INYO COUNTY

Carroll Creek Road Bridge Replacement Project

Initial Study/Mitigated Negative Declaration

Federal Project No. BRLO-5948(074)

SCH# 2018121016

FEBRUARY 2019

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Prepared for:
Inyo County Public Works Department
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MITIGATED NEGATIVE DECLARATION

PROJECT INFORMATION

Title:	Carroll Creek Road Bridge Replacement Project
Location:	Inyo County, California
Lead Agency Contact:	Ashley Helms, Engineering Assistant Inyo County Department of Public Works 168 N. Edwards Street P.O. Drawer Q Independence, CA 93526 760.878.0200; ahelms@inyocounty.us

INTRODUCTION

The Inyo County Department of Public Works (County) has assessed the potential environmental impacts to replace County Bridge 48C0011 and realign Carroll Creek Road as it approaches the bridge in either direction. The bridge is located on Carroll Creek Road in Inyo County, approximately 8 miles south of Lone Pine, California.

This Mitigated Negative Declaration (MND) has been prepared pursuant to the California Environmental Quality Act (CEQA) based on the assessment presented in the Inyo County Carroll Creek Road Bridge Replacement Project Initial Study (IS)(attached).

PROJECT OVERVIEW

The County proposes to construct a new bridge over the Los Angeles Aqueduct approximately 270 feet south of the existing bridge. The new bridge would be a pre-cast, prestressed, voided concrete slab bridge with a composite cast-in-place concrete deck. The existing bridge, which also spans the Los Angeles Aqueduct, would be closed to the public.

The bridge replacement would require realigning Carroll Creek Road as it approaches the new bridge in either direction. Approximately 350 to 450 feet of roadway on either side would be realigned to meet the new bridge. The project is required to provide safe access for vehicles, including emergency vehicles, between United States Highway 395 (US 395) and recreation areas, residences, and other destinations west of the bridge.

ENVIRONMENTAL DETERMINATION

Summary

The County has prepared an IS (attached) to assess the potential effects of the proposed replacement of County Bridge 48C0011 and realignment of Carroll Creek Road on the environment in the project area. The analysis of potential environmental impacts from the proposed project is based on data gathered for this project and other projects within the project vicinity. Additional data were obtained from personal communications and the sources listed in Chapters 3 and 4 of the attached IS.

Based on the analysis presented in the attached IS and the findings listed below, the Lead Agency (Inyo County Public Works) has determined that the proposed project would not have a significant effect on the environment.

- The proposed project would have no impact or a less than significant in the areas of:
  - Aesthetics
  - Agriculture and Forestry Resources
  - Geology and Soils
  - Greenhouse Gas Emissions
  - Hydrology and Water Quality
  - Land Use and Planning
  - Mineral Resources
  - Noise
  - Population and Housing
  - Public Services
  - Recreation
  - Transportation and Traffic
  - Utilities and Service Systems
  - Energy Use
- Potentially significant impacts could occur on the resources listed below. The project would have a less than significant impact on each resource with the incorporation of mitigation measures defined in the IS and this MND.
  - Air Quality
  - Biological Resources
  - Cultural and Tribal Cultural Resources
  - Hazards and Hazardous Materials
  - Mandatory Findings of Significance
- With implementation of the mitigation measures listed below, the proposed project would not significantly degrade the quality of the environment.
- With implementation of the mitigation measures, both short-term and long-term environmental impacts associated with the proposed project would be less than significant.
- When potential impacts associated with implementing the proposed project are considered cumulatively, the incremental contribution of the project-related impacts is insignificant.
- Based on the IS, there is no evidence that implementing the proposed project would have significant impacts on people.

MITIGATED NEGATIVE DECLARATION

Cathreen Richards, Inyo County Planning Director

02/05/2019
Date

Inyo County Department of Public Works
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Mitigation Measures

Mitigation measures have been identified to reduce potentially significant impacts of the project. Implementation of identified mitigation measures would result in avoiding the impact or reducing it to a less than significant level. The mitigation measures are listed below.

Mitigation Measure AIR-1: Dust and Engine Emissions Control Measures

Construction activities shall comply with District Rule 401 regulations. In addition to reasonable precautions outlined in Rule 401, the following measures shall be incorporated during the installation of the bridge and realigned roadway approaches, and removal of existing road segments:

1. Water or dust palliatives shall be applied on dirt roads, material stockpiles, and other surfaces that could give rise to airborne dust and are subject to disturbance.
2. Water or dust palliatives shall be applied to prevent particulate matter from becoming airborne during the transportation or stockpiling of dusty materials.
3. Trucks hauling material shall be covered during transit.
4. Roadways shall be maintained in a clean condition.
5. Vehicles shall be limited to 15 miles per hour (mph) on unpaved roads, to the extent feasible.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]).
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer 's specifications. All equipment shall be checked by a certified visible emissions evaluator.

Mitigation Measure BIO-1: Mojave Desert Tortoise Measures

- A preconstruction survey shall be conducted by a qualified biologist within 14 days prior to construction. Burrows shall be inspected for desert tortoise or sign of recent use. All active burrows and recently active burrows shall be avoided during construction. If a desert tortoise is detected in a burrow on the project site, construction shall halt within 100 feet of the burrow and the CDFW and USFWS shall be contacted to discuss appropriate actions to avoid unpermitted take of the listed species.
- Should a desert tortoise enter the project site, construction shall halt until the individual has exited the project site.
- Vegetation removal should be minimized, and vehicle travel should be confined to designated routes. The existing Carroll Creek Road on BLM property and any temporary disturbance of staging or storage areas shall be reseeded after project construction.

Worker Environmental Awareness Training Measures

A Worker Environmental Awareness Training program shall be developed and implemented and shall include:

- Explanation of the avoidance and minimization measures for biological resources and the possible penalties for not adhering to them;
- General safety protocols such as hazardous substance spill prevention and containment measures, fire prevention and protection measures, and speed limits;
- Explanation of the sensitivity and locations of the biological resources within and adjacent to work areas, and proper identification of these resources;
- Natural history information on the sensitive biological resources including information on physical characteristics, photographs, distribution, behavior, ecology, sensitivity to human activities, legal protection, reporting requirements, and conservation measures required for the project;
- Contact information for the approved biologist(s);
- Direction to all workers to report all observations of special-status species and their sign to the approved biologist;
- A training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines; and

- Information regarding the effects of predation on the desert tortoise by common ravens and other predators, and the measures that have been developed to reduce the likelihood predators shall be attracted to the construction area.

Mitigation Measure BIO-2: Special-Status Bats

- If construction work is to occur between April and August, a preconstruction survey for Pallid and Townsend's big-eared bats shall be conducted by a qualified biologist within 14 days prior to construction for any roosting bats underneath the existing bridge.
- If roosting bats are observed:
  - An on-call biologist shall monitor the bats during initial ground-disturbing activities and increased bridge use (i.e., equipment mobilization and demobilization). If bats do not seem to be disturbed by the activities the monitoring frequency shall be scaled back. Construction workers shall reduce the frequency of crossings or halt activities if bats exhibit signs of distress. Activities may be allowed to resume at the biologist's discretion, or after bats have vacated the roost.
  - Work activities shall not occur within 50 feet of the bridge. Travel over the bridge would still be permissible as roosts were likely established with baseline noise level from existing vehicle access.
  - Lights are not to be used under or in the vicinity of the existing bridge during the roosting season, between April and August.
  - Combustion equipment, such as generators, pumps, and vehicles, are not to be parked or engines started under the existing bridge or within 50 feet.

Mitigation Measure BIO-3: American Badger and Desert Kit Fox Mitigation and Monitoring Plan

No fewer than 60 days prior to the start of any pre-construction site mobilization, Inyo County shall provide CDFW with a draft American Badger and Desert Kit Fox Mitigation and Monitoring Plan (plan) for approval. The final plan shall include, but is not limited to, the following procedures and impact avoidance measures:

Pre-Construction Measures

- A preconstruction survey for kit fox or American badger dens shall be conducted by a qualified biologist within 14 days prior to construction. The survey shall include the entire project site and a 20-foot buffer around disturbed

areas. If dens are detected each den shall be classified as inactive, potentially active, or definitely active.

- Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox.
- Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance.
- If no tracks are observed in the tracking medium or no photos of the target species are captured after three consecutive nights, the den shall be excavated and backfilled by hand.
- If tracks or the use of the den is observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage the badger or kit fox from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den.
- If an active natal den is detected on the site, the CDFW shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for harm or mortality. The course of action would depend on the age of the pups/cubs, the location of the den on the site (e.g., is the den in a central area or in a perimeter location), the status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A no-disturbance buffer shall be defined by the qualified biologist, which shall be maintained around active natal dens.

Construction Measures

- All vehicle and equipment shall observe a daytime speed limit of 15-mph. All vehicle and equipment shall observe a night-time speed limit of 10-mph.
- To prevent inadvertent entrapment of badgers, kit foxes, or other animals during construction phase of the proposed project, all excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of

earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, thorough inspections for trapped animals shall occur. If at any time a trapped or injured badger or kit fox is discovered, CDFW shall be contacted in writing within 24 hours.

- All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for badger or kit fox before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a badger or kit fox is discovered inside a pipe, that section of pipe shall not be moved until CDFW has been consulted.
- All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the construction or project site.
- No firearms shall be allowed on the project site.
- Use of rodenticides and herbicides on or adjacent to the project site shall be restricted. This is necessary to prevent primary or secondary poisoning of badgers or kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation. If rodent control must be conducted, zinc phosphide shall be used because of a proven low risk to badger and kit fox.
- A representative shall be appointed by the County who will be the contact source for any employee or contractor who might inadvertently kill or injure a badger or kit fox or who finds a dead, injured or entrapped badger or kit fox. The representative shall be identified during the employee education program and their name and telephone number shall be provided to CDFW.
- In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape.

Distemper Measures

- The following measures are required to reduce the likelihood of distemper transmission:

- No pets shall be allowed on the site prior to or during construction, with the possible exception of kit fox scat detection dogs during preconstruction surveys, and then only with prior CDFW approval;
- Any kit fox hazing activities that include the use of animal repellents such as coyote urine must be cleared through CDFW prior to use; and
- Any documented kit fox mortality shall be reported to CDFW and within 24 hours of identification. If a dead kit fox is observed, it shall be retained and protected from scavengers until CDFW determines if the collection of necropsy samples is justified.

Mitigation Measure BIO-4: Nesting Bird Measures

- If project activities are scheduled to occur between February 1 and September 30, the County shall prepare a Nesting Bird Plan (NBP). The County shall provide CDFW with the opportunity to review and comment on the plan, by providing it) no later than 30 days prior to the initiation of project activities. The NBP will include project-specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur and that the project complies with applicable laws related to nesting birds and birds of prey. The NBP shall at a minimum include:
  - Monitoring protocols
  - Survey timing and duration
  - The creation, maintenance, and submittal to CDFW of a bird-nesting log
  - Project-specific avoidance and minimization measures. Avoidance and minimization measures shall include, at a minimum: project phasing and timing, monitoring of project-related noise, sound walls and buffers.
- A pre-construction survey for active bird nests shall be conducted in all vegetated areas to be impacted and within 500 feet of the work areas.
- The nesting bird survey shall be conducted by a qualified biologist within three days prior to construction start.
- If no nesting or breeding behavior is observed, construction may proceed.
- If an active nest is detected, a determination shall be made by a qualified biologist as to whether construction work

shall affect the active nest. If it is determined that construction shall not affect an active nest, work may proceed.

- If it is determined that construction activities are likely to impair the successful rearing of the young, a 'no-disturbance buffer' in the form of orange mesh Environmentally Sensitive Area (ESA) fencing shall be established around occupied nests to prevent destruction of the nest and to prevent disruption of breeding or rearing behavior.
- The extent of the 'no-disturbance buffer' shall be determined by a qualified biologist in consultation with CDFW and shall depend on the level of noise or disturbance, line of sight between the nest and the disturbance area, the type of bird, ambient levels of noise and other disturbances, and other topographic or artificial barriers.
- 'No-disturbance buffers' shall be maintained until the end of the breeding season or until a qualified wildlife biologist has determined that the nestlings have fledged.
- If a nest is discovered by workers on the project site during daily inspections, work shall stop and the biologist shall be called to the site.

Mitigation Measure BIO-5: Burrowing Owl Measures

To minimize impact to burrowing owls, a pre-construction survey for burrowing owl shall be conducted by a qualified biologist within 14 days prior to construction.

If burrowing owls are observed on site, the following buffers shall be implemented to avoid impacts to occupied burrows:

- No disturbance shall occur within approximately 250 feet during the breeding season of February 1 through August 31.
- No disturbance shall occur within approximately 160 feet of occupied burrows during the nonbreeding season of September 1 through January 31.
- Any occupied burrows shall be monitored daily by a qualified biologist during breeding season and weekly in the non-breeding season. The biologist shall have the authority to establish minimum distances to active nests and to stop work if owls are showing signs of distress.
- Burrowing owls may be removed from the project impact area only after consulting with CDFW. If the burrowing owl

occurs on BLM land, then BLM shall also be consulted prior to removing owls from the project impact area. Methods of relocation would be determined during agency consultation and may include the use of one-way doors and/or excavation and collapsing of vacant burrows.

Mitigation Measure CUL-1: Cultural Resources Sensitivity Training and Inadvertent Discovery

A professional archaeologist shall provide sensitivity training to supervisory staff prior to initiation of site preparation and/or construction, to alert construction workers to the possibility of exposing significant historic and/or prehistoric archaeological resources within the proposed project area. The training shall include a discussion of the types of prehistoric or historic objects that could be exposed and how to recognize them, the need to stop excavation at a discovery and within 50 feet of a discovery, and the procedures to follow regarding discovery protection and notification. An "Alert Sheet" shall be posted in staging areas, such as in construction trailers, to alert personnel to the procedures and protocols to follow for the discovery of a potentially significant historic and/or prehistoric archaeological resources.[1]

In the event that an archaeological resource is discovered, ground disturbing work shall be halted within 50 feet of the find, and a qualified cultural resources specialist/archaeologist shall be brought to the site. The qualified cultural resources specialist/archaeologist shall evaluate the resource and determine whether it is (1) eligible for the CRHR (and thus a historic resource for purposes of CEQA); or (2) a unique archaeological resource as defined by CEQA. If the resource is determined to be neither a

[1] Significant prehistoric cultural resources may include:
a. Human bone, either isolated or intact burials.
b. Habitation, occupation or ceremonial structures as interpreted from rock rings/features, distinct ground depressions, differences in compaction (e.g., house floors).
c. Artifacts including chipped stone objects such as projectile points and bifaces; groundstone artifacts such as manos, metates, mortars, pestles, grinding stones, pitted hammerstones; and, shell and bone artifacts including ornaments and beads.
d. Various features and samples including hearths (fire-cracked rock; baked and vitrified clay), artifact caches, faunal and shellfish remains (which permit dietary reconstruction), distinctive changes in soil stratigraphy indicative of prehistoric activities.
e. Isolated prehistoric artifacts (Basin 2015).

unique archaeological nor a historical resource, work may commence in the area.

If the resource meets the criteria for either a historical or unique archaeological resource, or both, work shall remain halted within 50 feet of the find, and the qualified cultural resources specialist/archaeologist shall consult with County staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA Guidelines Section 15064.5(b). If the resource is determined to be prehistoric, the evaluation and determination of appropriate measures shall be coordinated with regional Native American tribes. Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts on cultural resources. If preservation-in-place and avoidance is not possible, data recovery shall be undertaken. The methods and results of data recovery work at an archaeological find shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System (CHRIS). Work in the area may commence upon completion of treatment, as approved by the County.

Mitigation Measure CUL-2: Paleontological Resources Sensitivity Training and Inadvertent Discovery

A professional paleontologist shall provide sensitivity training to supervisory staff (County staff, biological monitor, and construction foreman) to alert construction workers to the possibility of exposing significant paleontological resources within the proposed project area. The training shall be conducted to recognize fossil materials in the event that any are uncovered during construction.

In the event that a paleontological resource is uncovered during project implementation, all ground-disturbing work within a 50-foot radius shall be halted. A qualified paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts shall occur, no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, a qualified paleontologist shall evaluate the resource and determine whether it

is "unique" [2] under CEQA, Appendix G, part V. If the resource is determined not to be unique, work may commence in the area. If the resource is determined to be a unique paleontological resource, work shall remain halted, and the paleontologist shall consult with County staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA. Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts to paleontological resources. If preservation-in-place is not feasible and avoidance is not possible, the fossils shall be recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to Society of Vertebrate Paleontology (SVP) standard guidelines. Work may commence upon completion of treatment.

Mitigation Measure CUL-3: Human Remains

If human remains are encountered during construction, ground disturbing work shall halt within 50 feet of any area where human remains or suspected human remains are encountered in compliance with California law (Health and Safety Code section 7050.5; PRC sections 5097.94, 5097.98, and 5097.99). The County shall contact the Medical Examiner at the county coroner's office. The Medical Examiner has two (2) working days to examine the remains after being notified by the County. When the remains are determined to be Native American, the Medical Examiner has

[2] A unique paleontological resource is any fossil or assemblage of fossils, or paleontological resource site or formation that meets any one of the following criteria:

- Is the best example of its kind locally or regionally;
- Illustrates a paleontological or evolutionary principle (e.g. faunal succession; plant or animal relationships);
- Provides a critical piece of paleobiological data (illustrates a portion of geologic history or provides evolutionary, paleoclimatic, paleoecological, paleoenvironmental or biochronological data);
- Encompasses any part of a "type locality" of a fossil or formation;
- Contains a unique or particularly unusual assemblage of fossils;
- Occupies a unique position stratigraphically within a formation; or
- Occupies a unique position, proximally, distally or laterally within a formation's extent or distribution (County of San Diego 2009).

24 hours to notify the Native American Heritage Commission (NAHC).

The NAHC shall immediately notify the identified Most Likely Descendant (MLD), and the MLD has 48 hours from the time they are granted access to the site to make recommendations to the landowner or representative for the respectful treatment or disposition of the remains and grave goods. If the MLD does not make recommendations within 48 hours, the area of the property must be secured from further disturbance. If there are disputes between the landowner and the MLD, the NAHC shall mediate the dispute to attempt to find a resolution. If mediation fails to provide measures acceptable to the landowner, the landowner or his/her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Mitigation Measure HAZ-1: Fire Prevention Procedures

- Prior to ground disturbing activities, all workers on the project site shall be trained regarding the proper handling and/or storage of materials posing a fire hazard, potential ignition sources (such as cigarettes or sparking equipment), and appropriate types and use of fire protection equipment.
- Fire suppression equipment, including fire extinguishers, water, and shovels, shall be available on-site at all times.
- Vehicles shall not be parked in vegetated areas.
- Smoking shall be allowed only in designated areas. The designated areas must be unvegetated. Cigarette butts shall be properly contained and transported off-site for disposal.

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1 PROJECT DESCRIPTION

1.1 INTRODUCTION

1.1.1 Project Purpose and Objectives

The Inyo County Public Works Department (County) proposes the Carroll Creek Road Bridge Replacement Project (proposed project) which would involve the replacement of County Bridge 48C0011 with a new bridge and would decommission the existing bridge. The proposed project would also require the realignment of Carroll Creek Road as it approaches the new bridge in either direction.

The proposed project is needed because the existing bridge does not meet structural and safety standards. The following structural faults have been identified on the existing bridge:

- The bridge deck has significant cracking in both directions and has spalling (pieces of material cracking and falling off) throughout, which has exposed reinforcing steel.
- The concrete railings on the bridge have vertical cracking every 3 to 5 feet and are nonstandard.
- The barrier concrete is showing signs of alkali-silica reactivity.
- The bridge approach is lacking guardrails.
- The wooden weir gate along the bridge railing could present a potential hazard to motorists.

The purpose of the proposed project is to construct a bridge that is structurally sound, meets current structural and safety codes, and provides safe access for vehicles, including emergency vehicles, between U.S. Highway 395 (U.S. 395) and recreation areas, residences, and other destinations west of the bridge.

1.1.2 Project Funding and Jurisdiction

This bridge replacement project would be funded through the federal Highway Bridge Program (HBP). The HBP is funded by Federal Highway Administration (FHWA). The California Department of Transportation (Caltrans) is the Federal Liaison for administering project funds and providing project oversight. All aspects of the proposed project would meet State and Federal requirements. Caltrans would approve the National Environmental Policy Act (NEPA) document as the NEPA lead agency under current delegation authority from FHWA. The Bureau of Land Management (BLM) is a cooperating agency with jurisdiction over land managed by the BLM.

The County is the lead agency under the California Environmental Quality Act (CEQA), with the authority to authorize construction of the proposed project after federal approvals and

funding. The County would obtain a right-of-way from the BLM for the realignment of the bridge approach east of the Los Angeles Aqueduct and right-of-way from Los Angeles Department of Water and Power (LADWP) for the realignment of the bridge approach west of the Los Angeles Aqueduct. The County would also obtain an encroachment permit from the LADWP for the realignment of the bridge approach west of the Los Angeles Aqueduct and for the proposed new bridge that would cross the Los Angeles Aqueduct. These permits would allow a temporary easement for construction and a permanent right-of-way for the bridge and roadway realignment on BLM- and LADWP-managed lands.

1.1.3 Project Location

The bridge is located on Carroll Creek Road in Inyo County, approximately 8 miles south of Lone Pine, California, as shown in Figure 1.1-1. Carroll Creek Road is a narrow unpaved road on the eastern side of the Sierra Nevada Mountains. The bridge spans the Los Angeles Aqueduct, approximately 0.4 mile west of the intersection of Carroll Creek Road with U.S. 395, as shown in Figure 1.1-2. The bridge is located in NE ¼, NW ¼, NE ¼ Section 2, Township 17 south, Range 36 West, of the Mount Diablo Meridian, as shown in Figure 1.1-3. The project site is at an elevation of approximately 3,770 feet above mean sea level.

1.2 PROJECT DESCRIPTION

1.2.1 Overview

The proposed project would construct a new bridge along Carroll Creek Road over the Los Angeles Aqueduct, approximately 270 feet south of the existing bridge and realign the roadway approaches on either side of the bridge. The existing bridge would be left in place and closed to public traffic after the proposed bridge and realigned roadway approaches are constructed. The existing and proposed project components on the project site are shown in Figure 1.2-1. Table 1.2-1 lists the footprint and impact areas of the proposed project components.

This section provides a detailed description of the proposed project, including the design features of the bridge and roadway alignment, and the construction methods. Figure 1.2-2 shows photographs of the existing bridge and conditions in the vicinity of the project site.

Figure1.1-1 Project Vicinity

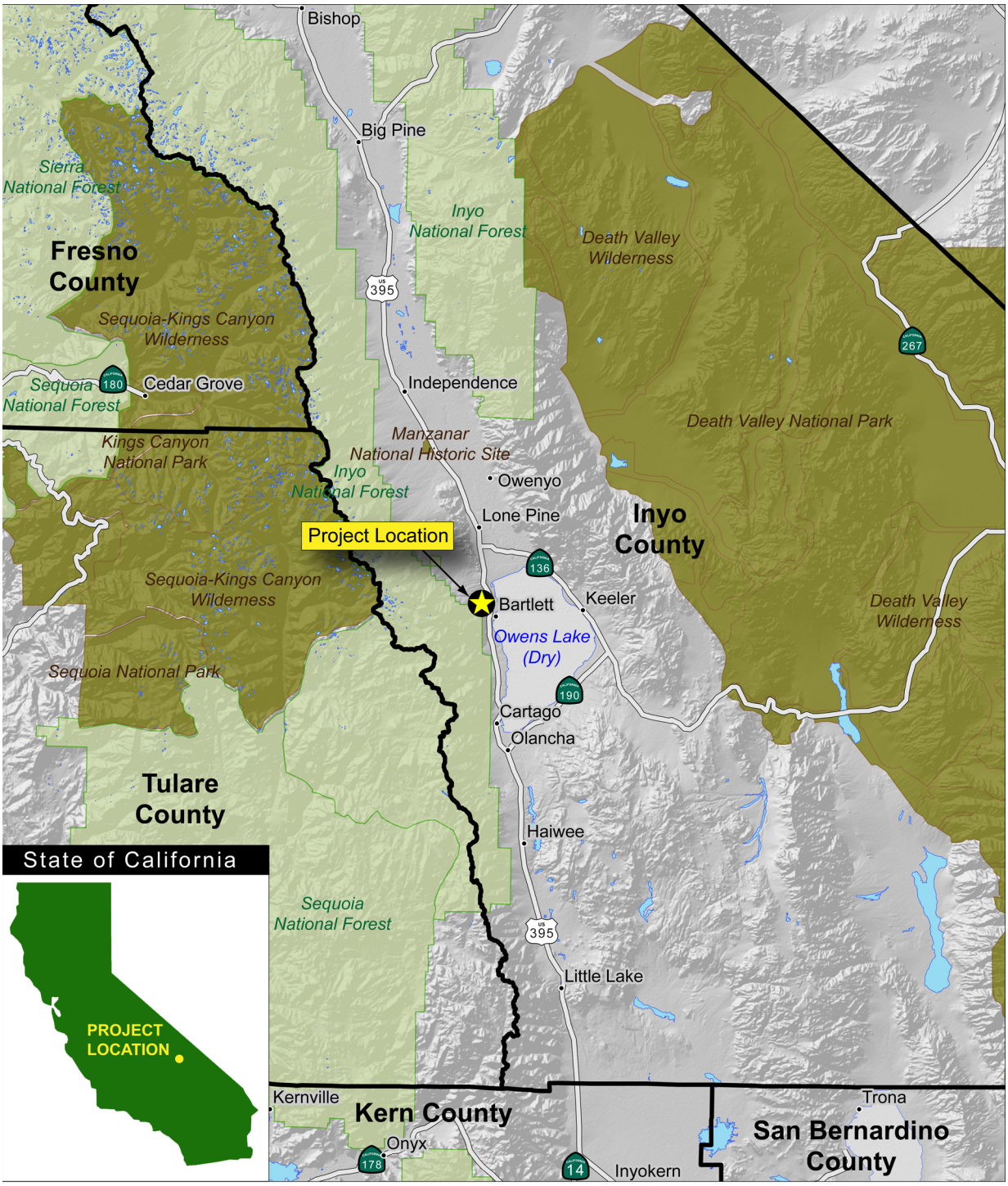


Figure 1.1-2 Project Location

Figure1.1-3 Topographic Map

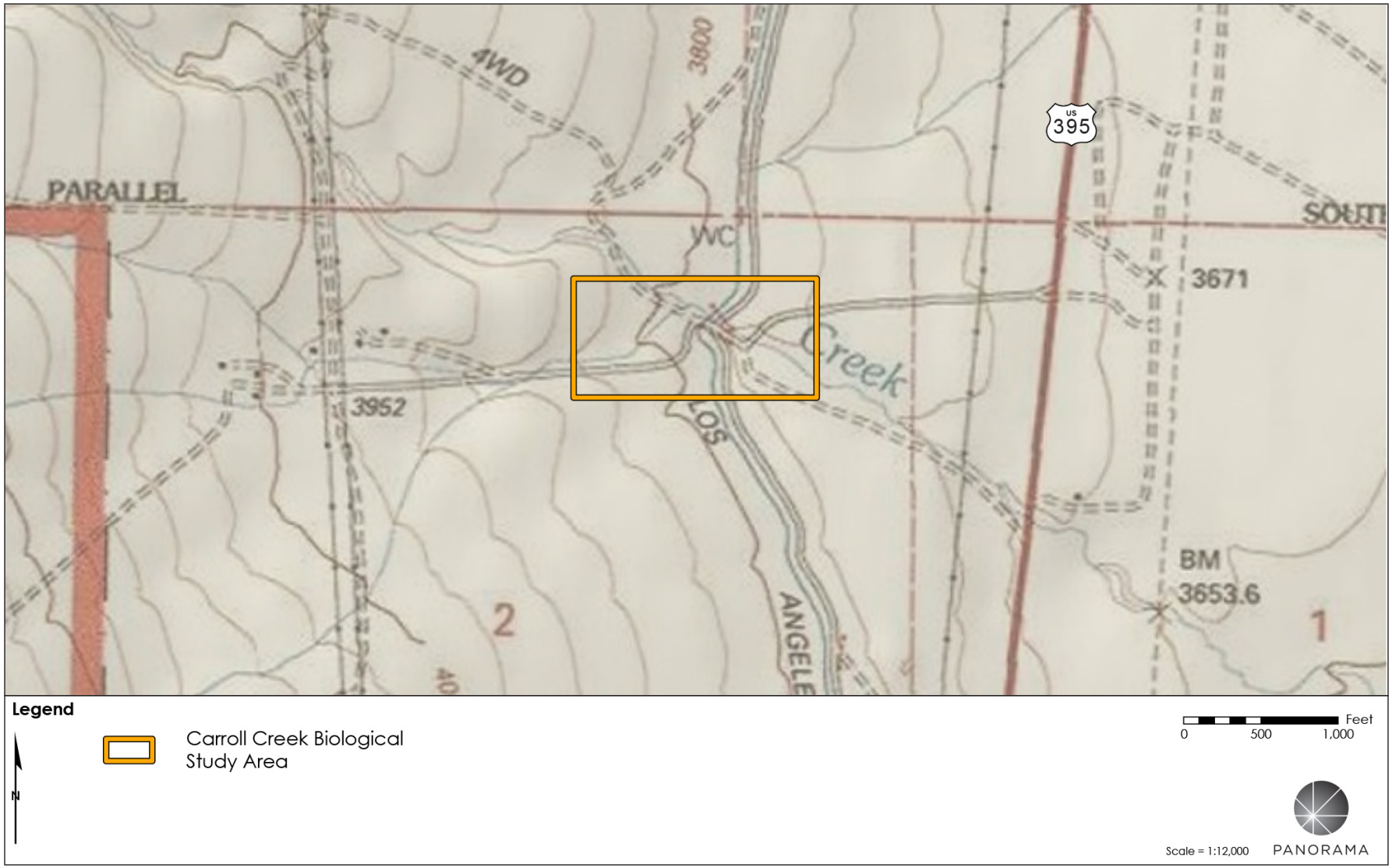


Figure 1.2-1 Project Site

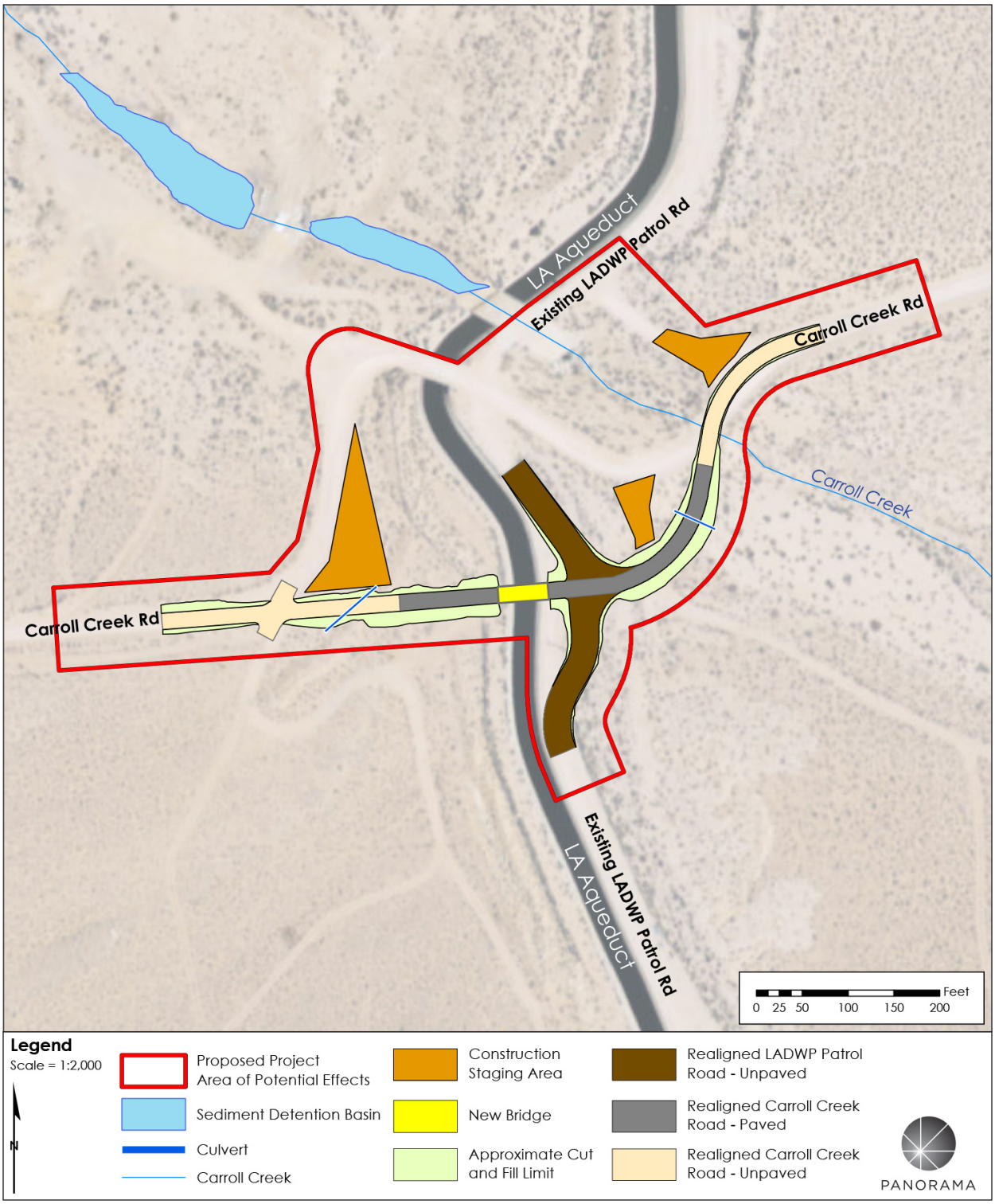


Figure 1.2-2 Photos of Existing Bridge


1. County Bridge #48C-0011


2. Carroll Creek Road looking east.


3. On bridge looking south.


4. Looking west at bridge over aqueduct.

Table 1.2-1 Project Footprint and Impact Areas

Project Components	Footprint (Acres)	Acres of Impact	
		Temporary	Permanent
Existing Bridge	0.04	0.00 [1]	0.00 [1]
Proposed Replacement Bridge	0.02	0.00	0.02 [2]
Realigned Approach Roads	0.64	0.29	0.35
Restoration of Existing Approach Roads	0.14 [3]	0.14	0.00
Construction Staging Areas	0.27	0.27	0.00
Total	1.11	0.7	0.37

Notes:

[1] The existing bridge would remain in place following construction. No impact would occur on the existing bridge.

[2] The proposed replacement bridge would completely span the Los Angeles Aqueduct. The new bridge would not impact the aqueduct.

[3] Up to 0.14 acres of existing roadway would be restored. Restoration of existing approach roads would depend on land uses and landowner approvals.

Source: (Inyo County Department of Public Works, 2017)

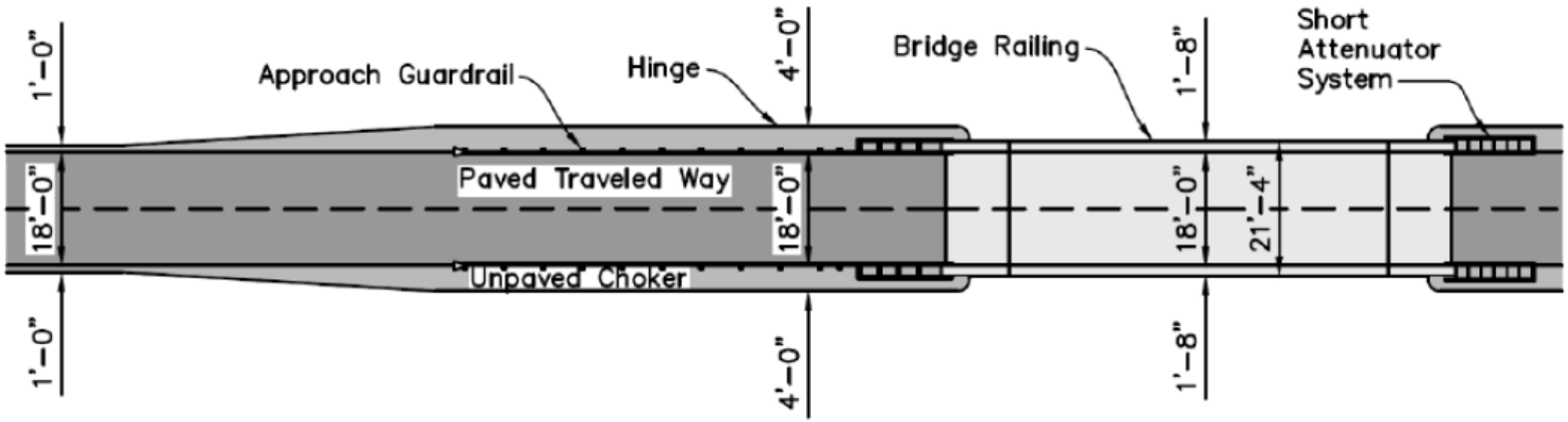
1.2.2 Project Design

1.2.2.1 Bridge Design

A pre-cast, pre-stressed, voided concrete slab bridge with a composite cast-in-place concrete deck would be installed. The conceptual bridge design is shown in Figure 1.2-3. The bridge foundation would be constructed on either side of the Los Angeles Aqueduct using spread footings and concrete abutments. Concrete wing walls would be installed on both sides of the concrete abutments on either side of the Los Angeles Aqueduct. The deck of the bridge would be approximately 60 feet long and made of concrete. Per seismic design requirements, a 10-foot-long concrete approach slab would be used at either side of the bridge. The bridge would be approximately 22 feet wide with steel post and rail bridge railings mounted on the bridge deck. Chain link fencing would be attached to the railing to restrict access to the Los Angeles Aqueduct over the sides of the bridge. The steel railing would either be painted or constructed of weathering steel to achieve a rustic look. The bridge would be striped for two lanes of traffic.

Drainage on the bridge deck would be diverted to overside drains to be installed in each bridge quadrant as needed. Drainages would discharge to permeable surfaces or existing drainage ditches that parallel the aqueduct. Drainage would not be allowed to flow directly off the bridge into the Los Angeles Aqueduct.

Figure 1.2-3 Proposed Replacement Bridge Design



1.2.2.2 Roadway Realignment

The proposed bridge would be located about 270 feet south of the existing bridge and the roadway would be realigned to meet the new location of the bridge with a straight approach. Approximately 350 to 450 feet of Carroll Creek Road would be realigned on either side of the proposed bridge and would transition into the existing road alignment (Figure 1.2-1). The proposed realigned approaches would be 20 feet wide, including two paved and striped 9-foot-wide lanes and two unpaved 1-foot-wide shoulders. This configuration would allow for safe vehicle travel at 20 miles per hour. The road approach would have a small grade up to the bridge on either side to accommodate LADWP vertical clearance requirements of the new bridge. The roadway would be partially surfaced with hot-mix asphalt.

Adjacent to the east side of the Los Angeles Aqueduct, LADWP maintains an unpaved patrol road that runs north to south and crosses Carroll Creek Road (Figure 1.2-1). LADWP requires that access to the patrol road be maintained during construction and after roadway realignment. The cross slope of the realigned roadway would be constructed to accommodate LADWP maintenance equipment. Concrete aprons would be placed at the intersection of the realigned Carroll Creek Road and the patrol road. The roadway realignment would require relocating the LADWP gate and fence that restrict access to the patrol road. LADWP would be responsible for relocating the gate and associated chain link fencing. There is no patrol road on the west side of the Los Angeles Aqueduct. Transition railing would be used on the west side to ensure that errant vehicles stay on Carroll Creek Road.

West of the Los Angeles Aqueduct, LADWP maintains two detention basins to trap sediment. An over chute structure is used to carry flows from west to east over the Los Angeles Aqueduct. Flows continue under the existing road through a culvert and eventually to Owens Lake. The new approach road east of the Los Angeles Aqueduct would utilize the existing culvert but the angle of the roadway would change slightly. Drainage from the proposed roadway would be via sheet flow or overside drains. Rock slope protection would be installed if overside drains are used. No modifications would be made to the existing creek bed or bank, over chute structure, or to the upstream detention basins.

1.2.2.3 Closure of Existing Bridge

The existing bridge would be left in place and closed to public traffic and ownership would be transferred to LADWP. LADWP will continue to use the existing bridge to access the sediment detention ponds west of the Los Angeles Aqueduct. The bridge would also serve as an additional over chute structure for overflow waters in Carroll Creek.

1.2.3 Construction

1.2.3.1 Construction Stages

The existing bridge and current roadway alignment would remain open during project construction because it is the only vehicle crossing of the Los Angeles Aqueduct in the general vicinity. Construction of the proposed bridge would occur in four stages. The first stage would include roughly grading the Carroll Creek Road realignment to use as an access road to the new bridge location during construction. The second stage would involve construction of the

proposed bridge south of the existing bridge. The third stage would include construction of the Carroll Creek Road realignment. The fourth stage of construction would include closing the existing roadway, routing traffic to use the proposed replacement bridge, and restoring portions of the existing roadway to natural conditions.

1.2.3.2 Installation of Proposed Bridge

Excavations for the installation of the abutments are expected to be 5 feet deep, 20 feet wide, and 40 feet long as measured from the top of the excavation. Precast slab units would be utilized and placed using one or two cranes. The crane(s) would be staged off the existing road alignment on one or both sides of the Los Angeles Aqueduct. The crane would need to use the existing bridge to access its staging location on the west side of the Los Angeles Aqueduct. The bridge pre-cast deck slabs are typically 3 to 4 feet wide and span the entire length of the bridge. The slabs are placed adjacent to each other and grouted keyways connect each slab to create a stable bridge.

The concrete deck would be constructed using cast-in-place concrete delivered to the site in ready mix trucks. Prior to pouring the deck concrete or grouted keyways, the joint between the slab units would be sealed to be water tight to ensure that no concrete seepage occurs and no concrete or other spillage occurs into the Los Angeles Aqueduct.

1.2.3.3 Roadway Realignment

Certified noxious weed-free fill material would be imported to create the grade for the roadway approaches to the bridge. Fill slopes would be constructed at an approximate 2:1 (horizontal: vertical) gradient and range in height from approximately 5 feet above existing grade directly behind the bridge approaches to up to 10 feet near the proposed culvert on the eastern approach. The northeastern fill slope may be armored with rip-rap composed of native stone near the proposed culvert location. Fill material would be commercially obtained. The alignment for the new roadway would be graded using bulldozers, excavator, and/or motor graders, or other appropriate equipment, at the option of the contractor.

1.2.3.4 Seeding of Existing Carroll Creek Road

The abandoned portions of the existing unpaved Carroll Creek Road east of the LA Aqueduct and outside of LADWP Right-of-way would be seeded using a native seed mix approved by BLM and the existing surface raked. Rocks of various sizes would be placed on the seeded and raked road to match the neighboring areas and deter motorists from using the newly seeded road. Boulders shall be placed around the seeded and raked road to restrict access to the existing road. Vertical mulch would be installed around the seeded area utilizing native vegetation debris recovered from the realigned roadway segments, such as creosote bush or white bursage, to provide microhabitats for seed deposition and germination.

1.2.3.5 Vegetation Removal

The vegetation found on the project site is mostly white bursage scrub (*Ambrosia dumosa-Atriplex polycarpa*) and allscale scrub (*Atriplex polycarpa*). Vegetation would be removed to accommodate the roadway realignment on the east and west sides of the aqueduct. No trees are located in the area and no trees would be removed.

1.2.3.6 Existing Utilities

A 4.8-kV LADWP distribution line runs east-west near the western approach of the proposed roadway realignment. The line is located approximately 30 feet south of the western roadway edge and 180 feet south of the eastern roadway edge. The distribution line would remain in place throughout construction and would not need to be relocated. DigAlert would be contacted at least two full working days before ground disturbance, as required by law.

1.2.3.7 Water Consumption

Water needs during construction are expected to total approximately 10,000 gallons per day over the 5-month construction period, depending upon the needs of each construction activity. Water would be obtained from an existing privately owned source and trucked to the site daily.

1.2.3.8 Staging Areas

Staging areas would be used to store project materials and equipment as shown in Figure 1.2-1. Staging areas would be surrounded by temporary fencing for safety purposes. Staging is proposed within flat areas that have been disturbed by the existing road network in the area. No additional ground disturbance is anticipated during the preparation of the staging areas. A large storage container in the staging area would store construction materials during non-work hours. Overnight storage of equipment may also occur within the fenced staging area. Staging areas were sited to allow the LADWP patrol road to be unimpeded.

1.2.3.9 Traffic Control

Access to the project site would be via Carroll Creek Road from U.S. 395. Carroll Creek Road is an unpaved two-lane road. Construction of the proposed project would not require road closure. Carroll Creek Road would remain open at all times during construction, although traffic delays of up to 30 minutes could occur at intermittent intervals during certain construction activities, such as placement of the precast concrete deck using cranes. Cones and traffic control, such as flaggers, would be used during roadway delays.

1.2.3.10 Personnel, Equipment, and Construction Schedule

The types of equipment that would be required for the proposed project include:

- Crane
- Flatbed trucks
- Front-end loader
- Personal trucks and vehicles
- Jackhammers
- Bulldozer
- Chainsaws and weed trimmers
- Excavators
- Concrete trucks
- Motorgrader
- Hot-mix asphalt paver
- Miscellaneous power/hand tools
- Dump trucks
- Gradall
- Hot-mix asphalt transfer trucks
- Water truck

A maximum crew size of 12 workers would be required for the proposed project. Crew members would most likely come from the region, including from California and/or Nevada.

Construction of the proposed bridge would take approximately 16 weeks and roadway realignment would take approximately 3 to 4 weeks, for a total of 20 weeks. Construction

would likely be performed in the summer of 2020. Work would occur during daylight hours, 5 days per week.

