-14	
<b>Occ. Type:</b>	Natural/Native occurrence	<b>Trend:</b>	Unknown	<b>Record Last Updated:</b>		2010-03-23	

**Quad Summary:** Laws (3711843)

**County Summary:** Inyo

<b>Lat/Long:</b>	37.39707 / -118.35478	<b>Accuracy:</b>	1 mile
<b>UTM:</b>	Zone-11 N4139783 E380083	<b>Elevation (ft):</b>	4100
<b>PLSS:</b>	T06S, R33E, Sec. 28 (M)	<b>Acres:</b>	0.0

**Location:** VICINITY OF LAWS AND THE OWENS RIVER, OWENS VALLEY.

**Detailed Location:** MVZ LOCATIONS DESCRIBED AS "LAWS" & "FARRINGTON RANCH, LAWS." 1986 SURVEY OF OWENS RIVER INCLUDED T6S R33E SEC 28. 2005 LOCATION JUST SOUTH OF HWY 6 ABOUT 0.1 MI WEST OF JUNCTION WITH SILVER CANYON RD (COORDS PROVIDED).

**Ecological:** RIPARIAN HABITAT BORDERING THE OWENS RIVER. DOMINATED BY SANDBAR WILLOW, ARROYO WILLOW & WOOD ROSE. SUITABLE HABITAT FOR SMALL # OF BREEDING BIRDS. SOME FORMERLY GOOD HABITAT BURNED - UNSUITABLE. RAILROAD DEVELOPMENT PROPOSED IN 2005.

**General:** MVZ SPECIMENS COLLECTED ON 5 JUL 1917 (#27968 - ALSO IN BLM80S), 10 JUL 1917 (#27969 - ALSO IN BLM80S) & 13 JUL 1917 (#27970). NONE DETECTED IN 1986. WIFL MIGRANT DETECTED MAY 2005. SUBSPECIES EXTIMUS OCCURRS IN OWENS VALLEY (PAXTON 2000).

**Owner/Manager:** UNKNOWN

<b><i>Siphateles bicolor snyderi</i></b>		<b>Element Code:</b> AFCJB1303J	
Owens tui chub			



**Multiple Occurrences per Page**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Listing Status:</b>	<b>Federal:</b> Endangered	<b>CNDDB Element Ranks:</b>	<b>Global:</b> G4T1
	<b>State:</b> Endangered		<b>State:</b> S1
	<b>Other:</b> AFS_EN-Endangered		
<b>Habitat:</b>	<b>General:</b> ENDEMIC TO THE OWENS RIVER BASIN IN A VARIETY OF HABITATS.		
	<b>Micro:</b> NEEDS CLEAR, CLEAN WATER, ADEQUATE COVER, AND AQUATIC VEGETATION.		

<b>Occurrence No.</b>	1	<b>Map Index:</b> 86450	<b>EO Index:</b> 28644	<b>Element Last Seen:</b>	1934-09-03
<b>Occ. Rank:</b>	None		<b>Presence:</b> Extirpated	<b>Site Last Seen:</b>	1934-09-03
<b>Occ. Type:</b>	Natural/Native occurrence		<b>Trend:</b> Unknown	<b>Record Last Updated:</b>	2012-09-28

**Quad Summary:** Laws (3711843), Fish Slough (3711844)

**County Summary:** Inyo

<b>Lat/Long:</b>	37.38061 / -118.39198	<b>Accuracy:</b>	nonspecific area
<b>UTM:</b>	Zone-11 N4138005 E376763	<b>Elevation (ft):</b>	4140
<b>PLSS:</b>	T06S, R33E, Sec. 31 (M)	<b>Acres:</b>	173.0

**Location:** NORTH FORK OF BISHOP CREEK, ABOUT 1.4 TO 3.6 AIR MILES FROM CONFLUENCE WITH OWENS RIVER; 1.25 MILES NORTH OF BISHOP PO.

**Detailed Location:** MAPPED TO REACH OF BISHOP CREEK DESCRIBED IN LOCALITIES: "N FORK OF BISHOP CREEK, NE OF BISHOP 2 MI FROM OWENS RIVER" AND "BISHOP CR, JUST N OF BISHOP... JUST BELOW SPILLWAY OF LOS ANGELES AQUEDUCT AT WELL NO. 208."

**Ecological:**

**General:** SMITH COLLECTED 1 ON 27 JUN 1934. HUBBS & FAMILY COLLECTED 5 ON 3 SEP 1934.

**Owner/Manager:** LADWP

<b>Occurrence No.</b>	2	<b>Map Index:</b> 01680	<b>EO Index:</b> 28643	<b>Element Last Seen:</b>	1942-09-01
<b>Occ. Rank:</b>	None		<b>Presence:</b> Extirpated	<b>Site Last Seen:</b>	1942-09-01
<b>Occ. Type:</b>	Natural/Native occurrence		<b>Trend:</b> Unknown	<b>Record Last Updated:</b>	2012-09-28

**Quad Summary:** Big Pine (3711823), Coyote Flat (3711824), Poleta Canyon (3711833), Bishop (3711834)

**County Summary:** Inyo

<b>Lat/Long:</b>	37.25158 / -118.37345	<b>Accuracy:</b>	1 mile
<b>UTM:</b>	Zone-11 N4123665 E378196	<b>Elevation (ft):</b>	4200
<b>PLSS:</b>	T08S, R33E, Sec. 17 (M)	<b>Acres:</b>	0.0

**Location:** VICINITY OF KEOUGH HOT SPRINGS, ABOUT 8 MILES S OF BISHOP.

**Detailed Location:** MAPPED APPROXIMATE TO LOCALITY STATED AS "IRRIGATION CANAL AND DITCHES, CA 8 MI S OF BISHOP. CA 0.5 MI S OF 1ST RANCH N OF KEOUGH HOT SPRINGS."

**Ecological:** FWS09R0003 DETAILS THE DECLINE AND EXTIRPATION OF OWENS TUI CHUB.

**General:** MILLER COLLECTED HOLOTYPE (UMMZ #14158) AND 17 PARATOPOTYPES (UMMZ #140411) ON 1 SEP 1942.

**Owner/Manager:** PVT



**Multiple Occurrences per Page**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Occurrence No.</b>	3	<b>Map Index:</b> 01581	<b>EO Index:</b> 28645	<b>Element Last Seen:</b>	1942-09-01
<b>Occ. Rank:</b>	None		<b>Presence:</b> Extirpated	<b>Site Last Seen:</b>	1942-09-01
<b>Occ. Type:</b>	Natural/Native occurrence		<b>Trend:</b> Unknown	<b>Record Last Updated:</b>	2012-09-28

**Quad Summary:** Fish Slough (3711844)

**County Summary:** Inyo

<b>Lat/Long:</b>	37.40548 / -118.39649	<b>Accuracy:</b>	1 mile
<b>UTM:</b>	Zone-11 N4140770 E376405	<b>Elevation (ft):</b>	4140
<b>PLSS:</b>	T06S, R33E, Sec. 19 (M)	<b>Acres:</b>	0.0

**Location:** FIVE BRIDGES ROAD ABOUT 0.25 MILES S OF OWENS RIVER AND 0.6 MILES N OF INTERSECTION WITH HWY 6, 3.2 MILES N OF BISHOP.

**Detailed Location:** MAPPED TO APPROXIMATION OF LOCALITY DESCRIPTION: "IRRIGATION DITCH FROM OWENS RIVER, 3.2 MILES N OF BISHOP ON ROAD TO FISH SLOUGH, DEATH VALLEY SYSTEM."

**Ecological:**

**General:** MILLER COLLECTED 45 (UMMZ #140406) ON 1 SEP 1942.

**Owner/Manager:** LADWP

<b>Occurrence No.</b>	7	<b>Map Index:</b> 36956	<b>EO Index:</b> 28640	<b>Element Last Seen:</b>	1922-11-15
<b>Occ. Rank:</b>	None		<b>Presence:</b> Extirpated	<b>Site Last Seen:</b>	1922-11-15
<b>Occ. Type:</b>	Natural/Native occurrence		<b>Trend:</b> Unknown	<b>Record Last Updated:</b>	2012-09-28

**Quad Summary:** Laws (3711843)

**County Summary:** Inyo

<b>Lat/Long:</b>	37.39707 / -118.35478	<b>Accuracy:</b>	nonspecific area
<b>UTM:</b>	Zone-11 N4139783 E380083	<b>Elevation (ft):</b>	4080
<b>PLSS:</b>	T06S, R33E, Sec. 28 (M)	<b>Acres:</b>	142.1

**Location:** OWENS RIVER AT LAWS, ABOUT 0.2 MILES W OF HWY 6 AT SILVER CANYON ROAD AND 3.5 MI NE OF BISHOP.

**Detailed Location:** SPECIMEN LOCALITIES STATED AS "OWENS RIVER AT LAWS." MAPPED TO OWENS RIVER WEST OF LAWS; ABOUT 0.75 MI STRETCH NORTH OF HWY 6 AND ABOUT A 1 MI STRETCH SOUTH OF HWY 6.

**Ecological:**

**General:** C.H. KENNEDY COLLECTED 63 ON 15 NOV 1922 (UMMZ #65309) AND 37 ON AN UNKNOWN DATE (CAS #SU 23043), BUT PROBABLY BEFORE SNYDER WROTE ABOUT THE COLLECTION IN 1917; POSSIBLY IN 1914-1915 WHEN HE COLLECTED OWENS PUFFISH HERE (OCC#18).

**Owner/Manager:** LADWP



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<b>Occurrence No.</b>	16	<b>Map Index:</b>	21951	<b>EO Index:</b>	41061	<b>Element Last Seen:</b>	2005-XX-XX
<b>Occ. Rank:</b>	Unknown	<b>Presence:</b>	Presumed Extant	<b>Site Last Seen:</b>		<b>Record Last Updated:</b>	2012-08-06
<b>Occ. Type:</b>	Refugium; Artificial Habitat/Occurrence	<b>Trend:</b>	Unknown				

**Quad Summary:** Poleta Canyon (3711833)  
**County Summary:** Inyo

<b>Lat/Long:</b>	37.36045 / -118.32713	<b>Accuracy:</b>	80 meters
<b>UTM:</b>	Zone-11 N4135685 E382473	<b>Elevation (ft):</b>	4096
<b>PLSS:</b>	T07S, R33E, Sec. 11 (M)	<b>Acres:</b>	0.0

**Location:** WHITE MOUNTAIN RESEARCH STATION (WMRS), ABOUT 0.2 MILES SE OF POLETA ROAD AT POLETA LAWNS ROAD & 3.7 MILES E OF BISHOP.  
**Detailed Location:** RESEARCH CENTER OPERATED BY UC NATURAL RESERVE SYSTEM. 4 ARTIFICIAL PONDS: 3 60'X60' LINED "EXPERIMENTAL" PONDS & 1 50'X10' UNLINED POND ("OFFICE POND," "DECORATIVE POND").  
**Ecological:** GROUNDWATER-FED PONDS CONTAIN ALGAE, TYPHA. OWENS CHUB INTRODUCED FROM LOWER OWENS GORGE TO OFFICE POND, 1997; WHOLE POP MOVED TO EXPERIMENTAL POND #3, OCT-NOV 1999. TOIKONA CHUB INTRO'D FROM MULE SPRING IN 2004 (INTO SEPARATE POND).  
**General:** 24 ADULTS INTRO'D FROM LOWER OWENS GORGE, 1997. MANY JUVENILES SEEN, 1 ADULT TRAPPED, 1998. 0 ADULTS OBS; 40 TRAPPED & MOVED TO EXP. POND #3, 1999. 11 ADULT, 126 YOY TOIKONA INTRO'D FROM MULE SPG, 2003-04. EST. 200+ TOIKONA AT WMRS, 2005.  
**Owner/Manager:** LADWP, UC-WHITE MTN RES STN

<b>Cyprinodon radiosus</b>		<b>Element Code:</b> AFCNB02090	
Owens pupfish			
<b>Listing Status:</b>	<b>Federal:</b> Endangered	<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G1
	<b>State:</b> Endangered		<b>State:</b> S1
	<b>Other:</b> AFS_EN-Endangered, CDFW_FP-Fully Protected, IUCN_EN-Endangered		
<b>Habitat:</b>	<b>General:</b> SHALLOW WATER HABITATS IN THE OWENS VALLEY.		
	<b>Micro:</b> PREFERS WARM, CLEAR, SHALLOW WATER FREE OF EXOTIC FISHES. NEEDS AREAS OF FIRM SUBSTRATE FOR SPAWNING.		