1.3 PERMITTING

The proposed project would require permits and approvals prior to construction. Permits and approvals currently anticipated are listed in Table 1.3-1.

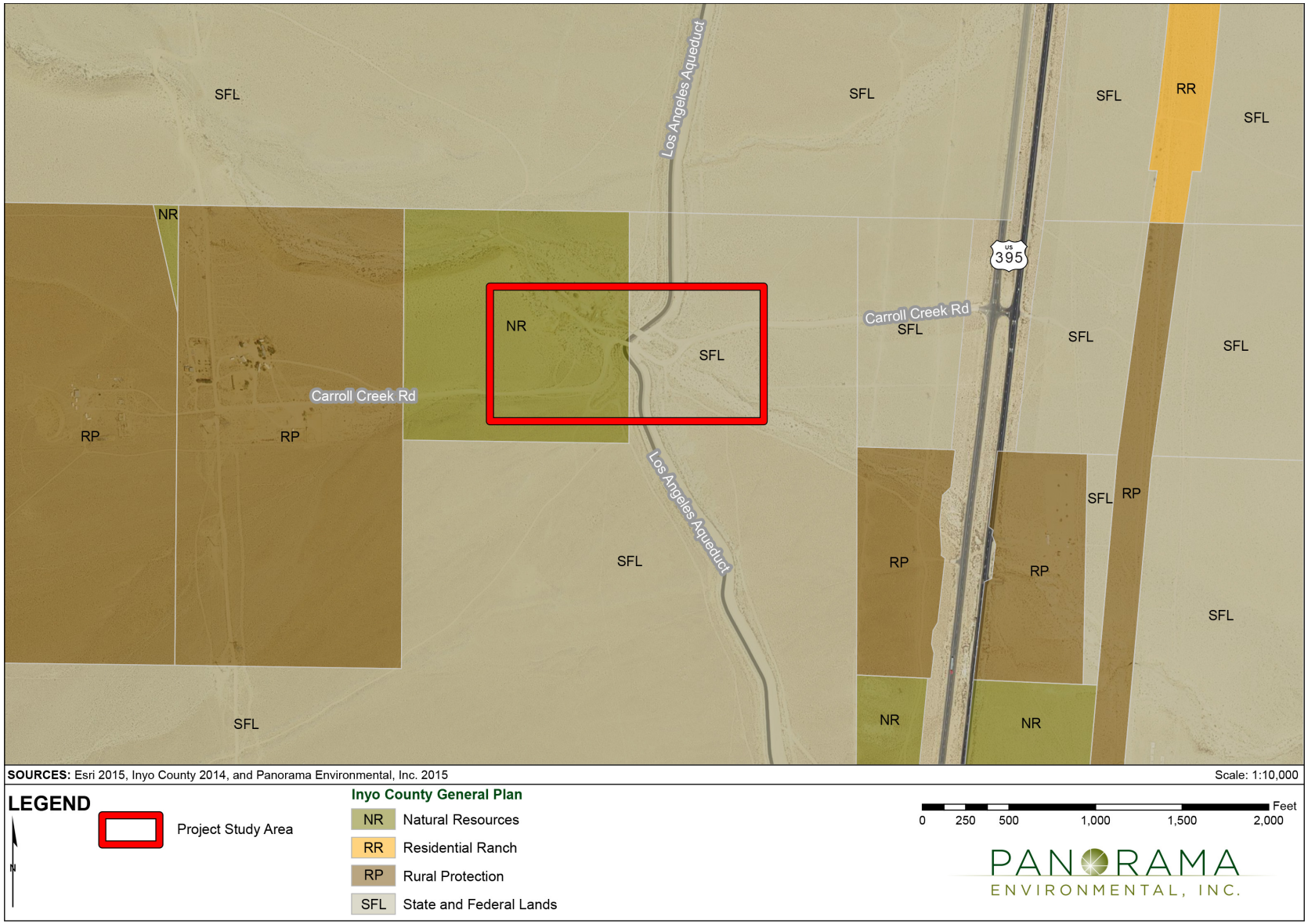
Table 1.3-1 Required Permits and Approvals

Permit or Approval	Agency	Function
Construction easement/encroachment permit	LADWP	Temporary use of land during construction and permanent use of land for proposed bridge and realigned western approach roadway.
Construction easement/right-of-way	BLM	Temporary use of land during construction and permanent use of land for proposed bridge and realigned eastern approach roadway.
National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit)	State Water Resources Control Board (SWRCB)	For surface disturbance greater than 1 acre.
Dust Control Permit	Inyo County Air Pollution Control District (ICAPCD)	For dust generated during construction of the proposed project.

1.4 GENERAL PLAN DESIGNATION

The project site is zoned as open space under the Inyo County General Plan and is managed by BLM and LADWP (Inyo County 2007). The land use designations for the proposed project are shown in Figure 1.4-1.

Figure 1.4-1 Land Use Designations in the Project Site



2 INITIAL STUDY CHECKLIST

2.1 INTRODUCTION

In compliance with the California Environmental Quality Act (CEQA) Guidelines, the County has prepared an Initial Study (IS) to analyze the environmental impacts of the proposed project. This IS uses Appendix G of the CEQA Guidelines to provide a basis for the analysis of the resource areas addressed. This IS also includes descriptions of the environmental setting to provide context to understand project impacts (or the absence of impacts). An evaluation of potential impacts and mitigation measures to reduce potentially significant impacts is presented in the analysis. The proposed project involves the construction of a new bridge spanning the Los Angeles Aqueduct and realign the roadway approaches along Carroll Creek Road.

The environmental factors checked below could potentially be affected by this project, but would be mitigated to a less than significant level as indicated on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural and Tribal Cultural Resources	☐ Energy Conservation
☐ Geology and Soils	☐ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation and Traffic	☐ Utilities and Service Systems
☒ Mandatory Findings of Significance		

2.2 AESTHETICS

2.2.1 Environmental Setting

2.2.1.1 Visual Character

The project site is located along Carroll Creek Road approximately 7.5 miles from the unincorporated community of Lone Pine. The overall visual character of the immediate area are dominant views of arid mountain ranges surrounding the flat scrubland high desert, and the Los Angeles Aqueduct. The visual character of the project site is characterized by three features:

- **Carroll Creek Road.** Carroll Creek Road is a generally narrow, unpaved roadway with open lines-of-sight. The road serves the residences west of the Los Angeles Aqueduct and connects to the U.S. 395 south of the town of Lone Pine. A pipe culvert conveys Carroll Creek flows under Carroll Creek Road. The road crosses the Los Angeles Aqueduct at Carroll Creek Road Bridge, a 35-foot long, 22-foot wide bridge. A chain-link fence is mounted on the bridge railing.
- **Los Angeles Aqueduct.** The Los Angeles Aqueduct runs from north to south through the project site and conveys water to Southern California. The Los Angeles Aqueduct is concrete-lined in the vicinity of the bridge and does not support riparian vegetation. It has a distinctly man-made appearance against the otherwise undeveloped landscape.
- **Carroll Creek.** Carroll Creek is an ephemeral creek that leads to two detention basins on the west side of the Los Angeles Aqueduct. A pipe culvert deposits flood waters between the detention basins and into the aqueduct north of the existing Carroll Creek Road Bridge. In high-flow events, water that is not contained in the detention basins is conveyed over the Los Angeles Aqueduct by way of an over chute structure.

2.2.1.2 Visual Quality

Visual quality is evaluated according to the vividness, intactness, and unity present in the viewshed. Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive patterns. Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. This factor can be present in well-kept rural landscapes, as well as in natural settings. Unity is the visual coherence and composition harmony of the landscape considered as a whole. It frequently attests to the careful design of individual components of the landscape. High quality views are highly vivid, relatively intact, and exhibit a high degree of visual unity (FHWA, 1983).

The project site is defined by the presence of periodic water in Carroll Creek on both sides of the Los Angeles Aqueduct, uniform desert vegetation, and anthropogenic features. The project site is moderately vivid and moderately intact due to the association between the natural features and anthropogenic features. Anthropogenic modifications, such as the Carroll Creek Road Bridge, Los Angeles Aqueduct, and chain link fencing, have been on the project site for many

decades and, due to the materials and weathering to natural colors, are somewhat unified with the desert landscape. The visual quality of the project site is moderate.

2.2.1.3 Viewshed

Primary features in the foreground (generally, views within 0.25 mile) include the existing Los Carroll Creek over chute, Carroll Creek Road, Carroll Creek Road Bridge, LADWP access roads, and the Los Angeles Aqueduct. The flat desert landscape dominated by rural residences and desert scrub characterize middleground views (generally, views from 0.25 mile to a few miles away). Owens Lake to the east, the Sierra Nevada Mountains to the west, the Coso Range to the southeast, and the Inyo Mountains to the east define the most scenic background views in the area (generally, views at distances greater than a few miles).

2.2.1.4 Viewer Exposure and Sensitivity

Viewer sensitivity is a measure of viewer exposure and viewer awareness. Factors that affect the level of viewer concern are described in Table 2.2-1.

Table 2.2-1 Viewer Sensitivity

Factor	Characteristics
Type of and frequency of use	Daily use from the few motorists and residents on Carroll Creek Road
Public interest	Low
Adjacent land uses	Livestock grazing Residential Water conveyance through Los Angeles Aqueduct

Source: (BLM, 1986a)

Carroll Creek Road serves predominantly residential traffic traveling from U.S. 395 as the road terminates approximately 0.6 mile west of the Los Angeles Aqueduct at a residence. Viewer sensitivity for residents driving along Carroll Creek Road between their homes and U.S. 395 is low due to the low number of viewers and limited area affected by the proposed project, as well as limited visibility of the area from U.S. 395.

The existing bridge is not visible from U.S. 395 but is slightly raised above the surrounding grade and becomes increasingly more visible as you approach the Los Angeles Aqueduct.

2.2.1.5 Scenic Routes and Vistas

U.S. 395 was designated the Eastern Sierra Scenic Byway from Topaz in Mono County, north of the project site, to Little Lake in Inyo County, south of the project site, through a Transportation Enhancement Activity Grant (Kern COG et al. , 2010). Transportation Enhancement Activity Grants lost funding in 2015. There are no other scenic highway designations or scenic vistas in the project vicinity.

2.2.1.6 Light and Glare

Light pollution is defined as any adverse effect of artificial light, including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste (FAU, 2016). No streetlights and few significant light sources are located in the immediate vicinity of the project site. Existing sources of light and glare are generally from residences and outbuildings, transmission lines, and from traffic on U.S. 395.

2.2.2 Environmental Impacts

2.2.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
B) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway or designated scenic roadway?	☐	☐	☒	☐
C) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
D) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

2.2.2.2 Discussion

A) Would the project have a substantial adverse effect on a scenic vista?

There are no designated scenic vistas within the project vicinity and the proposed project would not be visible from any designated scenic vista. No impacts would occur. Impacts to views from U.S. Highway 395 are discussed under Impact B).

B) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway or designated scenic roadway?

U.S. 395 was designated the Eastern Sierra Scenic Byway through an FHWA Transportation Enhancement Activity Grant. The project site cannot be easily seen from U.S. 395 because the project site is screened by the topography and the existing scrub bush. The project would not block views from motorists on U.S. 395. During construction, equipment may be temporarily visible to motorists traveling along U.S. 395 in the middleground and background. Fugitive dust plumes from construction equipment use may be visible to motorists along U.S. 395. Due to the distance between the project site and U.S. 395, the equipment and plumes would not substantially detract from the views of the expansive surrounding landscape. The proposed

project would not remove any trees, rock outcrops, or buildings. Vegetation removal would be necessary for construction of the realigned road; however, neither the removed vegetation nor the new road would not be visible from U.S. 395. The impact would be less than significant.

C) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Substantial degradation of visual character results from high levels of visual contrast, creating a reduction of intactness and unity, vivid project dominance, or view blockage. Visual contrast relates to space, scale, texture, form, line, and color (BLM, 1986b).

Construction

Construction is anticipated to take approximately 20 weeks. During construction, the following activities and equipment may be easily seen in the project vicinity:

- Work crews accessing the project site
- Removal of vegetation from the proposed roadway alignment
- Large pieces of equipment used for moving earth; trenching ditches; transporting, lifting, and placing equipment; hauling concrete; spraying water to control dust; and other construction activities
- Grading activities related to construction of the proposed road alignment
- Formwork associated with construction of bridge abutments
- Reclamation of the existing Carroll Creek Road and areas of temporary disturbance

Construction activities would be limited to daylight hours, 5 days per week. Due to the relatively flat topography in the project vicinity, fugitive dust from construction may be temporarily visible to motorists traveling on Carroll Creek Road and U.S. 395. Dust plumes may obscure views to the surrounding landscape over a short period of time; however, dust generation would be temporary and limited in extent. The impact would be less than significant.

Operation

Long-term visual change would result from the new precast, concrete Carroll Creek Road bridge and realigned roadway. The proposed road alignment would introduce new paved elements into the project area. Approximately 0.14 acres of the existing Carroll Creek Road would be reclaimed by recontouring the road topography and installation of vertical mulching to mimic the natural surroundings.

The contrast of the proposed bridge and approach with the existing landscape would be moderate when viewed from the immediate foreground. The viewer sensitivity is low and the visual quality in the area is moderate. The work also would not obstruct or otherwise alter the dramatic middleground and background views. The resulting impact to visual quality from the moderate contrast of the project features would be less than significant.

D) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Construction would occur during daylight hours. No night lighting would be used. No impacts to nighttime views from lighting would occur.

The steel railing or chain link fencing would be the only material used for the proposed project that would have the potential to result in glare. The railing would be painted or constructed of weathering steel, which dulls with time. The impact from glare would be less than significant.

2.3 AGRICULTURE AND FORESTRY RESOURCES

2.3.1 Environmental Setting

2.3.1.1 Agricultural Land

The U.S. Bureau of Land Management (BLM) administers land to the east of the Los Angeles Aqueduct, directly adjacent to the project site. The BLM-administered land is classified as BLM rangeland (BLM, 2016). No agricultural operations or designated Farmland are located in the vicinity of the project site (Conservation, 2015). Inyo County does not offer Williamson Act contracts for farm and ranch land (Conservation, 2017).

2.3.1.2 Forest Land

No forest land is located on the project site or in the project area. The vegetation in the area principally consists of low lying shrubs and other plants. The Inyo National Forest is located approximately 3,800 feet to the west of the project site at the nearest point.

2.3.2 Environmental Impacts

2.3.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 nonagricultural use?	☐	☐	☐	☒
B) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
C) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined in Government Code section 51104 (g))?	☐	☐	☐	☒
D) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
E) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

2.3.2.2 Discussion

A) Would the project convert Prime Farmland, Unique 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 nonagricultural use?

No Prime Farmland or Unique Farmland of Statewide Importance is mapped within the project site or in Inyo County (Conservation, 2015). No impact would occur.

B) Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

No parcels are zoned for agricultural use in or near the project site. Parcels near the project site are zoned as open space (Inyo County, 2007a). Agriculture is a designated permitted use on open space parcels, but these parcels have other permitted uses and are not limited to only agricultural use. Inyo County does not offer Williamson Act contracts for farm and ranch land (Conservation, 2017). The adjacent BLM-administered land has the potential to be used for grazing. During construction of the proposed bridge and roadway approaches, the existing bridge would remain open. The proposed project would not limit access to adjacent parcels at any time during construction or operation. The realigned road would permanently convert 0.35 acre to non-grazing land. The loss of 0.35 acre would be partially offset by the reclamation of 0.14 acre of the abandoned Carroll Creek Road segment on BLM land. The net loss of grazing land would be 0.21 acre and would be a negligible loss considering the remaining 1,397.4 acres of BLM-administered land within 1 mile of the project area that could be used for grazing. The impact on potential grazing operations, land designated for agricultural use, and land under Williamson Act contract would be less than significant. No mitigation is required.

C) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined in Government Code section 51104 (g))?

No zoning for forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined in Government Code section 51104 (g)) occurs on or adjacent to the project site. No impact would occur.

D) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No forest land is found on the project site. Proposed project construction and operation would not result in the loss or conversion of forest land. No impact would occur.

E) Would the project involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use?

Construction and operation of the proposed project would not convert agricultural land to non-agricultural use or forest land to non-forest use, as discussed in Impacts A) through D) above. No impact would occur.

2.4 AIR QUALITY

2.4.1 Environmental Setting

2.4.1.1 Air Basin

The project site is located in the Great Basin Valleys Air Basin (GBVAB). Air quality in the region is regulated by the U.S. Environmental Protection Agency (U.S. EPA), the California Air Resources Board (CARB), and the Great Basin Unified Air Pollution Control District (GBUAPCD). The GBUAPCD adopts and enforces regulations to control stationary source emissions in Inyo, Mono, and Alpine Counties.

2.4.1.2 Air Quality

Federal Standards

The U.S. EPA is responsible for setting National Ambient Air Quality Standards (NAAQS) under the Clean Air Act (CAA). National primary standards "provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly." National secondary standards "provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings" (U.S. EPA, 2016a).The U.S. EPA designations are defined in Table 2.4-1.

State Standards

CARB is the state agency responsible for regulating mobile-source (vehicle) emissions and overseeing the activities of local air pollution control districts. CARB established California Ambient Air Quality Standards (CAAQS) for all federally regulated pollutants in addition to

sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The state standards are generally more stringent than the federal standards. Areas have been designated as attainment, nonattainment, or unclassified with respect to state ambient air quality standards under the California Clean Air Act (CCAA). CARB designations are defined in Table 2.4-1.

Table 2.4-1 Air Quality Attainment Designation Definitions

Designations	U.S. EPA Definitions Relative to NAAQS	CARB Definitions Relative to CAAQS
Nonattainment	Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the primary or secondary NAAQS for the pollutant	Any area with one or more violations of the CAAQS one or more times in the last three years
Attainment	Any area that meets the primary or secondary NAAQS for the pollutant	Any area with no violations of the CAAQS in the last three years
Unclassified	Any area that cannot be classified on the basis of available information as meeting or not meeting the primary or secondary NAAQS for the pollutant	Any area with insufficient data for designation

Source: (U.S. EPA, 2016b)

Inyo County Attainment

Table 2.4-2 presents a summary of the air quality attainment designations by U.S. EPA and CARB for the GBVAB. Owens Valley is in nonattainment for federal PM_{10} standards. Inyo County is in nonattainment for state ozone and PM_{10} standards.

Table 2.4-2 Air Quality Attainment Designations for Inyo County

Pollutant	Federal Designation	State Designation
Ozone (O_3) 1-hour standard	–	Unclassified
Ozone (O_3) 8-hour standard	Unclassified/Attainment	Nonattainment
Carbon Monoxide (CO)	Unclassified/Attainment	Attainment
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Unclassified	Attainment
Lead (Pb)	Unclassified/Attainment	Attainment
Respirable Particulate Matter (PM_{10})	Nonattainment (Serious)[1]	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Unclassified/Attainment	Attainment
Sulfates	–	Attainment
Hydrogen Sulfide (H_2S)	–	Attainment
Visibility Reducing Particles	–	Unclassified
Notes: [1] Owens Valley		

Sources: (CARB, 2017; U.S. EPA, 2018)

Local Standards

The project site is located in the Owens Valley which is in federal nonattainment for PM_{10}. This area is referred to as the Owens Valley Planning Area (OVPA). A 2016 Owens Valley Planning Area PM_{10} State Implementation Plan (2016 SIP) was prepared by the GBUAPCD to address how to achieve attainment for PM_{10}. The 2016 SIP contains Best Available Control Measures (BACM) to control dust from Keeler Dunes and Owens Lake including shallow flooding, managed vegetation, and gravel blanket. As stated in the 2016 SIP, in addition to anthropogenic PM_{10} emissions, GBUAPCD Rules cover industrial sources, forest management burning, and other fugitive dust sources (GBUAPCD, 2016).

Construction-related dust is a significant concern particularly in the Owens Valley. GBUAPCD Rules 401 and 402 address particulate matter releases from equipment and fugitive dust. Rule 401 requires that a person take reasonable precaution to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the property from which the emissions originate. Rule 402 requires that discharge of air contaminants or other materials from any source should be limited so as to not cause injury, detriment, nuisance, or annoyance to any considerable number of persons (GBUAPCD, 1979).

2.4.1.3 Sensitive Receptors

The U.S. EPA defines sensitive receptors as locations where the occupants are susceptible to exposure from air pollutants, toxic chemicals, pesticides, and other pollutants. Such locations include hospitals, schools, daycare facilities, elderly housing and convalescent facilities (U.S. EPA, 2017). The GPUAPCD does not set a standard for the distance between the emissions source and sensitive receptors; however, CARB recommends a buffer of 500 feet from the emissions source, and within that buffer a more detailed analysis should occur (CARB, 2015).

The nearest sensitive receptors to the project site are rural residences over 1,000 feet west of the project site boundary. Nearby residences are located beyond 500 feet from the boundary of the project site.

2.4.2 Thresholds of Significance

GBUAPCD has not developed air quality significance thresholds for construction projects or for explicit use in CEQA analyses. Similar to the GBVAB, the South Coast Air Basin is in state nonattainment for ozone and PM_{10} as well as federal nonattainment for PM_{10}. The South Coast Air Basin includes all of Orange County and the non-desert regions of Los Angeles County, Riverside County, and San Bernardino County. The South Coast Air Quality Management District (SCAQMD) significance thresholds are prepared to achieve the state and federal standards. Although the sources of pollution and the geographic features influencing air quality are different, the thresholds for SCAQMD were used for this analysis. Use of these thresholds is appropriate due to the similarity in types of air pollutants in nonattainment between the two air basins and the scientific basis researched by SCAQMD for selection of several of the thresholds. Parts of the South Coast Air Basin face worse air quality than in the project area, therefore, the thresholds are likely conservative. Table 2.4-3 provides the SCAQMD thresholds of significance.

Table 2.4-3 SCAQMD Thresholds of Significance

Criteria Air Pollutant	Construction (pounds/day)
NOx	100
VOC	75
PM_{10}	150
$PM_{2.5}$	55
SOx	150
CO	550

Source: (SCAQMD, 2015)

2.4.3 Environmental Impacts

2.4.3.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
B) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
C) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
D) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
E) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

2.4.3.2 Discussion

A) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Construction

The project site is located within the OVPA which is covered by the 2016 SIP. As discussed in the 2016 SIP, the contribution to overall PM_{10} emissions in the OVPA from construction and demolition activities was insubstantial compared to the other substantial PM_{10} emissions sources such as dust from Keeler and Olancha Dunes (GBUAPCD, 2016). The construction

emissions generated by the proposed project would be temporary and would not contribute to the generation of substantial air emissions, as shown in Table 2.4-3. The proposed project would not conflict with the 2016 SIP. No impact would occur.

Operation

After construction, the proposed project would not generate any air quality emissions because the use of the replacement bridge and realigned road would be the same as the existing bridge and road. No impact would occur.

B) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Construction

Construction of the proposed project would require grading, erection of the bridge, installation of the box culvert, paving, and minor coating activities. Construction activities, particularly during grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Fugitive dust emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Emissions from proposed project construction were estimated using the latest California Emissions Estimator Model (CalEEMod 2016.3.2). Construction would last for 5 months in 2020. Estimated emissions from construction of the proposed bridge and roadway approaches are listed in Table 2.4-4.

Table 2.4-4 Unmitigated Proposed Project Construction Emissions

Pollutant	Construction Emissions (lbs/day)	Construction Thresholds (Based on SCAQMD significance thresholds) (lbs/day)	Exceeds Threshold?
NOx	65.7	100	No
VOC	9.7	75	No
PM_{10}	10.3	150	No
$PM_{2.5}$	6.2	55	No
SOx	0.1	150	No
CO	42.2	550	No

Source: (Appendix A, Panorama Environmental 2018)

Criteria air pollutant emissions would not exceed the significance thresholds defined for this project. The impact from criteria air pollutant emissions generated by the proposed project would be less than significant.

Operation
After construction, the proposed project would not generate any air quality emissions because the use of the replacement bridge and realigned road would be the same as the existing bridge and road. No impact would occur.

C) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

Construction
The project site is in a region designated as nonattainment for ozone and PM_{10} under state standards and nonattainment for PM_{10} under federal standards. Combustion-related emissions, some of which are precursors to ozone, would be well below the SCAQMD significance thresholds and would have minimal impact on ambient air quality at the project site or in the region. The project would generate construction-related diesel exhaust and dust that could impact air quality in the region. Fugitive dust would also be generated from use of vehicles and equipment as well as during earth-moving activities. Impacts to air quality from emissions generated during construction would be relatively short and limited to the 5-month construction period; however, the proposed project's contribution of fugitive dust and ozone precursors to the region, which is in nonattainment would be potentially significant. Mitigation Measure AIR-1 requires implementation of dust and engine emissions control measures, which would reduce the impact to less than significant.

Mitigation Measure AIR-1: Dust and Engine Emissions Control Measures

Construction activities shall comply with District Rule 401 regulations. In addition to reasonable precautions outlined in Rule 401, the following measures shall be incorporated during the installation of the bridge and realigned roadway approaches, and removal of existing road segments:

1. Water or dust palliatives shall be applied on dirt roads, material stockpiles, and other surfaces that could give rise to airborne dust and are subject to disturbance.
2. Water or dust palliatives shall be applied to prevent particulate matter from becoming airborne during the transportation or stockpiling of dusty materials.
3. Trucks hauling material shall be covered during transit.
4. Roadways shall be maintained in a clean condition.
5. Vehicles shall be limited to 15 miles per hour (mph) on unpaved roads, to the extent feasible.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California

airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]).

7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer 's specifications. All equipment shall be checked by a certified visible emissions evaluator.

Operation

After construction, the proposed project would not generate any air quality emissions because the use of the replacement bridge and realigned road would be the same as the existing bridge and road. Operation of the proposed project would not cause an increase in any criteria air pollutant for which the region is in nonattainment. No impact would occur.

D) Would the project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as young children, the elderly, and people with illnesses. The nearest potential sensitive receptors to the project site are approximately 1,900 feet away. Exhaust emissions would disperse rapidly from the project site and would not substantially impact the nearest sensitive receptors. The impact would be less than significant.

E) Would the project create objectionable odors affecting a substantial number of people?

No objectionable odors would be generated from project construction activities or from use of the proposed bridge. No impact would occur.

2.5 BIOLOGICAL RESOURCES

2.5.1 Environmental Setting

2.5.1.1 Data Collection

Literature Review

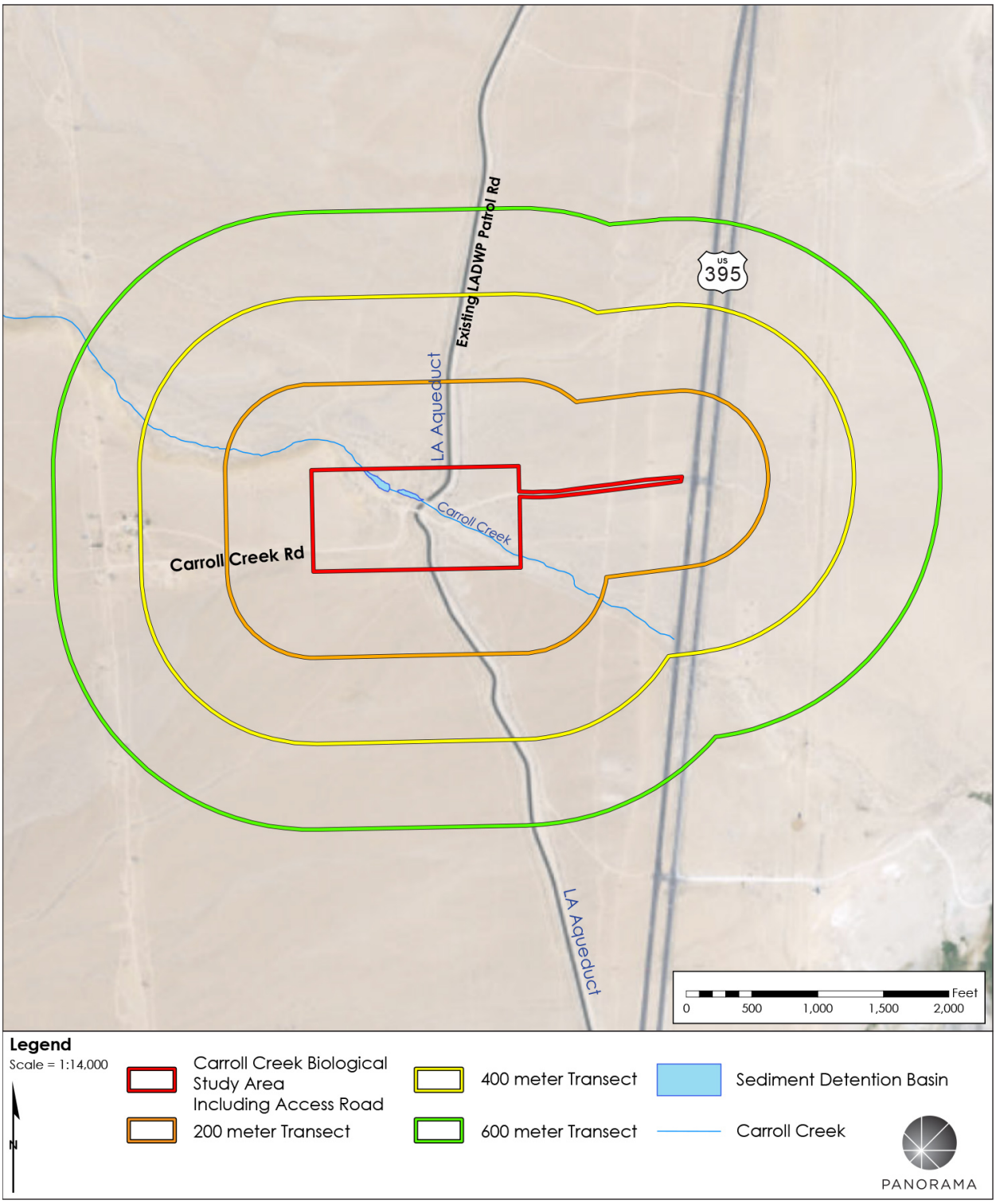
U.S. Fish and Wildlife Service (USFWS) and California Natural Diversity Database (CNDDB) records were reviewed in 2018 to identify rare and special-status species likely to occur in the project vicinity. Wildlife corridors or wildlife nurseries are not present on the project site or in the project vicinity.

Surveys

Survey Areas

Several biological surveys were conducted. A general reconnaissance survey, protocol-level botanical surveys (2015 and 2017), and a focused Mojave desert tortoise surveys (2015 and 2017) were conducted covering a 28-acre area covering the project site and an approximately 200-foot buffer. The survey area is shown in Figure 2.5-1.

Figure 2.5-1 Survey Area



Sources: (Esri, 2017; Quincy Engineering, Inc, 2017)

Survey Methods

The wetland and waters delineation, and botanical surveys were conducted on April 25, 2015, by botanist Catherine Schnurrenberger. Reference sites were surveyed for targeted special-status species on April 25 and 26, 2015. Botanical surveys were conducted on the project site on April 26 and 27, 2015. The botanical surveys followed guidelines published by CDFW (2009), USFWS (1996), and CNPS (2001). Below average precipitation throughout California and warm spring temperatures have advanced plant phenology such that many species flowered weeks earlier than their normal blooming time. The lack of precipitation has also affected the number and diversity of annual forbs. Botanical surveys may confirm the presence of a rare plant in the survey area but negative results do not guarantee that a rare plant species is absent due to drought conditions.

The botanical resources surveys were repeated by botanist James Paulus, Ph.D., on May 21 and June 7, 2017 under relatively favorable conditions for plant germination and growth. Botanical surveys were conducted during the appropriate time of year for the blooming period of most of the special-status and rare plant species with the possibility of occurring in the survey area. The surveys followed guidelines published by the BLM (2009) and CDFW (2009). The entire study area was walked using transect-style field surveys. All plant species encountered along wandering transects spaced at 10-meter intervals were identified to the level of taxa sufficient to determine sensitive species presence or absence.

The reconnaissance and focused Mojave desert tortoise surveys were conducted by Denise LaBerteaux and Bruce Garlinger on May 1, 2015. Russell Kokx conducted a second focused Mojave desert tortoise survey on May 31, 2017. Both of the focused Mojave desert tortoise surveys were conducted in accordance with the current in accordance with USFWS *Pre-project Field Survey Protocols for Potential Desert Tortoise Habitat* 2010 protocol (USFWS 2010 protocol) (USFWS , 2010). The entire survey area was walked using 10-meter-wide belt transects out to approximately 400 feet beyond the area of proposed ground disturbance (as shown in Figure 2.5-1). Surveys of three buffer (zone of influence) transects were completed at 200-meter, 400-meter, and 600-meter intervals from the perimeter of the project site and access route. The field investigators searched for live Mojave desert tortoises and their sign (i.e., burrows, pallets, carcasses, scats, tracks, eggshell fragments, courtship rings, and drinking sites) along each transect. Biologists examined all large mammal burrows (e.g., badger [*Taxidea taxus*] burrows) for tortoises. They also examined desert wood rat (*Neotoma lepida*) middens and the area beneath common raven (*Corvus corax*) nests for tortoise scat and bones (Caltrans, 2016a).

2.5.1.2 Natural Communities and Sensitive Biological Communities

Natural communities are recurring assemblages of plants and animals found in particular physical environments. Three characteristics distinguish natural communities: 1) plant species composition, 2) vegetation structure (e.g., forest, shrubland, or marsh), and 3) a specific combination of physical conditions (e.g., water, light, nutrient levels, and climate). Three natural communities, as well as disturbed habitat, were identified. The natural communities are described in Table 2.5-1 and are shown in Figure 2.5-2. Disturbed ground is present along the

dirt roads within any road shoulders and in excavated areas. These areas have some cover by rubber rabbitbrush and annual forbs.

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. None of the natural communities in the project area are considered sensitive biological communities.

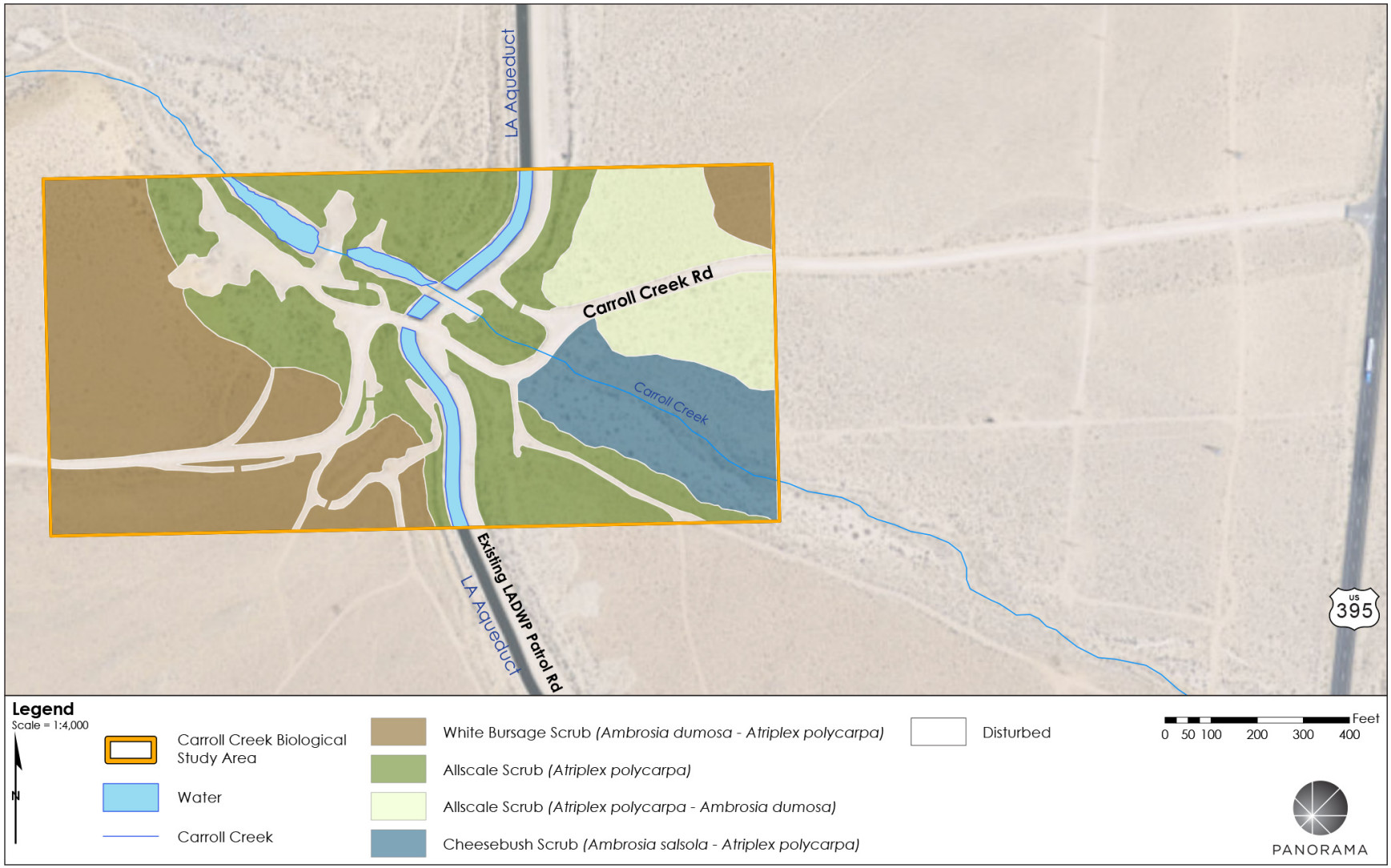
Table 2.5-1 Natural Communities within the Project Vicinity

Vegetation Community	Description
White Bursage Scrub	White bursage is typically found in older, inactive washes, river terraces, alluvial fans, bajadas, rocky hills and partially stabilized sand fields within the Mojave Desert and Great Basin provinces in California. Within the white bursage scrub alliance white bursage (*Ambrosia dumosa*) is the dominant shrub, other shrubs such as shadscale (*Atriplex confertifolia*), and creosote bush (*Larrea tridentata*) may also be present. Within the survey area, shadscale, allscale (*Atriplex polycarpa*), spiny hopsage (*Grayia spinosa*), Cooper's goldenbush (*Ericameria cooperi*), and rayless goldenhead (*Acamptopappus sphaerocephalus*) are common shrubs within the white bursage alliance. In sandy areas, Indigo bush (*Psorothamnus arborescens* var. *minutiflora*) and desert thorn species (*Lycium* sps.) are common.
Allscale Scrub	Allscale scrub occurs centrally within the survey area, and the majority of new, project-related devegetation will occur within this community. Much of this community currently borders already disturbed areas. Its fringes continue to experience frequent moderate disturbance from off-road vehicle use. The surface also features piled soils and excavations indicating widespread historical disturbance. It is probable that this community's extents within the survey area conform to the area that has been disturbed during aqueduct construction and during subsequent decades of maintenance and operations.
Cheesebush Scrub	Cheesebush scrub has the most limited distribution of the upland shrub types present within the survey area. It is associated with the relic channel of Carroll Creek downstream of where the flow is diverted into the aqueduct. The most recent active channel here closely parallels the abrupt boundary between cheesebush scrub and allscale scrub to the south. Rubber rabbitbrush (*Ericameria nauseosa*) joins the stand here patchily. The northern community edge is more diffuse as the vegetation (*A. salsola – A. polycarpa*) grades into diverse allscale scrub (*A. polycarpa – A. dumosa*) in a zone marked by increased box thorn (*Lycium andersonii*) frequency. Cheesebush scrub, like the other types identified as occurring within the survey area, is widespread in the desert portions of California extending into the xeric Great Basin at elevations less than 4,921 feet (1,500 m).
White Bursage-Shadscale Scrub	White bursage-shadscale scrub is found in the north section of the survey area. This community is dominated by white bursage and shadscale. Other shrubs include allscale, spiny hopsage, Cooper's goldenbush, and rayless goldenhead.
White Bursage-Allscale Scrub	White bursage-allscale scrub is a mixed alliance co-dominated by these two species. Other desert scrub species such as shadscale, spiny hopsage, Cooper's goldenbush, rayless goldenhead, and desert thorn bush may also occur in this mixed alliance. White bursage-allscale scrub is dominant in the eastern portion of the survey area.

Vegetation Community	Description
Rubber Rabbitbrush	The rubber rabbitbrush alliance occurs in the channel and on the channel slopes downstream of the Los Angeles Aqueduct. This alliance represents a very small portion of the survey area, though rubber rabbitbrush (*Ericameria nauseosa*) is a disturbance species and can also be found along the roadsides and other disturbed area. Burrobush or cheesebush (*Ambrosia salsola*) is also common within the wash. The perennial forb Nevada goldenrod (*Solidago spectabilis*) was also found in the washes. Other than these species and a few cottonwood trees, vegetation in the incised channel did not vary much from that of the surrounding uplands.

Source: (Caltrans, 2016a; Paulus J. , 2017)

Figure 2.5-2 Natural Communities in the Survey Area



Source: (Esri, 2017; Quincy Engineering, Inc, 2017; Paulus J. , 2017)

2.5.1.3 Special Status Species

Special Status Plants and Animals
Thirty nine rare and special-status plant species and 47 special-status wildlife species are known to occur in the project region, based on the results of the previously described literature reviews (Caltrans, 2016a). The habitat present in the vicinity of the project site was evaluated to determine the potential for each species to occur. The full list of species with potential to occur on site is included in Appendix B.

Twelve rare plant species were determined to have a moderate potential to occur and six special-status wildlife species were determined to have a moderate to high potential to occur in the biological survey area, which encompasses the project site and a surrounding buffer area, as shown in Table 2.5-2. Wildlife corridors or wildlife nurseries are not present on the project site or in the vicinity.

Mojave Desert Tortoise
The USFWS protocol-level Mojave desert tortoise survey resulted in no detections of this species in the surveyed area. The project site is located near the western edge of the Western Mojave Recovery Unit in an area where low to moderate desert tortoise densities are expected. Recent surveys in the area and historical records of desert tortoise indicate that tortoise are present in the region in low densities (Caltrans, 2016a).

Desert tortoise records in the project vicinity include desert tortoise observations at Cottonwood Creek and the U.S. 395 overpass, about 3.4 miles south of the project site, Los Angeles Aqueduct near Ash Creek, about 8 miles south of the project site, and U.S. 395 near North Haiwee Road, 18 miles south of the project site (Caltrans, 2016a).

Because no live desert tortoise or sign of desert tortoise were observed during the protocol survey, the site is north of known desert tortoise range, and the site is heavily disturbed from livestock grazing; therefore, desert tortoise are unlikely to be found on the project site (Caltrans, 2016a).

Burrowing Owl
Protocol surveys were not conducted for burrowing owls. No burrowing owl or burrows were observed in the biological study area (BSA) during the reconnaissance-level survey. Suitable habitat exists in the BSA, including sandy soils and ground squirrel burrows.

The closest CNDDB occurrence of burrowing owl was recorded in 1979 and identifies a nesting pair 29 miles south (Caltrans, 2016a). Because no sign of burrowing owl was observed during any survey of the BSA, burrowing owl are not expected to inhabit the project area.

Table 2.5-2 Species with the Potential to Occur in the Survey Area

Common Name	Scientific Name	Status	General Habitat Description	Potential to Occur
Plants				
Pine Creek evening primrose	*Eremothera boothii* ssp. *alyssoides*	CRPR-4.3	In California and Nevada on sandy and gravelly soils within Great Basin scrub at elevations between 1,969 – 5,577 feet. Nearest reported population to survey area is approximately 30 miles (48 km) to the north of the project in the Owen's Lake valley. This is reported to be "out of range or habitat" for this species however the recent work on re-classifying the subspecies of *E. boothii* has expanded the distribution of subspecies populations. This species flowers from April to August.	Moderate – suitable habitat exists within the survey area, however no subspecies of *Eremothera boothii* were observed during the botanical survey.
Depressed ipomopsis	*Loeseliastrum depressum*	CRPR-4.3	In California, Nevada and Utah on sandy or gravelly soils or clay soils of flats, gentle slopes in Great Basin scrub, Mojavean desert scrub, and Pinyon and juniper woodland at elevations between 3,281 – 6,890 feet. Closest reported occurrences to survey area are approximately 30 miles north near Independence, California. The most recent reported occurrence is by Jim Andre in gravelly sand. This species flowers from April to July.	Moderate – some suitable habitat within the survey area; however, the only *Loeseliastrum* species found within the survey area had spine tipped leaves, which this species does not have.
Desert winged rockcress	*Sibara deserti*	CRPR-4.3	In California and Nevada found in Mojaven desert scrub vegetation at elevations between 1,132 – 4,265 feet. Nearest reported occurrence is approximately 10 miles to east of project, reported in 2011 by Jim Andre, in gullies in desert pavement. This species flowers from March to April.	Low – potential habitat is present within the survey area; however, there are no known occurrences in the Owens Basin or near the study area.
Dark red onion	*Allium atrorubens var. cristatum*	CPRP-4.3	Found on sandy soils within desert scrub, pinyon-juniper woodland habitat at elevations between 3,937–3,890 feet (1,200–2,100 m). Closest reported location is at the north end of the Alabama hills, approximately 8 miles (13 km) north of the project area. Found within a rocky (metamorphic mix) alluvial slope, with *Artemisia nova, A. tridentata, Grayia spinosa, Atriplex confertifolia, Delphinium*	Moderate – most reported locations are from similar or higher elevations within soil habitats broadly resembling the BSA.