<b>Occurrence No.</b>	2	<b>Map Index:</b>	81873	<b>EO Index:</b>	21606	<b>Element Last Seen:</b>	2008-XX-XX
<b>Occ. Rank:</b>	Fair	<b>Presence:</b>	Presumed Extant	<b>Site Last Seen:</b>		<b>Record Last Updated:</b>	2012-10-18
<b>Occ. Type:</b>	Refugium; Artificial Habitat/Occurrence	<b>Trend:</b>	Fluctuating				

**Quad Summary:** Fish Slough (3711844)  
**County Summary:** Mono

<b>Lat/Long:</b>	37.47907 / -118.40222	<b>Accuracy:</b>	nonspecific area
<b>UTM:</b>	Zone-11 N4148942 E376019	<b>Elevation (ft):</b>	4200
<b>PLSS:</b>	T05S, R33E, Sec. 30 (M)	<b>Acres:</b>	5.0

**Location:** BLM SPRING REFUGE, ALONG FISH SLOUGH, ABOUT 2.75 MI WNW OF PUMICE MILL RD AT HWY 6, OWENS VALLEY,  
**Detailed Location:** FENCED REFUGE ON E SIDE FISH SLOUGH CREATED 1969. DAMMED SPRING POOL FLOWS S INTO CHANNEL & INTO 2 PONDS ABOVE 2ND DAM AT S END. DAM LEAKS MAY FACILITATE EXCHANGE WITH FISH IN PONDS D/S (EO#21), NEW FISH BARRIER INSTALLED AT SPRING IN 2002.  
**Ecological:** OPEN WATER IN PONDS. CHANNEL ENCRONCHED BY BULRUSH. '69: 400 INTRO'D FROM FISH SLOUGH STOCK (EOS#1&19). ROTENONE TO KILL LARGEMOUTH BASS (LMB) IN '77, 88. 1500 ADDED FROM OVNFS IN 88. LMB ELECTROFISHED IN '98, 99, 2002. POP INCREASING, '08.  
**General:** '70: 1K; 101 COLL. 77: 300 INT FROM WARM SPG(EO#3). 78: 9500. 83: EXTANT; 1000S INT FROM OVNFS. 87: 500; LMB FOUND, POP MOVED TO WMRS(EO#13), 1480 REINT IN 88. 92-93: OBS. 97-2002: EXTIRP; LMB. 03: 2841 INT FROM MULE SPG(EO#17). 08: 1K-10K.  
**Owner/Manager:** BLM



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<b>Occurrence No.</b>	3	<b>Map Index:</b> 01917	<b>EO Index:</b> 21308	<b>Element Last Seen:</b>	2009-02-26
<b>Occ. Rank:</b>	None		<b>Presence:</b> Extirpated	<b>Site Last Seen:</b>	2009-02-26
<b>Occ. Type:</b>	Refugium; Artificial Habitat/Occurrence		<b>Trend:</b> Decreasing	<b>Record Last Updated:</b>	2012-10-02
<b>Quad Summary:</b>	Poleta Canyon (3711833)				
<b>County Summary:</b>	Inyo				
<b>Lat/Long:</b>	37.26577 / -118.27501		<b>Accuracy:</b>	nonspecific area	
<b>UTM:</b>	Zone-11 N4125117 E386948		<b>Elevation (ft):</b>	4000	
<b>PLSS:</b>	T08S, R34E, Sec. 08 (M)		<b>Acres:</b>	27.9	
<b>Location:</b>	WARM SPRINGS REFUGE, OWENS VALLEY.				
<b>Detailed Location:</b>	FENCED REFUGE. UPPER POND (UP) BUILT 1970, 0.9AC; LOWER IN '86, 0.6AC. PUPFISH IN 1ST 0.25 MI OF OUTFLOW DITCH SINCE '86. TRAPPED/RELEASED AS PONDS EXCAVATED TO CONTROL TYPHA, '96. REMAINING 18 IN DITCH RELOCATED TO MULE SPG (EO#17), 2009.				
<b>Ecological:</b>	'70: INTRO'D FROM FISH SLOUGH. '79: EXTIRP BY CRAYFISH. '83: 150 INT FROM OVNFS(EO#1). '85: FEB-STABLE; SEP-ROTENONED TO KILL GAMBUSIA. '86:517 INT FROM OVNFS, BLM SPG(EO#2). '89: GOOD CONDITION. '93: OVERGROWN. 2004: TYPHA REMOVED FROM UP.				
<b>General:</b>	COLLECTED IN 1971, '81. POP EST 2-3K. '77: 6500-UPPER, 5K-LOWER, 500-DITCH, '87. >50 TRAPPED, '89. PRESENT TO ABUNDANT, 1990-99. ABUNDANT, 2001-02. ABSENT FROM PONDS SINCE '03. EST. 100 IN DITCH, '08. LAST 18 FROM DITCH RELOCATED FEB 2009.				
<b>Owner/Manager:</b>	LADWP, DFG				
<b>Occurrence No.</b>	6	<b>Map Index:</b> 01759	<b>EO Index:</b> 28587	<b>Element Last Seen:</b>	1986-12-09
<b>Occ. Rank:</b>	None		<b>Presence:</b> Extirpated	<b>Site Last Seen:</b>	1987-XX-XX
<b>Occ. Type:</b>	Refugium; Artificial Habitat/Occurrence		<b>Trend:</b> Decreasing	<b>Record Last Updated:</b>	2012-10-02
<b>Quad Summary:</b>	Poleta Canyon (3711833), Laws (3711843)				
<b>County Summary:</b>	Inyo				
<b>Lat/Long:</b>	37.37325 / -118.34400		<b>Accuracy:</b>	1/5 mile	
<b>UTM:</b>	Zone-11 N4137126 E381000		<b>Elevation (ft):</b>	4040	
<b>PLSS:</b>	T07S, R33E, Sec. 03 (M)		<b>Acres:</b>	0.0	
<b>Location:</b>	ARTESIAN WELL #136, TRIBUTARY TO NORTH FORK BISHOP CREEK.				
<b>Detailed Location:</b>					
<b>Ecological:</b>	EXPERIMENTAL TRANSPLANT INTO HUMAN-CREATED HABITAT: POOL IN FRESHWATER TULE MARSH SUPPLIED BY THERMAL ARTESIAN WELL DRILLED BY LADWP. WELL CHOKED W/MARSH VEG. MOSQUITOFISH, BULLFROGS & RED SWAMP CRAYFISH PRESENT.				
<b>General:</b>	91-150 PUPFISH INTRODUCED IN JUN 1986 FROM OWENS VALLEY NATIVE FISH SANCTUARY (OCC#1) AND BLM SPRING (OCC#2). ONLY A FEW OBSERVED DEC 1986 WITH NO EVIDENCE OF SPAWNING. FOUND EXTIRPATED IN 1987.				
<b>Owner/Manager:</b>	LADWP				



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<b>Occurrence No.</b>	7	<b>Map Index:</b>	01847	<b>EO Index:</b>	28586	<b>Element Last Seen:</b>	1986-06-XX
<b>Occ. Rank:</b>	None	<b>Presence:</b>	Possibly Extirpated	<b>Site Last Seen:</b>		<b>Record Last Updated:</b>	2012-10-18
<b>Occ. Type:</b>	Refugium; Artificial Habitat/Occurrence		<b>Trend:</b>	Unknown			

**Quad Summary:** Poleta Canyon (3711833)  
**County Summary:** Inyo

<b>Lat/Long:</b>	37.30631 / -118.30928	<b>Accuracy:</b>	1 mile
<b>UTM:</b>	Zone-11 N4129656 E383971	<b>Elevation (ft):</b>	4000
<b>PLSS:</b>	T07S, R33E, Sec. 25 (M)	<b>Acres:</b>	0.0

**Location:** ARTESIAN WELL, TRIBUTARY TO OWENS RIVER; ABOUT 3.5 MI NW OF WARM SPRINGS REFUGE AND 1 MILE NE OF SAUNDERS LAKE.

**Detailed Location:**

**Ecological:** EXPERIMENTAL TRANSPLANT WITHIN NATIVE RANGE.

**General:** 1986: 12 PUPFISH FROM OVNFS (EO#1) & BLM SPRING (EO#2) INTRODUCED IN LIVE CAGES. EXPERIMENTAL TRANSPLANT BY CDFG. ASSUMED EXTIRPATED SINCE NOT INCLUDED IN EXTANT POPULATION SURVEYS FROM 1989 OR LATER (MOS89R01, FWS09R02).

**Owner/Manager:** LADWP

<b>Occurrence No.</b>	9	<b>Map Index:</b>	01658	<b>EO Index:</b>	28585	<b>Element Last Seen:</b>	1987-XX-XX
<b>Occ. Rank:</b>	None	<b>Presence:</b>	Extirpated	<b>Site Last Seen:</b>		<b>Record Last Updated:</b>	2012-10-18
<b>Occ. Type:</b>	Refugium; Artificial Habitat/Occurrence		<b>Trend:</b>	Unknown			

**Quad Summary:** Poleta Canyon (3711833)  
**County Summary:** Inyo

<b>Lat/Long:</b>	37.26949 / -118.37413	<b>Accuracy:</b>	80 meters
<b>UTM:</b>	Zone-11 N4125654 E378164	<b>Elevation (ft):</b>	4160
<b>PLSS:</b>	T08S, R33E, Sec. 08 (M)	<b>Acres:</b>	0.0

**Location:** "KEOUGH POND", ABOUT 0.8 MILES SOUTH OF COLLINS RD AT HWY 395, AND ABOUT 7 MILES SOUTH OF BISHOP.

**Detailed Location:** POND LOCATED JUST OFF OLD COUNTY RD SOUTH OF COLLINS ROAD ALONG "KEOUGH HOT" DITCH.

**Ecological:** EXPERIMENTAL TRANSPLANT INTO ARTIFICIAL REFUGE POOL, 15X7M, 1-2' DEEP. HUMANS BATHE ABOUT 1 MILE UPSTREAM (FREEMAN CREEK?). HIGH WATER TEMPERATURES MAY HAVE SUPPRESSED PUPFISH REPRODUCTION.

**General:** DEC 1986: 200 ADULTS, NO JUVS OBS. 1987: POP EST 100, NO EVIDENCE OF REPRODUCTION; 160 ADDED FROM WARM SPRINGS (EO#3). EXTIRPATED YEARS PRIOR TO 2000; PROBABLE CAUSE: MALE PREOCCUPATION WITH TERRITORIAL DEFENSE AGAINST GAMBUSIA.

**Owner/Manager:** LADWP



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<b>Occurrence No.</b>	10	<b>Map Index:</b>	01539	<b>EO Index:</b>	13115	<b>Element Last Seen:</b>	2008-XX-XX
<b>Occ. Rank:</b>	Fair	<b>Presence:</b>	Presumed Extant	<b>Site Last Seen:</b>		2008-XX-XX	
<b>Occ. Type:</b>	Introduced Back into Native Hab./Range	<b>Trend:</b>	Fluctuating	<b>Record Last Updated:</b>		2012-10-19	

**Quad Summary:** Fish Slough (3711844), Chidago Canyon (3711854)  
**County Summary:** Mono

<b>Lat/Long:</b>	37.50103 / -118.40761	<b>Accuracy:</b>	1/5 mile
<b>UTM:</b>	Zone-11 N4151386 E375579	<b>Elevation (ft):</b>	4140
<b>PLSS:</b>	T05S, R32E, Sec. 24 (M)	<b>Acres:</b>	0.0