Common Name	Scientific Name	Status	General Habitat Description	Potential to Occur
			parishii.	
Shockley's milkvetch	*Astragalus serenoi var. shockleyi*	CRPR-2B.2	Found on open, dry, alkaline gravelly clay, generally within sagebrush, pinyon habitat at elevations between 3,773–7,546 feet (1,150–2,300 m) along the east side of Sierra Nevada mountains. Known to occur mainly in the Inyo Mountains to the north of the study area, within sagebrush scrub habitat. Some Inyo Mountains populations occur on soils that are saline-influenced, and thus bear resemblance to the soil habitats that support chenopod scrub within the study area.	Low – most reported locations are at higher elevations in habitats that do not resemble the study area.
Silver milkvetch	*Astragalus argophyllus bar. Argophyllus*	BLMS	Found in meadows and playas habitats at elevations between 4,068 – 7,709 feet (1,240 -2,350 m) in Inyo, Lassen, and Mono counties.	Low – most reported locations are at higher elevations in habitats that do not resemble the survey area.
Long Valley milkvetch	*Astragalus johannis-howellii*	BLMS	Usually found in swales in vicinity of former or present hot springs activity at elevations between 6,692 – 8,300 feet (2,040 -2,530 m). Closet observation is by Lake Crowley in southern Mono County.	Low – most reported locations are at higher elevations in habitats that do not resemble the survey area.
Tonopah milkvetch	*Astragalus pseudiodanthus*	BLMS	Known in California from fewer than ten occurrences. Usually found in dunes habitat. Closest observation is located on northeast of Mono Lake in Mono County.	Low – most reported locations are in habitats that do not resemble the survey area.
Bodie Hills rock cress	*Boechera bodiensis*	BLMS	Usually found in alpine boulder, rock field, Great Basin scrub, Pinyon and juniper woodland, and subalpine coniferous forest habitats at elevation between 6,840 – 11,581 feet (2,085 – 3,530m). Closest observation is located over 30 miles north of Owens Lake in Waucoba Mountain.	Low – most reported locations are at higher elevations in habitats that do not resemble the survey area.
White pygmy poppy	Canbya candida	CRPR-4.2 USFS Sensitive	Found in sagebrush scrub, pinyon-juniper woodland habitat. Widely distributed in the central Mojave Desert. The Owens Lake Basin is currently the northern edge of this species' known range.	Moderate – occurs nearby at similar elevation and soil habitat

Common Name	Scientific Name	Status	General Habitat Description	Potential to Occur
Bristlecone cryptantha	*Cryptantha roosiorum*	BLMS	Found in subalpine coniferous forest habitat at elevations between 8,005–10,597 feet (2,440–3,230 m). Closest observation is located at approximately 10 miles northeast of Lone Pine.	Low– most reported locations are at higher elevations in habitats that do not resemble the survey area.
Ripley's cymopterus	Cymopterus ripleyi var. saniculoides	CRPR-1b.2	Found on gravelly, sandy, carbonate substrates within Joshua tree woodland and Mojave desert scrub at elevations between 3,281–5,249 feet (1,000–1,600 m) in Inyo County. Nearest location about 40 miles (64 km) to south. Known populations occupy habitats near Owens Lake in aeolian sands with observable saline character.	Moderate – occurs at similar elevation and in soil habitats broadly resembling the BSA
Bodie Hills cusickiella	*Cusickiella quadriostata*	BLMS	Found on clay or rocky areas within Great Bains scrub and Pinyon and juniper woodland at elevations between 6,561–9,186 feet (2,000–2,800 m). Closest observation is located at approximately 5 miles north of Mono Lake.	Low– most reported locations are at higher elevations in habitats that do not resemble the survey area.
July gold	*Dedeckera eurekensis*	BLMS	Found on carbonate substrates within Mojave desert scrub in the mountains east and south of the Sierra Nevada. Closest observation is located at approximately 15 miles northeast of Owens Lake (at the east slope of Inyo Mountains, Keynot Canyon drainage).	Low – most reported locations are in limestone habitats that do not resemble the survey area.
Booth's evening primrose	*Eremothera boothii ssp. Boothii*	CRPR-2B.3	Found in sagebrush scrub, disturbed habitats and fire scars. Recently documented within 5 miles (8 km) of the BSA. Older records similarly indicate its occurrence on fans at the base of the Sierra Nevada near Lone Pine.	Moderate – occurs at similar elevation and in habitats broadly resembling the BSA;
Bald daisy	*Erigeron calvus*	BLMS	Found in Joshua tree woodland, sagebrush, and desert scrub at elevations around 3,937 feet (1,200 m). This species is closely related to *Erigeron divergens*; also confused with *Erigeron aphanactis*. Nearest location is at over 20 miles (32 km) north of the project area near Keeler in the foothills of Lone Pine Peak. This record is from 1891.	Low/Unlikely – most locations are from higher elevation and only known record in California is questionable and from more than 100 years ago.

Common Name	Scientific Name	Status	General Habitat Description	Potential to Occur
Alexander's buckwheat	*Eriogonum alexanderae*	BLMS	Found in shale or gravelly areas within Great Basin scrub and Pinyon and juniper woodland habitats. Closest observation is located near south end of Saddlebag Lake in Yosemite National Park.	Low/Unlikely – known in California from only between Potato Peak and Bodie Mountain, where not seen since 1967.
Wildrose Canyon buckwheat	*Eriogonum eremicola*	BLMS	Found on sandy and gravelly soils within Great Basin scrub at elevations between 7,217 – 10,170 feet (2,200–3,100 m). Closest observation is located between Bennett Peak and Telescope Peak in Death Valley National Monument.	Low/Unlikely – occurs at higher elevation, likely to require different precipitation and temperature regime.
Panamint Mountains buckwheat	*Eriogonum microthecum var. panamintense*	BLMS	Usually found within Great Basin scrub and Subalpine coniferous forest habitats at elevations between 6,200 – 10,662 feet (1,890–3,250 m). Closest observation is located in 1.5 miles north of New York Butte in Inyo Mountains.	Low/Unlikely – known form fewer than ten occurrences.
Jaeger's hesperidanthus	*Hesperidanthus jaegeri*	BLMS	Usually found in carbonate and rocky areas within Great Basin scrub and Subalpine coniferous forest habitats at elevations between 7,004 – 9,186 feet (2,135–2,800 m). Closest observation is located at Castle Rock, south of Cerro Gordo Ghost Town.	Low to Moderate – most reported locations are from higher elevations within soil habitats broadly resembling the survey area.
Sagebrush loeflingia	*Leoglingia squarrosa var. artemisiarum*	BLMS	Found in sandy soil within desert dunes, Great Basin scrub, and Sonoran Desert scrub habitats at elevations between 2,296–5,298 feet (700–1,615 m). Nearest observation is located at 3.25 miles north of Big Pine (east of Highway 395) in Owens Valley.	Moderate – occurs at similar elevation and in habitats broadly resembling the survey area.
Copper-flowered bird's-foot trefoil	Hosackia oblongifolia var. cuprea, Lotus oblongifolius var. cupreus	CRPR-1B.3	Collected mainly west of the Sierra Nevada crest, generally at substantially higher elevations and in coniferous meadow edges and forest habitats unlike those present at the study area. In contrast to the dry pine forest or montane meadow habitat where it is typically found, one collection in 1906 locates (perhaps in error) at "Owens Lake," where the basin vegetation is comprised mainly of dry chenopod or sagebrush scrub and saline meadows.	Low – does not occur at similar elevation or desert fan habitats present within the BSA

Common Name	Scientific Name	Status	General Habitat Description	Potential to Occur
Sagebrush loeflingia	*Leoglingia squarrosa var. artemisiarum*	BLMS	Found in sandy soil within desert dunes, Great Basin scrub, and Sonoran Desert scrub habitats at elevations between 2,296–5,298 feet (700–1,615 m). Nearest observation is located at 3.25 miles north of Big Pine (east of Highway 395) in Owens Valley.	Moderate – occurs at similar elevation and in habitats broadly resembling the survey area.
Mono Lake lupine	*Lupinus duranii*	BLMS	Found in volcanic pumice ang gravelly soils within Great Basin scrub, Subalpine coniferous forest, and Upper montane coniferous forest habitats at elevations between 6,561–9.842 feet (2,000–3,000 m). Nearest observation is located in Inyo National Forest over 10 miles northwest of Lake Crowley.	Low to Moderate – most reported locations are from higher elevations within soil habitats broadly resembling the survey area.
McGee Meadows lupine	*Lupinus magnificus var. hesperius*	BLMS	Found in sandy soils within Great Basin scrub and Upper montane coniferous forest. Nearest observation is located 4 miles west of Lone Pine.	Moderate – occurs at similar elevation and in soil habitats broadly resembling the survey area.
Panamint Mountains lupine	*Lupinus magnificus var. magnificus*	BLMS	und in Great Basin scrub, Mojavean desert scrub, Pinyon and juniper woodland, and Upper montane coniferous forest habitats. Nearest observation is located 7 miles west of Lone Pine.	Moderate – occurs at similar elevation and in soil habitats broadly resembling the survey area.
Inyo blazing star	*Mentzelia inyoensis*	BLMS	Found in rocky, sometimes carbonate soils, within Great Basin scrub and Pinyon and juniper woodland habitats. Nearest observation is located over 30 miles north of Owens Lake, south of Racetrack in Death Valley National Monument.	Moderate – occurs at similar elevation and in soil habitats broadly resembling the survey area.
Nevada oryctes	*Oryctes nevadensis*	CRPR-2B.1	Found in sandy soils and dunes in Chenopod scrub, sagebrush scrub, and Mojave desert scrub at elevations between 3,937–4,921 feet (1,200–1,500 m) in Inyo County. Known populations occupy habitats near Owens Lake in aeolian sands with observable saline character. Nearest locations are approximately 8 miles (13 km) northeast of the project area.	Moderate – occurs at similar elevation and in soil habitats broadly resembling the BSA; however, occurrence is dependent on deep sandy soils.
Mono County phacelia	*Phacelia monoensis*	BLMS	Found in clay soils within Great Basin Scrub and Pinyon and juniper woodland habitats at elevations between 6,233 –9,514 feet (1,900–2,900 m). Nearest	Low – potential habitat is present within the BSA; however, only known in California from fewer

Common Name	Scientific Name	Status	General Habitat Description	Potential to Occur
			observation is located in Bodie Creek (northeast of Mono Lake)	than twenty occurrences.
Williams's combleaf	*Polyctenium williamsiae*	BLMS	Found in sandy and volcanic soils within Great Basin scrub, Marshes and swamps, Pinyon and juniper woodland, Playas, and Vernal pools habitats. Nearest observation is located by Larkin Lake in Trench Canyon (northwest of Mono Lake).	Low – occurs at similar elevation; however, associated with wetter soils supporting *Polygonium avicularie* and the inner edge of drowned sagebrush abutting intermittent lakes and seeps.
Owens Valley checkerbloom	*Sidalcea covillei*	BLMS	Found in alkaline and mesic soils within Chenopod scrub and Meadows and seeps habitats at elevations between 3,592–4,642 feet (1,095–1,415 m). Closet observation is located approximately 5 miles north of the project site in the Alabama Hills of Owens Valley Lubkin Canyon.	Low – the closest observation is near project site at similar elevation, but no potential habitat is present within the survey area.
Masonic Mountain jewelflower	*Streptanthus oliganthus*	BLMS	Found in volcanic or granitic, and rocky soils within Pinyon and juniper woodland habitat at elevations between 6,496–10,006 feet (1,980–3,050 m). Nearest observation is located in White Mountains toward Westgard Pass.	Low – potential habitat is present within the survey area; however, only known in California from fewer than twenty occurrences.
Dedecker's clover	*Trifolium kingie ssp. Dedeckerae*	BLMS	Found in substantially higher montane elevations (greater than 6,890 feet [2,100 m]) in coniferous forest, pinyon-juniper and woodland habitat. Nearest known population is located at 5,988 feet (2,130 m) on the slopes directly above and to the west of the study area.	Low – Does not occur at similar elevation or in habitats that resemble the survey area.
Reptiles				
Mojave desert tortoise	*Gopherus agassizii*	FT ST	Most habitat for the Mojave population of the desert tortoise is below 4,500 feet amsl (1,372 meters) elevation in the creosote bush-bursage series of the Mojave desert scrub biome; dominant plants are creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). Desert tortoise habitat can include various cacti and yucca species. Other communities where tortoises may occur include saltbush (*Atriplex* spp.) scrub and	Not expected to occur - The habitat available in the survey area is not preferred. Nearest documented occurrence is 3.4 miles south of the survey area.

Common Name	Scientific Name	Status	General Habitat Description	Potential to Occur
			Joshua tree (*Yucca brevifolia*) woodlands at elevations up to approximately 5,000 feet amsl (1,524 meters) (USFWS 2009).	
Panamint alligator lizard	*Elgaria panamintina*	BLMS	Sagebrush, bitterbrush, and pinyon-juniper habitats in Modoc, Lassen, and Mono counties. Tall, dense, large-shrub stages of sagebrush, greasewood and rabbitbrush. May avoid heavily grazed areas. Inhabits chaparral and the Great Basin scrub.	Low likelihood to occur. Suitable habitat is present but the habitat is heavily grazed. The survey was conducted under ideal climate conditions for the species but was not observed. A high diversity of common lizards were observed during the desert tortoise surveys.
Northern sagebrush lizard	*Sceloporus graciosus graciosus*	BLMS	Ground dweller, usually found near bushes, brush heaps, logs, or rocks. Needs good light, open ground, and scattered low bushes.	Low likelihood to occur. Suitable habitat is present but species typically found in higher elevations. The survey was conducted under ideal climate conditions for the species but was not observed.
Mammals				
Townsend's big-eared bat	*Corynorhinus townsendii*	BLMS, SSC, SCT	Many habitats including desert scrub, pinyon-juniper and pine forests. Uses caves, abandoned mines, buildings, and tunnels as roosts.	Moderate - Potential roosting habitat occurs under the existing bridge; likely foraging in the survey area.
Pallid bat	*Antrozous pallidus*	BLMS, SSC	Wide variety of habitats including grasslands, sagebrush and juniper woodlands, preferably near water. Use narrow crevices in caves, mines, buildings and, less often, rock or debris piles and hollow trees for roosts. They use abandoned buildings, rock overhangs, and bridges for night roosts.	Moderate - Potential roosting habitat occurs under the existing bridge; likely forages in the survey area.
Spotted bat	*Euderma maculatum*	BLMS, SSC	Forests, fields, deserts, marshes, riparian areas and dry shrub-steppe grasslands. Roost in crevices in cliffs and canyon walls, often near water.	Low/Unlikely to roost in the survey area but may forage near survey area.

Common Name	Scientific Name	Status	General Habitat Description	Potential to Occur
Yuma myotis	*Myotis yumanensis*	BLMS	Uses a wide variety of habitats, particularly coniferous forest and riparian habitats closely associated with water. Establish large colonies in buildings, mines, caves and bridges.	Moderate - Potential roosting habitat occurs under the existing bridge; likely forages in the survey area.
American badger	*Taxidea taxus*	SSC	In a wide variety of habitats; most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	High - Potential habitat occurs throughout the survey area.
Desert kit fox	*Vulpes macrotis arsipus*	Fur-bearing mammal	Primary habitat includes sparsely vegetated scrub habitats and native or annual grasslands with abundant rodent populations. In California, the desert kit fox distribution is closely associated with the presence of creosote scrub bush (CBD 2013).	Moderate - the survey area is located at the northern most extent of the known range for the desert kit fox. No sign of desert kit fox was found during surveys.
Small-footed myotis	*Myotis ciliolabrum*	BLMS	Wide range of habitats mostly arid wooded and brushy uplands near water. Seeks cover in caves, buildings, mines, and crevices. Prefers open stands in forests and woodlands. Requires drinking water.	Suitable foraging habitat is present. Limited potential for roosting habitat in the general project area. Bridge infrastructure has a low potential for roosting.
Long-eared myotis	*Myotis evotis*	BLMS	Wide range of habitats, mostly found in brush, woodland, and forest habitats, from sea level to at least 9,000 ft (2,700 m), coniferous woodlands and forest seem to be preferred. It avoids the arid Central Valley and hot deserts.	Suitable foraging habitat is present. Limited potential for roosting habitat in the general project area. Bridge infrastructure has a low potential for roosting.
Fringed myotis	*Myotis thysanodes*	BLMS	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts.	Suitable foraging habitat is present. Limited potential for roosting habitat in the general project area. Bridge infrastructure has a low potential for roosting.
Birds				
Burrowing Owl	*Athene cunicularia*	BLMS, SSC	Level to gently sloping, open grasslands, semi-desert grasslands, and low shrublands with short vegetation; nests in abandoned underground burrows.	Low likelihood to occur. Suitable habitat (i.e., sandy soils with California ground squirrel burrows) in the BSA but areas is heavily disturbed.

Common Name	Scientific Name	Status	General Habitat Description	Potential to Occur

Federal/State Listed:

FE Federally listed as endangered
FT Federally listed as threatened
SE State-listed as endangered
ST State-listed as threatened
SR State rare

Other:

BCC = USFWS Bird of Conservation Concern
FSS = USFS Sensitive
BLMS = BLM Sensitive
CFP = CDFW Fully Protected Species
SCT=State Candidate Threatened
SSC = CDFW Species of Special Concern
WL = CDFW Watch List

California Rare Plant Ranks:

1B Plants Rare, Threatened, or Endangered in California and Elsewhere

2B Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere

3 Plants About Which We Need More Information – A Review List

4 Plants of Limited Distribution – A Watch List

Source: (Caltrans, 2016a; LaBerteaux, 2016; BLM, 2014; BLM, 2015; Paulus J. , 2017)

2.5.1.4 Wetlands and Waters

During the 2015 jurisdictional wetland delineation, approximately 0.57 acre of potentially jurisdictional waters of the U.S. (WOUS) were mapped within the survey area. The mapped WOUS include the active or low flow channel of Carroll Creek both upstream and downstream of the project site. The waters of the State (WOS) boundaries of Carroll Creek are the same as the WOUS boundaries. Wetlands were not observed in the survey area (Caltrans, 2016a).

2.5.2 Environmental Impacts

2.5.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
B) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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 native wildlife nursery sites?	☐	☐	☒	☐
E) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	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?	☐	☐	☐	☒

2.5.2.2 Discussion

A) Would the project 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 the U.S. Fish and Wildlife Service?

Special-Status Plants

No special-status or rare plants were observed during focused botanical surveys conducted during the appropriate blooming season. Due to the drought conditions when the surveys were conducted, rare plant species could occur even though they were not detected during surveys. Construction activities have the potential to damage or destroy rare plants during grading and use of equipment and vehicles. The potential impact from construction to individual rare plants would not affect the continued survival or status of any rare plant species throughout California. No special-status plant species are expected to occur on the project site. The impact to rare or special-status plants would be less than significant.

Special-Status Animals

Several special-status land-dwelling species have the potential to occur on the project site due to the presence of suitable habitat, as detailed in Table 2.5-2. None of these species, including the desert tortoise, were observed in the survey area.

Reptiles

No desert tortoise individuals or sign were detected on or adjacent to the project site. Desert tortoise has a low potential to occur on the project site. The habitat on the project site is suitable for desert tortoise but the quality is low due to recent trampling by cattle and soil crusts were nonexistent. This species is unlikely to occupy the project site or vicinity because the closest recorded sighting of desert tortoise was 3.4 miles south of the project site and due to the degree of disturbance from livestock grazing. Although desert tortoise is not likely to occur on the project site, due to the protected status of the species as a state and federally endangered species, any impact to desert tortoise would be significant. Mitigation Measure BIO-1 requires pre-construction surveys, worker training, and avoidance of any desert tortoise that may enter the project site through cessation of work in the vicinity of a desert tortoise. The construction impact to desert tortoise would be less than significant with mitigation.

Mitigation Measure BIO-1: Mojave Desert Tortoise Measures

- A preconstruction survey shall be conducted by a qualified biologist within 14 days prior to construction. Burrows shall be inspected for desert tortoise or sign of recent use. All active burrows and recently active burrows shall be avoided during construction. If a desert tortoise is detected in a burrow on the project site, construction shall halt within 100 feet of the burrow and the CDFW and USFWS shall be contacted to discuss appropriate actions to avoid unpermitted take of the listed species.
- Should a desert tortoise enter the project site, construction shall halt until the individual has exited the project site.
- Vegetation removal should be minimized, and vehicle travel should be confined to designated routes. The existing Carroll Creek Road on BLM property and any temporary disturbance of staging or storage areas shall be reseeded after project construction.

Worker Environmental Awareness Training Measures

A Worker Environmental Awareness Training program shall be developed and implemented and shall include:

- Explanation of the avoidance and minimization measures for biological resources and the possible penalties for not adhering to them;
- General safety protocols such as hazardous substance spill prevention and containment measures, fire prevention and protection measures, and speed limits;
- Explanation of the sensitivity and locations of the biological resources within and adjacent to work areas, and proper identification of these resources;
- Natural history information on the sensitive biological resources including information on physical characteristics, photographs, distribution, behavior, ecology, sensitivity to human activities, legal protection, reporting requirements, and conservation measures required for the project;
- Contact information for the approved biologist(s);
- Direction to all workers to report all observations of special-status species and their sign to the approved biologist;
- A training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines; and
- Information regarding the effects of predation on the desert tortoise by common ravens and other predators, and the measures that have been developed to reduce the likelihood predators shall be attracted to the construction area.

Mammals

Bats. Pallid bat, Townsend's big-eared bat, spotted bat, and Yuma myotis, have the potential to forage on and adjacent to the project site. The project would not result in the loss of a significant amount of foraging habitat such that any of these bat species could be impacted. Bats forage at

night, and so they would not be at risk of injury or death from construction equipment or activities, which operates during the day. Impacts bat foraging would be less than significant.

Townsend's big-eared bat, Pallid bat, and Yuma myotis also have the potential to roost under the existing bridge. Roosting sites are an important limiting resource for bats. Yuma myotis are very tolerant of human disturbances and can be found in urbanized environments (Heady, 2005). As such, Yuma myotis are unlikely to be disturbed by traffic and equipment noises associated with construction of the proposed project. Human disturbance at roost sites is considered to be a factor for the decline of bat populations including Pallid bat (ICF, 2012). Townsend's big-eared bat are highly sensitive to light and movement so if they are disturbed during the day, the bats awaken and their ears begin to move to identify the intruder. If the disturbance occurs for more than a few seconds, the entire group takes flight and the roost may be abandoned, which can lead to increased mortality of the colony (NPS, 2016). Traffic noise, loud ultrasonic noises, and sudden extremely loud noises can result in roost abandonment. Roost abandonment can reduce survivability of individuals from increased predation, and reduced quality of thermal and social environments (Caltrans, 2016b).Pallid bat and Townsend's big-eared bat populations are in decline (ICF, 2012; NPS, 2016). As such, the loss of even a few individuals in a colony would be considered a potentially significant impact.

The existing bridge would remain in place. Construction vehicles would cross the existing bridge and travel along the LADWP patrol road, approximately 15 feet east of the Los Angeles Aqueduct. Noise from use of vehicles and equipment have the potential to disturb bats that could be using the existing bridge for roosting, resulting in abandonment of the roost and potential mortality of individuals. Construction impacts to roosting Pallid bat and Townsend's big-eared bat from traffic and equipment noise would be potentially significant due to the potential for roost abandonment. Mitigation Measure BIO-2 requires surveys for roosting bats if construction work were to occur during the roosting season, between April and August, and avoidance of any observed roosts. The impact to special-status bats would be less than significant with mitigation.

Mitigation Measure BIO-2: Special-Status Bats

- If construction work is to occur between April and August, a preconstruction survey for Pallid and Townsend's big-eared bats shall be conducted by a qualified biologist within 14 days prior to construction for any roosting bats underneath the existing bridge.
- If roosting bats are observed:
    - An on-call biologist shall monitor the bats during initial ground-disturbing activities and increased bridge use (i.e., equipment mobilization and demobilization). If bats do not seem to be disturbed by the activities the monitoring frequency shall be scaled back. Construction workers shall reduce the frequency of crossings or halt activities if bats exhibit signs of distress. Activities may be allowed to resume at the biologist's discretion, or after bats have vacated the roost.

- Work activities shall not occur within 50 feet of the bridge. Travel over the bridge would still be permissible as roosts were likely established with baseline noise level from existing vehicle access.
- Lights are not to be used under or in the vicinity of the existing bridge during the roosting season, between April and August.
- Combustion equipment, such as generators, pumps, and vehicles, are not to be parked or engines started under the existing bridge or within 50 feet.

American Badger. American badgers have a high potential to occur on the project site. Signs of American badger were detected during project surveys. Proposed project grading and earth disturbing activities could result in impacts to dens of American badger if an individual were to occur on the project site during construction. A natal den could potentially be present on the project site if the proposed project were constructed during the breeding season. The potential impact to an active or natal den of American badger would be a significant impact to badgers. Mitigation Measure BIO-3 requires preparation of an American Badger and Desert Kit Fox Mitigation and Monitoring Plan which would include conducting pre-construction surveys, monitoring of any observed dens to determine activities, and implementing a variety of construction measures to prevent entrapment and injury. The impact to American badgers from project construction would be less than significant with mitigation.

Mitigation Measure BIO-3: American Badger and Desert Kit Fox Mitigation and Monitoring Plan

No fewer than 60 days prior to the start of any pre-construction site mobilization, Inyo County shall provide CDFW with a draft American Badger and Desert Kit Fox Mitigation and Monitoring Plan (plan) for approval. The final plan shall include, but is not limited to, the following procedures and impact avoidance measures:

Pre-Construction Measures

- A preconstruction survey for kit fox or American badger dens shall be conducted by a qualified biologist within 14 days prior to construction. The survey shall include the entire project site and a 20-foot buffer around disturbed areas. If dens are detected each den shall be classified as inactive, potentially active, or definitely active.
- Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox.
- Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance.
- If no tracks are observed in the tracking medium or no photos of the target species are captured after three consecutive nights, the den shall be excavated and backfilled by hand.

- If tracks or the use of the den is observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage the badger or kit fox from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den.
- If an active natal den is detected on the site, the CDFW shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for harm or mortality. The course of action would depend on the age of the pups/cubs, the location of the den on the site (e.g., is the den in a central area or in a perimeter location), the status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A no-disturbance buffer shall be defined by the qualified biologist, which shall be maintained around active natal dens.

Construction Measures

- All vehicle and equipment shall observe a daytime speed limit of 15-mph. All vehicle and equipment shall observe a night-time speed limit of 10-mph.
- To prevent inadvertent entrapment of badgers, kit foxes, or other animals during construction phase of the proposed project, all excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, thorough inspections for trapped animals shall occur. If at any time a trapped or injured badger or kit fox is discovered, CDFW shall be contracted in writing within 24 hours.
- All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for badger or kit fox before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a badger or kit fox is discovered inside a pipe, that section of pipe shall not be moved until CDFW has been consulted.
- All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the construction or project site.
- No firearms shall be allowed on the project site.
- Use of rodenticides and herbicides on or adjacent to the project site shall be restricted. This is necessary to prevent primary or secondary poisoning of badgers or kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation. If rodent control must be

conducted, zinc phosphide shall be used because of a proven low risk to badger and kit fox.

- A representative shall be appointed by the County who will be the contact source for any employee or contractor who might inadvertently kill or injure a badger or kit fox or who finds a dead, injured or entrapped badger or kit fox. The representative shall be identified during the employee education program and their name and telephone number shall be provided to CDFW.
- In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape.

Distemper Measures

- The following measures are required to reduce the likelihood of distemper transmission:
    - No pets shall be allowed on the site prior to or during construction, with the possible exception of kit fox scat detection dogs during preconstruction surveys, and then only with prior CDFW approval;
    - Any kit fox hazing activities that include the use of animal repellents such as coyote urine must be cleared through CDFW prior to use; and
    - Any documented kit fox mortality shall be reported to CDFW and within 24 hours of identification. If a dead kit fox is observed, it shall be retained and protected from scavengers until CDFW determines if the collection of necropsy samples is justified.

Desert Kit Fox. Desert kit fox has a moderate potential to occur on the project site. The preferred habitat of the desert kit fox, creosote scrub bush, is not present on the project site; however, the project site is within the known range of the desert kit fox. Construction of the proposed project has the potential to eliminate or degrade foraging habitat, disturb or destroy active burrows, disrupt movement corridors, temporarily displace, injure, or kill desert kit fox. Impacts from construction of the proposed project would be potentially significant. Mitigation Measure BIO-3 requires preparation of an American Badger and Desert Kit Fox Mitigation and Monitoring Plan which would include conducting pre-construction surveys, monitoring any observed dens to determine activities, and implementing a variety of construction measures to prevent entrapment and injury. The impact to desert kit fox from construction of the proposed would be less than significant with mitigation.

Birds

Migratory birds protected under the Migratory Bird Treaty Act have a potential to nest on or adjacent to the project site. Construction activities have the potential to impact nesting birds through habitat loss or degradation of habitat during vegetation removal. There is the potential for disturbance or disruption of nesting activities and nest failure as a result of construction vehicle noise. Injury or death of individuals of these species could occur from construction equipment or vehicle use. The impact to nesting birds would be potentially significant.

Mitigation Measure BIO-4 requires nesting bird surveys prior to construction and continued surveys if nests or nesting birds are observed. The impact to nesting birds would be less than significant with mitigation.

Mitigation Measure BIO-4: Nesting Bird Measures

- If project activities are scheduled to occur between February 1 and September 30, the County shall prepare a Nesting Bird Plan (NBP). The County shall provide CDFW with the opportunity to review and comment on the plan, by providing it) no later than 30 days prior to the initiation of project activities. The NBP will include project-specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur and that the project complies with applicable laws related to nesting birds and birds of prey. The NBP shall at a minimum include:
    - Monitoring protocols
    - Survey timing and duration
    - The creation, maintenance, and submittal to CDFW of a bird-nesting log
    - Project-specific avoidance and minimization measures. Avoidance and minimization measures shall include, at a minimum: project phasing and timing, monitoring of project-related noise, sound walls and buffers.
- A pre-construction survey for active bird nests shall be conducted in all vegetated areas to be impacted and within 500 feet of the work areas.
- The nesting bird survey shall be conducted by a qualified biologist within three days prior to construction start.
- If no nesting or breeding behavior is observed, construction may proceed.
- If an active nest is detected, a determination shall be made by a qualified biologist as to whether construction work shall affect the active nest. If it is determined that construction shall not affect an active nest, work may proceed.
- If it is determined that construction activities are likely to impair the successful rearing of the young, a 'no-disturbance buffer' in the form of orange mesh Environmentally Sensitive Area (ESA) fencing shall be established around occupied nests to prevent destruction of the nest and to prevent disruption of breeding or rearing behavior.
- The extent of the 'no-disturbance buffer' shall be determined by a qualified biologist in consultation with CDFW and shall depend on the level of noise or disturbance, line of sight between the nest and the disturbance area, the type of bird, ambient levels of noise and other disturbances, and other topographic or artificial barriers.
- 'No-disturbance buffers' shall be maintained until the end of the breeding season or until a qualified wildlife biologist has determined that the nestlings have fledged.
- If a nest is discovered by workers on the project site during daily inspections, work shall stop and the biologist shall be called to the site.

Burrowing Owl. Burrowing owl were not observed during the reconnaissance-level survey; therefore, the species is not expected to inhabit the project site. Habitat for the burrowing owl is available on site and there is potential to impact the species if burrowing owl move into the project site prior to construction. Construction activities, including earth-moving, bridge construction, and vehicle/equipment transport have the potential to result in direct mortality or disrupt nesting activities during the nesting season.

Mitigation Measure BIO-5: Burrowing Owl Measures

To minimize impact to burrowing owls, a pre-construction survey for burrowing owl shall be conducted by a qualified biologist within 14 days prior to construction.

If burrowing owls are observed on site, the following buffers shall be implemented to avoid impacts to occupied burrows:

- No disturbance shall occur within approximately 250 feet during the breeding season of February 1 through August 31.
- No disturbance shall occur within approximately 160 feet of occupied burrows during the nonbreeding season of September 1 through January 31.
- Any occupied burrows shall be monitored daily by a qualified biologist during breeding season and weekly in the non-breeding season. The biologist shall have the authority to establish minimum distances to active nests and to stop work if owls are showing signs of distress.
- Burrowing owls may be removed from the project impact area only after consulting with CDFW. If the burrowing owl occurs on BLM land, then BLM shall also be consulted prior to removing owls from the project impact area. Methods of relocation would be determined during agency consultation and may include the use of one-way doors and/or excavation and collapsing of vacant burrows.

B) Would the project 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 Game or the U.S. Fish and Wildlife Service?

The natural communities observed on the project site during the surveys are not identified as sensitive by any agency (Caltrans, 2016a).The Los Angeles Aqueduct transects the project site. The Los Angeles Aqueduct is a concrete-lined, manmade aquatic feature with no associated riparian habitat. Carroll Creek crosses the Los Angeles Aqueduct via a concrete over chute and passes beneath the existing Carroll Creek Road through an existing culvert. Riparian habitat was not observed on the project site during surveys. The existing road would be reclaimed and reseeded with native seed to minimize the impact on native habitats. The proposed project would have no impact on riparian habitat or 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?

Wetlands were not observed on the project site during surveys (Caltrans, 2016a). Carroll Creek, which traverses from the northwest to the southeast through the project site, was identified and delineated as WOUS and WOS. There are no additional jurisdictional waters within the survey area. No wetlands were identified within the survey area. The Los Angeles Aqueduct and Carroll Creek are the only aquatic features in the vicinity. The proposed project would span the Los Angeles Aqueduct and would not include work within Carroll Creek. The proposed project would have no impact on wetlands.

D) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The existing bridge would be left in place to serve as an over chute structure for overflow water and LADWP would continue to use the bridge to access the sediment detention basins west of the aqueduct. The replacement bridge would be installed to the southeast of the existing bridge. Realigned roadway approaches would be constructed to meet the new bridge and total of 366.2 feet leading up to the bridge would be paved in either direction. The new road segments would not be fenced or otherwise blocked and wildlife could easily move across the proposed roadway approaches. The proposed project would not interfere with wildlife movement because the proposed project would not increase traffic along the road. The impact on wildlife movement would be less than significant.

No established migratory wildlife corridors are found on the project site, nor are native wildlife nursery sites found on the project site or in the vicinity. The proposed project would have no impact on a migratory wildlife corridor or a native wildlife nursery site.

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

No local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, apply to the project site. The proposed project would have 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?

A portion of the project site is located within the boundary of the LADWP Habitat Conservation Plan (HCP) (USFWS, 2015). The LADWP HCP covers three special-status fish species and four special-status bird species. None of the species covered by the LADWP HCP have suitable habitat located on the project site and are not expected to occur on the project site (Caltrans, 2016a). The proposed project would not impact any of the species. The proposed project would have no impact.

2.6 CULTURAL AND TRIBAL CULTURAL RESOURCES

2.6.1 Environmental Setting

Prehistory

Previous archaeological research indicates that prehistoric people inhabited eastern California from 11,000 years before present (BP) (late Pleistocene) until approximately 150 years BP, when the Europeans made contact (Holocene). Significant changes and improvements in projectile technology, pottery, diet, and settlement strategies occurred over this time period.

Early occupation sites, from the early Holocene, have been identified based on the presence of fluted-base projectile points. Many of these early discoveries were made in the southern deserts including Owens Lake.

The Middle Holocene was an extremely arid time period. Projectile points bearing weak shoulders and indented or splitstem bases, including gracile split-stem points exemplify the Middle Holocene period. Other projectiles identified during this time include the Pinto points and flaked stone assemblages.

The living conditions for populations during the Late Holocene improved and led to population growth and technological innovations. During the Late Holocene the diet of populations diversified to include more low-return or labor-intensive foodstuffs as a result of new technology or by the adjustment of plant collection and processing techniques. Trade increased during the Late Holocene, allowing groups to access resources that may have been otherwise unavailable due to geography or cultural barriers (ASM, 2017).

Ethnography

The Owens Valley Paiute inhabited the Owens Valley and surrounding uplands. Most ethnographic accounts place the northern boundary of Owens Valley Paiute territory just north of Bishop, at the edge of the Volcanic Tableland, with the southern boundary somewhere south of Owens Lake. The activities of the native populations were related to the flora and fauna, topography, climate, and distribution of water sources (ASM, 2017).

Regional History

Americans traveling west did not initially settle in the eastern Sierra, but many had to pass through the area on their way to central and southern California. As a result, the Inyo-Mono region was frequently visited by passing settlers. By 1845, Owens Valley became an occasionally used emigrant trail, providing a route into California that avoided crossing the high Sierras (ASM, 2017).

Mining and cattle ranching drove settlers to Owens Valley. Silver mining occurred in Owens and Panamint valleys in the late 1850s and early 1860s. Notable locations where silver was mined are Potosi Mining District near Lone Pine and Union Mine at Cerro Gordo. Cerro Gordo was the most productive U.S. silver mine in 1868. Salt was mined in Saline Valley east of Independence (Inyo County, 2015).

Records Search

Records Search Results

A records search for the proposed project was conducted at the California Historical Resources Information System Eastern Information Center (EIC). The EIC records search was performed on May 26, 2015 by staff from ASM Affiliates[1]. The records search identified 37 sites within the Area of Potential Effect (APE)[2] and 1 mile around the APE. Previously recorded sites included prehistoric flaked stone scatter and historic refuse.

One site, the Los Angeles Aqueduct, was located within the APE, as shown in Table 2.6-1. The Los Angeles Aqueduct was identified as "eligible" under the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR).

ASM also contacted the California Native American Heritage Commission (NAHC) on September 10, 2015 to inquire whether any record of registered cultural resources, sacred lands or traditional cultural properties, or areas of heritage sensitivity were known in the project area. The NAHC provided a list of tribes with traditional lands or cultural places located near the project area. A Sacred Lands File search was not completed for the project. Consultation with Native American tribes is discussed in Section 2.6.1.3.

Table 2.6-1 Previously Recorded Sites within the APE

Primary Number	Trinomial Designation	Description	NRHP
P-14-4591	CA-INY-4591H	The Los Angeles Aqueduct; Manzanar Irrigation System.	Eligible

Source: (ASM, 2017)

Los Angeles Aqueduct

The previously recorded Los Angeles Aqueduct (CA-INY-4591H) encompasses the Alabama Gates and Spillway, the location of the 1926 Los Angeles Aqueduct bombing, concrete-lined open canal, pumphouses, piping, and various bridges and other features associated with the Los Angeles Aqueduct. The Los Angeles Aqueduct has previously been recommended eligible for listing in the NRHP under Criteria A and C with a period of significance from 1907-1940. The Los Angeles Aqueduct is associated with historic events (Criterion A), such as the development of the City of Los Angeles; transformation of the Owens Valley landscape, economy, and community; as well as advances in hydraulic engineering. Master engineer, William Mulholland, designed the Los Angeles Aqueduct with its system of pipes, tunnels, and hydraulics (Criterion C). Additionally, the Los Angeles Aqueduct is a contributing element of

[1] Cultural Resources reports are available to persons with appropriate qualifications. Contact the Inyo County Public Works for information on obtaining copies of the reports.
[2] The APE is defined to cover the entire project site shown in Figure 1.2-1.

the First Los Angeles Aqueduct Archaeological District (FLAAAD) under NRHP Criteria A, B, and C. ASM concurs with previous recommendations and recommends that the segment of the Los Angeles Aqueduct transecting the APE is eligible for listing with the NRHP under Criteria A and C (ASM, 2017).

2.6.1.1 Field Survey and Subsurface Testing

An architectural inventory of the APE was conducted between December 8 and 9, 2015 and Extended Phase I testing, including 15 Shovel Test Pits, was conducted between March 1 and 2, 2016. An archaeological inventory was not conducted at the project site due to the extremely high amount of surface disturbance at the site. The survey did not reveal the presence of any significant subsurface cultural deposits, features, or other archaeological indicators (ASM, 2017).

ASM also re-examined the eligibility of the Carroll Creek Road Bridge as part of this project review. The existing bridge is a Local Agency bridge that is a single lane wide for two-way traffic that was constructed in 1927 and is a Category 4 Bridge. The existing bridge is a simple, cast-in-place concrete bridge that does not possess high artistic or architectural merit, and is not part of the original design as engineered by William Mulholland. As such, the Carroll Creek Road Bridge does not appear to contribute to the NRHP or CRHR eligibility of the Los Angeles Aqueduct as a whole, nor would it be considered individually eligible to the NRHP or CRHR under any Criteria. Further, the Carroll Creek Road Bridge is recommended as not contributing to the eligibility of the FLAAAD (ASM, 2017).

2.6.1.2 Paleontological Resources

As described in Section 2.7, Geology, Soils, and Seismicity, the geologic unit that underlies the project site is alluvium. The project site is potentially located within the prehistoric shoreline of Owens Lake (2,000 to 7,600 years BP) (Bacon et. al. , 2006). Owens Lake is a perennial lake that held water continuously over the last 800,000 years, but is currently a small fraction of its former size due to diversion of the Owens River in the early 1900s. Prior to the early 1900s, the depth of the lake fluctuated between approximately 20 to 50 feet deep covering an area of approximately 108 square miles (Reheis, 1991). The edge of the now-dry lakebed of Owens Lake, (known as the Owens Lake playa), is located approximately 3 miles to the north of the project site.

2.6.1.3 Native American Consultation

Tribal Consultation Efforts

The NAHC provided a list of Native American tribes who may be interested in commenting on the proposed project. In October 2015, the following local tribes were contacted regarding the project. The following tribes were contacted in 2015:

- Big Pine Paiute Tribe of the Owens Valley
- Bishop Paiute Tribe
- Fort Independence Indian Community of Paiutes
- Kern Valley Indian Council
- Lone Pine Paiute Shoshone Reservation

- Timbisha Shoshone Tribe
- Walker River Reservation

Tribes were informed of the project details, record search results, and timing for archaeological surveys that would be conducted on site. One of the individuals contacted was present as a Tribal Monitor during subsurface testing (ASM, 2017). None of the tribes contacted provided information about known tribal cultural resources or the potential for tribal cultural resources in the project area. Records of tribal consultation efforts are provided in Appendix C.

Assembly Bill 52

Assembly Bill (AB) 52 went into effect July 1, 2015, which established a formal consultation process for California Native American tribes as part of CEQA. The law requires a lead agency to consult with tribes that request consultation and is traditionally and culturally affiliated with the geographic area in which the proposed project would be located. To be notified of such proposed projects, tribes must first request notification from the lead agency. Eight tribes have informed Inyo County of a traditional or cultural affiliation to the Carroll Creek Road Bridge project area. The eight tribes with traditional or cultural affiliation to the project area include:

- Big Pine Paiute Tribe of the Owens Valley
- Bishop Paiute Tribe
- Cabazon Band of the Mission Indians
- Fort Independence Indian Community of Paiutes
- Kern Valley Indian Council
- Lone Pine Paiute Shoshone Reservation
- Timbisha Shoshone Tribe
- Walker River Reservation

In October 2017, Inyo County Board of Supervisors sent a formal notification to representatives of the eight Native American tribes with traditional or cultural affiliation to the project area. Table 2.6-2 includes the name of each tribal contact who received a letter regarding AB 52 consultation. Two tribes sent responses to the County. The Bishop Pauite Tribe response stated that the tribe had no comments on the project. The Twenty-nine Palms Band of Mission Indians stated that the tribe was not aware of any archaeological or cultural sites in the vicinity of the project and indicated that the tribe has no interest in the project. To date, no additional responses have been received. No tribes have requested formal consultation or additional information about the proposed project. There are no known tribal cultural resources in the project vicinity. Records of tribal consultation efforts are provided in Appendix C.

Table 2.6-2 Summary of AB 52 Consultation Efforts

Tribe	Contact Name/Title	Response
Big Pine Paiute Tribe of the Owens Valley	Genevieve Jones, Chairperson	No Response
Bishop Paiute Tribe	Monty Bengochia, Tribal Historic Preservation Office	Response received. Tribe had no comments on the project.

Tribe	Contact Name/Title	Response
Bishop Paiute Tribe	Chairperson of Bishop Paiute Tribe	No Response
Bishop Paiute Tribe	Valerie Spoonhunter, Interim Tribal Administrator	No Response
Cabazon Band of the Mission Indians	Doug Todd Welmas	No Response
Cabazon Band of the Mission Indians	Jacquelyn Barnum, Environmental Director	No Response
Fort Independence Indian Community of Paiutes	Norma Wilder, Chairperson	No Response
Lone Pine Paiute-Shoshone Tribe	Mary Wuester, Chairperson	No response
Timbisha Shoshone Tribe	George Gholson, Chairperson	No Response
Torres Martinez Desert Cahuilla Indians	Michael Mirelez, Cultural Resource Coordinator	No Response
Twenty-Nine Palms Band of Mission Indians	Anthony Madrigal, Jr., Tribal Historic Preservation Officer	Response received. Tribe not aware of any archaeological or cultural sites in the project area has no interest in the project.
Twenty-Nine Palms Band of Mission Indians	Darrell Mike, Chairperson	No Response
Twenty-Nine Palms Band of Mission Indians	Anthony Madrigal, Jr., Tribal Grants Administrator	No Response

2.6.2 Environmental Impacts

2.6.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Cultural Resources				
A) Cause a substantial adverse change in the significance of a historic resource pursuant to Section 15064.5?	☐	☒	☐	☐
B) Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5?	☐	☒	☐	☐
C) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
D) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐
Tribal Cultural Resources				
E) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☐	☐	☒

2.6.2.2 Discussion

A and B) Would the project cause a substantial adverse change in the significance of a historical and/or resource as defined in §15064.5?

The Los Angeles Aqueduct is considered eligible for listing with the CRHR (ASM, 2017). There are no other historical resources on the project site or in the vicinity are identified as a points of interest, or state historical landmarks (OHP, 2016). The existing bridge would remain in place, although it is not eligible for listing nor a contributing element to the eligible aqueduct. The proposed project would span the Los Angeles Aqueduct and not require construction within the banks, which would minimize loss of integrity by not affecting any remaining original materials or the workmanship of the Los Angeles Aqueduct. Additionally, construction of the replacement bridge would not affect the association between the Los Angeles Aqueduct and historic events. The proposed project would not impact the Los Angeles Aqueduct. There are no other known historic or archaeological resources on the project site. The project would have no impact on any previously recorded eligible resource.