**Location:** MARVINS MARSH, 0.25 MI SSE OF OWENS VALLEY NATIVE FISHES SANCTUARY, ALONG FISH SLOUGH, N OF BISHOP, MONO CO.  
**Detailed Location:** ARTIFICIALLY IMPROVED HABITAT E OF MAIN SLOUGH, BELOW OVNFS. SHALLOW ALKALINE MARSH WITH 1-AC "POND" OF OPEN WATER, 1987. PUPFISH IN PONDS FARTHEST FROM MAIN CHANNEL, 2001. MARSH HABITAT "MIGRATING" N, SOME POOLS PROBABLY EPHEMERAL, 2002.  
**Ecological:** '86: CHANNEL BLASTED IN SIDE OF SLOUGH W/FISH BARRIER TO EXCLUDE BASS. '92: CHANNEL FILLED IN. '93: POOR HABITAT. '99: MANY ORIGINAL PONDS FILLED/DRY. 2000: PUPFISH IN NEW POOLS JUST S OF OVNFS (EO#1). TULE S THROUGHOUT, CHARA SUBSTRATE.  
**General:** 1K+ INTRO'D, '86. EST. POP 300, '87. 2K ADDED FROM OVNFS, '88. OBS '89-92. 0 OBS '93: BAD WINTER? ABUNDANT, ESP. JUVS, '94-98. LOW #S OBS IN 7 PONDS SURVEYED, '99. ABUNDANT, 2001. OBS AT ALL SITES SURVEYED, '02. EST 100-1K & DECLINING, '08.  
**Owner/Manager:** LADWP

<b>Occurrence No.</b>	12	<b>Map Index:</b>	22509	<b>EO Index:</b>	16371	<b>Element Last Seen:</b>	1993-10-14
<b>Occ. Rank:</b>	None	<b>Presence:</b>	Extirpated	<b>Site Last Seen:</b>		2000-02-XX	
<b>Occ. Type:</b>	Refugium; Artificial Habitat/Occurrence	<b>Trend:</b>	Unknown	<b>Record Last Updated:</b>		2012-10-03	

**Quad Summary:** Laws (3711843)  
**County Summary:** Inyo

<b>Lat/Long:</b>	37.45800 / -118.32810	<b>Accuracy:</b>	80 meters
<b>UTM:</b>	Zone-11 N4146509 E382540	<b>Elevation (ft):</b>	4400
<b>PLSS:</b>	T06S, R33E, Sec. 02 (M)	<b>Acres:</b>	0.0

**Location:** JUST OFF RUDOLPH ROAD, ONE MILE EAST OF HIGHWAY 6, ABOUT 4 MILES NNE OF LAWS.  
**Detailed Location:** SMALL PRIVATE POND AT THE OWNER'S HOME, JUST SOUTH OF THE HOUSE.  
**Ecological:** POND IS BARELY 5 FEET IN DIAMETER AND ABOUT 2 FEET DEEP. IT IS SURROUNDED BY CATTAILS WITH SUBMERGED CHARA. OWNER OCCASIONALLY PULLS OUT MUCH OF THE VEGETATION TO KEEP IT FROM CHOKING THE POND ('92-93).  
**General:** 3-4 ADULTS OBSERVED, 5 MAY 1992. NONE SEEN ON 29 OCT 1992 AND 19 MAY 1993. ONE YOY OBS, 14 OCT 1993. OWNER SAID HE HAD SEEN SEVERAL PUPFISH DURING THE SUMMER. POND WAS DRY (LINER CRACKED/POND DRAINED) PRIOR TO FEB 2000 VISIT.  
**Owner/Manager:** PVT



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<b>Occurrence No.</b>	13	<b>Map Index:</b>	21951	<b>EO Index:</b>	12898	<b>Element Last Seen:</b>	1995-XX-XX
<b>Occ. Rank:</b>	None	<b>Presence:</b>	Extirpated	<b>Site Last Seen:</b>		<b>Record Last Updated:</b>	2012-10-19
<b>Occ. Type:</b>	Refugium; Artificial Habitat/Occurrence		<b>Trend:</b>	Decreasing			

**Quad Summary:** Poleta Canyon (3711833)  
**County Summary:** Inyo

<b>Lat/Long:</b>	37.36045 / -118.32713	<b>Accuracy:</b>	80 meters
<b>UTM:</b>	Zone-11 N4135685 E382473	<b>Elevation (ft):</b>	4096
<b>PLSS:</b>	T07S, R33E, Sec. 11 (M)	<b>Acres:</b>	0.0

**Location:** WHITE MOUNTAIN RESEARCH STATION (WMRS), ABOUT 0.2 MILES SE OF POLETA ROAD AT POLETA LAWNS ROAD & 3.7 MILES E OF BISHOP.  
**Detailed Location:** SITE CONSISTS OF 4 ARTIFICIAL PONDS. PUPFISH WERE LAST OBSERVED IN PONDS A AND B IN 1995, & IN POND C AND "OFFICE POND" IN 1993. AFTER 1995, PUPFISH WERE CONSIDERED EXTIRPATED. OWENS TUI CHUB PLANTED IN PONDS AFTER 1997 (OCC#16).  
**Ecological:** PUPFISH INTRODUCED TO OFFICE POND SEP 1987. INTRO'D TO A, B & C CA. 1990. OVERGROWTH OF FILAMENTOUS GREEN ALGAE & CHARA IN ALL PONDS. BY '96 ALL PONDS WERE OCCLUDED BY CATTAILS. SURROUNDING AREA MOSTLY BARE DIRT W/A FEW SMALL COTTONWOODS.  
**General:** IN SEP 1992 PUPFISH FOUND IN ALL PONDS; YOY ABUNDANT IN POND A, COMMON IN PONDS B & C. OBS IN ALL PONDS MAY & OCT '93. "OFFICE POND" DRAINED IN 1997; NO PUPFISH. PONDS A, B, & C DRAINED/RECONSTRUCTED IN 1999; NO PUPFISH.  
**Owner/Manager:** LADWP, UC-WHITE MTN RES STN

<b>Occurrence No.</b>	18	<b>Map Index:</b>	36956	<b>EO Index:</b>	87759	<b>Element Last Seen:</b>	1915-08-XX
<b>Occ. Rank:</b>	None	<b>Presence:</b>	Extirpated	<b>Site Last Seen:</b>		<b>Record Last Updated:</b>	2012-10-19
<b>Occ. Type:</b>	Natural/Native occurrence		<b>Trend:</b>	Unknown			