Construction of the proposed project would require ground disturbing work during demolition and regrading of Carroll Creek Road. The road and surrounding areas are highly disturbed due to construction of the previous roadway, bridge, and the Los Angeles Aqueduct. Although

unlikely, previously undiscovered historic or archaeological resources that are eligible for listing on the CRHR could be uncovered during ground disturbing work. Impacts to any previously undiscovered historic or archaeological resources that are eligible for listing in the CRHP would be potentially significant. Mitigation Measure CUL-1 requires a professional archaeologist to conduct cultural resources sensitivity training and cessation of work within 50 feet radius in the event of a cultural resource discovery. The impact would be less than significant with mitigation.

Mitigation Measure CUL-1: Cultural Resources Sensitivity Training and Inadvertent Discovery

A professional archaeologist shall provide sensitivity training to supervisory staff prior to initiation of site preparation and/or construction, to alert construction workers to the possibility of exposing significant historic and/or prehistoric archaeological resources within the proposed project area. The training shall include a discussion of the types of prehistoric or historic objects that could be exposed and how to recognize them, the need to stop excavation at a discovery and within 50 feet of a discovery, and the procedures to follow regarding discovery protection and notification. An "Alert Sheet" shall be posted in staging areas, such as in construction trailers, to alert personnel to the procedures and protocols to follow for the discovery of a potentially significant historic and/or prehistoric archaeological resources.[3]

In the event that an archaeological resource is discovered, ground disturbing work shall be halted within 50 feet of the find, and a qualified cultural resources specialist/archaeologist shall be brought to the site. The qualified cultural resources specialist/archaeologist shall evaluate the resource and determine whether it is (1) eligible for the CRHR (and thus a historic resource for purposes of CEQA); or (2) a unique archaeological resource as defined by CEQA. If the resource is determined to be neither a unique archaeological nor a historical resource, work may commence in the area.

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[3] Significant prehistoric cultural resources may include:
a. Human bone, either isolated or intact burials.
b. Habitation, occupation or ceremonial structures as interpreted from rock rings/features, distinct ground depressions, differences in compaction (e.g., house floors).
c. Artifacts including chipped stone objects such as projectile points and bifaces; groundstone artifacts such as manos, metates, mortars, pestles, grinding stones, pitted hammerstones; and, shell and bone artifacts including ornaments and beads.
d. Various features and samples including hearths (fire-cracked rock; baked and vitrified clay), artifact caches, faunal and shellfish remains (which permit dietary reconstruction), distinctive changes in soil stratigraphy indicative of prehistoric activities.
e. Isolated prehistoric artifacts (Basin 2015).

If the resource meets the criteria for either a historical or unique archaeological resource, or both, work shall remain halted within 50 feet of the find, and the qualified cultural resources specialist/archaeologist shall consult with County staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA Guidelines Section 15064.5(b). If the resource is determined to be prehistoric, the evaluation and determination of appropriate measures shall be coordinated with regional Native American tribes. Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts on cultural resources. If preservation-in-place and avoidance is not possible, data recovery shall be undertaken. The methods and results of data recovery work at an archaeological find shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System (CHRIS). Work in the area may commence upon completion of treatment, as approved by the County.

C) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The project site is likely within the prehistoric boundary of Owens Lake. Vertebrate and invertebrate fossils could be found in the project area. Construction of the proposed project would require ground disturbing work during demolition and regrading of Carroll Creek Road. Portions of the project site are previously disturbed due to construction of the existing roadway, bridge, and the Los Angeles Aqueduct. The proposed roadway realignment is in a less disturbed area. Previously undiscovered paleontological resources could be found during ground disturbing work due to the sensitivity of the geologic formation underlying the work area. The impact to a previously undiscovered paleontological resource from ground disturbing work could be potentially significant. Mitigation Measure CUL-2 requires a professional paleontologist to provide sensitivity training and cessation of work within a 50-foot radius in the event of a paleontological resource discovery and until a determination can be made. The impact would be less than significant with mitigation.

Mitigation Measure CUL-2: Paleontological Resources Sensitivity Training and Inadvertent Discovery

A professional paleontologist shall provide sensitivity training to supervisory staff (County staff, biological monitor, and construction foreman) to alert construction workers to the possibility of exposing significant paleontological resources within the proposed project area. The training shall be conducted to recognize fossil materials in the event that any are uncovered during construction.

In the event that a paleontological resource is uncovered during project implementation, all ground-disturbing work within a 50-foot radius shall be halted. A qualified paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts shall occur, no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, a qualified paleontologist shall evaluate the resource and determine whether it is

"unique" [4] under CEQA, Appendix G, part V. If the resource is determined not to be unique, work may commence in the area. If the resource is determined to be a unique paleontological resource, work shall remain halted, and the paleontologist shall consult with County staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA. Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts to paleontological resources. If preservation-in-place is not feasible and avoidance is not possible, the fossils shall be recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to Society of Vertebrate Paleontology (SVP) standard guidelines. Work may commence upon completion of treatment.

D) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Human remains were not discovered during field surveys or subsurface testing (ASM, 2017). Construction of the proposed project would require ground disturbing work during demolition and regrading of the road. Portions of the project site are highly disturbed due to construction of the existing roadway, bridge, and the Los Angeles Aqueduct. The proposed roadway realignment is in a less disturbed area. Previously undisturbed human remains could be encountered, although unlikely. Disturbance of human remains would result in a potentially significant impact. Mitigation Measure CUL-3 requires cessation of ground disturbing work and examination by the Medical Examiner if human remains are uncovered. The impact would be less than significant with mitigation.

Mitigation Measure CUL-3: Human Remains

[4] A unique paleontological resource is any fossil or assemblage of fossils, or paleontological resource site or formation that meets any one of the following criteria:

- Is the best example of its kind locally or regionally;
- Illustrates a paleontological or evolutionary principle (e.g. faunal succession; plant or animal relationships);
- Provides a critical piece of paleobiological data (illustrates a portion of geologic history or provides evolutionary, paleoclimatic, paleoecological, paleoenvironmental or biochronological data);
- Encompasses any part of a "type locality" of a fossil or formation;
- Contains a unique or particularly unusual assemblage of fossils;
- Occupies a unique position stratigraphically within a formation; or
- Occupies a unique position, proximally, distally or laterally within a formation's extent or distribution (County of San Diego 2009).

If human remains are encountered during construction, ground disturbing work shall halt within 50 feet of any area where human remains or suspected human remains are encountered in compliance with California law (Health and Safety Code section 7050.5; PRC sections 5097.94, 5097.98, and 5097.99). The County shall contact the Medical Examiner at the county coroner's office. The Medical Examiner has two (2) working days to examine the remains after being notified by the County. When the remains are determined to be Native American, the Medical Examiner has 24 hours to notify the Native American Heritage Commission (NAHC).

The NAHC shall immediately notify the identified Most Likely Descendant (MLD), and the MLD has 48 hours from the time they are granted access to the site to make recommendations to the landowner or representative for the respectful treatment or disposition of the remains and grave goods. If the MLD does not make recommendations within 48 hours, the area of the property must be secured from further disturbance. If there are disputes between the landowner and the MLD, the NAHC shall mediate the dispute to attempt to find a resolution. If mediation fails to provide measures acceptable to the landowner, the landowner or his/her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.

E) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

The only eligible resource within the project site is the Los Angeles Aqueduct, as discussed in Impact A. No known tribal cultural resources or eligible tribal cultural resources are located within one mile of the project site. Pursuant to AB 52, Inyo County Board of Supervisors sent a formal notification to representatives of the eight Native American tribes with traditional or cultural affiliation to the project area. Two tribes provided responses to the County and neither tribe identified existing or potential tribal cultural resources within the project area. None of the tribes contacted requested consultation under AB 52. The proposed project would not impact tribal cultural resources.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

Refer to Impact E (a), above. None of the tribes contacted pursuant to AB 52 requested consultation regarding the proposed project (refer to Table 2.6-2) or identified existing or potential tribal cultural resources in the project area. The County, as the lead agency, has not

determined that tribal cultural resources are present on the project site or in the immediate area. No impact would occur.

2.7 GEOLOGY AND SOILS

2.7.1 Environmental Setting

2.7.1.1 Geology

The Basin and Range Province is characterized by extreme elevation changes from the mountain ranges to the low valleys. Twenty million years ago, crustal extension associated with the Basin and Range Province caused extensive volcanism in the Sierra Nevada Range. The range is believed to have started to uplift four million years ago bringing the magmatic plutons (granite) above the surface forming a tall mountain range. Erosion by glaciers exposed the granite and shaped the mountains and cliffs that make up the current Sierra Nevada Range (Michaelsen, 2011). Owens Valley is one of the western-most downdropped blocks, or grabens, of the Basin and Range Province.

Glacial erosion prior to 10,000 years BP (Pleistocene) in the Sierra Nevada Mountains resulted in deposition of moraines in Owens Valley. More recent water erosion from Owens River and other streams formed the present day Owens Valley (Pakieser, 1964). The geologic unit that underlies the project site is younger alluvium (CGS, 2010). The alluvium is comprised of poorly sorted, unconsolidated, gravel, sand, silt, and clay.

2.7.1.2 Soils

Timosea-Neuralia complex (2 to 9 percent slopes) underlies the project site. Timosea-Neuralia complex soils are well drained. Runoff from Timosea-Neuralia complex soils is very high (NRCS, 2016).

2.7.1.3 Faulting and Seismicity

No active[5] faults underlie the project site. The northern portion of the project site is within a designated Alquist-Priolo Fault Hazard Zone, the Owens Valley Fault Zone. The Owens Valley Fault Zone strike-slip fault 1872 rupture is located 651 feet northeast of the project site (USGS and CGS, 2006). This fault has an annual slip rate of approximately 2 millimeters per year (USGS, 1994).

2.7.1.4 Landslide Hazards

The project site is located within Owens Valley. Topography in the project area is relatively flat and the potential for landslides is low (USGS, 2011).

[5] A fault is considered active if the fault has displaced earth materials during the Holocene Epoch.

2.7.1.5 Liquefaction Hazards

Owens Valley has experienced liquefaction in association with seismic activity. Extensive liquefaction was observed in the Owens Lake area during the 1872 Owens Valley earthquake and more recently liquefaction occurred during the 2009 Olancha earthquake (Amos, 2013; Holtzer, 2010). The proposed project is located 1.2 miles from Owens Lake and groundwater is expected to occur at a depth of approximately 50 feet, or less. The liquefaction potential in the project vicinity is moderate due to the depth to groundwater and known liquefaction at Owens Lake.

2.7.2 Environmental Impacts

2.7.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Expose people or structures to potential substantial adverse effects, including the 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.	☐	☐	☒	☐
ii) Strong seismic ground-shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
B) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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?	☐	☐	☒	☐
D) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
E) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

2.7.2.2 Discussion

A) Would the project expose people or structures to potential substantial adverse effects, including the 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?

The northern portion of the project site is within an Alquist-Priolo Fault Zone. Ground rupture has the potential to occur. The proposed bridge is not within the fault zone. Additionally, the proposed roadway approaches and replacement bridge would be designed to meet current California seismic structure codes. Use and operation of the bridge would be identical to the existing bridge. The users would not be subject to additional adverse effects caused by the rupture of a known earthquake zone. Consequently, the impacts from fault rupture would be less than significant.

ii) Strong seismic ground shaking?

Construction

The Owens Valley fault is an active fault located less than 1,000 feet from the project site. Severe ground shaking has the potential to cause injury to construction workers during implementation of the proposed replacement bridge project. The potential for strong seismic shaking during the short (5 month) construction window is very low. Therefore, the probability of harm is minimal. The impact from ground shaking would be less than significant.

Operation

The proposed roadway approaches and replacement bridge would be designed to meet current California seismic structure codes. The new structure would withstand most seismic shaking and would be a substantially safer during a seismic event than the existing bridge. Operational uses of the bridge would be identical to the existing bridge. Therefore, expose of users to seismic ground shaking would be no greater than for the existing bridge. Operational exposure of users would therefore result in no increased exposure of users resulting in no impact from seismic shaking.

iii) Seismic-related ground failure, including liquefaction?

Construction

The Owens Valley area has a depth to water of less than 50 feet, with alluvial soils, and numerous faults (DWR, 2016), and liquefaction has been known to occur in Owens Valley. Due to these local features and historical liquefaction, there is a moderate potential for liquefaction on the project site. Seismic events could result in liquefaction occurring on the project site. However, due to the short duration of construction (5 months), the potential for liquefaction to occur and harm construction workers is minimal. The impact from ground failure would be less than significant.

Operation

The proposed roadway approaches and replacement bridge would be designed to meet current California seismic structure codes. Therefore, the new structure would withstand most liquefaction events and would be a substantially safer during a liquefaction event than the existing bridge. Operational uses of the bridge would be identical to the existing bridge. Therefore, expose of users to liquefaction would be no greater than for the existing bridge. Operational exposure of users to liquefaction would therefore result in no impact.

iv) Landslides?

The project site and surrounding area is flat and has a low potential for landslides. Significant impacts from landslides would not occur. Construction and operation of the proposed project would result in no additional exposure of people to landslides. Therefore, there would be no increased hazard from landslides and no impact.

B) Would the project result in substantial soil erosion or the loss of topsoil?

During construction of the proposed replacement of the bridge, exposed soil could erode from storm runoff or wind, although soil types are well drained and generally do not experience much run-off. The proposed project would involve up to 1.07 acres of surface disturbance during realignment of Carroll Creek Road and the LADWP Patrol Road. A National Pollutant Discharge Elimination Service (NPDES) General Permit for Construction Activities would be required because surface disturbance exceeds 1 acre. The NPDES General Construction Permit requires that a Storm Water Pollution Prevention Program (SWPPP) be prepared by a Qualified SWPPP Developer that would include Best Management Practices (BMPs) to reduce erosion of disturbed soils. BMPs that would be implemented during site grading and construction would likely include hydroseeding and the use of silt fences to control release of sediment. In addition, the SWPPP would limit construction to non-rainy periods. The SWPPP would be submitted to the Inyo County Public Works Department for approval prior to issuance of a grading permit. Implementation of the SWPPP and associated erosion control BMPs would minimize the impact from project construction to soil erosion. The impact would be less than significant.

It is possible that the project would qualify for a Low Erosivity Waiver Certification (USEPA, 2017), meaning the project would be exempt from the NPDES General Construction Permit. Project location, construction schedule, and site disturbance area are factors considered when applying for the Low Erosivity Waiver Certification. If the project qualifies for the Low

Erosivity Waiver Certification, then the County would require the contractor to prepare a Water Pollution Control Program (WPCP) in compliance with Caltrans guidelines to ensure that erosion and water quality control BMPs necessary to avoid impacts to Carroll Creek and the Los Angeles Aqueduct are implemented during construction. The WPCP would develop and require the implementation of stormwater, non-stormwater, and erosion control BMPs. The WPCP would include the following:

- Schedule for regular inspections of structural BMPs and timely repair of any damaged BMPs
- Designated equipment fueling and maintenance locations away from on-site watercourses and the Los Angeles Aqueduct
- Guidelines for use, storage, and transport of hazardous materials
- Procedures for containment and cleanup of hazardous materials leaks and/or spills
- Reporting guidelines and contact information for Inyo County responsible parties

If the project does not qualify for the Erosivity Waiver, then coverage under the NPDES General Construction Permit would be required.

C) Would the project 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?

Construction

The project site is flat and is not located on an unstable geological unit or soil type susceptible to landslides. As described above, liquefaction has a moderate potential to occur on the project site due to the soils and groundwater table. Construction of the bridge would require minimal grading, and would not require any cutting into existing slopes or filling of existing topographical features that could result in destabilization of slopes. Consequently, the potential for landslides, lateral spreading, subsidence, liquefaction, or collapse would not be increased. Impacts would be less than significant.

Operation

The proposed roadway approaches and replacement bridge would be designed to meet current California seismic structure codes. Therefore, the new structure would not result in increased instability of the project site soils. The proposed project would not affect the stability of the slopes in the area. The impact would be less than significant.

D) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Expansive soils are generally soils with high amounts of clay. Soils on and adjacent to the project site are primarily sandy loam and do not exhibit high expansive potential. The proposed bridge would be designed to AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications with California Amendments (Fourth Edition), as well as Caltrans Seismic Design Criteria Version 1.6. The impact to the proposed replacement bridge from expansive soil would be less than significant.

E) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No septic tanks or alternative wastewater disposal systems would be constructed as part of the proposed project. No impact would occur.

2.8 GREENHOUSE GAS EMISSIONS

2.8.1 Environmental Setting

Greenhouse gases (GHGs) are global pollutants, unlike criteria air pollutants and toxic air contaminants. Global climate change can result in increased temperatures; changes in snow and rainfall patterns; and an increase in droughts, tropical storms, and heavy rain events. Listed below are the most prominent GHGs that have been identified as contributing to global climate change:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

The State of California adopted the Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) on September 27, 2006, to address the threat of global warming caused by the increase in GHG emissions. AB 32 requires a reduction of carbon emissions to 1990 levels by the year 2020. The 1990 emissions were estimated at 427 million metric tons CO_2 equivalent ($MMCO_2e$).

CARB developed mandatory reporting rules for significant sources of GHGs as required by AB 32 (Subchapter 10, Article 1, sections 95100 to 95133, Title 17, California Code of Regulations). CARB released the 2008 Scoping Plan that indicated how GHG emission reductions would be achieved from significant GHG sources by adopting regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions. The First Update to the Climate Change Scoping Plan was released in 2014 and has a new statewide goal of 33 percent renewable energy, in the State of California's energy portfolio by 2020. The updated Scoping Plan outlines voluntary early actions and reductions (CARB, 2014a).

The updated Scoping Plan adjusted the estimated 1990 emissions to 431 $MMCO_2e$. The 2008 Scoping Plan projected 2020 emissions to be 596 $MMCO_2e$. Emission sources in the state would need to reduce the projected 2020 emissions by approximately 28 percent to reach the reduction goal of 1990 emissions (CARB , 2014b). SB 350 was passed in 2015 that requires 40 percent of California electricity sold to retail customers be generated by renewable resources by the end of 2024, 45 percent by 2027, and ultimately 50 percent by 2030.

The project site is under the GBUAPCD jurisdiction. The GBUAPCD is tasked by CARB under AB 32 to regulate GHG emissions related to discretionary project approvals under CEQA. The GBUAPCD does not currently have thresholds or guidance regarding the significance of construction related greenhouse gas emissions but recommends the use of *Quantifying*

Greenhouse Gas Mitigation Measures by the California Air Pollution Control Officers Association (CAPCOA). As the GBUAPCD has not established significance criteria for GHG emissions, the significance of proposed project's GHG emissions are evaluated using the SCAQMD GHG threshold. The significance threshold for industrial facilities is 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year, including amortized construction emissions over a 30-year period (SCAQMD, 2015). While this threshold is meant to apply only to industrial facilities, it is the most representative threshold available for construction of bridge facility.

2.8.2 Environmental Impacts

2.8.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
B) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☒	☐

2.8.2.2 Discussion

A) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction of the replacement bridge and roadway approaches would generate greenhouse gas emissions from use of construction equipment, haul trucks, and vehicles used for construction worker transportation. GHG emissions were estimated using the CalEEMod model. Construction would generate a total of 178 $MTCO_2e$ during 2020. The proposed replacement bridge would not increase traffic capacity. Therefore, the level of traffic in the area would be similar to existing conditions. There would be no operational GHG emissions. Amortized GHG emissions would be approximately 6 $MTCO_2e$ a year which would not exceed the 10,000 $MTCO_2e$ per year threshold chosen for this project (Appendix A). The impact from GHG emissions generated during construction of the proposed project would be less than significant.

B) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of greenhouse gases?

The CARB Scoping Plan provides an outline of actions to reduce California's GHG emissions. The Scoping Plan requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. At this time, there are no applicable local plans, mandatory GHG regulations, or finalized agency guidelines that would apply to this project. As such, the proposed project does not conflict with any local plans. Additionally, the proposed project

would generate very minimal GHG emissions compared to GHG thresholds that have been developed by SCAQMD to meet compliance with AB32 requirements. The impact would be less than significant.

2.9 HAZARDS AND HAZARDOUS MATERIALS

2.9.1 Environmental Setting

2.9.1.1 Hazardous Materials

There are no known contaminated sites within 0.25 mile of the project site (DTSC, 2018; SWRCB, 2018). The closest hazardous materials site identified by EnviroStor is the former Manzanar Retention Center in Lone Pine, California. This is the location of a former class III landfill and underground storage site, with lead contamination (DTSC, 2007). The contaminated site is approximately 6.5 miles north of the existing Carroll Creek Road Bridge.

2.9.1.2 Fire Hazards

The area around the project site is susceptible to wildfires due to the surrounding vegetation and dry conditions through the summer season. California Department of Forestry and Fire Protection (CALFIRE) rates the fire threat on the project site as "moderate" and "high". Part of the project site is in a State Responsibility Area and part of the project site is in a Federal Responsibility Area (CALFIRE, 2007).

2.9.2 Environmental Impacts

2.9.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☐	☒	☐
C) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	☐	☒

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
D) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment?	☐	☐	☐	☒
E) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project corridor?	☐	☐	☐	☒
F) For a project located within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project corridor?	☐	☐	☐	☒
G) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
H) Expose people or structures to a 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?	☐	☒	☐	☐

2.9.2.2 Discussion

A) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction

Hazardous materials present during project construction may include gasoline, diesel fuel, hydraulic oils, equipment coolants, and any generated wastes that may include these materials. Fueling of equipment and vehicle would be performed on-site. Construction equipment and vehicles would use a minimal amount of hazardous materials. Gasoline and diesel fuel would be stored in small quantities at the staging yards during construction. Although very few individuals live and work in the area, a hazard to the public or the environment could occur through the transport and use of gasoline and diesel fuel on the project site. Spill response and control would be addressed in the project-specific SWPPP or WPCP (refer to Section 2.7.2, Impact B). Compliance with the spill control and response measures in the SWPPP or WPCP would reduce the risk to the public and environment from transport and use of hazardous materials. The impact to the public or the environment from use, disposal, or transport of hazardous materials during construction would be less than significant.

Operation
The proposed replacement bridge would not require use, disposal, or transport of hazardous materials after construction is complete. There would be no impact.

B) Would the project 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?

Construction equipment and vehicles would use small amounts of hazardous materials including diesel fuel, oil, and gasoline. A spill of such materials is unlikely, but could result in a significant impact were it to contaminate the Los Angeles Aqueduct. Spill response and control would be addressed in the project-specific SWPPP or WPCP (refer to Section 2.7.2, Impact B). Compliance with the spill control and response measures in the SWPPP or WPCP would reduce the impacts from hazardous spills to less-than-significant levels.

Operation
Replacing the existing, unsafe bridge with the proposed bridge would reduce the potential for vehicular accidents once construction is complete, minimizing accidental spills of fuels. The design of the proposed bridge would prevent drainage of stormwater off of the bridge into the Los Angeles Aqueduct. Therefore, potential spills of fuels would not drain into and contaminate the Los Angeles Aqueduct. No impact to the public or environment from accidental release of fuels or other hazardous materials is expected.

C) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

No schools are located within 0.25 mile of the project site. The nearest school is Lone Pine High School located approximately 7.75 miles to the north of the project site. The project would have no impact on the nearest school.

D) Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard to the public or the environment?

The project site is not located on a site included on a list of hazardous materials sites. The project would result in no impacts associated with emissions from hazardous materials sites.

E) Would the project or a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project corridor?

The project site is not located within an airport use plan or within 2 miles of a public airport or public use airport. The nearest public airport is Lone Pine Airport, which is located approximately 6.7 miles to the south of the project site. The project would have no impacts associated with airport hazards.

F) Would the project be located within the vicinity of a private airstrip where it would result in a safety hazard for people residing or working in the project corridor?

The project site is not located in the vicinity of any active private airstrips. The project would result in no impact to private airstrip safety hazards.

G) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Construction

The existing bridge would remain open to vehicular traffic during construction of the proposed project. The approach roads would require traffic control during construction. Emergency access and access for evacuation would be made available at all times via the existing bridge. No impacts to emergency access would occur.

Operation

The proposed bridge would be wider than the existing bridge. Use of the new bridge would allow for safer passage of larger emergency response vehicles and easier evacuation, if needed. The project would have no impact on emergency response.

H) Would the project expose people or structures to a 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?

Construction

CALFIRE designated the project site as a "moderate" to "high" fire severity zone. Construction equipment could create sparks and ignite a fire, which would be considered a significant impact. Other potential fire hazards could include worker behavior such as smoking and disposal of cigarettes as well as parking vehicles on dry vegetation. Mitigation Measure HAZ-1 requires proper handling of potential ignition sources including vehicles and cigarettes. The impact from fire hazards would be less than significant with implementation of mitigation.

Mitigation Measure HAZ-1: Fire Prevention Procedures

- Prior to ground disturbing activities, all workers on the project site shall be trained regarding the proper handling and/or storage of materials posing a fire hazard, potential ignition sources (such as cigarettes or sparking equipment), and appropriate types and use of fire protection equipment.
- Fire suppression equipment, including fire extinguishers, water, and shovels, shall be available on-site at all times.
- Vehicles shall not be parked in vegetated areas.
- Smoking shall be allowed only in designated areas. The designated areas must be unvegetated. Cigarette butts shall be properly contained and transported off-site for disposal.

Operation

Use and maintenance of the proposed bridge would not increase the risk of fire hazard. No impact from operation and maintenance of the bridge would occur.

2.10 HYDROLOGY AND WATER QUALITY

2.10.1 Environmental Setting

2.10.1.1 Hydrology

Carroll Creek originates in the valleys in the John Muir Wilderness in Inyo County, California. The length of the creek upstream of the Carroll Creek crossing of the Los Angeles Aqueduct is approximately 5.5 miles (WRECO, 2013).

The primary hydrologic feature in the project vicinity is Carroll Creek. Carroll Creek outfalls into Owens Lake, approximately one mile downstream of the project site. Carroll Creek flows northwest–southeast across the Los Angeles Aqueduct via an over chute structure just north of the existing Carroll Creek Road Bridge. Just prior to crossing the over chute structure, LADWP has modified the natural channel to flow into two sediment detention basins. After crossing over the Los Angeles Aqueduct, Carroll Creek flows into an area occasionally cleared of sediment by LADWP. Carroll Creek then flows through a culvert under Carroll Creek Road, after which it continues flowing in the natural channel to Owens Lake (WRECO, 2013).

The project site is designated by FEMA as Zone X, an area determined to be outside the 500-year flood zone (0.2 percent annual chance of flooding in any one year) (FEMA, 2011).

2.10.1.2 Precipitation

The mean annual precipitation in the area is approximately 6.5 inches. Most of the precipitation falls between December and March. Approximately one inch of snow falls monthly from December to February (WRCC, 2016).

2.10.1.3 Groundwater

The project site is located in the Owens Valley Groundwater Basin (basin). The groundwater capacity of the basin is approximately 35,000,000 acre feet and covers an area of 1,030 square miles. It is primarily recharged through streamflow percolation from the surrounding mountains, with lesser recharge occurring through infiltration of excess irrigation waters and precipitation. Groundwater quality is generally good in the project vicinity (DWR, 2004).

2.10.2 Environmental Impacts

2.10.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
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 existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
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 that would result in substantial erosion or siltation on or off site?	☐	☐	☒	☐
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 that would result in flooding on or off site?	☐	☐	☒	☐
E) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
F) Otherwise substantially degrade water quality?	☐	☐	☒	☐
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 that would impede or redirect flood flows?	☐	☐	☐	☒

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
I) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
J) Cause inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

2.10.2.2 Discussion

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

Construction

Construction of the proposed project would involve up to 1.07 acres of disturbance surface, which has the potential to result in erosion and sedimentation of water bodies in the vicinity. A general NPDES permit would be required for the construction activities as described in Section 2.7.2, Impact B). The contractor would be required to implement a SWPPP, in compliance with the Construction General Permit (Order 2009-0009-DWQ), including associated sediment and erosion control BMPs. The proposed project would comply with NPDES permit requirements and would therefore not violate any water quality standards. The impact would be less than significant.

If the project qualifies for a Low Erosivity Waiver Certification, then the project would not require coverage under the NPDES General Permit. The contractor would prepare and implement a site-specific WPCP following Caltrans guidelines, including erosion and water quality control BMPs. The WPCP would identify potential sources of erosion and water quality degradation and identify BMPs to ensure impacts remain less than significant.

Operation

No additional ground disturbance would occur after the project is constructed. Traffic and usage would not change above existing conditions. No impact to water quality would occur.

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 existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

Construction

Water used for dust suppression and concrete curing during construction would be obtained from an existing water source. Construction activities would require approximately 10,000 gallons (0.03-acre feet) per day for a total of up to one million gallons of water during the entire construction period. Water would be obtained from an existing, privately owned source and trucked to the site daily. Water needs in Inyo County are primarily obtained from groundwater. Inyo County recommended planned pumping of groundwater for 2017-2018 is

52,733-acre feet (ICWD, 2017). Assuming similar annual planned pumping in the coming years, the water supply needed during construction would represent 0.000057 percent of the total groundwater withdrawal. The proposed project would not deplete groundwater supplies due to the short duration of water use and small amount of water required. The impact would be less than significant.

Operation

The proposed project would result in an increase in impermeable surfaces by approximately 0.147 acre from construction of paved roadway approaches. The proposed bridge replacement and approach roadways would not measurably decrease groundwater recharge because the paved roadway would be constructed in an upland area and the water would flow off the road to adjacent undisturbed vegetated areas during storms. The proposed project would not interfere substantially with groundwater recharge and the impact would be less than significant.

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 that would result in substantial erosion or siltation on- or off-site?

Construction

Construction of the proposed project would not alter the detention basin adjacent to the Los Angeles Aqueduct or the existing over chute structure. The existing bridge, which functions as a secondary over chute structure for Carroll Creek would remain in place. The course of Carroll Creek would not be altered during construction of the roadway approaches. The new approach road has been designed to utilize an existing culvert through which Carroll Creek passes during wet periods when the creek flows over the Los Angeles Aqueduct. Construction activities adjacent to the detention basin could introduce the potential for erosion or additional siltation into Carroll Creek. As described under Section 2.7, Impact B), the County would prepare a SWPPP for the proposed project in compliance with the NPDES permit, or WPCP in conformance with County standard practice for projects that do not require a SWPPP. Implementation of sediment and erosion control BMPs identified in the SWPPP or WPCP would reduce the impact from erosion and siltation to less than significant.

Operation

Operation of the proposed project would not disrupt the course of Carroll Creek. The proposed project would increase impermeable surfaces by approximately 0.147 acre from construction of paved roadway approaches. The small increase in impervious surfaces has the potential to increase runoff, erosion, and siltation. The presence of the proposed road and bridge would not result in a substantial increase in the rate of erosion or siltation in the area. The impact would be less than significant.

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 that would result in flooding on- or off-site?

The proposed project would not modify the existing upstream over chute structure or detention basins. The proposed project would include the installation of a new bridge south of the existing bridge. The proposed bridge would completely span the Los Angeles Aqueduct and would not alter the aqueduct or affect the flow of the water within the aqueduct. The eastern road approach would utilize an existing culvert under the existing Carroll Creek Road. No modifications to the culvert or Carroll Creek are proposed. Impacts would be less than significant.

Construction of the proposed project would install a replacement bridge downstream from the existing bridge. The bridge foundation would be constructed outside of the Los Angeles Aqueduct concrete structure leaving adequate space for future maintenance and inspection under the bridge. The proposed project would not alter the Los Angeles Aqueduct or affect the flow of the water. No impacts related to flooding on- or off-site would occur.

Vehicles driving along Carroll Creek Road would not disrupt the flow of Carroll Creek. The proposed project would increase impermeable surfaces by approximately 0.147 acre from construction of paved roadway approaches. The small increase in impervious surfaces has the potential to increase runoff; however, the small area of additional impervious surface would not cause flooding on- or off-site because the additional impervious surface area is too small to affect peak flood flows in the area. The proposed project would not substantially impact on- or off-site flooding. The impact is less than significant.

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

Construction

There are no stormwater facilities on the project site. The proposed project would not generate a significant amount of runoff water during or as a result of construction activities including watering for dust control. Dust control water would evaporate before running off site. The impact during construction from runoff would be less than significant.

Operation

The proposed project would increase impermeable surfaces by 0.17 acre as a result of the paved roadway approaches and proposed bridge. Runoff water from the proposed bridge and roadway approaches would not drain directly to the Los Angeles Aqueduct. Runoff would flow into existing drainage ditches on the west of the aqueduct. The new impervious surface would not contribute additional sources of polluted runoff because it would be from such a small area. Traffic is not expected to increase. The impact from stormwater runoff during operation would be less than significant.

F) Otherwise substantially degrade water quality?

See response to Section 2.7.2, Impact B), above. The proposed project has the potential to degrade water quality from increased sedimentation and from spills and leaks. Spill response

and control BMPs will be included in the project-specific SWPPP in compliance with the Construction General Permit (Order 2009-0009-DWQ) or WPCP in conformance with County standard practice for projects that do not require a SWPPP. Once the project is constructed, no additional ground disturbance would occur, increases in traffic are not anticipated, and the increase in impervious surface that could contribute polluted runoff would be minimal. Impacts to water quality would be limited and less than significant.

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?

The proposed project does not involve construction of new housing. No impact would occur.

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

The proposed replacement bridge and roadway approaches are not within a 100-year flood zone (FEMA, 2011). No impact would occur.

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

No water bodies with levees or dams are located in the vicinity of the project site. The closest waterbody with a dam upstream of the project site is Tinemaha Reservoir approximately 40 miles to the north. The proposed project is not within a dam failure inundation area. No impact would result from implementation of the proposed project.

J) Inundation by seiche, tsunami, or mudflow?

There are no large water bodies in the vicinity of the project site and the project site is in a flat valley area, not subject to mudflow risks. No impact would occur.

2.11 LAND USE AND PLANNING

2.11.1 Environmental Setting

2.11.1.1 Regional

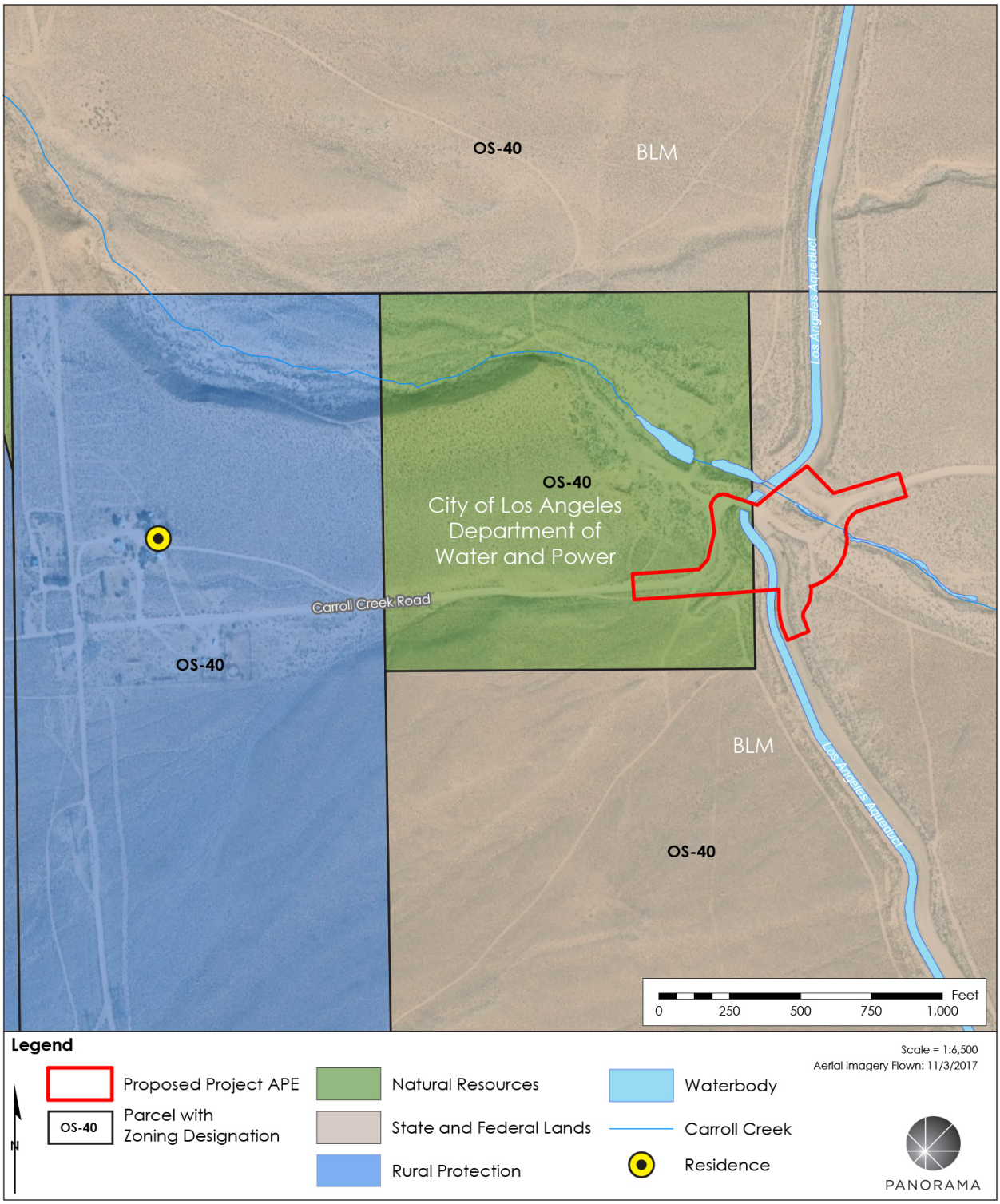
Inyo County is the second largest county in California with a total land area of 10,140 square miles. Only 1.9 percent of the land is held by private ownership. Federal agencies own 91.6 percent, the State of California owns 3.5 percent, LADWP owns 2.7 percent, and the County/other local agencies/Indian reservations own the remaining 0.3 percent of land in the County (Inyo County, 2001). The City of Bishop, the closest urban center, is located approximately 60 miles to the north. The populated areas of Inyo County are located along the U.S. 395 corridor in small communities. The community of Lone Pine is located approximately 7 miles to the north and the community of Cartago is located approximately 11 miles to the south.

2.11.1.2 Project Site

The project site is located in the Owen's Valley area in unincorporated Inyo County approximately 0.4 mile west of the intersection of Carroll Creek Road with U.S. 395. The existing roadway alignment is within the County ROW. The project site crosses existing LADWP ROW which encompasses the Los Angeles Aqueduct and patrol road. The project site and surrounding parcels are zoned open space (OS). The open space designation allows for a variety of permitted uses, including single-family dwellings, wilderness areas, wildlife refuges, ranches, farms, and orchards (Inyo County, 2007b). There are no dwelling units on the project site; however, a residence is located approximately 1,900 feet west of the project site as shown in Figure 2.11-1.

The land use and zoning designations of the parcels around the project site are also shown in Figure 2.11-1. Roadway approaches are designated State and Federal Lands (SFL) and Natural Resources (NR) (Inyo County, 2007a). There are no structures permitted on these parcels or minimum parcel size (Inyo County, 2001). The parcel on the west side of the aqueduct is owned by LADWP and the parcel on the east side of the Los Angeles Aqueduct is owned by BLM (BLM, 2016). The BLM land permits rangeland use (BLM, 1993). Recreational areas in the region include the Inyo National Forest and are accessible by Carroll Creek Road and Bridge (see Section 2.16 Recreation). The region has relatively sparse human habitation and little development.

Figure 2.11-1 Land Use and Zoning Designations



Source: (Inyo County, 2007b; Inyo County, 2001a)

2.11.2 Environmental Impacts

2.11.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒
C) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

2.11.2.2 Discussion

A) Would the project physically divide an established community?

The existing bridge would remain open during construction of the proposed bridge, with minimal short-term delays. The proposed bridge would provide the same access for residences who live in the area as the existing bridge. No impact to established communities would occur.

B) Would the project 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?

The County would obtain a ROW from BLM for locations where the roadway approaches would be realigned and an encroachment permit from LADWP for realignment of the patrol road and roadway approaches. The permits would allow a temporary easement for construction and a permanent ROW to permit access during construction and realignment of the LADWP patrol road and roadway approaches. The proposed project would not change the zoning and land use designations. There would be no conflict with the Inyo County General Plan and Zoning Ordinance or the BLM Bishop Resource Management Plan. The proposed project would not impact applicable land use plans, policies, or regulations.

C) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

There are no habitat, natural community, or other conservation plans that apply to the proposed project. No conflicts would occur.

2.12 MINERAL RESOURCES

2.12.1 Environmental Setting

2.12.1.1 Regional

As discussed under Section 2.6, Cultural and Tribal Cultural Resources, mining was a significant factor that drove settlers to Owens Valley. Inyo County has historically produced substantial quantities of mineral resources including precious metals such as gold, silver, and copper. Other mineral resources mined in Inyo County include uranium, thorium, tungsten, borates, soda ash, limestone, and salt (Inyo County, 2015).

2.12.1.2 Project Site

Recoverable evaporate mineral resources and moderate potential for aggregate minerals such as sand and gravel have a high potential for discovery in the project vicinity (Inyo County 2015). Mining for salt has historically occurred in the vicinity of Owens Lake. Mining for other mineral resources has historically occurred in the Coso Range and other regions outside of Owens Valley (California Division of Mines 1951). A marble quarry is located to the southwest of the project site over 2 miles away (USGS, 2018).

2.12.2 Environmental Impacts

2.12.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒

2.12.2.2 Discussion

A) Would the project 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?

The proposed bridge replacement and culvert installation would require cut-and-fill of soil during grading and the import of aggregate and other materials for paving of the proposed roadway approaches and bridge. The area requiring paving, including the proposed bridge, would be 0.17 acre. The proposed project would not require additional imported soil but would require use of paving materials such as aggregate. The amount required to pave the proposed project would not be substantial. The impact would be less than significant.

B) Would the project 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 known mineral resource sites are located on the project site. The proposed project is a bridge replacement and would not change the use of the project site or adjacent parcels. The proposed project would not result in the loss of a mineral resource recovery site. There would be no impact.

2.13 NOISE

2.13.1 Environmental Setting

2.13.1.1 General Background

Noise is defined as unwanted and objectionable sound. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. The method commonly used to quantify environmental sounds consists of evaluating all frequencies of a sound in accordance with a filter that reflects the fact that human hearing is less sensitive at very low and very high frequencies compared to mid-range frequencies. This is called "A" weighting, and the dB level measurement is called the A-weighted sound level (dBA).

A-weighted sound level (dBA) is expressed on a logarithmic (power of 10) scale using a frequency-weighted pattern that duplicates the human ear's sensitivity to sound. A 70-dBA sound level is approximately twice as loud as a 60-dBA sound level and four times as loud as a 50-dBA sound level.

2.13.1.2 Groundborne Vibrations

Vibrating objects in contact with the ground radiate energy through the ground. Vibrations from large and/or powerful objects are perceptible by humans and animals. The rumbling sound caused by vibrating room surfaces is called groundborne noise. Vibratory motion is commonly described by identifying the peak particle velocity (PPV). PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage (Caltrans, 2004). Table 2.13-1 provides the vibratory thresholds for damage to structures, depending on the type of construction.

Table 2.13-1 Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
Reinforced-concrete, steel or timber (no plaster)	0.5
Engineered concrete and masonry (no plaster)	0.3
Non-engineered timber and masonry buildings	0.2
Buildings extremely susceptible to vibration damage	0.12

Source: (FTA, 2006)

Background vibration levels on the project site are low. Sources include vehicles traveling on Carroll Creek Road and Carroll Creek Road Bridge as well as LADWP vehicles patrolling the Los Angeles Aqueduct. These sources create negligible levels of vibration.

2.13.1.3 Attenuation

Noise

Most noise sources can be classified as either point sources, such as stationary equipment, or line sources, such as a roadway or corona field on a transmission line. Sound generated by a point source nominally diminishes (attenuates) at an approximate rate of 6 dBA for each doubling of distance away from the source. For example, a 60-dBA noise level measured at 50 feet from a point source would be approximately 54-dBA at 100 feet from the source and 48-dBA at 200 feet from the source. Noise from a line source (i.e., roadways, corona noise) nominally attenuates at approximately 3 dBA per doubling of distance (USDOT, 1995).

Groundborne Vibration

Vibration is the physical manifestation of energy carried through the earth and structures. Groundborne vibration consists of rapidly fluctuating motions or waves, and has the potential to annoy people and damage buildings. Low-level of vibrations can also cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. Construction activities can produce varying degrees of ground vibration, depending on the equipment and methods employed. Ground vibrations from construction activities very rarely reach levels high enough to cause damage to structures. Typically, gorundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration.

2.13.1.4 Pre-Project Noise Levels

Background noise levels on the project site are generally low and are mostly natural noises punctuated by occasional manmade noises. Noise sources include vehicles on Carroll Creek Road and Carroll Creek Road Bridge as well as LADWP vehicles patrolling the Los Angeles Aqueduct. High wind can also contribute substantially to background noise levels in the project vicinity.

Ambient noise levels on the project site are typical of a rural area and are likely around 30 dBA. Table 2.13-2 shows typical noise levels of various environments for comparison.

2.13.1.5 Sensitive Noise Receptors

Noise exposure goals for different types of land uses reflect the varying noise sensitivities associated with those uses. Hospitals, schools, libraries, and residences are the most sensitive to noise intrusion and, therefore, have more stringent noise exposure targets than manufacturing or agricultural uses. The nearest sensitive receptors to the project site are residences located approximately 1,900 feet west.