**Quad Summary:** Laws (3711843)  
**County Summary:** Inyo

<b>Lat/Long:</b>	37.39707 / -118.35478	<b>Accuracy:</b>	nonspecific area
<b>UTM:</b>	Zone-11 N4139783 E380083	<b>Elevation (ft):</b>	4080
<b>PLSS:</b>	T06S, R33E, Sec. 28 (M)	<b>Acres:</b>	142.1

**Location:** OWENS RIVER AT LAWS, ABOUT 0.2 MILES W OF HWY 6 AT SILVER CANYON ROAD AND 3.5 MI NE OF BISHOP.  
**Detailed Location:** SPECIMEN LOCATION STATED AS "OWENS RIVER SWAMP, LAWS."  
**Ecological:** KENNEDY (1916) FOUND ABUNDANT PUPFISH IN SHALLOW SLOUGHS AT LONE PINE & LAWS; BUT MOST ABUNDANT AT EDGES OF "LARGE TULE SWAMP THAT LIES IN THE BIG BEND OF OWENS RIVER BETWEEN LAWS AND BISHOP." HE COLLECTED OWENS SUCKER & TUI CHUB HERE ALSO.  
**General:** 61 PARATYPES COLLECTED BY KENNEDY IN 1914 (THOUGH KEN16A0001 STATES HIS TRIP WAS IN 1915). MILLER (1948) REPORTED THAT C. HUBBS FOUND A FEW SHALLOW POOLS ALONG THE RIVER NEAR LAWS IN 1934, BUT NO PUPFISH.  
**Owner/Manager:** LADWP



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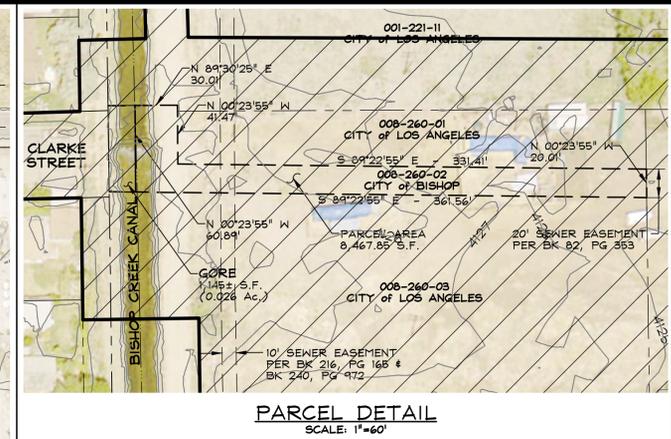
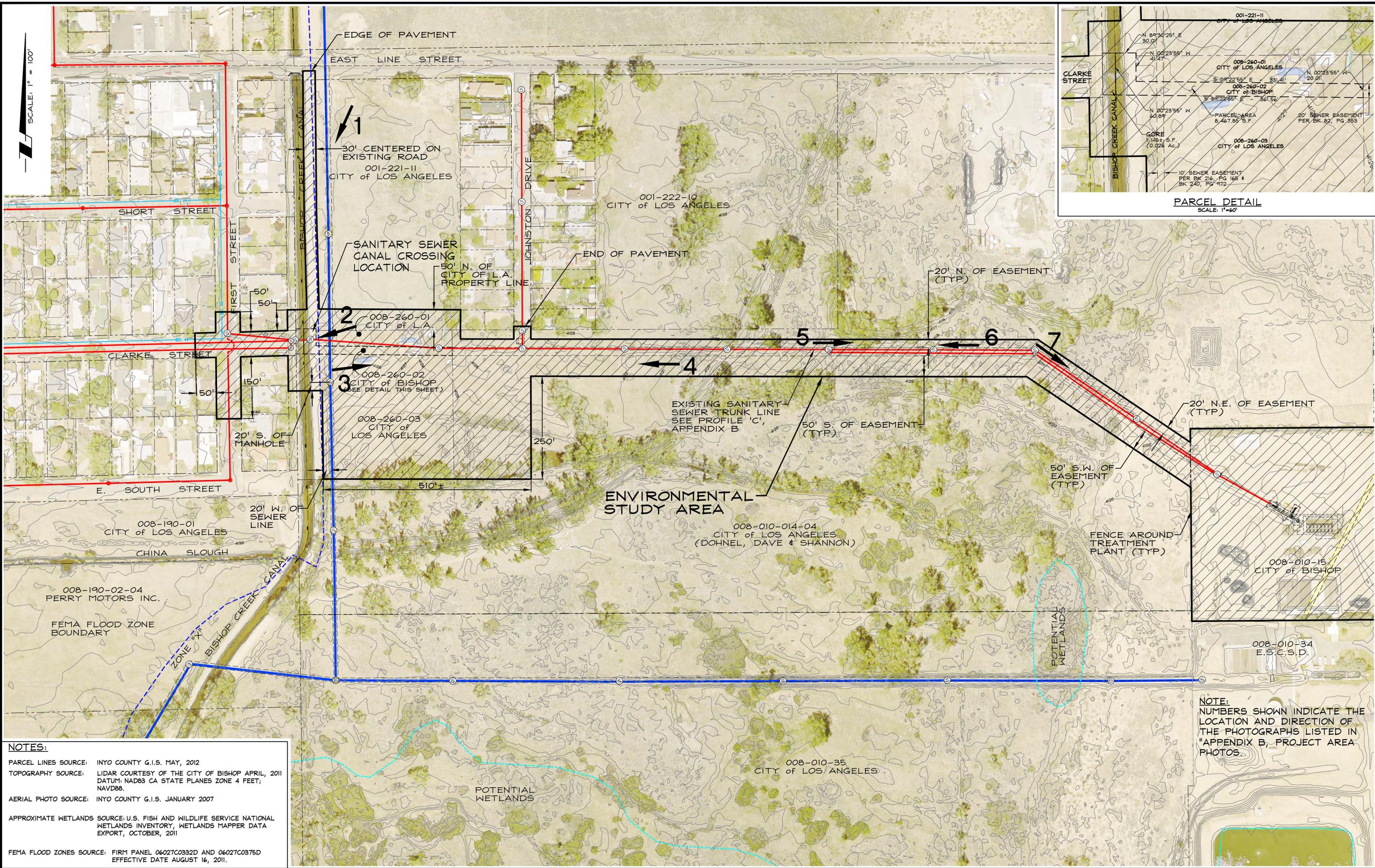


<b>Occurrence No.</b>	19	<b>Map Index:</b> 86610	<b>EO Index:</b> 87760	<b>Element Last Seen:</b>	1967-XX-XX
<b>Occ. Rank:</b>	None		<b>Presence:</b> Possibly Extirpated	<b>Site Last Seen:</b>	1990-04-XX
<b>Occ. Type:</b>	Natural/Native occurrence		<b>Trend:</b> Unknown	<b>Record Last Updated:</b>	2012-10-19
<b>Quad Summary:</b>	Fish Slough (3711844)				
<b>County Summary:</b>	Mono				
<b>Lat/Long:</b>	37.48934 / -118.40581		<b>Accuracy:</b>	1/5 mile	
<b>UTM:</b>	Zone-11 N4150086 E375719		<b>Elevation (ft):</b>	4200	
<b>PLSS:</b>	T05S, R32E, Sec. 25 (M)		<b>Acres:</b>	0.0	
<b>Location:</b>	"REDISCOVERY POND," FISH SLOUGH; ABOUT 3.4 MI SW OF HWY 6 AT CHALFANT RD & 3.8 MI NW OF HWY 6 AT RUDOLPH RD.				
<b>Detailed Location:</b>	MAPPED TO TRS & LABELED AERIAL PHOTO IN MILLER ('71). THE POND AS SUCH DRIED BEFORE '69. '89-90 SURVEY SITES 9 & 17 COVERED A SIMILAR AREA, NEAR CONFLUENCE OF SLOUGH'S NE & NW TRIBUTARIES. PISTER SPECIMEN FROM "FISH SLOUGH" ATTRIBUTED HERE.				
<b>Ecological:</b>	OWENS PUFFISH FOUND HERE, AFTER 20 YRS OF PRESUMED EXTINCTION, ARE SOURCE OF ALL STOCK. CDFG STAFF UNKNOWNINGLY CAUGHT A FEW HERE, 1956. 1964: FOUND IN CLEAR POOL 300' L, 15-40' W, 2-6" DEEP; CHARA MATS ON FIRM MUD BOTTOM, SCATTERED SCIRPUS.				
<b>General:</b>	SEVERAL PUFFISH CAUGHT IN 1956. SEARCHED IN '63, 0 FOUND. POP OF CA. 200 REDISCOVERED, 10 JUL '64. PRESUMED PRESENT, '67. RELOCATED TO HABITAT S OF NW SPRINGS PRIOR TO '69 (EO#1); HABITAT AT THIS SITE DRIED UP. 0 FOUND IN VICINITY, '89-90.				
<b>Owner/Manager:</b>	LADWP, BLM				
<b>Occurrence No.</b>	21	<b>Map Index:</b> 86793	<b>EO Index:</b> 87764	<b>Element Last Seen:</b>	2008-XX-XX
<b>Occ. Rank:</b>	Unknown		<b>Presence:</b> Presumed Extant	<b>Site Last Seen:</b>	2008-XX-XX
<b>Occ. Type:</b>	Introduced Back into Native Hab./Range		<b>Trend:</b> Stable	<b>Record Last Updated:</b>	2012-10-19
<b>Quad Summary:</b>	Fish Slough (3711844)				
<b>County Summary:</b>	Mono				
<b>Lat/Long:</b>	37.47702 / -118.40210		<b>Accuracy:</b>	nonspecific area	
<b>UTM:</b>	Zone-11 N4148715 E376026		<b>Elevation (ft):</b>	4220	
<b>PLSS:</b>	T05S, R33E, Sec. 31 (M)		<b>Acres:</b>	4.0	
<b>Location:</b>	BLM PONDS, FISH SLOUGH; ABOUT 2.7 MILES WNW OF HWY 6 AT PUMICE MILL ROAD IN OWENS VALLEY.				
<b>Detailed Location:</b>	4-5 PONDS S OF BLM SPRING EXCLOSURE FENCE & E OF MAIN SPRING OUTFLOW CHANNEL. AFTER 2002, NAMED B, C1, C2, D, AND E (FROM EAST TO WEST); MAPPED TO BOG02R0001 COORDINATES. ONLY 2 PONDS MENTIONED IN 2009 REPORT; POSSIBLY C (1&2) & D.				
<b>Ecological:</b>	ISOLATED FROM U/S BLM SPRING (EO#2) BY 2 GRAVEL DAMS, BUT SMALL LEAK REPORTED 1989. 2002: RUSHES ENCROACHING ALL PONDS; D HAS MOST OPEN WATER. C2 FIRST MONITORED '02, POSS EPHEMERAL. GAMBUSIA ABUNDANT. DACE FOUND IN C1&D IN '02, ORIGIN UNK.				
<b>General:</b>	PUFFISH INTRO'D HERE BY 1982, FIRST DETECTED IN 1984. PRESENT, 1986, '87, '89. JUVENILES & ADULTS OBS 1998. ADULTS DET IN PONDS B-E, JUVS & ADULTS COMMON IN D, JUN 1999. FOUND ONLY IN C2 & D, APR-JUN 2002. POP EST. 100, "STABLE" AS OF 2008.				
<b>Owner/Manager:</b>	BLM				