Table 2.13-2 Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban daytime	50	Dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcast/recording studio
	10	
	0	

Source: Caltrans 1998

2.13.1.6 Noise Standards

CEQA does not specify a numerical threshold for "substantial increases" in noise, and no federal regulations that limit overall environmental noise levels are established; however, federal guidance documents address environmental noise and regulations for specific sources.

The EPA published *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* in 1974. This document provides information for state and local governments to use in developing their own ambient noise standards. The EPA determined that a day-night sound level of 55 dBA protects the public from indoor and outdoor activity interference.

The EPA, the Federal Highway Administration (FHWA), and the U.S. Department of Transportation (USDOT) have developed guidelines for noise. Under the authority of the Noise Control Act of 1972, the EPA established noise emission criteria and testing methods, published at 40 CFR Part 204, which apply to some construction and transportation equipment (portable air compressors and medium- and heavy-duty trucks). These regulations apply to trucks that would transport equipment to the project site. Table 2.13-3 summarizes federal guidelines and regulations for exterior noise.

The California Department of Health Services Office of Noise Control has studied the correlation of noise levels and their effects on various land uses. Land use and noise compatibility criteria for Inyo County have been developed from the California Office of Noise Control Land Use Compatibility Matrix for Community Noise Exposure. Maximum acceptable noise levels for various land uses are shown in Table 2.13-4.

Table 2.13-3 Summary of Federal Guidelines and Regulations of Exterior Noise (dBA)

Agency	L_{eq}	L_{dn}
Federal Energy Regulatory Commission	[49]	55
Federal Highway Administration (FHWA)	67	[67]
U.S. Environmental Protection Agency (EPA)	[49]	55
U.S. Department of Housing and Urban Development	[59]	65

Notes:
[ ] indicates calculated equivalent standard. Because FHWA regulates peak noise level, the Ldn is assumed to be equivalent to the peak noise hour.

Sources: (EPA, 1974; FHWA, 2006a; FTA, 2006)

Table 2.13-4 Allowable Ambient Noise Exposure for Various Land Uses in Inyo County

Land Use	Suggested Maximum L_{dn}
Residential	60
Transient lodging	60
Schools, libraries, churches, and hospitals	60
Playgrounds and parks	70
Golf courses and water recreation	70
Commercial	70
Industrial and utilities	70

Source: (Inyo County, 2001a)

2.13.2 Environmental Impacts

2.13.2.1 Checklist

Would the project:	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
A) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☒	☐
B) Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
C) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
D) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
E) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project corridor to excessive noise levels?	☐	☐	☐	☒
F) For a project within the vicinity of a private airstrip, expose people residing or working in the project corridor to excessive noise levels?	☐	☐	☐	☒

2.13.2.2 Discussion

A) Would the project expose 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?

Construction

Construction activities necessary to complete the bridge replacement would generate a considerable amount of noise in the immediate project vicinity. Noise from vehicles, earth-moving operations, and heavy equipment would result in elevated ambient and intermittent noise levels. Noise impacts from construction depend on the noise generated by various pieces of equipment, timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive receptors, and the noise environment in which the proposed project would be constructed. Noise generated during the

construction period would vary on a day-to-day basis, depending on the specific activities being undertaken at any given time.

Heavy construction equipment that would be used during construction of the proposed project may generate maximum noise levels up to approximately 83 dBA at a distance of 50 feet (FHWA, 2006b). Noise levels attenuate at a rate of approximately 6 dBA per doubling of distance from the noise source. The nearest sensitive receptor is approximately 1,900 feet west of the project site. Maximum noise at the nearest sensitive receptor is expected to reach up to 52 dBA during ground clearing activities associated with the construction of the realigned roadway. Construction noise would not exceed the County's L_{dn} threshold of 60 dBA. The impact from construction noise would be less than significant.

Construction traffic is not anticipated on Carroll Creek Road beyond the limits of the project site (Figure 1.2-1). Consequently, construction traffic noise would not exceed noise standards.

Operation

Ongoing use of the realigned roadway and bridge after it is constructed would not generate any new noise because the realigned road and replaced bridge would not change the use of Carroll Creek Road and bridge. The impact from noise during operation and maintenance would be less than significant.

B) Would the project expose persons to or generation of excessive groundborne vibration or groundborne noise levels?

Groundborne vibrations could be generated during bridge installation and grading of the realigned roadway due to the use of construction equipment and the presence of truck traffic. The bridge footings would be located as close as 5 feet from the Los Angeles Aqueduct. Geotechnical bridge design considerations, including footing placement and depth, would ensure construction of the bridge does not impact the Los Angeles Aqueduct liner (Kleinfelder, 2015). Vibration levels could reach 0.089 PPV at a distance of 25 feet (FTA, 2006) during the use of jackhammers, rock drillers, and excavators, which would be perceptible to humans, but would not create structural damage to the Los Angeles Aqueduct. The vibrations would attenuate before reaching the nearest sensitive receptor (1,900 feet away) and would be imperceptible. Vibration would be localized, intermittent, and temporary. The impact from vibration would, therefore, be less than significant.

C) Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The proposed project would not result in a substantial permanent increase in ambient noise levels in the project vicinity. Use of the bridge and road after construction would be the same as existing uses and no new noise would be anticipated. No impact would occur.

D) Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction

Temporary noise impacts from construction would depend on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, the distance between construction noise sources and noise-sensitive receptors, and the noise environment in which the proposed project would be constructed. Noise generated during the construction period would vary on a day-to-day basis, depending on the specific activities being undertaken at any given time. Loaded trucks traveling with construction materials and equipment would generate periodic noise. Maximum noise levels at sensitive receptors would occur during clearing and grading of the realigned roadway (approximately two weeks). Noise from clearing and grading could reach 52 dBA at a distance of 1,900 feet (the location of the nearest sensitive receptor). Noise from construction of the bridge is anticipated to reach up to 49 dBA at the nearest receptor. Construction would not be stationary and noise would reduce as equipment moves farther from receptors. Construction would be temporary, limited to daylight hours, and noise would be intermittent. The impact would be less than significant.

Operation

Ongoing use and maintenance of the bridge would not change from the existing use and maintenance; therefore, the impact to ambient noise levels would be less than significant after construction is complete.

E) For a project located within an airport land use plan, or where such a plan has not been adopted, within 2 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?

The project site is not located within 2 miles of a public airport or within an existing or projected airport land use plan (Inyo County, 2001a). No impact would occur.

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?

The project site is not located within the vicinity of a private airstrip (Inyo County, 2001a). No impact would occur.

2.14 POPULATION AND HOUSING

2.14.1 Environmental Setting

2.14.1.1 Population

Inyo County had an estimated population of 18,026 in 2017 (USCB, 2017). Population in the project vicinity is sparse and the nearest residents are approximately 0.3-mile (1,900 feet) west of the project site in unincorporated Inyo County.

2.14.1.2 Housing

Inyo County has approximately 9,571 housing units (USCB, 2017). Housing in Inyo County and the vicinity of the project site is sparse. The closest house to the project site is located approximately 1,900 feet away. Five housing units are located within 0.5 mile of the project site. The housing units in the project vicinity are privately owned, on private land.

2.14.2 Environmental Impacts

2.14.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
B) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
C) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

2.14.2.2 Discussion

A) Would the project induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

The proposed project would not directly or indirectly induce growth in the area. The new bridge would more efficiently and safely accommodate existing traffic volumes and would increase safety for pedestrians. The new bridge and roadway would not provide an extension to new destinations beyond the current extent of the existing road. Construction is expected to last up to 20 weeks utilizing a construction crew of 12 workers. The construction workers would likely be local and would not require new or additional housing. No impact would occur.

B and C) Would the project displace substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere?

The proposed project would not displace any housing or people. Residents located west of the project site travelling to U.S. 395 may experience temporary traffic delays during construction, lasting not more than 30 minutes. These delays would not require the construction of replacement housing. No impact would occur.

2.15 PUBLIC SERVICES

2.15.1 Environmental Setting

2.15.1.1 Fire Protection Services

The Lone Pine Volunteer/Auxiliary Fire Department provides fire suppression, emergency medical, ambulance transport, and rescue services for the community of Lone Pine and Alabama Hills (Inyo County , 2014). The Lone Pine Volunteer Fire Department is located in the community of Lone Pine.

2.15.1.2 Police Protection Services

The Inyo County Sheriff's Department provides law enforcement services to Inyo County. The station closest to the project site is located in Lone Pine, approximately 8.4 miles north of the project site.

2.15.1.3 Schools

No schools are located in the general vicinity of the project site. The nearest school is Lone Pine High School, located 7.75 miles north of the project site in the town of Lone Pine.

2.15.1.4 Parks

The project site is located 3,800 feet (0.72 mile) west of the Inyo National Forest.

2.15.2 Environmental Impacts

2.15.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government 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:				
(i) Fire protection?	☐	☐	☐	☒
(ii) Police protection?	☐	☐	☐	☒
(iii) Schools?	☐	☐	☐	☒
(iv) Parks?	☐	☐	☐	☒
(v) Other public facilities?	☐	☐	☐	☒

2.15.2.2 Discussion

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:

i) Fire protection?

Construction of the proposed bridge would take approximately 20 weeks and would pose a minor risk of igniting a wildfire. Emergency response would be provided by the Lone Pine Volunteer/Auxiliary Fire Department, which staffs a fire station about 8.8 miles from the proposed project site. The project would not affect response times or service ratios for the fire station and there would be no need to create new or altered fire station. There would be no impact.

ii) Police protection?

The nearest police station is located over 8 miles away in Lone Pine. Construction of the replacement bridge would not increase the demand for police protection because the proposed project would not create any new development in the area. The proposed project would have no impact on existing police protection or necessitate additional police services.

iii) Schools?

The nearest schools to the project site are located in the town of Lone Pine, more than 7 miles to the north. Construction of the replacement bridge would not increase the demand for schools because the proposed project would not create any new development in the area. The proposed project would have no impact on schools.

iv) Parks?

The proposed project would not construct parks or increase the demand for parks. The proposed project would not require the construction of additional parks and there would be no impact.

v) Other public facilities?

No other public facilities are located on the project site or in the vicinity of the proposed project. No impact would occur.

2.16 RECREATION

2.16.1 Environmental Setting

The western portions of Carroll Creek Road are located within the Inyo National Forest and provide some opportunities for use of off-highway vehicles (USFS, 2015). No trails or other recreational opportunities are available in the project vicinity.

2.16.2 Environmental Impacts

2.16.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) 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?	☐	☐	☐	☒
B) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

2.16.2.2 Discussion

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?

Portions of Carroll Creek Road provide the opportunity for use of off-highway vehicles within the Inyo National Forest. Vehicle traffic along Carroll Creek Road Bridge would not increase as a result of the realigned road or replacement bridge because the proposed project would not change access to recreational areas at the western extent of the road. The project site does not provide any recreational opportunities. No impact would occur to recreational facilities.

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?

The proposed project would not construct or necessitate the construction of any recreational facilities. No impact would occur.

2.17 TRANSPORTATION AND TRAFFIC

2.17.1 Environmental Setting

2.17.1.1 Road Infrastructure

Carroll Creek Road is an unpaved, two-way road that connects U.S. 395 with several destinations west of U.S. 395. Destinations include residences, the Los Angeles Aqueduct, and a high-voltage electricity transmission line. The existing bridge on Carroll Creek Road over the Los Angeles Aqueduct is the only access point to the area west of the Los Angeles Aqueduct.

2.17.1.2 Traffic Volume

Carroll Creek Road is defined as a local (rural) road (USDOT, 2015). The average daily traffic (ADT) for a local road is defined as less than 400 vehicles (USDOT, 2013). The ADT on Carroll Creek Road is estimated at 50 vehicles (Caltrans, 2014). The County requires a minimum level of service (LOS) of C on all roadways (Inyo County, 2001b).

2.17.1.3 Air Traffic

Grant Airport is a former, private airport located approximately 16 miles south of the project site. The former Olancha Airfield is located approximately 14.5 miles south of the existing Carroll Creek Road Bridge (Madsen, 1999). Neither private airstrip is currently in use.

2.17.2 Environmental Impacts

2.17.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
B) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
C) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
D) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
E) Result in inadequate emergency access?	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
F) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

2.17.2.2 Discussion

A) Would the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Construction

Truck traffic leading to the project site along Carroll Creek Road would temporarily increase during construction of the proposed replacement bridge and roadway approaches. A total of 460 vehicle trips from construction equipment and vehicles, including haul trucks, would occur over the 5-month construction period. Hauling of waste materials would result in 10 truck trips to a disposal facility. The project site is located in a rural part of Inyo County. Existing traffic volume on Carroll Creek Road consists of vehicles traveling to the residences west of the Los Angeles Aqueduct. Daily vehicle traffic would have to exceed 570 trips a day to exceed the County standard of LOS C. The total traffic generated over the entire 5-month construction period is well below 570 daily trips that are allowable under the County LOS standard. The increase in truck traffic along Carroll Creek Road due to construction of the proposed project would not impact the LOS due to the minimal traffic required for construction and low existing traffic volume. Therefore, no substantial conflict with a local or regional traffic plan would occur. The impact from construction traffic would be less than significant.

Operation

Traffic through the project site would not increase after construction of the proposed project because the proposed project would not affect land use or create new sources of vehicle traffic in the area. No conflict with a local or regional traffic plan would occur. The project would have no impact.

B) Would the project conflict with an applicable congestion management program, including, but not limited to, level of service standard and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?

Construction

As described under Traffic Impact A) above, vehicle and truck traffic along Carroll Creek Road would increase as a result of construction, but would not exceed the LOS standard for the roadway. Daily truck trips would have to exceed 570 trips a day to exceed LOS C. The total

traffic generated over the 5-month construction period is well below 570 daily trips that are allowable under the County LOS standard. Consequently, the LOS on the local roadways would not decrease to unacceptable levels. The impact from construction traffic on LOS would be less than significant.

Operation
Traffic through the project site would not increase after construction of the proposed replacement bridge because the bridge replacement and realigned road would change the land uses in the area or cause new development. Therefore, the LOS on the local roadways would not decrease. No impacts would occur.

C) Would the project 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?

The proposed project would not impact air traffic patterns as it would not be located near any airport or airstrip and would not involve tall structures that impede on airspace. No impacts would occur.

D) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Construction
The existing Carroll Creek Road Bridge would remain open during construction. Cones and traffic controls would be implemented during any roadway delays that may occur. The traffic controls would reduce hazards to vehicles traveling along Carroll Creek Road. No impact would occur during project construction.

Operation
The proposed replacement bridge is designed to meet current design and safety specifications. Consequently, the proposed bridge would be safer for vehicle traffic. No impact would occur during operation of the proposed project.

E) Would the project result in inadequate emergency access?

Construction
The existing Carroll Creek Road Bridge would remain open during construction. Traffic delays of up to 30 minutes could occur at intermittent intervals during certain construction activities such as placement of precast concrete using cranes, as described in Section 1.2.3.9 in the Project Description. Traffic controls (e.g., flaggers) would be in place during traffic delays to allow emergency access through the site, if needed. With traffic controls, the impact to emergency access during project construction would be reduced to less than significant.

Operation
The proposed replacement bridge would be safer than the existing bridge for vehicle access, including emergency vehicles. No impact to emergency access would occur.

F) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

There is no public transportation or bicycle routes along Carroll Creek Road. No impact to polices, plans, or programs supporting alternative transportation would occur.

2.18 UTILITIES AND SERVICE SYSTEMS

2.18.1 Environmental Setting

2.18.1.1 Water Supply

There are no municipal water facilities in the project vicinity due to the rural location and limited number of residences in the area.

2.18.1.2 Sewer and Drainage

No sewer or stormwater drainage infrastructure is located in the project vicinity. The natural drainage of Carroll Creek has been altered by the Los Angeles Aqueduct and Carroll Creek Road. Just prior to crossing the Los Angeles Aqueduct via an over chute structure, LADWP has modified the natural channel into two sediment detention basins. After crossing over the Los Angeles Aqueduct, Carroll Creek flows into an area occasionally cleared of sediment by LADWP. Carroll Creek then flows through a culvert under Carroll Creek Road, after which it continues flowing in its natural channel, as described in detail under Section 2.10, Hydrology and Water Quality.

2.18.1.3 Solid Wastes

The landfill closest to the project site is the Lone Pine Landfill at the end of Substation Road in Lone Pine, California, approximately 7.5 miles north. The landfill is regulated by the Inyo County Department of Environmental Health Services. The facility is permitted to accept general non-hazardous waste. The closest facility permitted to accept hazardous waste is the Bishop Sunland Solid Waste Site on the south side of Bishop, which is permitted to accept non-friable asbestos and contaminated soil (CalRecycle, 2018).

2.18.2 Environmental Impacts

2.18.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
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?	☐	☐	☒	☐
C) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
D) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
E) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
F) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
G) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

2.18.2.2 Discussion

A) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Construction

During construction of the proposed project a portable toilet would be transported to the project site for use by construction workers. The portable toilet waste generated during the construction period would be trucked to an appropriate wastewater treatment facility. The wastewater generated during construction would be treated to the standards set forth by the

Lahontan Regional Water Quality Control Board (RWQCB). The impact on wastewater treatment requirements would be less than significant.

Operation
Use and maintenance of the proposed bridge would not generate wastewater. No impact to wastewater treatment requirements would occur.

B) Would the project 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?

Construction
Water would be required for construction activities. Construction of the proposed project would require up to one million gallons of water over the 5-month construction period. Water would be obtained from a local source and trucked to the project site. The proposed project would not require the construction of new or the expansion of existing water treatment facilities. The construction period would last approximately 5 months with up to 12 construction workers on the project site at any one time. The portable toilet waste generated during construction would be minimal and would not substantially affect the capacity of wastewater treatment facilities. The proposed project would not require expansion of existing water or wastewater treatment facilities. The impact would be less than significant.

Operation
Use and maintenance of the proposed bridge would be similar in scope to use and maintenance of the existing bridge. The proposed project would not change the existing needs for water or wastewater treatment service in the vicinity because the proposed project would not result in land use change or new development. No impact would occur.

C) Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed project would realign Carroll Creek Road and construct a replacement bridge, which would increase the impervious surfaces by approximately 0.17 acre. Surface runoff from these impervious surfaces would not flow into a stormwater drainage facility but would percolate into the ground or evaporate. No impact to stormwater drainage facilities would occur.

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

Construction
Construction of the proposed project would require up to one million gallons of water over the 5-month construction period. Water would be obtained from an existing source and trucked to the site daily. Expanded or new water entitlements are not needed for this short duration. The impact to existing entitlements and water resources would be less than significant.

Operation
Use and maintenance of the proposed bridge would be similar in scope to existing use and maintenance, and would have no impact on available water supply resources.

E) Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Construction
See response to Utilities Impact A), above. The impact from construction would be less than significant.

Operation
Use and maintenance of the proposed bridge would be similar in scope to existing use and maintenance, and would not change the available capacity of regional wastewater treatment facilities. No impact would occur.

F) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Construction
Grading activities during construction of the proposed project would result in an excess of up to 200 cubic yards of materials. This material could be disposed of at the Lone Pine Landfill. This landfill is estimated to close in 2052 and has approximately one million cubic yards of capacity remaining (CalRecycle, 2018). There is adequate capacity to accommodate the disposal of materials from the proposed project. The impact would be less than significant.

Operation
Use and maintenance of the proposed bridge would be similar in scope to existing use and maintenance. The proposed project would not generate solid waste. No impact would occur.

G) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Construction
The waste material generated during construction would be transported to an appropriate disposal location in accordance with federal, state, and local statutes and regulations related to solid waste. No impact from disposal of materials associated with the proposed project would occur.

Operation
Use and maintenance of the proposed bridge would be similar in scope to existing use and maintenance, and would have no impact on landfills.

2.19 ENERGY CONSERVATION

2.19.1 Environmental Setting

2.19.1.1 Petroleum

The petroleum used in California originates both within and outside of the state. In 2017, approximately 56 percent of the crude oil that California receives originates from foreign sources; however, California produces 31 percent of the crude oil consumed within the state (CEC, 2017). Most petroleum, or crude oil, produced in California is used in on-road motor vehicles and is refined within California to meet state-specific formulations required by the CARB. The primary uses of petroleum fuels are gasoline and diesel for passenger vehicles, transit, rail vehicles, and construction equipment; and fuel oil for industry and electrical power generation. In 2012, approximately 25 percent of diesel fuel used in California was consumed by "off highway" construction, farming equipment, military and railroad vehicles and equipment, and marine crafts (CEC, 2012).

2.19.2 Environmental Impacts

2.19.2.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) Result in a wasteful, inefficient, and unnecessary consumption of energy?	☐	☐	☒	☐
B) Result in a substantial increase in demand upon energy resources in relation to projected supplies?	☐	☐	☒	☐
C) Result in longer overall distances between jobs and housing?	☐	☐	☐	☒

2.19.2.2 Discussion

A) Would the project result in a wasteful, inefficient, and unnecessary consumption of energy?

Construction

The construction equipment and vehicles that would be used during construction of the proposed project would consume energy via combustion of petroleum products, including gas, diesel, and motor oil. Consumption of energy during construction would be temporary, lasting 5 months, and would cease after the proposed project is completed. Indirect energy use would be required to make the materials and components used in construction. Indirect energy use includes energy used for extraction of raw materials, manufacturing, and transportation associated with manufacturing.

Fuel use would be consistent with typical construction and manufacturing practices and would not require excessive or wasteful use of energy. Construction activities would not reduce or

interrupt existing fuel or electricity delivery systems due to insufficient supply. The impact would be less than significant.

Operation
The proposed bridge and realigned roadway approaches would require minimal to no maintenance. Maintenance activities would likely be reduced from the maintenance of the existing bridge because the new bridge would meet current design standards. Bridge and road maintenance would not require excessive or wasteful use of energy. The impact would be less than significant.

B) Would the proposed project result in a substantial increase in demand upon energy resources in relation to projected supplies?

The replacement bridge and realigned road would not create a substantial new demand for energy. Construction equipment and vehicles would be powered using gasoline or diesel; however, construction would last approximately 5 months and would require a crew of approximately 12 people. The short duration of construction and small crew size would not substantially increase demand for gasoline or diesel within California. The impact would be less than significant.

C) Would the proposed project result in longer overall distances between jobs and housing?

Construction of the proposed replacement bridge would enable any residences to the west of the Los Angeles Aqueduct to safely access U.S. 395. Construction would be completed using a local workforce. The proposed project would not increase the distance between jobs and housing in the vicinity. No impact would occur.

2.20 MANDATORY FINDINGS OF SIGNIFICANCE

2.20.1 Environmental Impacts

2.20.1.1 Checklist

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
A) 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?	☐	☒	☐	☐

Would the project:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
B) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental 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.)	☐	☐	☐	☒
C) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

2.20.1.2 Discussion

A) Would 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?

Construction of the proposed project has the potential to result in significant impacts to special-status species not protected in by the federal or state endangered species acts as well as migratory birds. Potential impacts to wildlife species include loss of habitat through vegetation removal, crushing of individuals, nest destruction, or nest failure. The proposed project has a limited area of disturbance and would not impact species in the surrounding areas. The proposed project would not cause a fish or wildlife population to drop below self-sustaining levels because there is no fish or wildlife population known to occur within the area and the range and distribution of all species that could occur on the project site is large relative to the project. The proposed project would not substantially reduce the habitat of any fish or wildlife species. The proposed project would not threaten to eliminate or plant or animal community. All plants and animals that occur or could occur within the project site also occur within many other areas of the region. The impact on plant and animal habitat and species populations would be less than significant.

The proposed project would not restrict the range of any species. The Los Angeles Aqueduct currently serves as a barrier to wildlife migration and may restrict the range of species. The proposed project would create another potential dispersal location by constructing the proposed bridge which has the potential to serve as another crossing of the Los Angeles Aqueduct. No impact on the range of any species would occur.

Desert tortoise are not expected to occur on the project site due to the low quality of habitat. Furthermore, the project site is located at the northern limits of the species range and north of

any location where desert tortoise have been detected in the Owens Valley. While it is unlikely that desert tortoise will occur on the project site, the potential impact to desert tortoise from construction activities is significant because desert tortoise are limited in number and protected under state and federal law. Mitigation Measure BIO-1 would reduce impacts on desert tortoise by requiring pre-construction surveys and avoidance of any desert tortoise observed on the project site. The impact to endangered desert tortoise would be less than significant with mitigation.

The Los Angeles Aqueduct transects the project site. The Los Angeles Aqueduct is important as an example of a water conveying system and through the association with William Mulholland. The proposed project would span the Los Angeles Aqueduct and avoid all impacts on the Los Angeles Aqueduct. There are no other important examples of major Californian prehistoric or historic periods in the project vicinity. The proposed project would not eliminate important examples of the major periods of California history or prehistory. See also Section 2.6.2 above for impacts on cultural resources and mitigation for inadvertent discoveries of cultural resources. No impact to important examples of California history or prehistory would occur.

B) Would the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental 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.)

There are no past, present, or probably future projects in the vicinity of the proposed project. The probable future projects to the proposed project is the Olancha Cartago Four-Lane Project (U.S. 395 Project). The U.S. 395 Project would convert 12.6 miles of the existing U.S. 395 from a two-lane conventional highway into a four-lane expressway or partial conventional four-lane highway. The U.S. 395 Project is located 8 miles south of the project site. The proposed project impacts would not contribute to cumulative impacts in combination with the U.S. 395 Project due to the limited scope of the proposed project (1.11 acres) and the 8-mile distance between the proposed project and the cumulative project. No cumulative impact would occur.

C) Would the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Construction of the proposed project would be limited to 5 months. Construction would also be limited in scope to the proposed roadway realignment and bridge. No human beings are located in the immediate vicinity or directly adjacent to the project site (within 500 feet or less) that could be exposed to excessive air emissions or noise levels that could cause a substantial adverse effect. The impact would be less than significant.

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APPENDIX A

Air Quality and Greenhouse Gases Support Information

Carroll

Great Basin Valleys Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.38	Acre	0.38	16,378.56	0
Other Non-Asphalt Surfaces	2.05	Acre	2.05	89,298.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - July 24, 2020

Land Use - 0.376 acre paved area (bridge, aprons, approach), 2.05 acres graded

Construction Phase - site grading 7/24/2020 to 8/9/2020, building construction 8/9/2020 to 12/23/2020, paving 8/9/2020 to 8/16/2020, 12/9/2020 to 12/23/2020

Grading - 2,740 cy cut, 2,320 fill; 2.05 acres graded

Carroll - Great Basin Valleys Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	NumDays	220.00	98.00
tblConstructionPhase	NumDays	6.00	11.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	PhaseEndDate	8/4/2021	12/23/2020
tblConstructionPhase	PhaseEndDate	7/7/2021	12/23/2020
tblConstructionPhase	PhaseEndDate	9/2/2020	8/9/2020
tblConstructionPhase	PhaseEndDate	7/21/2021	8/16/2020
tblConstructionPhase	PhaseStartDate	7/22/2021	12/9/2020
tblConstructionPhase	PhaseStartDate	9/3/2020	8/9/2020
tblConstructionPhase	PhaseStartDate	8/26/2020	7/24/2020
tblConstructionPhase	PhaseStartDate	7/8/2021	8/9/2020
tblGrading	AcresOfGrading	5.50	2.05
tblGrading	MaterialExported	0.00	2,320.00
tblGrading	MaterialImported	0.00	2,740.00
tblLandUse	LandUseSquareFeet	16,552.80	16,378.56

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1863	1.1947	0.9676	2.0500e-003	0.0622	0.0550	0.1173	0.0259	0.0525	0.0784	0.0000	177.5161	177.5161	0.0282	0.0000	178.2203
Maximum	**0.1863**	**1.1947**	**0.9676**	**2.0500e-003**	**0.0622**	**0.0550**	**0.1173**	**0.0259**	**0.0525**	**0.0784**	**0.0000**	**177.5161**	**177.5161**	**0.0282**	**0.0000**	**178.2203**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1863	1.1947	0.9676	2.0500e-003	0.0622	0.0550	0.1172	0.0259	0.0525	0.0784	0.0000	177.5159	177.5159	0.0282	0.0000	178.2202
Maximum	**0.1863**	**1.1947**	**0.9676**	**2.0500e-003**	**0.0622**	**0.0550**	**0.1172**	**0.0259**	**0.0525**	**0.0784**	**0.0000**	**177.5159**	**177.5159**	**0.0282**	**0.0000**	**178.2202**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-24-2020	9-30-2020	0.6836	0.6836
		Highest	0.6836	0.6836

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0105	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	5.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0105**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**5.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0105	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	5.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0105**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**5.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/24/2020	8/9/2020	5	11	
2	Building Construction	Building Construction	8/9/2020	12/23/2020	5	98	
3	Paving	Paving	8/9/2020	8/16/2020	5	5	
4	Architectural Coating	Architectural Coating	12/9/2020	12/23/2020	5	11	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.05

Acres of Paving: 2.43

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 6,341 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	44.00	17.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0342	0.0000	0.0342	0.0183	0.0000	0.0183	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0106	0.1174	0.0547	1.1000e-004		5.4500e-003	5.4500e-003		5.0100e-003	5.0100e-003	0.0000	9.9611	9.9611	3.2200e-003	0.0000	10.0416
Total	**0.0106**	**0.1174**	**0.0547**	**1.1000e-004**	**0.0342**	**5.4500e-003**	**0.0397**	**0.0183**	**5.0100e-003**	**0.0233**	**0.0000**	**9.9611**	**9.9611**	**3.2200e-003**	**0.0000**	**10.0416**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1200e-003	0.0727	0.0121	2.1000e-004	4.2600e-003	2.3000e-004	4.4900e-003	1.1700e-003	2.2000e-004	1.4000e-003	0.0000	19.8330	19.8330	7.6000e-004	0.0000	19.8520
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.2800e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3942	0.3942	2.0000e-005	0.0000	0.3947
Total	**2.4800e-003**	**0.0730**	**0.0144**	**2.1000e-004**	**4.7000e-003**	**2.3000e-004**	**4.9300e-003**	**1.2900e-003**	**2.2000e-004**	**1.5200e-003**	**0.0000**	**20.2272**	**20.2272**	**7.8000e-004**	**0.0000**	**20.2467**

3.2 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0342	0.0000	0.0342	0.0183	0.0000	0.0183	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0106	0.1174	0.0547	1.1000e-004		5.4500e-003	5.4500e-003		5.0100e-003	5.0100e-003	0.0000	9.9611	9.9611	3.2200e-003	0.0000	10.0416
Total	**0.0106**	**0.1174**	**0.0547**	**1.1000e-004**	**0.0342**	**5.4500e-003**	**0.0397**	**0.0183**	**5.0100e-003**	**0.0233**	**0.0000**	**9.9611**	**9.9611**	**3.2200e-003**	**0.0000**	**10.0416**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1200e-003	0.0727	0.0121	2.1000e-004	4.2600e-003	2.3000e-004	4.4900e-003	1.1700e-003	2.2000e-004	1.4000e-003	0.0000	19.8330	19.8330	7.6000e-004	0.0000	19.8520
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.5000e-004	2.2800e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3942	0.3942	2.0000e-005	0.0000	0.3947
Total	**2.4800e-003**	**0.0730**	**0.0144**	**2.1000e-004**	**4.7000e-003**	**2.3000e-004**	**4.9300e-003**	**1.2900e-003**	**2.2000e-004**	**1.5200e-003**	**0.0000**	**20.2272**	**20.2272**	**7.8000e-004**	**0.0000**	**20.2467**

3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1121	0.8543	0.7300	1.2300e-003		0.0465	0.0465		0.0445	0.0445	0.0000	101.7458	101.7458	0.0207	0.0000	102.2620
Total	**0.1121**	**0.8543**	**0.7300**	**1.2300e-003**		**0.0465**	**0.0465**		**0.0445**	**0.0445**	**0.0000**	**101.7458**	**101.7458**	**0.0207**	**0.0000**	**102.2620**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1900e-003	0.1016	0.0360	2.6000e-004	5.5000e-003	4.7000e-004	5.9700e-003	1.5900e-003	4.5000e-004	2.0400e-003	0.0000	24.2244	24.2244	1.4400e-003	0.0000	24.2604
Worker	0.0140	9.8600e-003	0.0893	1.7000e-004	0.0171	1.4000e-004	0.0173	4.5600e-003	1.3000e-004	4.6800e-003	0.0000	15.4533	15.4533	7.1000e-004	0.0000	15.4712
Total	**0.0191**	**0.1115**	**0.1253**	**4.3000e-004**	**0.0226**	**6.1000e-004**	**0.0233**	**6.1500e-003**	**5.8000e-004**	**6.7200e-003**	**0.0000**	**39.6777**	**39.6777**	**2.1500e-003**	**0.0000**	**39.7315**

3.3 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1121	0.8543	0.7300	1.2300e-003		0.0465	0.0465		0.0445	0.0445	0.0000	101.7456	101.7456	0.0207	0.0000	102.2619
Total	**0.1121**	**0.8543**	**0.7300**	**1.2300e-003**		**0.0465**	**0.0465**		**0.0445**	**0.0445**	**0.0000**	**101.7456**	**101.7456**	**0.0207**	**0.0000**	**102.2619**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1900e-003	0.1016	0.0360	2.6000e-004	5.5000e-003	4.7000e-004	5.9700e-003	1.5900e-003	4.5000e-004	2.0400e-003	0.0000	24.2244	24.2244	1.4400e-003	0.0000	24.2604
Worker	0.0140	9.8600e-003	0.0893	1.7000e-004	0.0171	1.4000e-004	0.0173	4.5600e-003	1.3000e-004	4.6800e-003	0.0000	15.4533	15.4533	7.1000e-004	0.0000	15.4712
Total	**0.0191**	**0.1115**	**0.1253**	**4.3000e-004**	**0.0226**	**6.1000e-004**	**0.0233**	**6.1500e-003**	**5.8000e-004**	**6.7200e-003**	**0.0000**	**39.6777**	**39.6777**	**2.1500e-003**	**0.0000**	**39.7315**

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8900e-003	0.0290	0.0295	4.0000e-005		1.6400e-003	1.6400e-003		1.5100e-003	1.5100e-003	0.0000	3.8764	3.8764	1.2300e-003	0.0000	3.9072
Paving	5.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3900e-003**	**0.0290**	**0.0295**	**4.0000e-005**		**1.6400e-003**	**1.6400e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**3.8764**	**3.8764**	**1.2300e-003**	**0.0000**	**3.9072**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.7000e-004	1.5500e-003	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2688	0.2688	1.0000e-005	0.0000	0.2691
Total	**2.4000e-004**	**1.7000e-004**	**1.5500e-003**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2688**	**0.2688**	**1.0000e-005**	**0.0000**	**0.2691**

3.4 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8900e-003	0.0290	0.0295	4.0000e-005		1.6400e-003	1.6400e-003		1.5100e-003	1.5100e-003	0.0000	3.8764	3.8764	1.2300e-003	0.0000	3.9072
Paving	5.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.3900e-003**	**0.0290**	**0.0295**	**4.0000e-005**		**1.6400e-003**	**1.6400e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**3.8764**	**3.8764**	**1.2300e-003**	**0.0000**	**3.9072**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.7000e-004	1.5500e-003	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2688	0.2688	1.0000e-005	0.0000	0.2691
Total	**2.4000e-004**	**1.7000e-004**	**1.5500e-003**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2688**	**0.2688**	**1.0000e-005**	**0.0000**	**0.2691**

3.5 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0367					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	9.2600e-003	0.0101	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.4043	1.4043	1.1000e-004	0.0000	1.4070
Total	**0.0381**	**9.2600e-003**	**0.0101**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.4043**	**1.4043**	**1.1000e-004**	**0.0000**	**1.4070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.3000e-004	2.0500e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3548	0.3548	2.0000e-005	0.0000	0.3552
Total	**3.2000e-004**	**2.3000e-004**	**2.0500e-003**	**0.0000**	**3.9000e-004**	**0.0000**	**4.0000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3548**	**0.3548**	**2.0000e-005**	**0.0000**	**0.3552**

3.5 Architectural Coating - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0367					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3300e-003	9.2600e-003	0.0101	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.4043	1.4043	1.1000e-004	0.0000	1.4070
Total	**0.0381**	**9.2600e-003**	**0.0101**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.4043**	**1.4043**	**1.1000e-004**	**0.0000**	**1.4070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.3000e-004	2.0500e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3548	0.3548	2.0000e-005	0.0000	0.3552
Total	**3.2000e-004**	**2.3000e-004**	**2.0500e-003**	**0.0000**	**3.9000e-004**	**0.0000**	**4.0000e-004**	**1.0000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3548**	**0.3548**	**2.0000e-005**	**0.0000**	**0.3552**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.520916	0.041476	0.196490	0.127793	0.032299	0.007320	0.008629	0.050790	0.003879	0.002184	0.005807	0.000914	0.001503
Other Non-Asphalt Surfaces	0.520916	0.041476	0.196490	0.127793	0.032299	0.007320	0.008629	0.050790	0.003879	0.002184	0.005807	0.000914	0.001503

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0105	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	5.0000e-005
Unmitigated	0.0105	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	5.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.6700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	5.0000e-005
Total	**0.0105**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**5.0000e-005**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.6700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	5.0000e-005
Total	**0.0105**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**5.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Carroll

Great Basin Valleys Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	0.38	Acre	0.38	16,378.56	0
Other Non-Asphalt Surfaces	2.05	Acre	2.05	89,298.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	9			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - July 24, 2020

Land Use - 0.376 acre paved area (bridge, aprons, approach), 2.05 acres graded

Construction Phase - site grading 7/24/2020 to 8/9/2020, building construction 8/9/2020 to 12/23/2020, paving 8/9/2020 to 8/16/2020, 12/9/2020 to 12/23/2020

Grading - 2,740 cy cut, 2,320 fill; 2.05 acres graded

Carroll - Great Basin Valleys Air Basin, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	11.00
tblConstructionPhase	NumDays	220.00	98.00
tblConstructionPhase	NumDays	6.00	11.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	PhaseEndDate	8/4/2021	12/23/2020
tblConstructionPhase	PhaseEndDate	7/7/2021	12/23/2020
tblConstructionPhase	PhaseEndDate	9/2/2020	8/9/2020
tblConstructionPhase	PhaseEndDate	7/21/2021	8/16/2020
tblConstructionPhase	PhaseStartDate	7/22/2021	12/9/2020
tblConstructionPhase	PhaseStartDate	9/3/2020	8/9/2020
tblConstructionPhase	PhaseStartDate	8/26/2020	7/24/2020
tblConstructionPhase	PhaseStartDate	7/8/2021	8/9/2020
tblGrading	AcresOfGrading	5.50	2.05
tblGrading	MaterialExported	0.00	2,320.00
tblGrading	MaterialImported	0.00	2,740.00
tblLandUse	LandUseSquareFeet	16,552.80	16,378.56

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	9.6544	65.7374	42.1538	0.1129	7.6986	2.6507	10.3493	3.7337	2.4782	6.2119	0.0000	11,139.8655	11,139.8655	1.8516	0.0000	11,186.1560
Maximum	**9.6544**	**65.7374**	**42.1538**	**0.1129**	**7.6986**	**2.6507**	**10.3493**	**3.7337**	**2.4782**	**6.2119**	**0.0000**	**11,139.8655**	**11,139.8655**	**1.8516**	**0.0000**	**11,186.1560**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	9.6544	65.7374	42.1538	0.1129	7.6986	2.6507	10.3493	3.7337	2.4782	6.2119	0.0000	11,139.8655	11,139.8655	1.8516	0.0000	11,186.1560
Maximum	**9.6544**	**65.7374**	**42.1538**	**0.1129**	**7.6986**	**2.6507**	**10.3493**	**3.7337**	**2.4782**	**6.2119**	**0.0000**	**11,139.8655**	**11,139.8655**	**1.8516**	**0.0000**	**11,186.1560**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0576	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.3000e-004	5.3000e-004	0.0000		5.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0576**	**0.0000**	**2.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**0.0000**	**5.7000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0576	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.3000e-004	5.3000e-004	0.0000		5.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0576**	**0.0000**	**2.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**5.3000e-004**	**5.3000e-004**	**0.0000**	**0.0000**	**5.7000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/24/2020	8/9/2020	5	11	
2	Building Construction	Building Construction	8/9/2020	12/23/2020	5	98	
3	Paving	Paving	8/9/2020	8/16/2020	5	5	
4	Architectural Coating	Architectural Coating	12/9/2020	12/23/2020	5	11	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.05

Acres of Paving: 2.43

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 6,341 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	4	10.00	0.00	500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	44.00	17.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	9.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2197	0.0000	6.2197	3.3316	0.0000	3.3316			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110		1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**6.2197**	**0.9902**	**7.2099**	**3.3316**	**0.9110**	**4.2425**		**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3772	13.0528	2.0414	0.0384	0.7968	0.0421	0.8388	0.2186	0.0402	0.2588		4,022.6996	4,022.6996	0.1435		4,026.2880
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0646	0.0390	0.4075	8.3000e-004	0.0822	6.3000e-004	0.0828	0.0218	5.8000e-004	0.0224		82.4136	82.4136	3.7100e-003		82.5065
Total	**0.4418**	**13.0918**	**2.4489**	**0.0392**	**0.8789**	**0.0427**	**0.9216**	**0.2404**	**0.0408**	**0.2812**		**4,105.1132**	**4,105.1132**	**0.1473**		**4,108.7945**

3.2 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2197	0.0000	6.2197	3.3316	0.0000	3.3316			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110	0.0000	1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**6.2197**	**0.9902**	**7.2099**	**3.3316**	**0.9110**	**4.2425**	**0.0000**	**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3772	13.0528	2.0414	0.0384	0.7968	0.0421	0.8388	0.2186	0.0402	0.2588		4,022.6996	4,022.6996	0.1435		4,026.2880
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0646	0.0390	0.4075	8.3000e-004	0.0822	6.3000e-004	0.0828	0.0218	5.8000e-004	0.0224		82.4136	82.4136	3.7100e-003		82.5065
Total	**0.4418**	**13.0918**	**2.4489**	**0.0392**	**0.8789**	**0.0427**	**0.9216**	**0.2404**	**0.0408**	**0.2812**		**4,105.1132**	**4,105.1132**	**0.1473**		**4,108.7945**

3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089		2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**		**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1023	2.0531	0.6606	5.3100e-003	0.1153	9.4500e-003	0.1247	0.0332	9.0300e-003	0.0422		554.0004	554.0004	0.0305		554.7635
Worker	0.2843	0.1715	1.7929	3.6500e-003	0.3615	2.7800e-003	0.3642	0.0959	2.5600e-003	0.0984		362.6198	362.6198	0.0163		363.0284
Total	**0.3866**	**2.2245**	**2.4534**	**8.9600e-003**	**0.4767**	**0.0122**	**0.4889**	**0.1291**	**0.0116**	**0.1407**		**916.6202**	**916.6202**	**0.0469**		**917.7919**

3.3 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089	0.0000	2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**	**0.0000**	**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1023	2.0531	0.6606	5.3100e-003	0.1153	9.4500e-003	0.1247	0.0332	9.0300e-003	0.0422		554.0004	554.0004	0.0305		554.7635
Worker	0.2843	0.1715	1.7929	3.6500e-003	0.3615	2.7800e-003	0.3642	0.0959	2.5600e-003	0.0984		362.6198	362.6198	0.0163		363.0284
Total	**0.3866**	**2.2245**	**2.4534**	**8.9600e-003**	**0.4767**	**0.0122**	**0.4889**	**0.1291**	**0.0116**	**0.1407**		**916.6202**	**916.6202**	**0.0469**		**917.7919**

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051		1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.1991					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3538**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**		**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0969	0.0585	0.6112	1.2400e-003	0.1232	9.5000e-004	0.1242	0.0327	8.7000e-004	0.0336		123.6204	123.6204	5.5700e-003		123.7597
Total	**0.0969**	**0.0585**	**0.6112**	**1.2400e-003**	**0.1232**	**9.5000e-004**	**0.1242**	**0.0327**	**8.7000e-004**	**0.0336**		**123.6204**	**123.6204**	**5.5700e-003**		**123.7597**

3.4 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1547	11.5873	11.8076	0.0178		0.6565	0.6565		0.6051	0.6051	0.0000	1,709.2180	1,709.2180	0.5417		1,722.7605
Paving	0.1991					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3538**	**11.5873**	**11.8076**	**0.0178**		**0.6565**	**0.6565**		**0.6051**	**0.6051**	**0.0000**	**1,709.2180**	**1,709.2180**	**0.5417**		**1,722.7605**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0969	0.0585	0.6112	1.2400e-003	0.1232	9.5000e-004	0.1242	0.0327	8.7000e-004	0.0336		123.6204	123.6204	5.5700e-003		123.7597
Total	**0.0969**	**0.0585**	**0.6112**	**1.2400e-003**	**0.1232**	**9.5000e-004**	**0.1242**	**0.0327**	**8.7000e-004**	**0.0336**		**123.6204**	**123.6204**	**5.5700e-003**		**123.7597**

3.5 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.6797					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**6.9219**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0351	0.3667	7.5000e-004	0.0739	5.7000e-004	0.0745	0.0196	5.2000e-004	0.0201		74.1722	74.1722	3.3400e-003		74.2558
Total	**0.0581**	**0.0351**	**0.3667**	**7.5000e-004**	**0.0739**	**5.7000e-004**	**0.0745**	**0.0196**	**5.2000e-004**	**0.0201**		**74.1722**	**74.1722**	**3.3400e-003**		**74.2558**

3.5 Architectural Coating - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	6.6797					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**6.9219**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0351	0.3667	7.5000e-004	0.0739	5.7000e-004	0.0745	0.0196	5.2000e-004	0.0201		74.1722	74.1722	3.3400e-003		74.2558
Total	**0.0581**	**0.0351**	**0.3667**	**7.5000e-004**	**0.0739**	**5.7000e-004**	**0.0745**	**0.0196**	**5.2000e-004**	**0.0201**		**74.1722**	**74.1722**	**3.3400e-003**		**74.2558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.520916	0.041476	0.196490	0.127793	0.032299	0.007320	0.008629	0.050790	0.003879	0.002184	0.005807	0.000914	0.001503
Other Non-Asphalt Surfaces	0.520916	0.041476	0.196490	0.127793	0.032299	0.007320	0.008629	0.050790	0.003879	0.002184	0.005807	0.000914	0.001503

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0576	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.3000e-004	5.3000e-004	0.0000		5.7000e-004
Unmitigated	0.0576	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.3000e-004	5.3000e-004	0.0000		5.7000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.3000e-004	5.3000e-004	0.0000		5.7000e-004
Total	**0.0576**	**0.0000**	**2.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**5.3000e-004**	**5.3000e-004**	**0.0000**		**5.7000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0374					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		5.3000e-004	5.3000e-004	0.0000		5.7000e-004
Total	**0.0576**	**0.0000**	**2.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**5.3000e-004**	**5.3000e-004**	**0.0000**		**5.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

Biological Resources Support Information

Special-status Plants Species Known or with Potential to Occur in the Biological Study Area (BSA)

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
dark red onion (*Allium atrorubens var. cristatum*)	CRPR - 4.3	Found on sandy soils within desert scrub, pinyon-juniper woodland habitat at elevations between 3,937–3,890 feet (1,200–2,100 m). Closest reported location is at the north end of the Alabama hills, approximately 8 miles (13 km) north of the project area. Found within a rocky (metamorphic mix) alluvial slope, with Artemisia nova, A. tridentata, Grayia spinosa, Atriplex confertifolia, Delphinium parishii.	Moderate – most reported locations are from similar or higher elevations within soil habitats broadly resembling the BSA.
Shockley's milkvetch (*Astragalus serenoi var. shockleyi*)	CRPR - 2B.2	Found on open, dry, alkaline gravelly clay, generally within sagebrush, pinyon habitat at elevations between 3,773–7,546 feet (1,150–2,300 m) along the east side of Sierra Nevada mountains. Known to occur mainly in the Inyo Mountains to the north of the study area, within sagebrush scrub habitat. Some Inyo Mountains populations occur on soils that are saline-influenced, and thus bear resemblance to the soil habitats that support chenopod scrub within the study area.	Low – most reported locations are at higher elevations in habitats that do not resemble the study area.
Silvermilk-vetch (*Astragalus argophyllus var. argophyllus*)	BLMS	Found in meadows and playas habitats at elevations between 4,068 – 7,709 feet (1,240 -2,350 m) in Inyo, Lassen, and Mono counties.	Low – most reported locations are at higher elevations in habitats that do not resemble the study area.

APPENDIX B

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Long Valley milkvetch (*Astragalus johannis-howellii*)	BLMS, SR	Usually found in swales in vicinity of former or present hot springs activity at elevations between 6,692 – 8,300 feet (2,040 -2,530 m). Closet observation is by Lake Crowley in southern Mono County.	Low – most reported locations are at higher elevations in habitats that do not resemble the study area.
Mono milk-vetch (*Astragalus monoensis*)	BLMS, SR	Endemic to the open pumice plains of Central Mono County. Closest observation is approximately 30 miles northwest in Sawmill Pass within Kings Canyon National Park.	None – endemic to the open pumice plains of Central Mono County.
Lavin's milk-vetch (*Astragalus oophorus var. lavinii*)	BLMS	Known in California only from the Bodie Hills. Closest observation is located in Masonic Mountain in California.	None – only found in the Bodie Hills in Mono County.
Tonopah milk-vetch (*Astragalus pseudiodanthus*)	BLMS	Known in California from fewer than ten occurrences. Usually found in dunes habitat. Closest observation is located on northeast of Mono Lake in Mono County.	Low – most reported locations are in habitats that do not resemble the study area.
Bodie Hills rock cress (*Boechera bodiensi*)	BLMS	Usually found in alpine boulder, rock field, Great Basin scrub, Pinyon and juniper woodland, and subalpine coniferous forest habitats at elevation between 6,840 – 11,581 feet (2,085 – 3,530m). Closest observation is located over 30 miles north of Owens Lake in Waucoba Mountain.	Low – most reported locations are at higher elevations in habitats that do not resemble the study area.
Inyo County star tulip (*Calochortus excavatus*)	CRPR - 1B.1 BLMS	Found on alkaline soils in mesic conditions within Chenopod scrub and meadows and seeps. Found at elevations between 3,773–6,562 feet (1,150–2,000 m). Closest observation is approximately 10 miles (16 km) north in a canyon west of lone pine in an alkali meadow on south side of road, with Sidalcea covillei, Distichlis spicata, Bromus japonicus, Carex praegracilis, Zigadenus venenosus.	None – dependent on alkali mesic conditions.
white pygmy poppy (*Canbya candida*)	CRPR - 4.2 USFS Sensitive	Found in sagebrush scrub, pinyon-juniper woodland habitat. Widely distributed in the central Mojave Desert. The Owens Lake Basin is currently the northern edge of this species' known range.	Moderate – occurs nearby at similar elevation and soil habitat
Bristlecone cryptantha (*Cryptantha roosiorum*)	BLMS, SR	Found in subalpine coniferous forest habitat at elevations between 8,005–10,597 feet (2,440–3,230 m). Closest observation is located at approximately 10 miles northeast of Lone Pine.	Low– most reported locations are at higher elevations in habitats that do not resemble the study area.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Bodie Hills cusickiella (*Cusickiella quadricostata*)	BLMS	Found on clay or rocky areas within Great Bains scrub and Pinyon and juniper woodland at elevations between 6,561–9,186 feet (2,000–2,800 m). Closest observation is located at approximately 5 miles north of Mono Lake.	Low– most reported locations are at higher elevations in habitats that do not resemble the study area.
Ripley's cymopterus (*Cymopterus ripleyi var. saniculoides*)	CRPR - 1B.2	Found on gravelly, sandy, carbonate substrates within Joshua tree woodland and Mojave desert scrub at elevations between 3,281–5,249 feet (1,000–1,600 m) in Inyo County. Nearest location about 40 miles (64 km) to south. Known populations occupy habitats near Owens Lake in aeolian sands with observable saline character.	Moderate – occurs at similar elevation and in soil habitats broadly resembling the BSA
July gold (*Dedeckera eurekensis*)	BLMS, SR	Found on carbonate substrates within Mojave desert scrub in the mountains east and south of the Sierra Nevada. Closest observation is located at approximately 15 miles northeast of Owens Lake (at the east slope of Inyo Mountains, Keynot Canyon drainage).	Low – most reported locations are in limestone habitats that do not resemble the study area.
Pine Creek evening primrose (*Eremothera boothii ssp. alyssoides*)	CRPR - 4.3	Found on sandy and gravelly soils within Great Basin scrub at elevations between 1,969–5,577 feet (600–1,700 m). Closest reported population to project area is approximately 30 miles (48 km) to the north of the project in the Owen's Lake valley. This is reported to be "out of range or habitat" for this species however the recent work on re-classifying the subspecies of E. boothii has expanded the distribution of subspecies populations.	Moderate – occurs at similar elevation and in habitats broadly resembling the BSA
Booth's evening primrose (*Eremothera boothii* ssp. *boothii*)	CRPR – 2B.3	Found in sagebrush scrub, disturbed habitats and fire scars. Recently documented within 5 miles (8 km) of the BSA. Older records similarly indicate its occurrence on fans at the base of the Sierra Nevada near Lone Pine.	Moderate – occurs at similar elevation and in habitats broadly resembling the BSA;
bald daisy (*Erigeron calvus*)	CRPR - 1B.1 BLMS	Found in Joshua tree woodland, sagebrush, and desert scrub at elevations around 3,937 feet (1,200 m). This species is closely related to Erigeron divergens; also confused with Erigeron aphanactis. Nearest location is at over 20 miles (32 km) north of the project area near Keeler in the foothills of Lone Pine Peak. This record is from 1891.	Low/Unlikely – most locations are from higher elevation and only known record in California is questionable and from more than 100 years ago.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Alexander;s buckwheat (*Eriogonum alexanderae*)	BLMS	Found in shale or gravelly areas within Great Basin scrub and Pinyon and juniper woodland habitats. Closest observation is located near south end of Saddlebag Lake in Yosemite National Park.	Low/Unlikely – known in California from only between Potato Peak and Bodie Mountain, where not seen since 1967.
Wildrose Canyon buckwheat (*Eriogonum eremicola*)	BLMS	Found on sandy and gravelly soils within Great Basin scrub at elevations between 7,217 – 10,170 feet (2,200–3,100 m). Closest observation is located between Bennett Peak and Telescope Peak in Death Valley National Monument.	Low/Unlikely – occurs at higher elevation, likely to require different precipitation and temperature regime..
Panamint Mountains buckwheat (*Eriogonum microthecum var. panamintense*)	BLMS	Usually found within Great Basin scrub and Subalpine coniferous forest habitats at elevations between 6,200 – 10,662 feet (1,890–3,250 m). Closest observation is located in 1.5 miles north of New York Butte in Inyo Mountains.	Low/Unlikely – known form fewer than ten occurrences.
Jaeger's hesperidanthus (*Hesperidanthus jaegeri*)	BLMS	Usually found in carbonate and rocky areas within Great Basin scrub and Subalpine coniferous forest habitats at elevations between 7,004 – 9,186 feet (2,135–2,800 m). Closest observation is located at Castle Rock, south of Cerro Gordo Ghost Town.	Low to Moderate – most reported locations are from higher elevations within soil habitats broadly resembling the BSA.
copper-flowered bird's-foot trefoil (*Hosackia oblongifolia var. cuprea, Lotus oblongifolius var. cupreus*)	CRPR - 1B.3	Collected mainly west of the Sierra Nevada crest, generally at substantially higher elevations and in coniferous meadow edges and forest habitats unlike those present at the study area. In contrast to the dry pine forest or montane meadow habitat where it is typically found, one collection in 1906 locates (perhaps in error) at "Owens Lake," where the basin vegetation is comprised mainly of dry chenopod or sagebrush scrub and saline meadows.	Low – does not occur at similar elevation or desert fan habitats present within the BSA
alkali ivesia (*Ivesia kingie var. kingie*)	BLMS	Found in mesic, alkaline, clay soils within Great Basin scrub, Meadows and seeps, and Playas habitats. Closet observation is located in approximately 1 mile (1.6 km) north of Five Bridges (near south end of Fish Slough).	None – dependent on alkali mesic conditions.
Sagebrush loeflingia (*Leoflingia squarrosa var. artemisiarum*)	BLMS	Found in sandy soil within desert dunes, Great Basin scrub, and Sonoran Desert scrub habitats at elevations between 2,296–5,298 feet (700–1,615 m). Nearest observation is located at 3.25 miles (5.2 km) north of Big Pine (east of Highway 395) in Owens Valley.	Moderate – occurs at similar elevation and in habitats broadly resembling the BSA.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
depressed ipomopsis (*Loeseliastrum depressum*)	CRPR - 4.3	Found mainly in the Owens Valley and along the bases of the adjoining mountain ranges on sandy or gravelly soils or clay soils of flats, gentle slopes in Great Basin scrub, Mojave desert scrub, and Pinyon and juniper woodland at elevations between 3,281–6,890 feet (1,000–2,100 m). Nearest reported occurrences to project area are approximately 30 miles (48 km) north near Independence, California. The most recent reported occurrence is by Jim Andre in gravelly sand with Larrea tridentata, Ambrosia dumosa, Lepidium fremontii, Atriplex confertifolia, Tetradymia glabrata.	Moderate – occurs at similar elevation and in habitats broadly resembling the BSA; some potential habitat within the BSA; however, the only Loeseliastrum species found within the project area had spine tipped leaves, which this species does not have.
Mono Lake lupine (*Lupinus duranii*)	BLMS	Found in volcanic pumice ang gravelly soils within Great Basin scrub, Subalpine coniferous forest, and Upper montane coniferous forest habitats at elevations between 6,561–9.842 feet (2,000–3,000 m). Nearest observation is located in Inyo National Forest over 10 miles northwest of Lake Crowley.	Low to Moderate – most reported locations are from higher elevations within soil habitats broadly resembling the BSA.
McGee Meadows lupine (*Lupinus magnificus var. hesperius*)	BLMS	Found in sandy soils within Great Basin scrub and Upper montane coniferous forest. Nearest observation is located 4 miles west of Lone Pine.	Moderate – occurs at similar elevation and in soil habitats broadly resembling the BSA.
Panamint Mountains lupine (*Lupinus magnificus var. magnificus*)	BLMS	Found in Great Basin scrub, Mojavean desert scrub, Pinyon and juniper woodland, and Upper montane coniferous forest habitats. Nearest observation is located 7 miles west of Lone Pine.	Moderate – occurs at similar elevation and in soil habitats broadly resembling the BSA.
Inyo blazing star (*Mentzelia inyoensis*)	BLMS	Found in rocky, sometimes carbonate soils, within Great Basin scrub and Pinyon and juniper woodland habitats. Nearest observation is located over 30 miles north of Owens Lake, south of Racetrack in Death Valley National Monument.	Moderate – occurs at similar elevation and in soil habitats broadly resembling the BSA.
Nevada oryctes (*Oryctes nevadensis*)	CRPR – 2B.1	Found in sandy soils and dunes in Chenopod scrub, sagebrush scrub, and Mojave desert scrub at elevations between 3,937–4,921 feet (1,200–1,500 m) in Inyo County. Known populations occupy habitats near Owens Lake in aeolian sands with observable saline character. Nearest locations are approximately 8 miles (13 km) northeast of the project area.	Moderate – occurs at similar elevation and in soil habitats broadly resembling the BSA; however, occurrence is dependent on deep sandy soils.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Inyo rock daisy (*Perityle inyoensis*)	BLMS	Found in rocky and carbonate soils within Great Basin scrub and Pinyon and juniper woodland habitats. Nearest observation is located over 10 miles northeast of Owens Lake, south west of Cerro Gordo Peak in Castle Rock.	None- occurs at higher elevation on carbonate soils.
Inyo phacelia (*Phacelia inyoensis*)	CRPR - 1B.2 BLMS	Found in alkaline meadow margins and seeps in Desert scrub at elevations between 3,609–10,499 feet (1,100–3,200 m). Closest reported location is approximately 8 miles (13 km) to the north in Lone Pine, however this is from 1913 and the area has been developed since. Another population was reported 3.5 miles (5.6 km) west of Lone Pine California on dry granite sand in alkaline seepage area along the Whitney Portal Road.	None– Dependent on alkaline meadow habitat.
Mono County phacelia (*Phacelia monoensis*)	BLMS	Found in clay soils within Great Basin Scrub and Pinyon and juniper woodland habitats at elevations between 6,233 –9,514 feet (1,900–2,900 m). Nearest observation is located in Bodie Creek (northeast of Mono Lake)	Low – potential habitat is present within the BSA; however, only known in California from fewer than twenty occurrences.
Parish's popcorn flower (*Plagiobothyrs parishii*)	CRPR - 1B.1	Found in wet, alkaline soils around desert springs and mud flats at elevations between 2,461–7,251 feet (750–2,210 m). Closest known occurrence is 10 miles (16 km) south of the project area along the margin of Owen's Lake in a salt grass meadow in a wet area with Baltic rush (Juncus balticus) and fine leaved grass tufts.	None – dependent on mesic alkaline soils.
Williams's combleaf (*Polyctenium williamsiae*)	BLMS	Found in sandy and volcanic soils within Great Basin scrub, Marshes and swamps, Pinyon and juniper woodland, Playas, and Vernal pools habitats. Nearest observation is located by Larkin Lake in Trench Canyon (northeast of Mono Lake). Associated with the Sagouspe Variant soil series	Low – occurs at similar elevation, however associated with wetter soils supporting Polygonium avicularie and the inner edge of drowned sagebrush abutting intermittent lakes and seeps.
Owens Valley checkerbloom (*Sidalcea covillei*)	BLMS, SE	Found in alkaline and mesic soils within Chenopod scrub and Meadows and seeps habitats at elevations between 3,592–4,642 feet (1,095–1,415 m). Closet observation is located approximately 5 miles north of the project site in the Alabama Hills of Owens Valley Lubkin Canyon.	Low – the closest observation is near project site at similar elevation, but no potential habitat is present within the BSA.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
desert winged rockcress (*Sibara deserti*)	CRPR - 4.3	Found in sagebrush scrub, chenopod scrub, and often rocky habitat at elevations between 1,132–4,265 feet (345–1,300 m). Nearest reported occurrence is approximately 10 miles (16 km) to east of project, reported in 2011 by Jim Andre, in gullies in desert pavement with Ambrosia dumosa, Artemisia spinescens, Atriplex hymenelytra and Atriplex confertifolia. Populations occurring in the Owens Basin would be considered outside the documented range.	Low – potential habitat is present within the BSA; however, there are no known occurrences in the Owens Basin or near the study area.
Masonic Mountain jewelflower (*Streptanthus oliganthus*)	BLMS	Found in volcanic or granitic, and rocky soils within Pinyon and juniper woodland habitat at elevations between 6,496–10,006 feet (1,980–3,050 m). Nearest observation is located in White Mountains toward Westgard Pass.	Low – potential habitat is present within the BSA; however, only known in California from fewer than twenty occurrences.
Dedecker's clover (*Trifolium kingii ssp. dedeckerae*)	CRPR – 1B.3 BLMS and USFS Sensitive	Found in substantially higher montane elevations (greater than 6,890 feet [2,100 m]) in coniferous forest, pinyon-juniper and woodland habitat. Nearest known population is located at 5,988 feet (2,130 m) on the slopes directly above and to the west of the study area.	Low – Does not occur at similar elevation or in habitats that resemble the BSA.

[a] Status Codes: Bureau of Land Management Sensitive (BLMS);UF Forest Service Sensitive (USFS Sensitive); State Endangered (SE); California Native Plant Society California Rare Plant Rank (CRPR) (1B: Plants Rare, Threatened, or Endangered in California and elsewhere; 2B: Plants Rare, Threatened, or Endangered in California, but more common elsewhere; 4: Plants of limited distribution; Threat Ranks: 0.1-Seriously threatened in California; 0.2-Moderately threatened in California; 0.3-Not very threatened in California)

Sources: (Caltrans, 2018)

Special-status Wildlife Species Known or with Potential to Occur in the Biological Study Area (BSA)

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Invertebrates			
Wong's springsnail (*Pyrgulopsis wongi*)	O	Seeps and small-moderate size spring-fed streams; common in watercress and/or on small bits of travertine and stone.	Not expected to occur. No habitat in the BSA.
Fish			
Amargosa River pupfish (*Cyprinodon nevadensis amargosae*)	BLMS	Two perennial sections of the lower Amargosa River and Tecopa Bore, Inyo County. The Amargosa River is an intermittent desert stream that flows underground for most of its course except after infrequent rain events.	Not expected to occur. No habitat in the BSA; aquatic habitat present in the BSA is in concrete aqueduct with no cover, no aquatic vegetation.
Owens pupfish (*Cyprinodon radiosus*)	FE, SE, FP, SF	Swallow water habitats in the Owens Valley; prefers warm, clear water free of exotic fishes; needs areas of firm substrate for spawning	Not expected to occur. No habitat in the BSA; aquatic habitat present on site is a concrete aqueduct.
Volcano Creek golden trout (*Oncorhynchus mykiss aguabonita*)	SSC	Aquatic habitat. Native to the Kern Plateau in wide, shallow and exposed streams with little riparian cover; in streams that have sand, gravel and some cobble on the bottom.	Not expected to occur. No habitat in the BSA; aquatic habitat present in the BSA is a concrete aqueduct that has no sand, gravel, and cobble bottom.
Owens speckled dace (*Rhinichthys osculus ssp.*)	BLMS	A variety of habitats, ranging from small coldwater streams to hot-spring systems, although they are rarely found in water exceeding 29˚C. Found in irrigation ditches in and near Bishop. In the Owens Valley, appear to persist in periodically disturbed human-created habitats, and areas where alien predatory fishes are excluded by poor water quality or insufficient water depth.	Not expected to occur. No habitat in the BSA; aquatic habitat present in the BSA is in concrete aqueduct with no cover or aquatic vegetation.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Owens tui chub (*Siphateles bicolor snyderi*)	FE, SE	Aquatic habitats in the Owens Valley; needs clear, clean water, adequate cover, and aquatic vegetation.	Not expected to occur. No habitat in the BSA; aquatic habitat present in the BSA is in concrete aqueduct with no cover or aquatic vegetation.
Amphibians			
Yosemite toad (*Anaxyrus canorus*)	FT, SSC	Wet meadows in the central High Sierra, 6,400–11,300 feet (1951–3,444 m) elevation	Not expected to occur. No habitat in the BSA.
Black toad (*Anaxyrus exsul*)	BLMS, ST, FP, SF	Found only in Deep Springs Valley, between the White and Inyo mountains, Inyo County at 5,000–5,200 feet (1,524–1,585 m) in elevation. Near springs, watercourses, marshes, wet meadows, and swamps. Seeks cover under and between clumps of vegetation or surface objects.	Not expected to occur. No suitable habitat in the BSA.
Inyo Mountains slender salamander (*Batrachoseps campi*)	BLMS, SSC	Riparian habitats, talus slopes, wetlands on west and east slopes of Inyo Mountains	Not expected to occur. No habitat in the BSA.
Mount Lyell salamander (*Hydromantes platycephalus*)	SSC	Massive rock areas in mixed conifer, red fir, lodgepole pine, and subalpine habitats, 4,000–11,600 feet (1,219–3,536 m) in elevation.	Not expected to occur. No habitat in the BSA.
southern mountain yellow-legged frog (*Rana muscosa*)	FE, SE	Aquatic habitats.	Not expected to occur. No habitat in the BSA; aquatic habitat present in the BSA is in concrete aqueduct with no cover or aquatic vegetation.
Sierra Nevada yellow-legged frog (*Rana sierra*)	FE, ST	Aquatic habitats.	Not expected to occur. No habitat in the BSA; aquatic habitat present in the BSA is in concrete aqueduct with no cover or aquatic vegetation.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Reptiles			
Panamint alligator lizard *(Elgaria panamintina)*	BLMS, SSC	Sagebrush, bitterbrush, and pinyon-juniper habitats in Modoc, Lassen, and Mono counties. Tall, dense, large-shrub stages of sagebrush, greasewood and rabbitbrush. May avoid heavily grazed areas. Inhabits chaparral and the Great Basin scrub.	Low likelihood to occur. Suitable habitat is present but the habitat is heavily grazed. The survey was conducted under ideal climate conditions for the species but was not observed. A high diversity of common lizards were observed during the desert tortoise surveys.
Mojave desert tortoise *(Gopherus agassizii)*	FT, ST	Desert habitats; requires friable soil for burrow and nest construction.	Not expected to occur. The BSA is outside the current range of the species but desert habitat is present.
Northern sagebrush lizard *(Sceloporus graciosus graciosus)*	BLMS	Ground dweller, usually found near bushes, brush heaps, logs, or rocks. Needs good light, open ground, and scattered low bushes.	Low likelihood to occur. Suitable habitat is present, but species typically found in higher elevations. The survey was conducted under ideal climate conditions for the species but was not observed.
Birds			
Northern goshawk (*Accipiter gentilis*)	BLMS, SSC	Within, and in vicinity of, North coast, subalpine, and upper montane coniferous forest. Uses old nests, and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Not expected to occur. No suitable habitat present.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Golden eagle (*Aquila chrysaetos*)	BLMS, EA	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas. Habitats include broadleaved upland forests, Cismontane woodlands, coastal prairies, and the Great Basin grassland.	Not expected to occur. No suitable nesting habitat in the project area. Suitable nesting habitat occurs over 8 miles (13 km) west of the project area at higher elevations. This species forages in the project area in the winter, spring and fall.
burrowing owl (*Athene cunicularia*)	BLMS, SSC	Level to gently sloping, open grasslands, semi-desert grasslands, and low shrublands with short vegetation; nests in abandoned underground burrows.	Low likelihood to occur. Suitable habitat (i.e., sandy soils with California ground squirrel burrows) in the BSA but areas is heavily disturbed.
Swainson's hawk (*Buteo swainsoni*)	BLMS, ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Not expected to occur. No suitable nesting habitat in the BSA. This species occurs only as a passage migrant in the spring and fall, foraging en route to nesting locations to the north.
Greater sage-grouse (*Centrocercus urophasianus*)	BLMS, FC, SSC	Found in the northeastern, Great Basin portion of state. Restricted to flat/rolling terrain vegetated by sage-brush, upon which it depends for both food and shelter.	Not expected to occur. Marginal habitat is present. The big sagebrush stands are too fragmented to support this species. There are no records of this species occurring this far south in the eastern sierras.
western snowy plover (*Charadrius 11lexandrines nivosus*)	FT, SSC	Great Basin standing waters, sand shores, wetlands.	Not expected to occur. No habitat in the BSA.
mountain plover (*Charadrius montanus*)	SSC	Short grasslands, freshly plowed fields, newly sprouting grain fields, sod farms.	Not expected to occur. No habitat in the BSA.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	BLMS, FC, SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Not expected to occur. No suitable habitat present; riparian habitat is too narrow and lacks sufficient density.
Bald eagle (*Haliaeetus leucocephalus)*	BLMS, FD, SE, EA	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile (1.6 km) of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter. Lower montane coniferous forest oldgrowth.	Not expected to occur. No suitable nesting habitat. This species forages in the winter at Owen's lake and in the general project area.
yellow-breasted chat (*Icteria virens*)	SSC	Riparian thickets of willow and other brushy tangles near watercourses.	Not expected to occur. Insufficient riparian habitat in the BSA to support breeding population.
least bittern (*Ixobrychus exilis*)	SSC	Marsh, swamp, and other wetland habitats with tules or similar emergent vegetation.	Not expected to occur. No habitat in the BSA.
Bank swallow (*Riparia riparia*)	BLMS, ST	Colonial nester; nests primarily in riparian scrub, riparian woodland, and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not expected to occur. Marginal potential habitat occurs over 1,640 feet (500 m) upstream along Carrol Creek; however, no nesting holes are present.
least Bell's vireo (*Vireo bellii pusillus*)	FE, SE	Riparian habitats.	Not expected to occur. Insufficient riparian habitat in the BSA to support breeding population.
Mammals			
pallid bat (*Antrozous pallidus*)	BLMS, SSC	In a wide variety of habitats; most common in open, dry habitats with rocky areas for roosting.	Potential roosting habitat occurs under the existing bridge; likely forages in the BSA.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Pygmy rabbit (*Brachylagus idahoensis*)	BLMS	Sagebrush, bitterbrush, and pinyon-juniper habitats in Modoc, Lassen, and Mono counties. Tall, dense, large-shrub stages of sagebrush, greasewood and rabbitbrush. May avoid heavily grazed areas. Inhabits chaparral and the Great Basin scrub.	Not expected to occur. Marginal potential habitat is present for this species as there are some stands of big sagebrush present. This species is not known to occur in Inyo County or this far south and the habitat is heavily grazed.
Townsend's big-eared bat (*Corynorhinus townsendii*)	BLMS, SSC, SCT	In a wide variety of habitats throughout California.	Potential roosting habitat occurs under the existing bridge; likely foraging in the BSA.
spotted bat (*Euderma maculatum*)	BLMS, SSC	In a wide variety of habitats; needs rock crevices in cliffs or caves for roosting.	Unlikely to roost in the BSA but likely forages near BSA.
California wolverine (*Gulo gulo*)	ST	Wide variety of high elevation habitats.	Not expected to occur. Species occurs at elevations much higher than the BSA.
Sierra marten *(Martes caurina sierra*)	O	Mixed evergreen forests with over 40 percent crown closure.	Not expected to occur. No habitat in the BSA.
Pacific fisher (*Martes pennant [pacifica] DPS*)	BLMS, FC,SC, SSC	Oldgrowth and upper montane coniferous forest at 5,577–7,201 feet (1,700–2,195 m) elevation.	Not expected to occur. No suitable habitat present.
Owens Valley vole (*Microtus californicus vallicola*)	BLMS	Meadows, seeps, and other wetland habitats.	Not expected to occur. No habitat in the BSA.
Small-footed myotis (*Myotis ciliolabrum*)	BLMS	Wide range of habitats mostly arid wooded and brushy uplands near water. Seeks cover in caves, buildings, mines, and crevices. Prefers open stands in forests and woodlands. Requires drinking water.	Limited potential for roosting habitat in the general project area. Bridge infrastructure has a low potential for roosting. Suitable foraging habitat is present.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Long-eared myotis *(Myotis evotis*)	BLMS	Wide range of habitats, mostly found in brush, woodland, and forest habitats, from sea level to at least 9,000 ft (2,700 m), coniferous woodlands and forest seem to be preferred. It avoids the arid Central Valley and hot deserts.	Limited potential for roosting habitat in the general project area. Bridge infrastructure has a low potential for roosting. Suitable foraging habitat is present.
Fringed myotis (*Myotis thysanodes)*	BLMS	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts.	Limited potential for roosting habitat in the general project area. Bridge infrastructure has a low potential for roosting. Suitable foraging habitat is present.
Yuma myotis *(Myotis yumanensis*)	BLMS, O	Montane coniferous forest and riparian habitats with water.	Potential roosting habitat occurs under the existing bridge; likely forages in the BSA.
Desert bighorn sheep *(Ovis canadensis nelsoni*)	BLMS, SF	Alpine, alpine dwarf scrub, chaparral, and chenopod scrub on crest and along east side of the Sierra Nevada.	Not expected to occur. The BSA is outside the current range of the species.
Sierra Nevada bighorn sheep *(Ovis canadensis sierra*)	FE, SE, FP	Alpine, alpine dwarf scrub, chaparral, and chenopod scrub on crest and along east side of the Sierra Nevada.	Not expected to occur. The BSA is outside the current range of the species.
fisher - West Coast DPS *(Pekania pennanti*)	FPT, SCT	Coniferous and deciduous-riparian forest habitats with intermediate to large-tree stages and high percent canopy closure.	Not expected to occur. No habitat in the BSA.
Mohave ground squirrel *(Spermophilus mohavensis*)	BLMS, ST	Western Mojave Desert extending from Palmdale on the southwest to Lucerne Valley on the southeast, Olancha on the northwest and Avawatz Mountains on the northeast; canyons in the eastern foothills of the Sierra Nevada up to 5,600 feet (1,706 m) elevation.	Not expected to occur. The BSA is not within the known range for Mohave ground squirrel.
American badger *(Taxidea taxus*)	SSC	In a wide variety of habitats; most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	Potential habitat occurs throughout the BSA.

Species	Status[a]	Habitat Requirements	Potential to Occur/Comments
Sierra Nevada red fox (*Vulpes vulpes necator*)	ST	In a variety of habitats from wet meadows to forested areas in the Sierra Nevada; needs dense vegetation and rocky areas for cover and den sites.	Not expected to occur. No habitat in the BSA.
Mohave ground squirrel (*Xerospermophilus mohavensis*)	ST	Desert scrub in the Mojave Desert; prefers sandy to gravelly soils.	Not expected to occur. The BSA is approximately 10 miles outside the known range of the species.

[a] Status code: Bureau of Land Management Sensitive (BLMS); Federal Endangered (FE); Federal Threatened (FT); Federal Proposed Endangered/Threatened (FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Rare (SR); State Species of Special Concern (SSC); State Candidate Threatened (SCT); Other listed Species (O); Bald and Golden Eagle Protection Act (EA)

Sources: (Caltrans, 2018)

APPENDIX C

Tribal Notification Information

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

September 17, 2015

Kari Sprengeler
ASM Affiliates, Inc.
10 State Street
Reno, CA 89501

Email to: ksprengeler@asmaffiliates.com

RE: SB 18 Consultation, Carroll Creek Bridge Replacement, Inyo County.

Dear Ms. Sprengeler,

Government Code §65352.3 requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of protecting, and/or mitigating impacts to cultural places in creating or amending general plans, including specific plans. Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above project.

As a part of consultation, the NAHC recommends that local governments conduct record searches through the NAHC and California Historic Resources Information System (CHRIS) to determine if any cultural places are located within the area(s) affected by the proposed action. A *Sacred Lands File* search was not completed. Local governments should be aware that records maintained by the NAHC and CHRIS are not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a cultural place.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

Katy Sanchez

Katy Sanchez
Associate Government Program Analyst

Native American Tribal Consultation List
Inyo County
September 17, 2015

Big Pine Band of Owens Valley THPO
Danelle Gutierrez Tribal Historic Preservation Officer
P.O. Box 700
Big Pine , CA 93513
d.gutierrez@bigpinepaiute.org
(760) 938-2003, ext. 228
(760) 938-2942
Paiute

Big Pine Paiute Tribe of the Owens Valley
Shannon Romero, Chairperson
P. O. Box 700
Big Pine , CA 93513
shann_romero@hotmail.com
(760) 938-2003
Owens Valley Paiute

Bishop Paiute Tribe
Gerald Howard, Chairperson
50 Tu Su Lane
Bishop , CA 93514
(760) 873-3584
Paiute - Shoshone

Bishop Paiute Tribe
Raymond Andrews, THPO
50 Tu Su Lane
Bishop , CA 93514
gwest@ovcdc.com
(760) 920-0357 Cell
(760) 873-8435 ext 250
Paiute - Shoshone

Fort Independence Indian Community of Paiutes
Wendy Stine, Chairwoman
P.O. Box 67
Independence , CA 93526
chairman@fortindependence.com
(760) 878-5160
Paiute

Kern Valley Indian Council
Julie Turner, Secretary
P.O. Box 1010
Lake Isabella , CA 93240
(661) 366-0497
(661) 340-0032 Cell
Southern Paiute
Kawaiisu
Tubatulabal
Koso
Yokuts

Kern Valley Indian Council
Robert Robinson, Co-Chairperson
P.O. Box 401
Weldon , CA 93283
brobinson@iwvisp.com
(760) 378-4575 Home
(760) 549-2131 Work
Tubatulabal
Kawaiisu
Koso
Yokuts

Lone Pine Paiute Shoshone Reservation
Mary Wuester, Chairwoman
P.O. Box 747
Lone Pine , CA 93545
(760) 876-1034
Paiute
Shoshone

Timbisha Shoshone Tribe
George Gholoson, Chairperson
121 W. Line Street
Bishop , CA 93514
george@timbisha.com
(760) 872-3614
Western Shoshone

Walker River Reservation
Melanie McFalls, Chairperson
P.O. Box 220
Schurz , NV 89427
(775) 773-2306
Northern Paiute

This list is current only as of the date of this document.
Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.
This list is applicable only for consultation with Native American tribes under Government Code Sections 65352.3 and 65362.4 et seq.
Carroll Creek Bridge Replacement, Inyo County.

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Danielle Gutierrez
Tribal Historic Preservation Officer
The Big Pine Paiute of the Owens Valley
P.O. Box 700
Big Pine, CA 93513

Dear Ms. Gutierrez,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

Inyo County has contracted Panorama Environmental (Panorama) and ASM Affiliates, Inc. (ASM) to conduct cultural resource studies. The study area will include all of the areas anticipated to be impacted by bridge replacement and road realignment.

If you or any members of the Big Pine Paiute Tribe have any questions regarding this project, please contact the Project Manager, Kari Sprengeler at ASM Affiliates, by phone at (775) 324-6789 or by email at ksprengeler@asmaffiliates.com, or Chantel Brown, Inyo County Public Works, at (760) 878-0201 or cbrown@inyocounty.us.

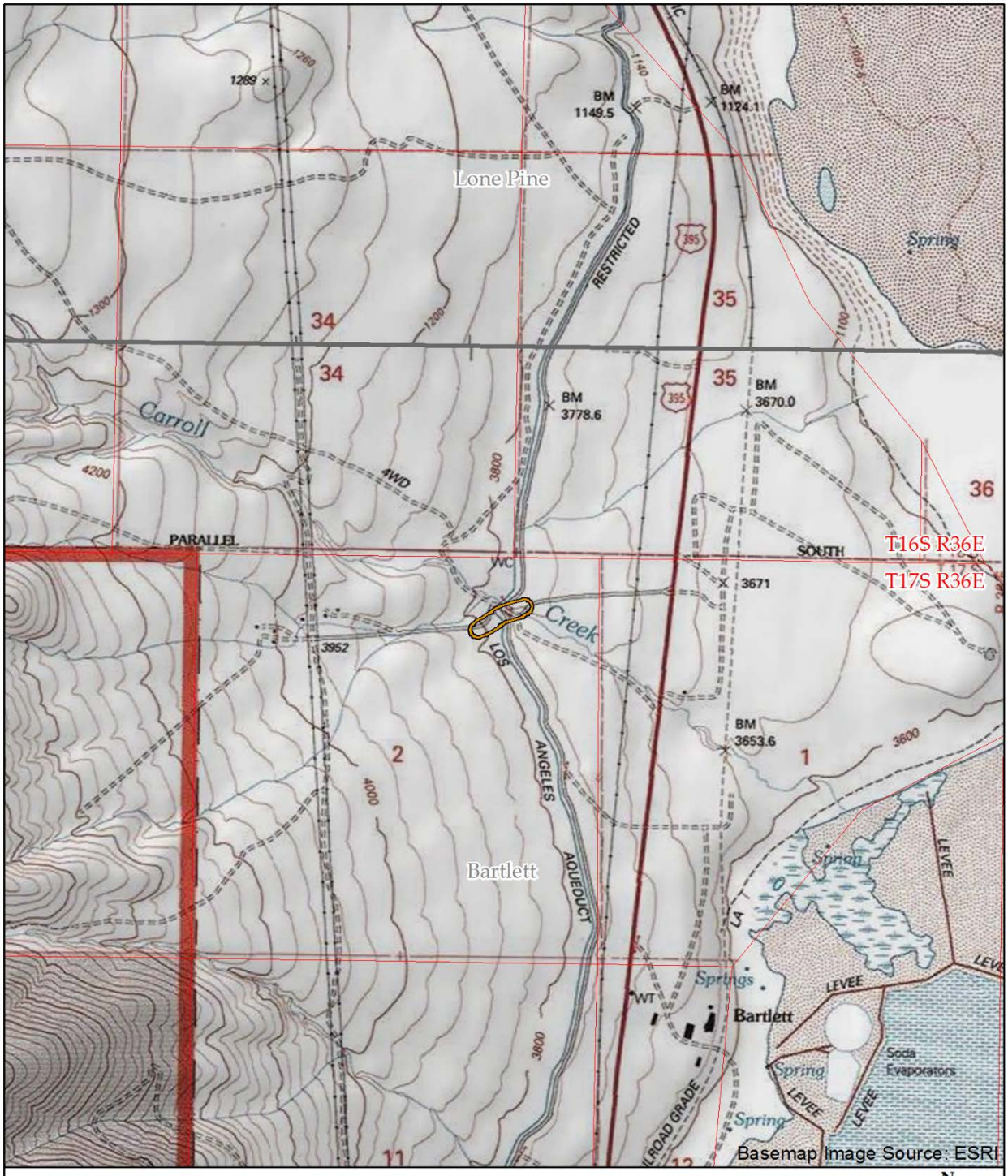
If you have any concerns or knowledge of cultural resources within the project area, please contact Caltrans District 9 archaeologist, Trevor C. Pratt, at (760) 872-3021 or by email at trevor.pratt@dot.ca.gov.

Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

Enclosure: Project Location Map



Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

0 1 Miles

N W E S

1:24000
NAD 83
UTM Zone 11N

Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Shannon Romero
Chairperson
The Big Pine Paiute of the Owens Valley
P.O. Box 700
Big Pine, CA 93513

Dear Ms. Romero,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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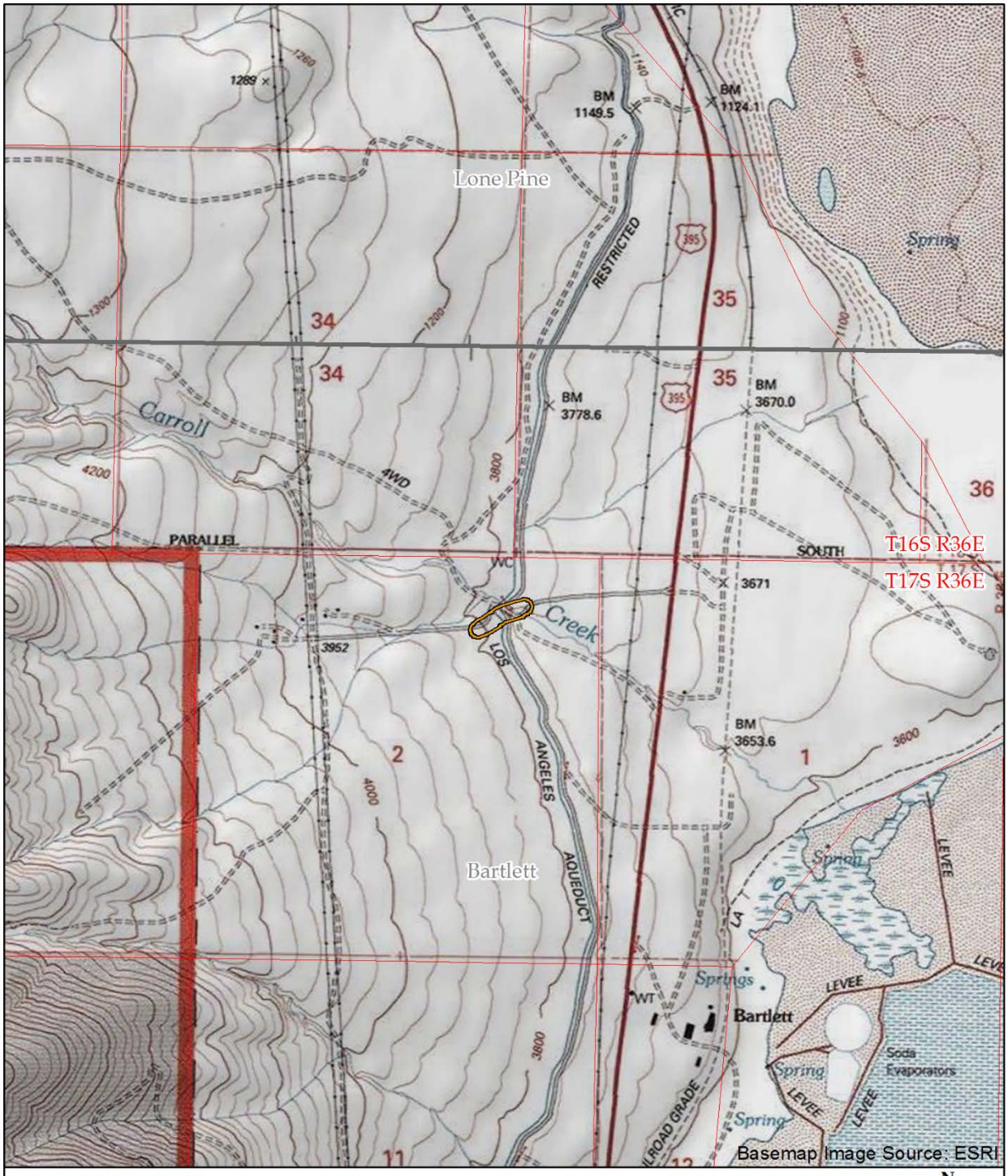
Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

Enclosure: Project Location Map



Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

0 1 Miles

N W E S

1:24000
NAD 83
UTM Zone 11N

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ASM Affiliates, Inc.
09/21/2015

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P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Roberta Hunter
Secretary
The Big Pine Paiute of the Owens Valley
P.O. Box 700
Big Pine, CA 93513

Dear Ms. Hunter,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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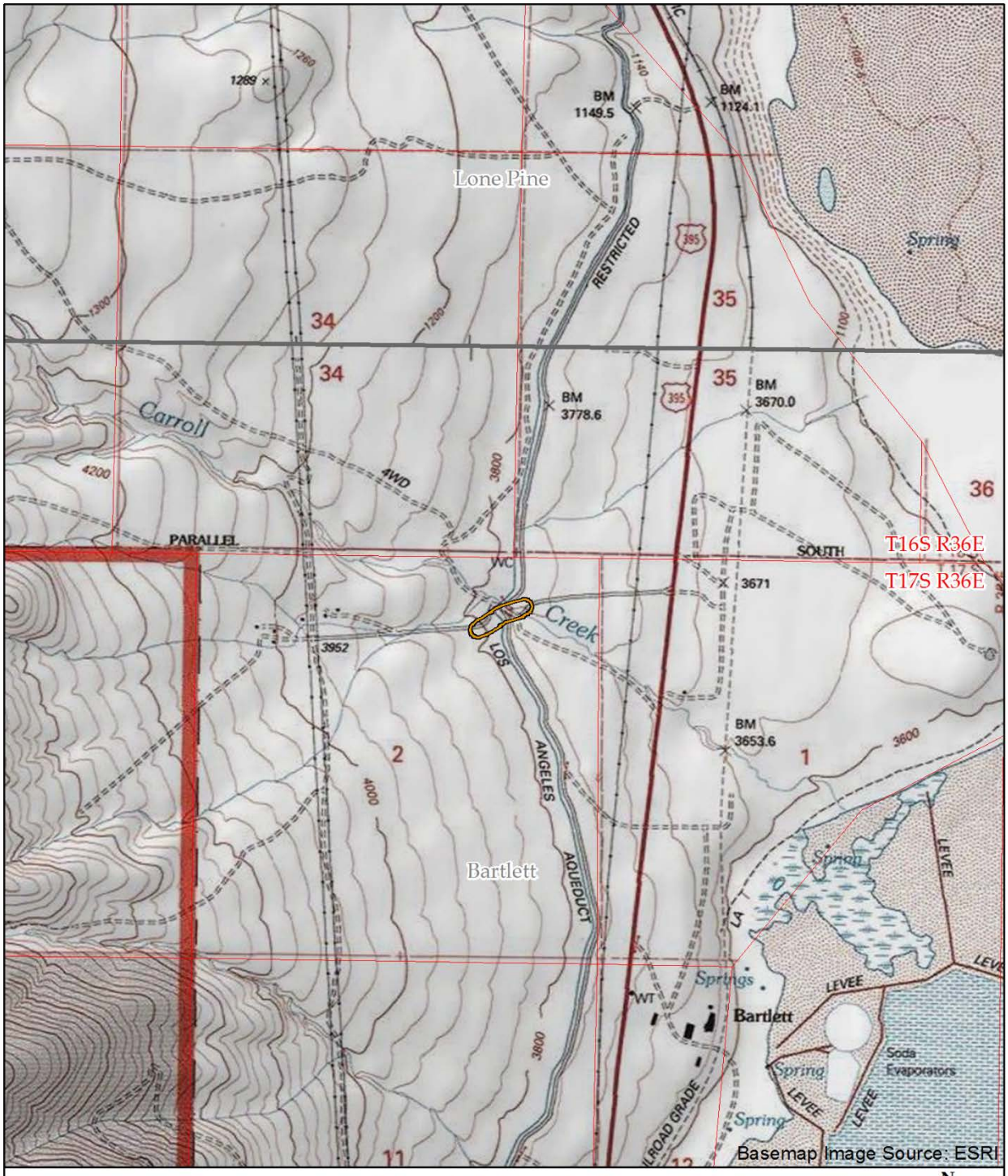
Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

Enclosure: Project Location Map



Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

0 1 Miles

N W E S

1:24000
NAD 83
UTM Zone 11N

Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Raymond Andrews
Tribal Historic Preservation Officer
Bishop Paiute Tribe
50 Tu Su Lane
Bishop, CA 93514

Dear Mr. Andrews,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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If you or any members of the Bishop Paiute Tribe have any questions regarding this project, please contact the Project Manager, Kari Sprengeler at ASM Affiliates, by phone at (775) 324-6789 or by email at ksprengeler@asmaffiliates.com, or Chantel Brown, Inyo County Public Works, at (760) 878-0201 or cbrown@inyocounty.us.