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank	CESA	FESA	Elevation High (meters)	Elevation Low (meters)	CA Endemic
CNPS Database Search - May 2014 - Bishop Sewer Trunk Reclamation Project											
Angelica kingii	King's angelica	Asteraceae	perennial herb		4.2 53.2	G4	None	None	3080	1830 F	
Antennaria pulchella	beautiful dusky-toes	Asteraceae	perennial stoloniferous he		4.3 53.3	G3	None	None	3700	2800 F	
Astragalus agrophyllus var. argilifer	silver-leaved milk-wetch	Fabaceae	perennial herb	2B.2	S1	G5T4	None	None	2350	1240 F	
Boerhaavia pygmaea	Tulare County rock-cress	Brassicaceae	perennial herb		4.3 53	G3	None	None	3400	2315 T	
Boerhaavia crenulatum	scalloped moonwort	Opithoglossaceae	perennial rhizomatous he	2B.2	S2	G3	None	None	3280	1268 F	
Calochortus excavatus	Inyo County star-tulip	Liliaceae	perennial bulbiferous her	1B.1	S2	G2	None	None	2000	1150 T	
Carex scripoides ssp. pseudosax	western single-spiked sedge	Cyperaceae	perennial rhizomatous he	2B.2	S2	G5T5	None	None	3200 F	3200 F	
Cleomeella brevipes	short-pedicelled cleomeella	Cleomataceae	annual herb		4.2 53.2	G3G4	None	None	2195	395 F	
Cryptantha glomeriflora	clustered-flower cryptantha	Boerhaavia	annual herb		4.3 53.3	G3G4	None	None	3750	1800 T	
Dodecatheon pulchellum	beautiful shootingstar	Primulaceae	perennial herb		4.2 53	G5	None	None	2380	1000 F	
Draba praealta	tall draba	Brassicaceae	perennial herb	2B.3	S3	G5	None	None	3415	2500 F	
Ficaria vernalis	white-flowered rabbitbrush	Asteraceae	perennial evergreen shrub		4.2 53.2	G4	None	None	1950	300 F	
Fimbristylis thermalis	hot springs fimbriistylis	Cyperaceae	perennial rhizomatous he	2B.2	S2.2	G4	None	None	1340	110 F	
Ivesia kingii var. kingii	alkali ivesia	Rosaceae	perennial herb	2B.2	S2.2	G2	None	None	2130	1200 F	
Lupinus padde-crowleyi	Father Crowley's lupine	Fabaceae	perennial herb	1B.2	S2	G4T3Q	CR	None	4000	2200 T	
Mimulus stricta	bog sandwort	Caryophyllaceae	perennial herb	2B.3	S2	G5	None	None	3960	2440 F	
Parnassia parviflora	small-flowered grass-of-Parnassus	Parasitaceae	perennial herb	2B.2	S2	G4	None	None	2855	2000 F	
Phacelia hypnoides	Inyo phacelia	Boerhaavia	annual herb	1B.2	S2	G2	None	None	3200	915 T	
Stidacea conzatti	Owens Valley checkerbloom	Malvaceae	perennial herb	1B.1	S2	G2	CE	None	1415	1095 T	
Solorina spongiosa	fringed chocolate drip lichen	Peltigeraceae	crustose lichen (terricol)	2B.2	S1	G4G5	None	None	2895	2895 F	
Spartina gracilis	alkali cord grass	Poaceae	perennial herb		4.2 53.2	G5	None	None	2100	1000 F	
Sphenopodium obtusata	prairie wedge grass	Poaceae	perennial herb	2B.2	S2.2	G5	None	None	2000	300 F	
Thelypodium integrifolium ssp. foxtail	foxtail thelypodium	Brassicaceae	annual / perennial herb	2B.2	S2.2	G5T5	None	None	2500	1100 F	
Viola pinetorum var. grisea	grey-leaved violet	Violaceae	perennial herb	1B.3	S3?	G4G5T3?	None	None	3400	1500 T	

Ms. Shade  
5 June 2014  
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## APPENDIX B – SITE PHOTOGRAPHS AND MAP



**NOTES:**

PARCEL LINES SOURCE: INYO COUNTY G.I.S. MAY, 2012

TOPOGRAPHY SOURCE: LIDAR COURTESY OF THE CITY OF BISHOP APRIL, 2011  
 DATUM: NAD83 CA STATE PLANES ZONE 4 FEET;  
 NAVD88.

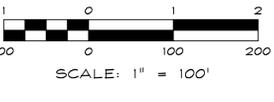
AERIAL PHOTO SOURCE: INYO COUNTY G.I.S. JANUARY 2007

APPROXIMATE WETLANDS SOURCE: U.S. FISH AND WILDLIFE SERVICE NATIONAL  
 WETLANDS INVENTORY, WETLANDS MAPPER DATA  
 EXPORT, OCTOBER, 2011

FEMA FLOOD ZONES SOURCE: FIRM PANEL 06027C0332D AND 06027C0375D  
 EFFECTIVE DATE AUGUST 16, 2011.

**NOTE:**  
 NUMBERS SHOWN INDICATE THE  
 LOCATION AND DIRECTION OF  
 THE PHOTOGRAPHS LISTED IN  
 "APPENDIX B, PROJECT AREA  
 PHOTOS."

NO.	DATE	REVISION	BLOCK	BY



**R|O Anderson**  
 1603 EMERALDA AVENUE / POST OFFICE BOX 2229  
 MINDEN, NEVADA 89423  
 PHONE: (775) 782-2322 / FAX: (775) 782-7084  
 WEB SITE: WWW.ROANDERSON.COM

**SANITARY SEWER TRUNK REPLACEMENT  
 CITY OF BISHOP**

**ENVIRONMENTAL  
 STUDY AREA**

DRAWN: MAB	JOB: 1621-005-12
ENGINEER: KRN	DRAWING: SEE PLOT STAMP
SCALE: 1"=100'	SHEET: 1
DATE: 03/19/14	OF: 1 SHEETS

K:\Client Files\1621-005-12\1621-005-12-005-ENVIRONMENTAL STUDY AREA.dwg 4/2/2014 11:28:38 AM Mark Bray

## Appendix B – Project Area Photographs

The location and direction of the following seven photographs of the Bishop Sewer Trunk Replacement Project are identified on the attached map.



**Photograph 1 – Bishop Creek Canal**



**Photograph 2 – Bishop Creek Canal Crossing**



**Photograph 3 – Livestock Holding Area**



**Photograph 4 – Alkali Meadow Area**



**Photograph 5 – Fremont Cottonwood Association & Saltbrush Rabbitbrush Scrub**



**Photograph 6 – Fremont Cottonwood Association & Saltbrush Rabbitbrush Scrub**



Photograph 7 –Saltbrush Rabbitbrush Scrub