If you have any concerns or knowledge of cultural resources within the project area, please contact Caltrans District 9 archaeologist, Trevor C. Pratt, at (760) 872-3021 or by email at trevor.pratt@dot.ca.gov.

Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

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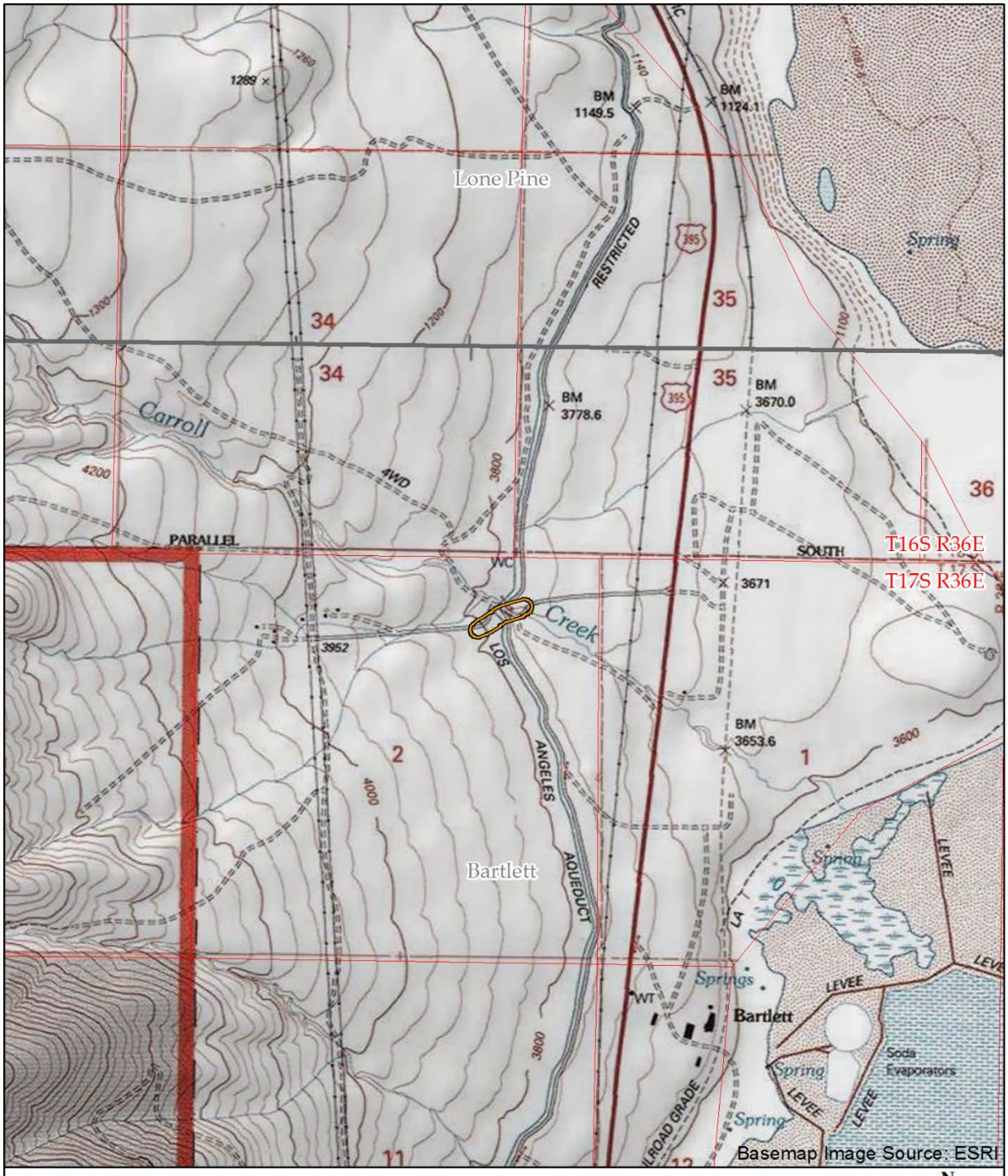

Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

0 1 Miles

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1:24000
NAD 83
UTM Zone 11N

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09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Gerald Howard
Chairperson
Bishop Paiute Tribe
50 Tu Su Lane
Bishop, CA 93514

Dear Mr. Howard,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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If you have any concerns or knowledge of cultural resources within the project area, please contact Caltrans District 9 archaeologist, Trevor C. Pratt, at (760) 872-3021 or by email at trevor.pratt@dot.ca.gov.

Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

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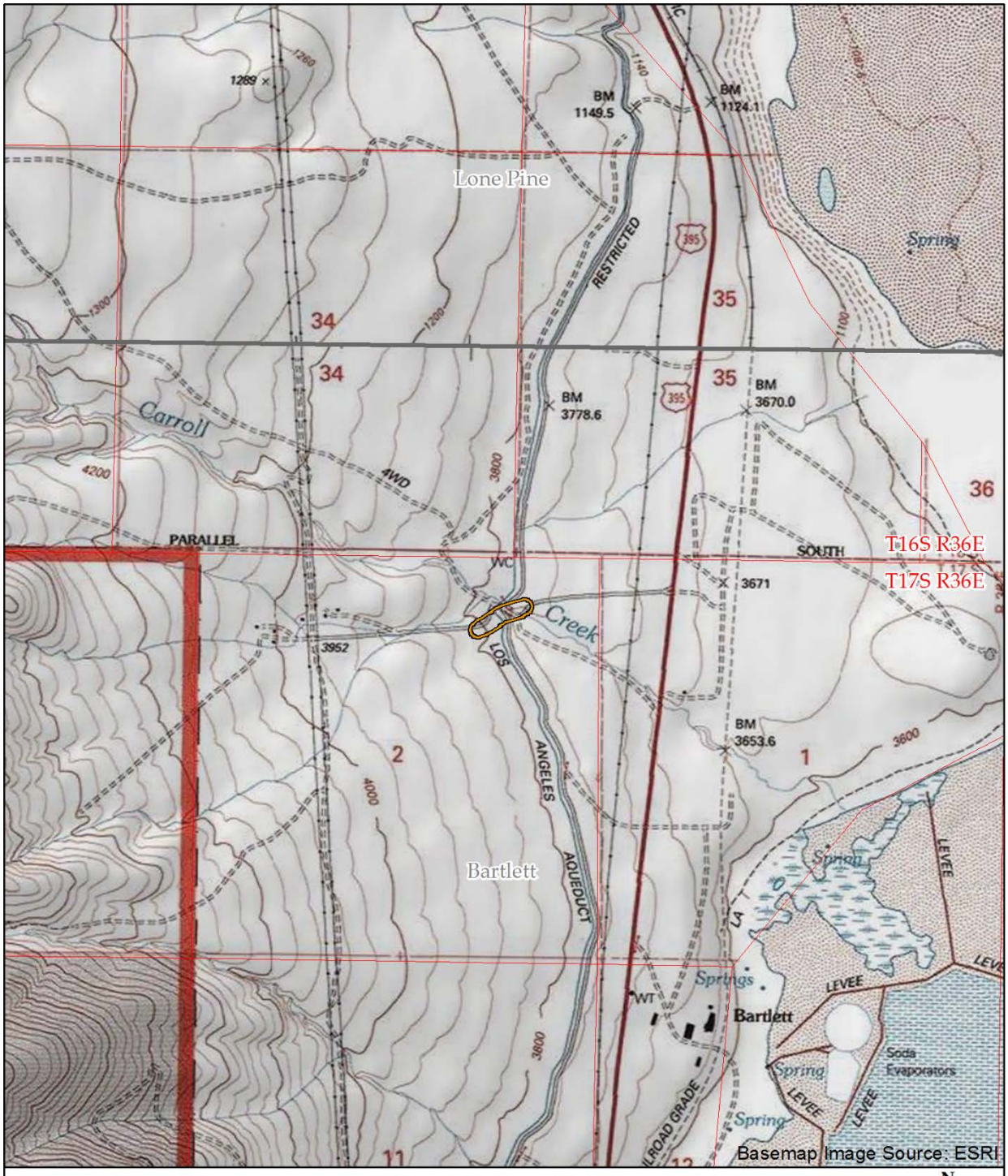

Carrol Creek Bridge Replacement

Cultural Survey Area

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DEPARTMENT OF PUBLIC WORKS
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INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Gertrude Brown
Secretary
Bishop Paiute Tribe
50 Tu Su Lane
Bishop, CA 93514

Dear Ms. Brown,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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If you have any concerns or knowledge of cultural resources within the project area, please contact Caltrans District 9 archaeologist, Trevor C. Pratt, at (760) 872-3021 or by email at trevor.pratt@dot.ca.gov.

Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

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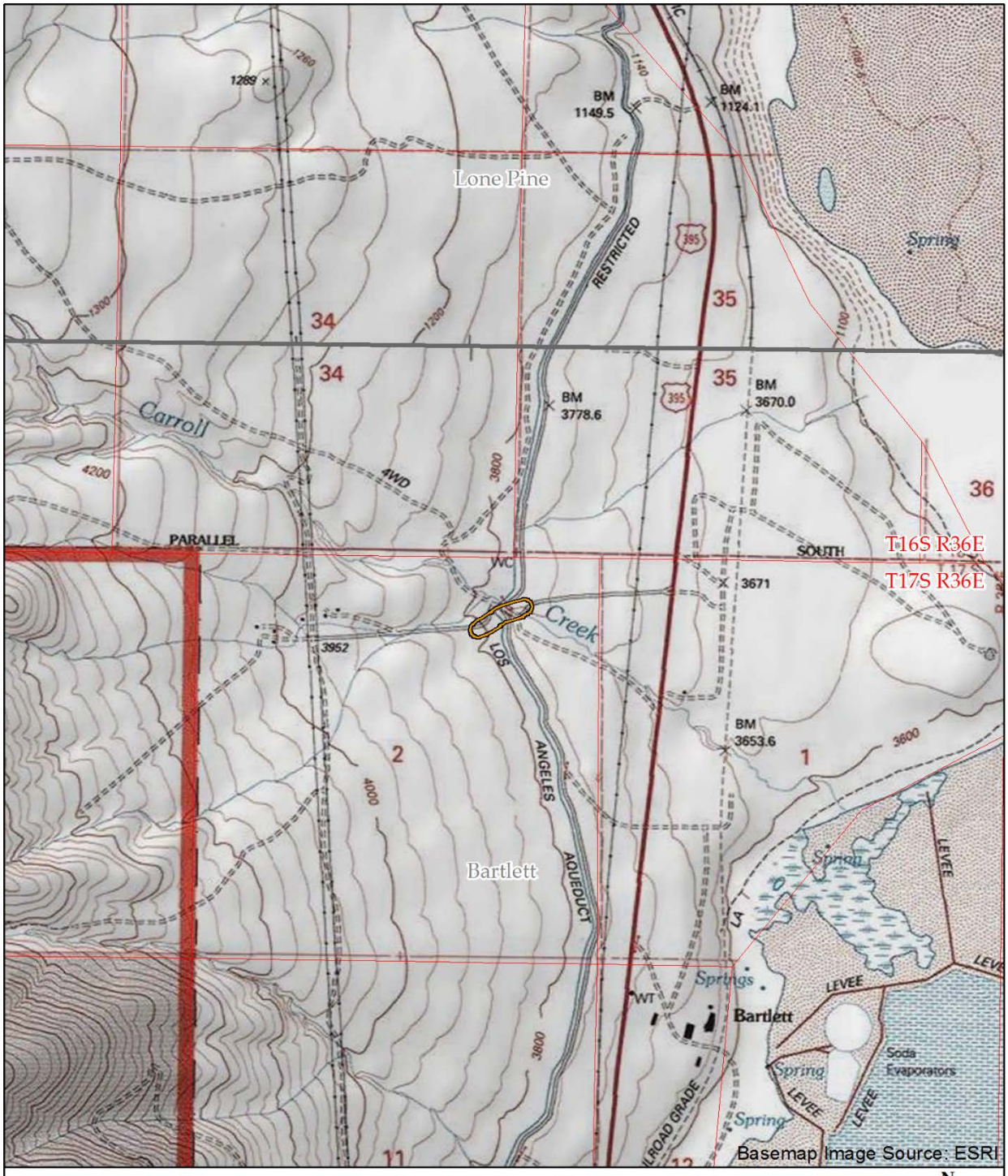

Carrol Creek Bridge Replacement

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09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Stephanie Arman
Tribal Historic Preservation Officer
Fort Independence Paiute Tribe
P.O. Box 67
Independence, CA 93526

Dear Ms. Arman,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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If you or any members of the Fort Independence Paiute Tribe have any questions regarding this project, please contact the Project Manager, Kari Sprengeler at ASM Affiliates, by phone at (775) 324-6789 or by email at ksprengeler@asmaffiliates.com, or Chantel Brown, Inyo County Public Works, at (760) 878-0201 or cbrown@inyocounty.us.

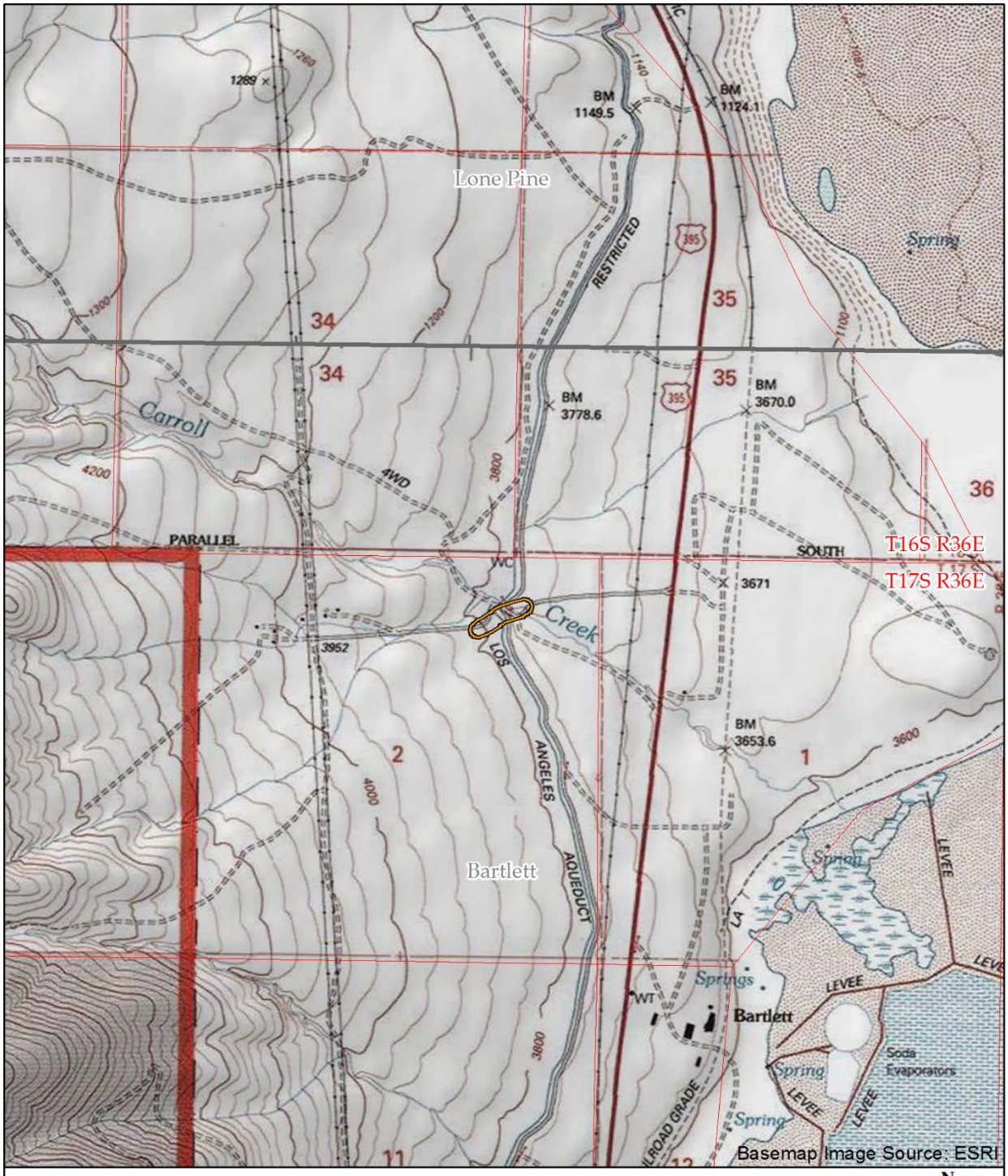
If you have any concerns or knowledge of cultural resources within the project area, please contact Caltrans District 9 archaeologist, Trevor C. Pratt, at (760) 872-3021 or by email at trevor.pratt@dot.ca.gov.

Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

Enclosure: Project Location Map



Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

0 1 Miles

N W E S

1:24000
NAD 83
UTM Zone 11N

Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Wendy Stine
Chairperson
Fort Independence Paiute Tribe
P.O. Box 67
Independence, CA 93526

Dear Ms. Stine,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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If you or any members of the Fort Independence Paiute Tribe have any questions regarding this project, please contact the Project Manager, Kari Sprengeler at ASM Affiliates, by phone at (775) 324-6789 or by email at ksprengeler@asmaffiliates.com, or Chantel Brown, Inyo County Public Works, at (760) 878-0201 or cbrown@inyocounty.us.

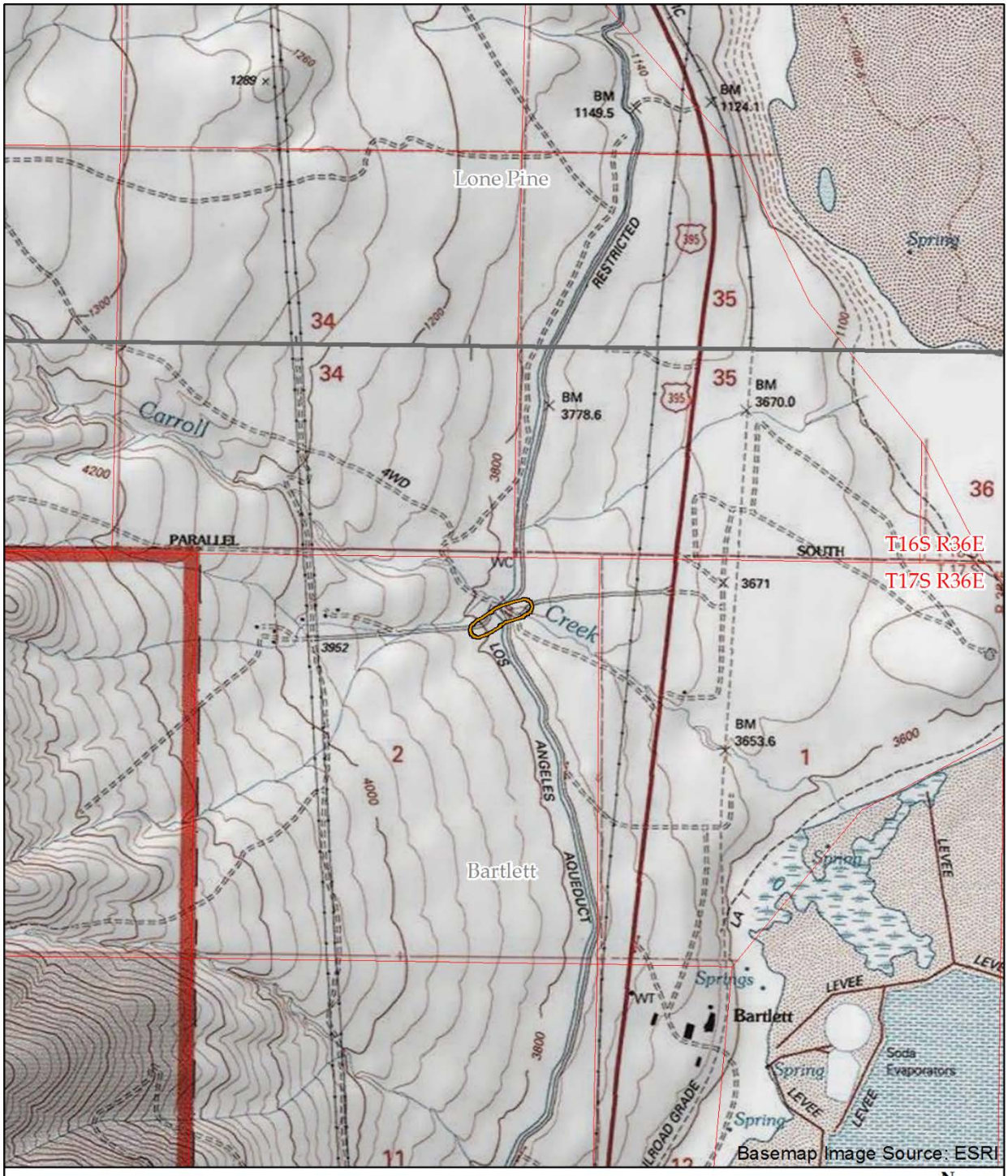
If you have any concerns or knowledge of cultural resources within the project area, please contact Caltrans District 9 archaeologist, Trevor C. Pratt, at (760) 872-3021 or by email at trevor.pratt@dot.ca.gov.

Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

Enclosure: Project Location Map



Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

0 1 Miles

N W E S

1:24000
NAD 83
UTM Zone 11N

Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Lindsey Stine
Secretary
Fort Independence Paiute Tribe
P.O. Box 67
Independence, CA 93526

Dear Ms. Stine,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

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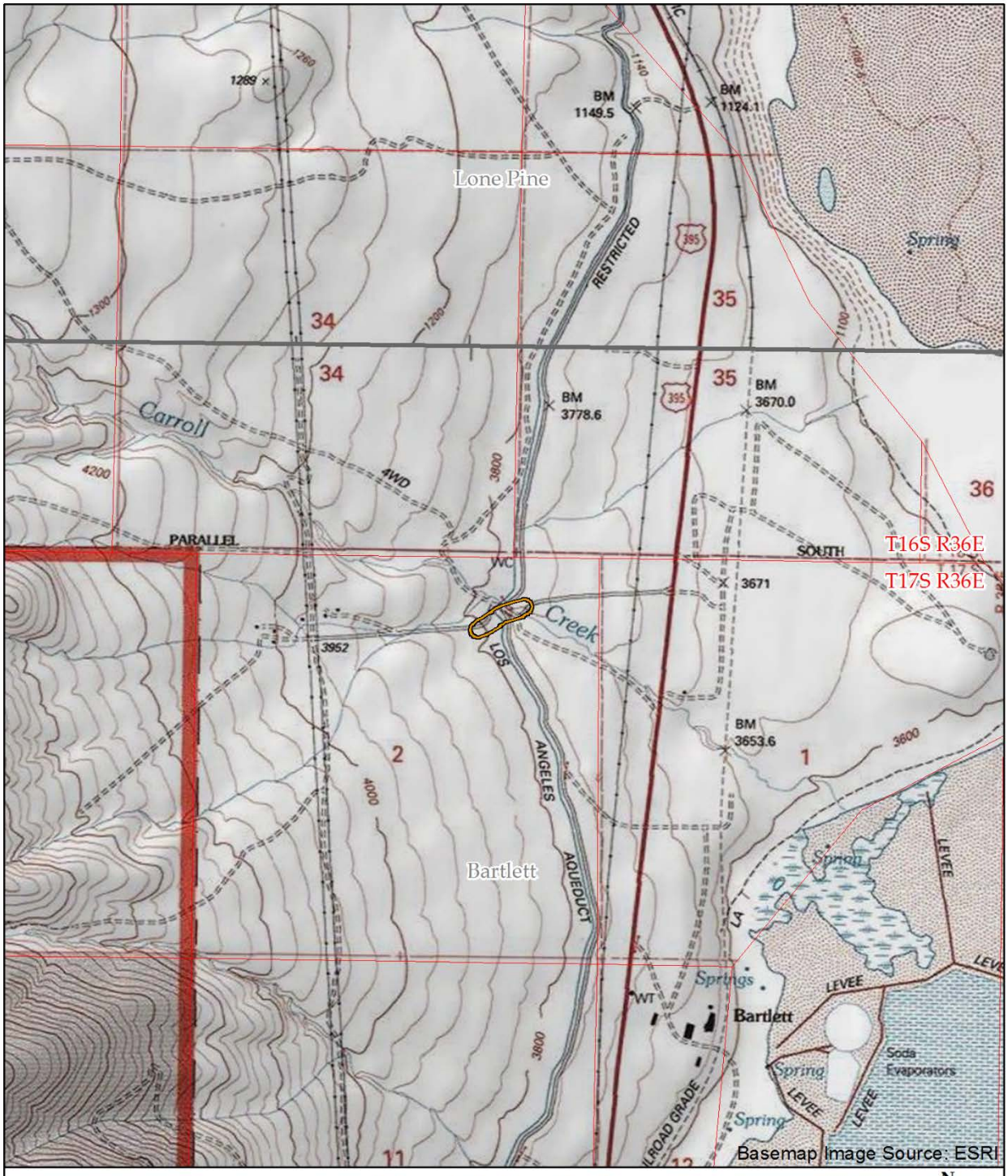

Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

0 1 Miles

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1:24000
NAD 83
UTM Zone 11N

Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Pricilla Naylor
Fort Independence Paiute Tribe
172 West Miller Lane
Independence, CA 93526

Dear Ms. Naylor,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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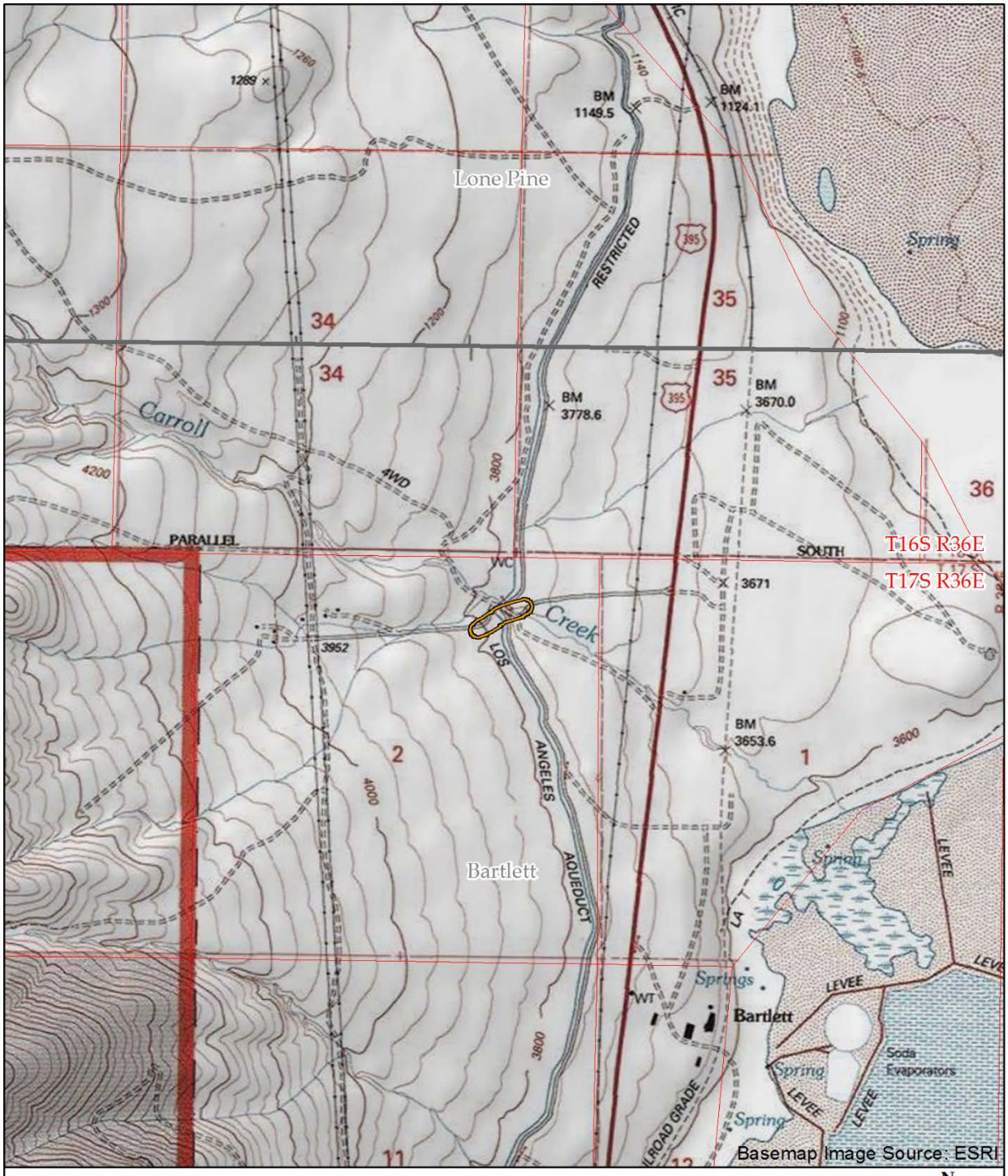
Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

Enclosure: Project Location Map



Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

0 1 Miles

N W E S

1:24000
NAD 83
UTM Zone 11N

Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Kathy Bancroft
Tribal Historic Preservation Officer
Lone Pine Paiute Shoshone Tribe
P.O. Box 747
Lone Pine, CA 93545

Dear Ms. Bancroft,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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If you or any members of the Lone Pine Paiute Shoshone Tribe have any questions regarding this project, please contact the Project Manager, Kari Sprengeler at ASM Affiliates, by phone at (775) 324-6789 or by email at ksprengeler@asmaffiliates.com, or Chantel Brown, Inyo County Public Works, at (760) 878-0201 or cbrown@inyocounty.us.

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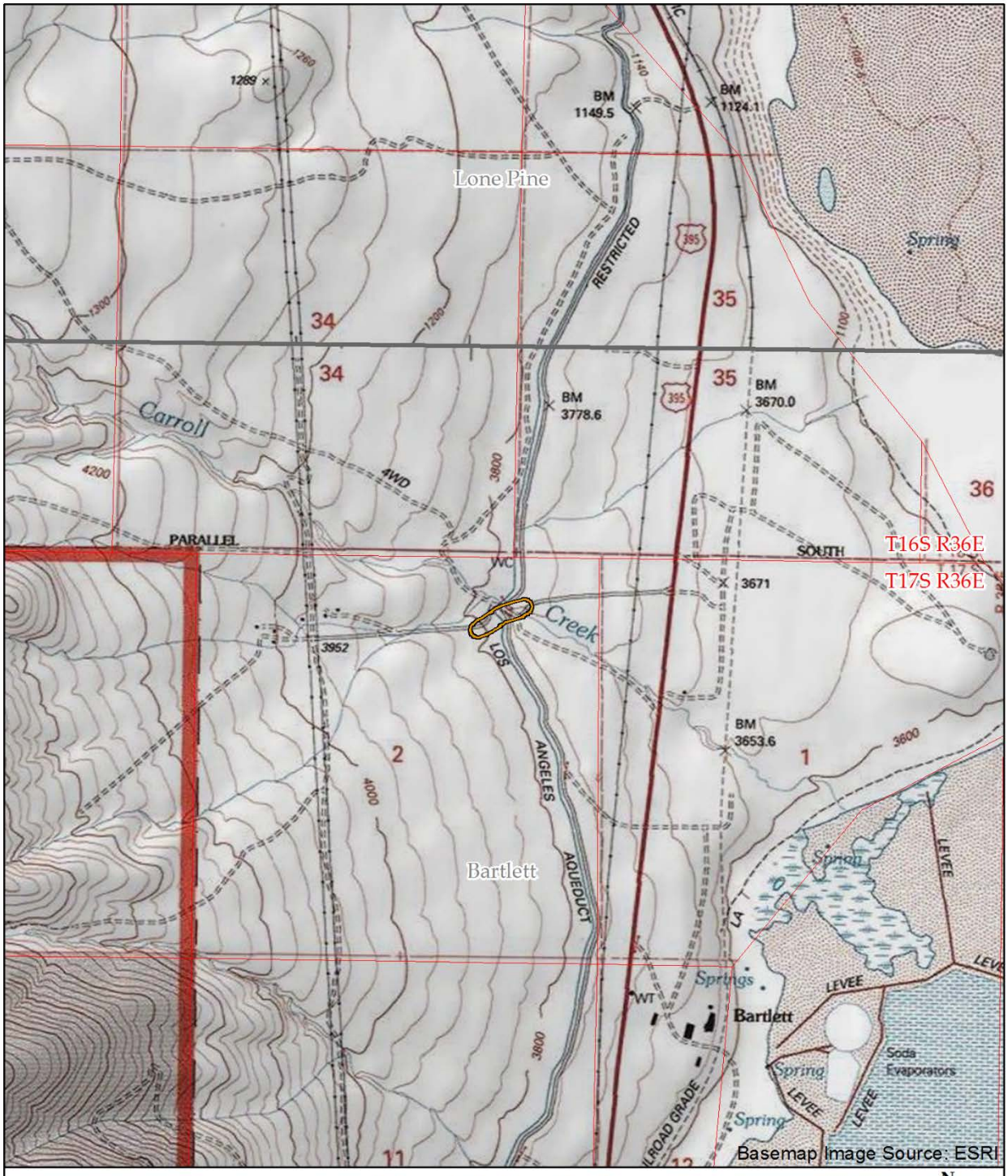
Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

Enclosure: Project Location Map



Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

0 1 Miles

N W E S

1:24000
NAD 83
UTM Zone 11N

Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Mary Wuester
Chairperson
Lone Pine Paiute Shoshone Tribe
P.O. Box 747
Lone Pine, CA 93545

Dear Ms. Wuester,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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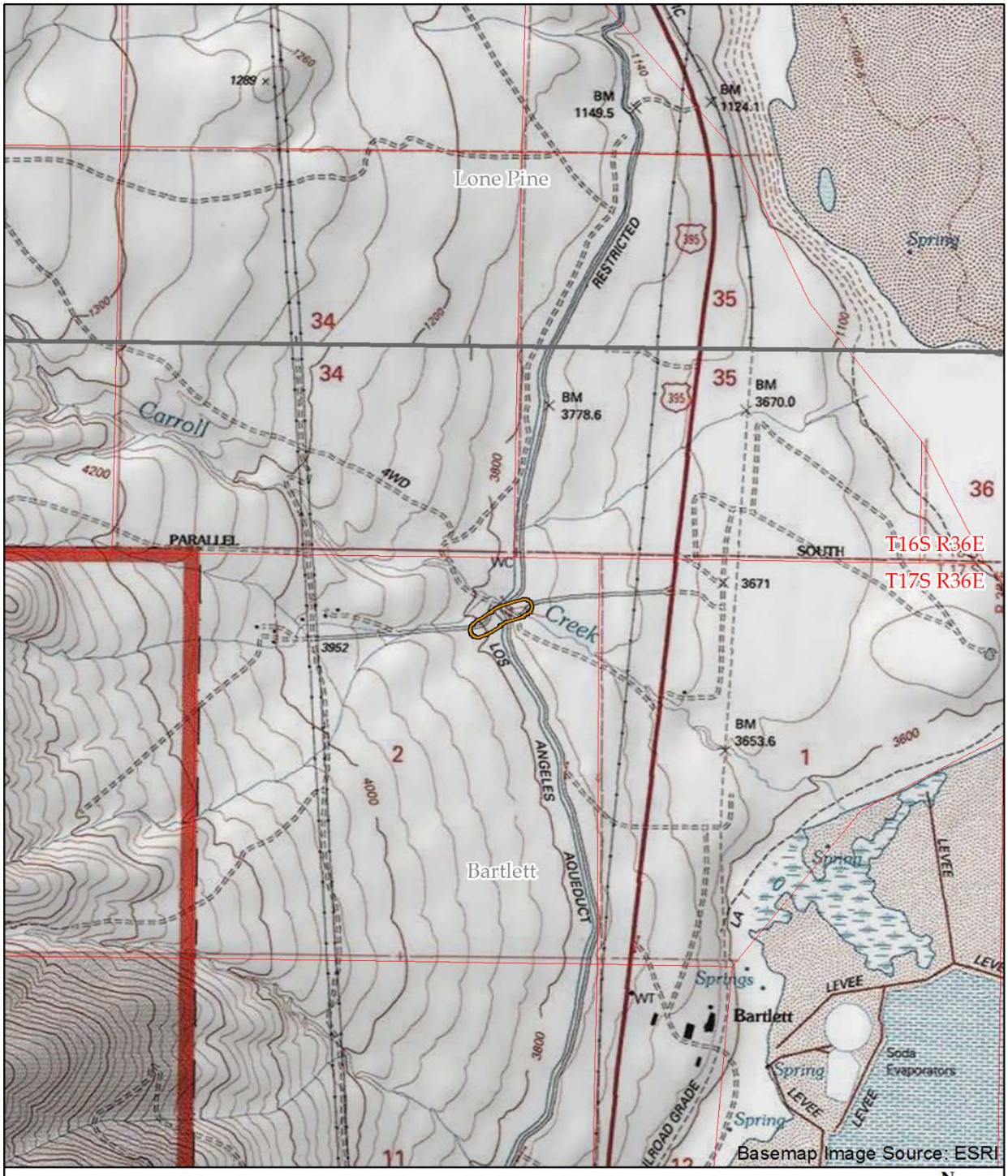
Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

Enclosure: Project Location Map



Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

0 1 Miles

N W E S

1:24000
NAD 83
UTM Zone 11N

Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Barbara Durham
Tribal Historic Preservation Officer
Timbisha Shoshone Tribe
P.O. Box 358
Death Valley, CA 92328

Dear Ms. Durham,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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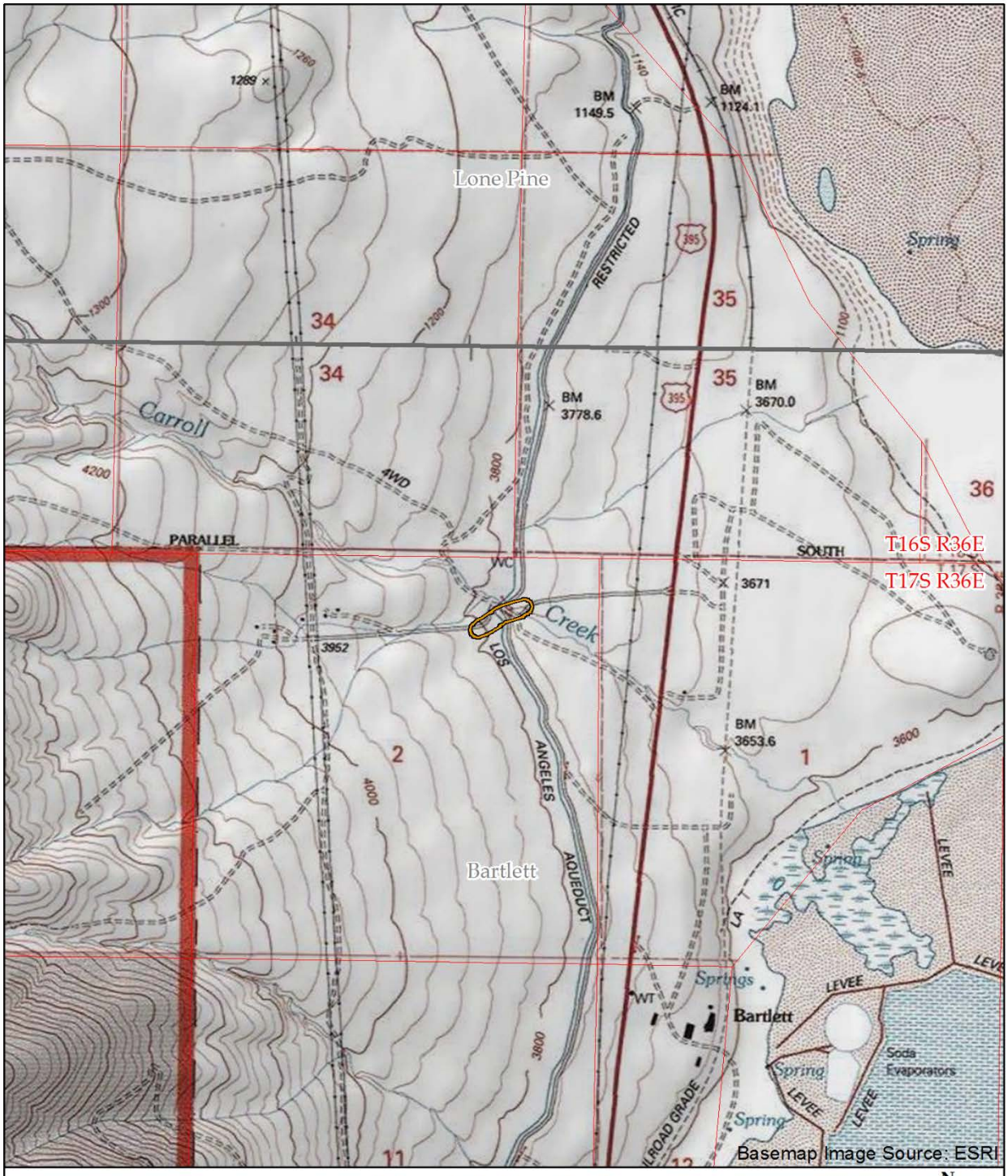
Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

Enclosure: Project Location Map



Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

0 1 Miles

N W E S

1:24000
NAD 83
UTM Zone 11N

Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

George Gholson
Chairperson
Timbisha Shoshone Tribe
P.O. Box 1779
Bishop, CA 93515

Dear Mr. Gholson,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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Chantel Brown
Program Manager, EAII

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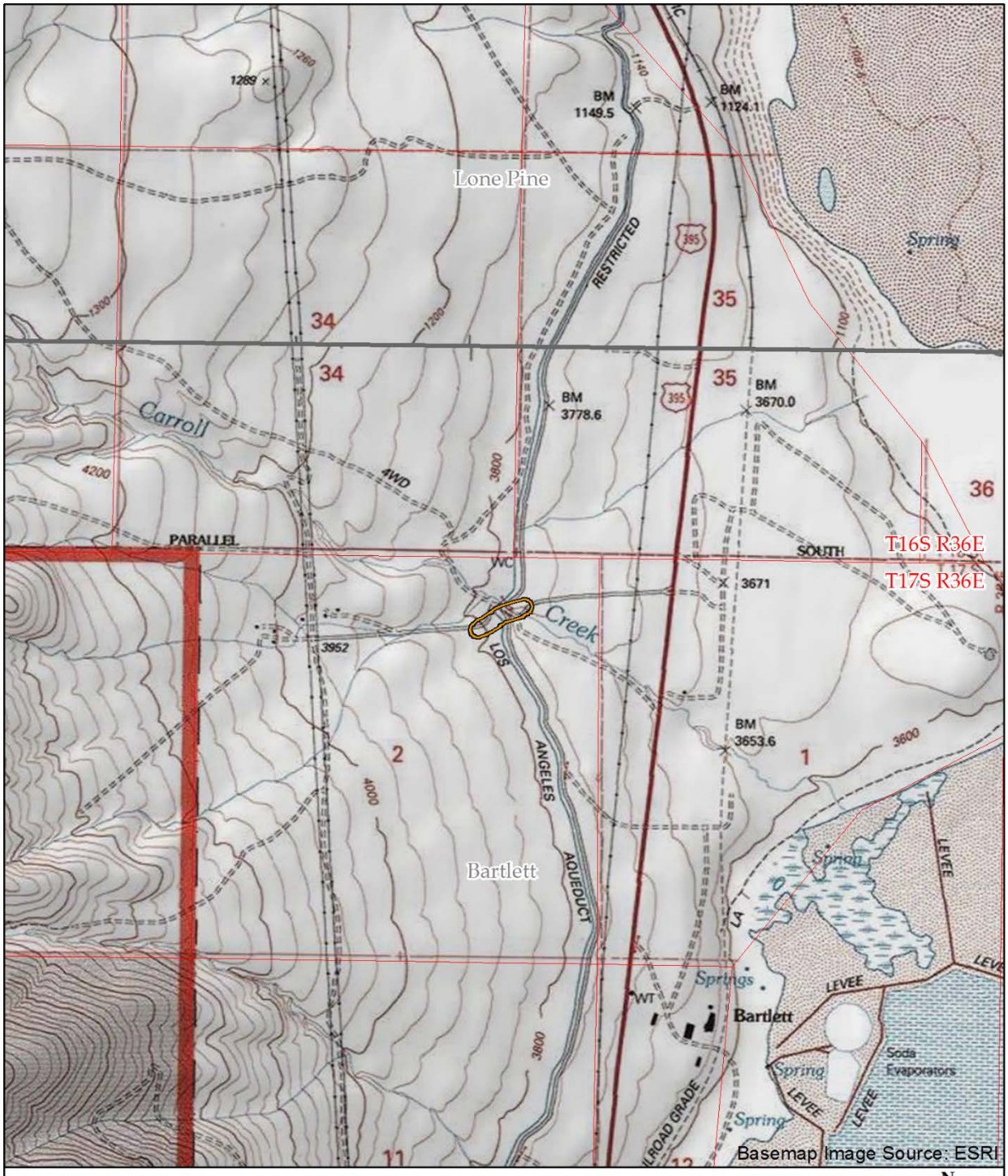

Carrol Creek Bridge Replacement

Cultural Survey Area

0 1 Kilometers

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N W E S

1:24000
NAD 83
UTM Zone 11N

Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
09/21/2015

DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Ellie Jackson
Secretary
Timbisha Shoshone Tribe
P.O. Box 1779
Bishop, CA 93515

Dear Ms. Jackson,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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Chantel Brown
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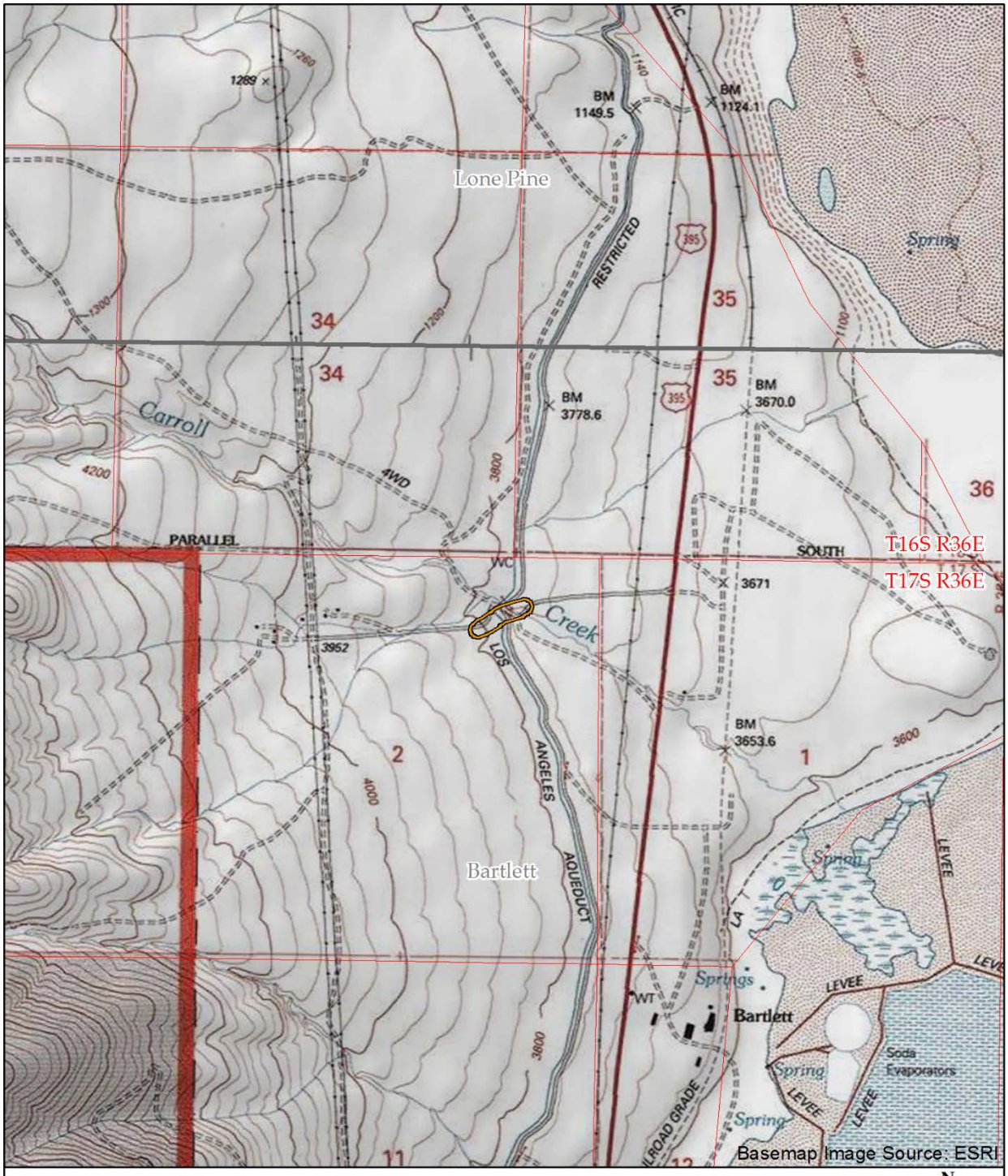

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P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Robert Robinson
Co-Chairperson
Kern Valley Indian Council
P.O. Box 401
Weldon, CA 93283

Dear Mr. Robinson,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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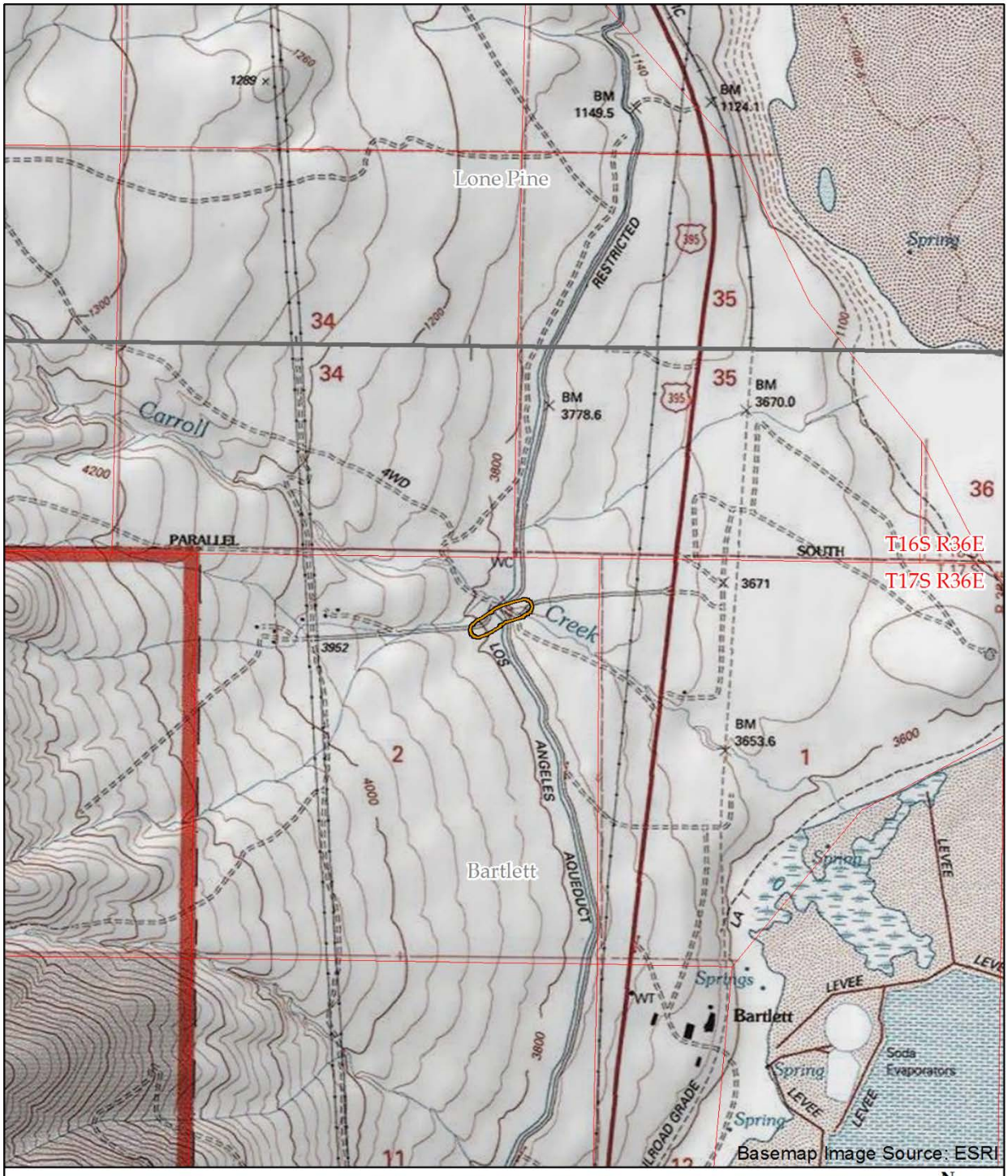
Chantel R Brown

Chantel Brown
Program Manager, EAII

Enclosure: Project Location Map



Carrol Creek Bridge Replacement

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Montana M. Long
ASM Affiliates, Inc.
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DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Melanie McFalls
Chairperson
Walker River Paiute Tribe
P.O. Box 220
Schurz, NV 89427

Dear Ms. McFalls,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

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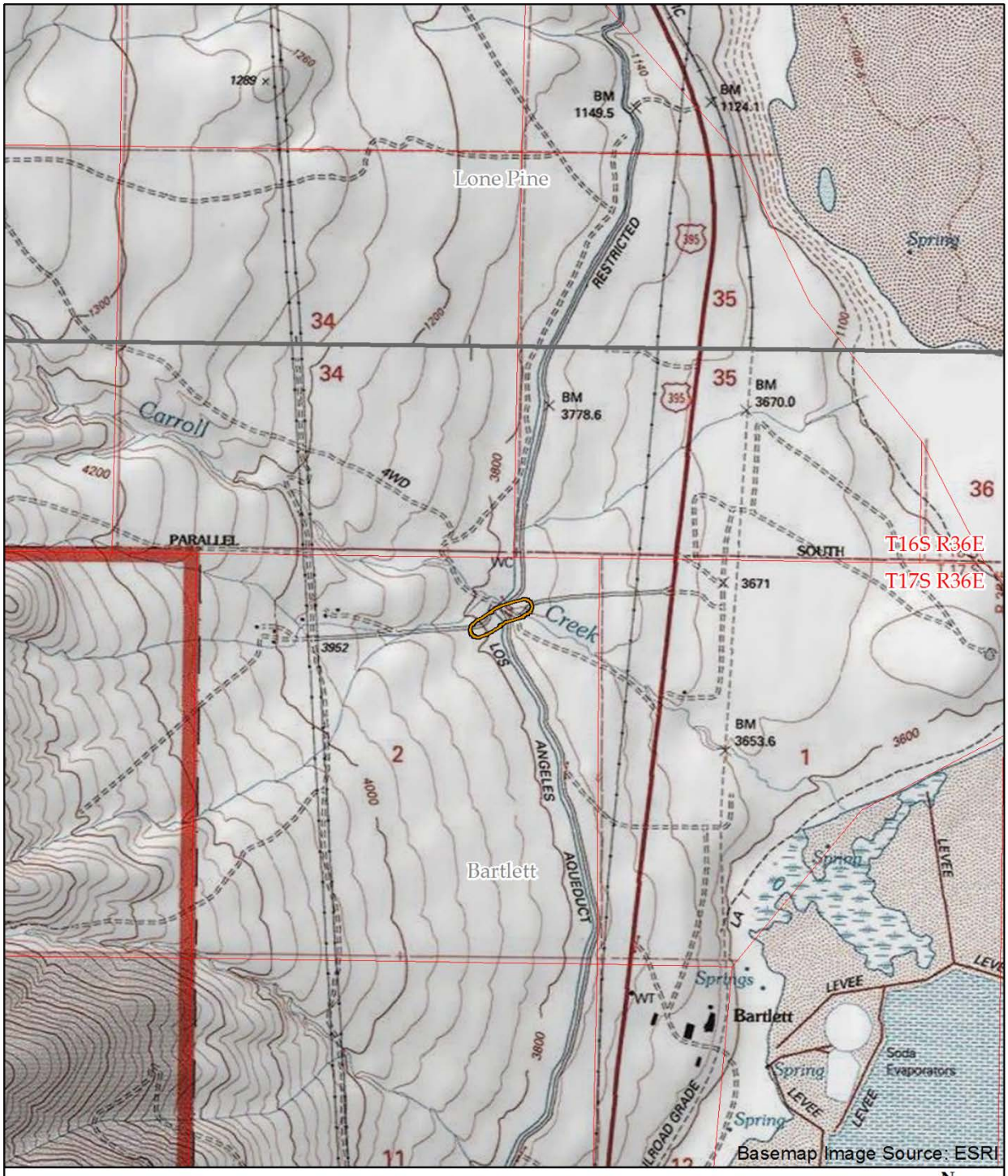

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ASM Affiliates, Inc.
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DEPARTMENT OF PUBLIC WORKS
P.O. DRAWER Q
INDEPENDENCE, CALIFORNIA 93526
(760) 878-0201
(760) 878-2001 FAX

County of

INYO

Clint Quilter - Director

October 28, 2015

Julie Turner
Secretary
Kern Valley Indian Council
P.O. Box 1010
Lake Isabella, CA 93240

Dear Ms. Turner,

The County of Inyo Department of Public Works (Inyo County), in conjunction with the California Department of Transportation (Caltrans), is proposing to replace the Carroll Creek Road Bridge (County Bridge 48C-0011) with a new bridge and decommission the old bridge. The project is located just to the northwest of Bartlett, on the west of Highway 395 (see attached map). The bridge replacement would also require a realignment of Carroll Creek Road as it approaches the new bridge in either direction. The need for the proposed project is to address structural and safety issues for the existing bridge. This project would replace the old bridge with a new one that is structurally sound, meets modern structural and safety codes, and provides adequate vehicle access between U.S. 395 and residences and other destinations west of the bridge.

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Sincerely,

Chantel R Brown

Chantel Brown
Program Manager, EAII

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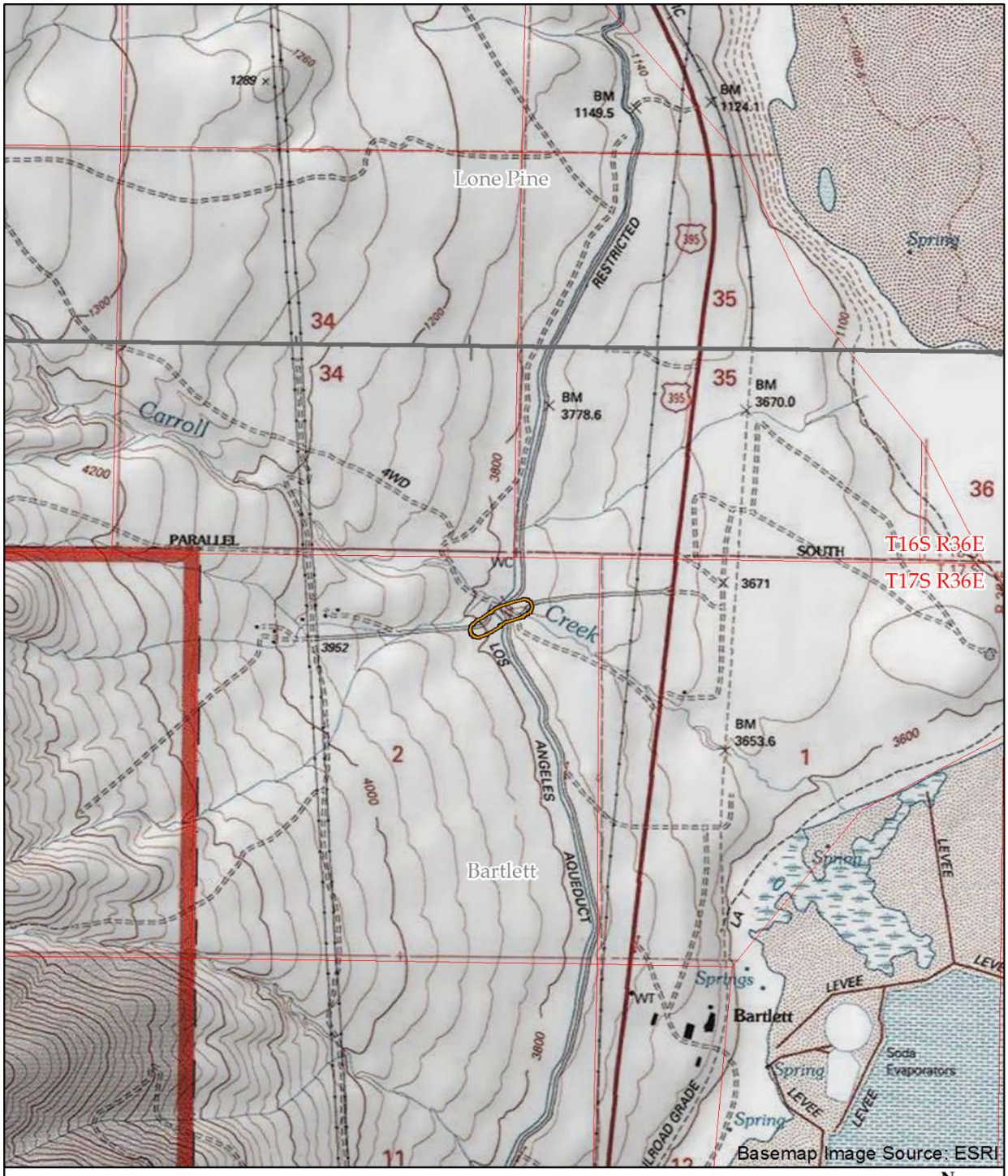

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Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
09/21/2015

AB 52 Consultation Records

Record of AB 52 Consultation

Name	Tribe	Address	cty, state, zip	Date Sent	Return Receipt?	Received by:	On:	Response due by:	Response:
Mary Wuester, Chairperson	Lone Pine Paiute-Shoshone Tribe	PO Box 747	Lone Pine, CA 93545	10/10/2017	Yes	David Lin	10/18/2017	11/17/2017	
Norman Wilder, Chairperson	Fort Independence Indian Community of Paiutes	PO Box 67	Independence, CA 93526	10/10/2017	Yes	Katie Stine	10/11/2017	11/10/2017	
George Gholson, Chairperson	Timbisha Shoshone Tribe	121 W. Line Street	Bishop, CA 93514	10/10/2017	Yes	P. Martinez	10/12/2017	11/11/2017	
Chairperson	Bishop Paiute Tribe	50 Tu Su Lane	Bishop, CA 93514	10/10/2017	Yes	Chiyone Parker	10/12/2017	11/11/2017	
Genevieve Jones, Chairperson	Big Pine Paiute Tribe of the Owens Valley	PO Box 700	Big Pine, CA 93513	10/10/2017	Yes	J	10/16/2017	11/15/2017	
Valerie Spoonhunter, Interim Tribal Administrator	Bishop Paiute Tribe	50 Tu Su Lane	Bishop, CA 93514	10/10/2017	Yes	Chiyone Parker	10/12/2017	11/11/2017	
Tribal Historic Preservation Officer	Bishop Paiute Tribe	50 Tu Su Lane	Bishop, CA 93514	10/10/2017	Yes	Chiyone Parker	10/12/2017	11/11/2017	No comments, email response on 10/26
Michael Mirelez, Cultural Resource Coordinator	Torres Martinez Desert Cahuilla Indians	P.O. Box 1160	Thermal, CA 92274	10/10/2017	Yes	Jones	10/16/2017	11/15/2017	
Darrell Mike, Tribal Chairperson	Twenty-Nine Palms Band of Mission Indians	46-200 Harrison Place	Coachella, CA 92236	10/10/2017	Yes	Christian Chavez	10/12/2017	11/11/2017	
Anthony Madrigal, Jr., Tribal Grants Administrator	Twenty-Nine Palms Band of Mission Indians	46-200 Harrison Place	Coachella, CA 92236	10/10/2017	Yes	Christian Chavez	10/12/2017	11/11/2017	11/3 - Letter stating no interest in project
Doug Todd Welmas	Cabazon Band of the Mission Indians	84-245 Indio Springs Parkway	Indio, CA 92203	10/10/2017	Yes	Henry Alberto	10/12/2017	11/11/2017	
Jacquelyn Barnum, Environmental Director	Cabazon Band of the Mission Indians	84-245 Indio Springs Parkway	Indio, CA 92203	10/10/2017	Yes	Henry Alberto	10/12/2017	11/11/2017	

BOARD OF SUPERVISORS
COUNTY OF INYO
P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526
TELEPHONE (760) 878-0373
email: dellis@inyocounty.us

October 6, 2017

Identical letters sent to all tribes included in table above

Chairperson
Bishop Paiute Tribe
50 Tu Su Lane
Bishop, CA 93514

RE: Assembly Bill 52 Consultation (Per Public Resources Code 21080.3.1)

Chairperson,

The Inyo County Public Works Department is developing a project to replace the Los Angeles Aqueduct Bridge (County Bridge 48C-0011) on Carroll Creek Road. The project will be funded through the Federal Highway Bridge Program and Federal Toll Credits. The new bridge will be located approximately 250 feet south of the existing bridge and will involve realigning approximately 600 feet of roadway. The existing bridge Carroll Creek Bridge will be closed to public vehicular traffic.

Maps are attached to this letter that show the locations of the existing bridge and proposed new bridge, as well as a map generally showing the project location. This project will be subject to a California Environmental Quality Act (CEQA) review.

As specified by Public Resources Code 21080.3.1 the County is hereby inviting local Tribes to consultation prior to the release of the CEQA environmental document. Also pursuant to Public Resources Code 21080.3.1, the Tribes must request consultation within 30-days of receipt of this correspondence.

If you wish to initiate the consultation process or would like more information, please contact:

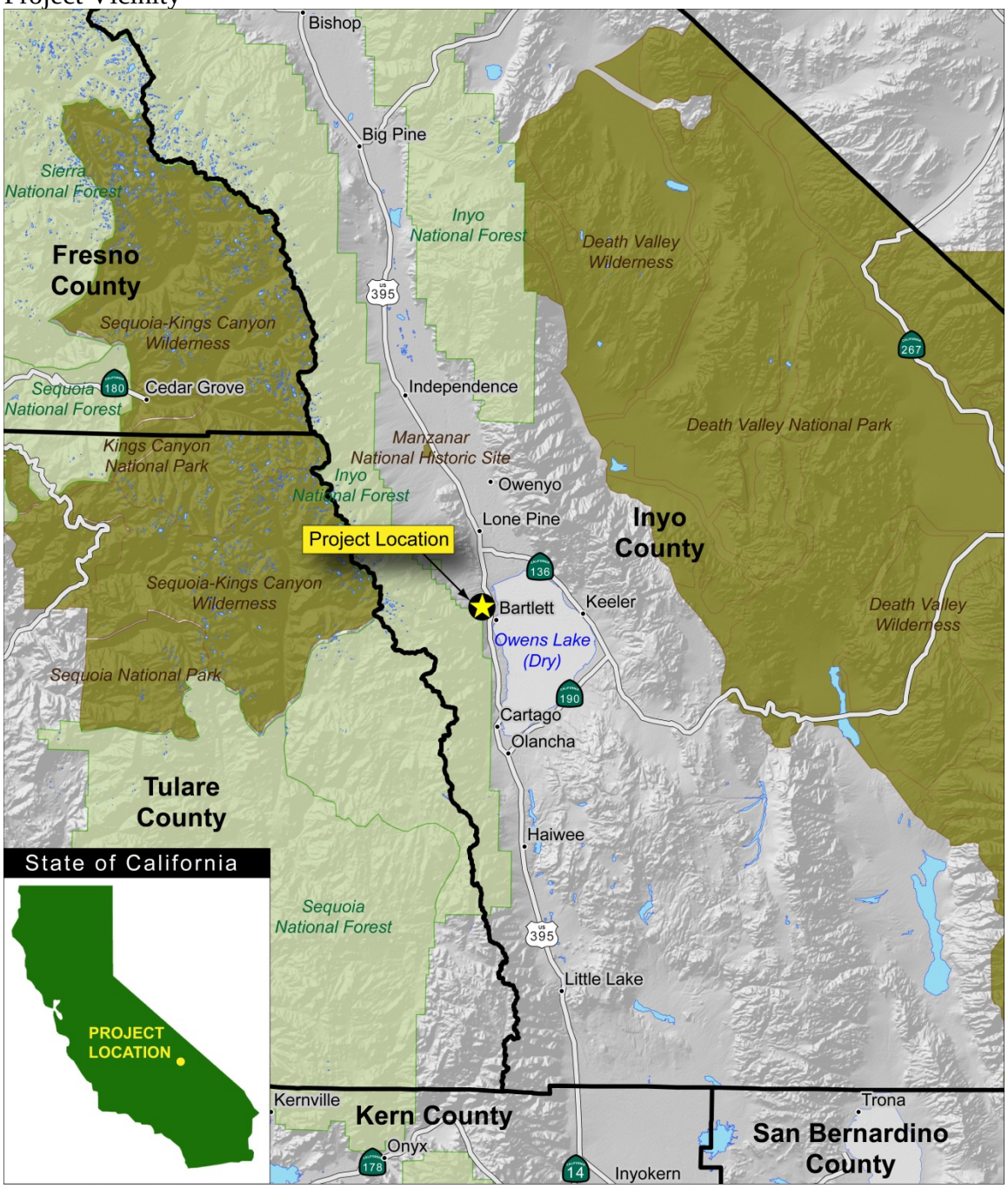
Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

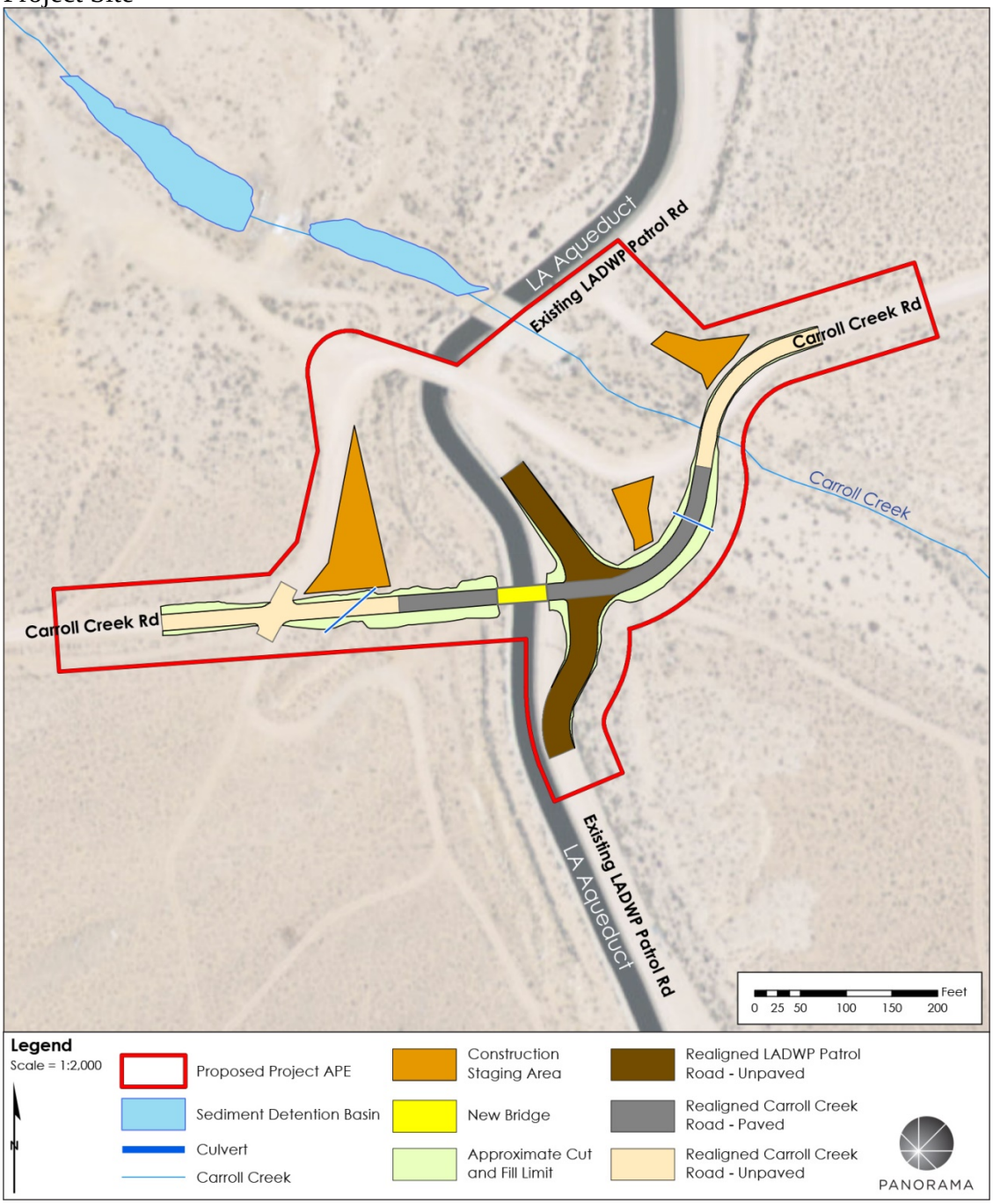
Mark Tillemans

Mark Tillemans, Chairperson
Inyo County Board of Supervisors

Project Vicinity



Project Site



TWENTY-NINE PALMS BAND OF MISSION INDIANS

46-200 Harrison Place . Coachella, California . 92236 . Ph. 760.863.2444 . Fax: 760.863.2449

November 3, 2017

Cathreen Richards, Planning Director
County of Inyo
P.O. Box Drawer L
Independence, CA 93526

RE: Assembly Bill 52 Consultation (Per California Public Resources Code § 21080.3.1)
Los Angeles Aqueduct Bridge (County Bridge 48C-0011) Carroll Creek Road

Dear Ms. Richards,

This letter is in regards to consultation in compliance with AB 52 (California Public Resources Code § 21080.3.1), for the formal notification for the replacement of the Los Angeles Aqueduct Bridge (48C-0011) located on Carroll Creek Road. The Tribal Historic Preservation Office (THPO) is not aware of any additional archaeological/cultural sites or properties in the project area that pertain to the Twenty-Nine Palms Band of Mission Indians (Tribe). The THPO currently has no interest in the project and defers to the comments of other affiliated tribes. If there are inadvertent discoveries of archaeological remains or resources, construction should stop immediately, and the appropriate agency and tribe(s) should be notified.

If you have any questions, please do not hesitate to contact the THPO at (760) 775-3259 or by email: TNPConsultation@29palmsbomi-nsn.gov.

Sincerely,

Anthony Madrigal, Jr.
Tribal Historic Preservation Officer

cc: Darrell Mike, Twenty-Nine Palms Tribal Chairman
Sarah Bliss, Twenty-Nine Palms Tribal Cultural Specialist

From: Monty Bengochia [mailto:monty.bengochia@bishoppaiute.org]
Sent: Thursday, October 26, 2017 10:13 AM
To: Cathreen Richards
Subject: Inyo County Public Works --County Bridge 48C-0011 & 48C0039

At present , the Bishop Paiute Tribal Historic Preservation Office has no comments on the County bridge replacement projects.

Thank You very much.

APPENDIX D

Mitigation Monitoring Plan

PROJECT SUMMARY

The proposed project includes replacing existing County Bridge 48C0011 which spans the Los Angeles Aqueduct approximately 0.4 mile west of the intersection of Carroll Creek Road with U.S. 395. The proposed project would construct a new bridge approximately 270 feet south of the existing bridge. The bridge would be approximately 22 feet wide with steel post and rail bridge railings mounted on the bridge deck. The bridge foundation would be constructed on either side of the Los Angeles Aqueduct using spread footings and concrete abutments. Concrete wing walls would be installed on both sides of the concrete abutments on either side of the Los Angeles Aqueduct. The deck of the bridge would be approximately 60 feet long and made of concrete. A 10-foot-long concrete approach slab would be used at either side of the bridge to meet seismic design requirements. The approach roadway on both sides of the bridge would be realigned to improve sight distance and safety. The existing bridge would be closed to public vehicular traffic after construction of the new bridge.

This Mitigation Monitoring Plan (MMP) outlines procedures for the implementation of mitigation measures identified in the Carroll Creek Road Bridge Replacement Project Initial Study/Mitigation Negative Declaration to avoid or reduce all potential environmental effects of the proposed project to less than significant levels. Inyo County Public Works Department (the County) and its contractors must fully comply with the conditions and measures described in this MMP.

MITIGATION MONITORING AND REPORTING REQUIREMENTS

The County prepared an Initial Study (IS) to identify and evaluate potential environmental impacts associated with the Carroll Creek Road Bridge Replacement Project. Mitigation measures are defined in the IS to reduce potentially significant impacts of project construction and operation. All measures designated as mitigation measures reduce potential impacts to the associated resource to less than significant levels.

Approval of the project will require implementation and monitoring of all the mitigation measures identified in the IS. The California Environmental Quality Act (CEQA) Section 15097(a) requires that:

> "… In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for

ensuring that implementation of the mitigation measures occurs in accordance with the program."

CEQA Section 15097(c) defines monitoring and reporting responsibilities of the lead agency.

> "(c) The public agency may choose whether its program will monitor mitigation, report on mitigation, or both. "Reporting" generally consists of a written compliance review that is presented to the decision making body or authorized staff person. A report may be required at various stages during project implementation or upon completion of the mitigation measure. "Monitoring" is generally an ongoing or periodic process of project oversight. There is often no clear distinction between monitoring and reporting and the program best suited to ensuring compliance in any given instance will usually involve elements of both. The choice of program may be guided by the following:
>
> > (1) Reporting is suited to projects which have readily measurable or quantitative mitigation measures or which already involve regular review. For example, a report may be required upon issuance of final occupancy to a project whose mitigation measures were confirmed by building inspection.
> >
> > (2) Monitoring is suited to projects with complex mitigation measures, such as wetlands restoration or archeological protection, which may exceed the expertise of the local agency to oversee, are expected to be implemented over a period of time, or require careful implementation to assure compliance.
> >
> > (3) Reporting and monitoring are suited to all but the most simple projects. Monitoring ensures that project compliance is checked on a regular basis during and, if necessary after, implementation. Reporting ensures that the approving agency is informed of compliance with mitigation requirements."

This MMP is meant to facilitate implementation and monitoring of the mitigation measures to ensure that measures are executed. This process protects against the risk of non-compliance.

The purpose of the MMP is to:

- Summarize the mitigation required for the project
- Comply with requirements of CEQA and the CEQA Guidelines
- Clearly define parties responsible for implementing and monitoring the mitigation measures
- Provide a plan for how to organize the measures into a format that can be readily implemented by the County and monitored

MMP COMPONENTS

The MMP provides a summary of all mitigation measures that will be implemented for the project. The mitigation measures are organized into three tables based on the timeframe for implementation:

- Table D-1: Mitigation Measures - Prior to Construction
- Table D-2: Mitigation Measures - During Construction
- Table D-3: Mitigation Measures - After Construction

Mitigation measures could be applicable during one or more implementation phase. Each mitigation measure is accompanied with identification of:

- Application Locations – locations where the mitigation measure will be implemented.
- Monitoring/Reporting Action – the monitoring and/or reporting actions to be undertaken to ensure the measure is implemented.
- Responsible and Involved Parties – the party or parties that will undertake the measure and will monitor the measure to ensure it is implemented in accordance with this MMP.

The responsible and involved parties will utilize the MMP to identify actions that must take place to implement each mitigation measure, the time of those actions, and the parties responsible for implementing and monitoring the actions.

Table D-1 Mitigation Measures - Prior to Construction

Mitigation Measures	Applicable Locations	Monitoring/Reporting Action	Responsible and Involved Parties
MITIGATION MEASURE BIO-1: Mojave Desert Tortoise Measures • A preconstruction survey shall be conducted by a qualified biologist within 14 days prior to construction. Burrows shall be inspected for desert tortoise or sign of recent use. All active burrows and recently active burrows shall be avoided during construction. If a desert tortoise is detected in a burrow on the project site, construction shall halt within 100 feet of the burrow and the CDFW and USFWS shall be contacted to discuss appropriate actions to avoid unpermitted take of the listed species. • Should a desert tortoise enter the project site, construction shall halt until the individual has exited the project site. • Vegetation removal should be minimized, and vehicle travel should be confined to designated routes. The existing Carroll Creek Road on BLM property and any temporary disturbance of staging or storage areas shall be reseeded after project construction. *Worker Environmental Awareness Training Measures* A Worker Environmental Awareness Training program shall be developed and implemented and shall include: • Explanation of the avoidance and minimization measures for biological resources and the possible penalties for not adhering to them; • General safety protocols such as hazardous substance spill prevention and containment measures, fire prevention and protection measures, and speed limits; • Explanation of the sensitivity and locations of the biological resources within and adjacent to work areas, and proper identification of these resources; • Natural history information on the sensitive biological resources including information on physical characteristics, photographs, distribution, behavior, ecology, sensitivity to human activities,	All project areas where suitable habitat for Mojave Desert Tortoise is present	• A qualified biologist conducts pre-construction survey for Mojave Desert Tortoise within 14 days prior to construction • All project personnel are trained prior to construction start	• Inyo County Public Works Department • Construction contractor • Qualified biologist • USFWS • CDFW • Caltrans

Mitigation Measures	Applicable Locations	Monitoring/Reporting Action	Responsible and Involved Parties
legal protection, reporting requirements, and conservation measures required for the project; • Contact information for the approved biologist(s); • Direction to all workers to report all observations of special-status species and their sign to the approved biologist; • A training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines; and • Information regarding the effects of predation on the desert tortoise by common ravens and other predators, and the measures that have been developed to reduce the likelihood predators shall be attracted to the construction area.			
MITIGATION MEASURE BIO-2: Special-Status Bats • If construction work is to occur between April and August, a preconstruction survey for Pallid and Townsend's big-eared bats shall be conducted by a qualified biologist within 14 days prior to construction for any roosting bats underneath the existing bridge. • If roosting bats are observed: – An on-call biologist shall monitor the bats during initial ground-disturbing activities and increased bridge use (i.e., equipment mobilization and demobilization). If bats do not seem to be disturbed by the activities the monitoring frequency shall be scaled back. Construction workers shall reduce the frequency of crossings or halt activities if bats exhibit signs of distress. Activities may be allowed to resume at the biologist's discretion, or after bats have vacated the roost. – Work activities shall not occur within 50 feet of the bridge. Travel over the bridge would still be permissible as roosts were likely established with baseline noise level from existing vehicle access. – Lights are not to be used under or in the vicinity of the existing bridge during the roosting season, between April and August.	Underneath the existing bridge	• A qualified biologist conducts pre-construction survey for Pallid and Townsend's big-eared bats within 14 days prior to construction if construction work occurs between April and August • Establish a 50-foot buffer around the existing bridge if roosting bats are observed	• Inyo County Public Works Department • Construction contractor • Qualified biologist

Mitigation Measures	Applicable Locations	Monitoring/Reporting Action	Responsible and Involved Parties
– Combustion equipment, such as generators, pumps, and vehicles, are not to be parked or engines started under the existing bridge or within 50 feet.			
MITIGATION MEASURE BIO-3: American Badger and Desert Kit Fox Mitigation and Monitoring Plan No fewer than 60 days prior to the start of any pre-construction site mobilization, Inyo County shall provide CDFW with a draft American Badger and Desert Kit Fox Mitigation and Monitoring Plan (plan) for approval. The final plan shall include, but is not limited to, the following procedures and impact avoidance measures: *Pre-Construction Measures* • A preconstruction survey for kit fox or American badger dens shall be conducted by a qualified biologist within 14 days prior to construction. The survey shall include the entire project site and a 20-foot buffer around disturbed areas. If dens are detected each den shall be classified as inactive, potentially active, or definitely active. • Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox. • Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance. • If no tracks are observed in the tracking medium or no photos of the target species are captured after three consecutive nights, the den shall be excavated and backfilled by hand. • If tracks or the use of the den is observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage the badger or kit fox from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den.	The entire project site and a 20-foot buffer around disturbed areas	• Inyo County submits a draft American Badger and Desert Kit Fox Mitigation and Monitoring Plan to CDFW for review and approval no fewer than 60 days prior to project construction • A qualified biologist conducts pre-construction survey within 14 days prior to construction start • Contact CDFW within 24 hours if an active natal den is observed	• Inyo County Public Works Department • Construction contractor • Qualified biologist • CDFW

Mitigation Measures	Applicable Locations	Monitoring/Reporting Action	Responsible and Involved Parties
• If an active natal den is detected on the site, the CDFW shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for harm or mortality. The course of action would depend on the age of the pups/cubs, the location of the den on the site (e.g., is the den in a central area or in a perimeter location), the status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A no-disturbance buffer shall be defined by the qualified biologist, which shall be maintained around active natal dens. *Construction Measures* • All vehicle and equipment shall observe a daytime speed limit of 15-mph. All vehicle and equipment shall observe a night-time speed limit of 10-mph. • To prevent inadvertent entrapment of badgers, kit foxes, or other animals during construction phase of the proposed project, all excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, thorough inspections for trapped animals shall occur. If at any time a trapped or injured badger or kit fox is discovered, CDFW shall be contacted in writing within 24 hours. • All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for badger or kit fox before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a badger or kit fox is discovered inside a pipe, that section of pipe shall not be moved until CDFW has been consulted. • All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed			

Mitigation Measures	Applicable Locations	Monitoring/Reporting Action	Responsible and Involved Parties
containers and removed at least once a week from the construction or project site. • No firearms shall be allowed on the project site. • Use of rodenticides and herbicides on or adjacent to the project site shall be restricted. This is necessary to prevent primary or secondary poisoning of badgers or kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation. If rodent control must be conducted, zinc phosphide shall be used because of a proven low risk to badger and kit fox. • A representative shall be appointed by the County who will be the contact source for any employee or contractor who might inadvertently kill or injure a badger or kit fox or who finds a dead, injured or entrapped badger or kit fox. The representative shall be identified during the employee education program and their name and telephone number shall be provided to CDFW. • In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. *Distemper Measures* • The following measures are required to reduce the likelihood of distemper transmission: – No pets shall be allowed on the site prior to or during construction, with the possible exception of kit fox scat detection dogs during preconstruction surveys, and then only with prior CDFW approval; – Any kit fox hazing activities that include the use of animal repellents such as coyote urine must be cleared through CDFW prior to use; and – Any documented kit fox mortality shall be reported to CDFW and within 24 hours of identification. If a dead kit fox is observed, it shall be retained and protected from scavengers			

Mitigation Measures	Applicable Locations	Monitoring/Reporting Action	Responsible and Involved Parties
until CDFW determines if the collection of necropsy samples is justified.			
MITIGATION MEASURE BIO-4: Nesting Bird Measures • If project activities are scheduled to occur between February 1 and September 30, the County shall prepare a Nesting Bird Plan (NBP). The County shall provide CDFW with the opportunity to review and comment on the plan, by providing it) no later than 30 days prior to the initiation of project activities. The NBP will include project-specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur and that the project complies with applicable laws related to nesting birds and birds of prey. The NBP shall at a minimum include: – Monitoring protocols – Survey timing and duration – The creation, maintenance, and submittal to CDFW of a bird-nesting log – Project-specific avoidance and minimization measures. Avoidance and minimization measures shall include, at a minimum: project phasing and timing, monitoring of project-related noise, sound walls and buffers. • A pre-construction survey for active bird nests shall be conducted in all vegetated areas to be impacted and within 500 feet of the work areas. • The nesting bird survey shall be conducted by a qualified biologist within three days prior to construction start. • If no nesting or breeding behavior is observed, construction may proceed. • If an active nest is detected, a determination shall be made by a qualified biologist as to whether construction work shall affect the active nest. If it is determined that construction shall not affect an active nest, work may proceed. • If it is determined that construction activities are likely to impair the successful rearing of the young, a 'no-disturbance buffer' in	Within 500 feet of the all work areas	• The County provides a Nesting Bird Plan for CDFW review no later than 30 days prior to construction if construction occurs between February 1 and September 30 • A qualified biologist conducts surveys for active bird nests within 3 days prior to construction start • Establish no-disturbance buffers around active nests	• Inyo County Public Works Department • Construction contractor • Qualified biologist • CDFW

Mitigation Measures	Applicable Locations	Monitoring/Reporting Action	Responsible and Involved Parties
the form of orange mesh Environmentally Sensitive Area (ESA) fencing shall be established around occupied nests to prevent destruction of the nest and to prevent disruption of breeding or rearing behavior. • The extent of the 'no-disturbance buffer' shall be determined by a qualified biologist in consultation with CDFW and shall depend on the level of noise or disturbance, line of sight between the nest and the disturbance area, the type of bird, ambient levels of noise and other disturbances, and other topographic or artificial barriers. • 'No-disturbance buffers' shall be maintained until the end of the breeding season or until a qualified wildlife biologist has determined that the nestlings have fledged. • If a nest is discovered by workers on the project site during daily inspections, work shall stop and the biologist shall be called to the site.			
MITIGATION MEASURE BIO-5: Burrowing Owl Measures To minimize impact to burrowing owls, a pre-construction survey for burrowing owl shall be conducted by a qualified biologist within 14 days prior to construction. If burrowing owls are observed on site, the following buffers shall be implemented to avoid impacts to occupied burrows: • No disturbance shall occur within approximately 250 feet during the breeding season of February 1 through August 31. • No disturbance shall occur within approximately 160 feet of occupied burrows during the nonbreeding season of September 1 through January 31. • Any occupied burrows shall be monitored daily by a qualified biologist during breeding season and weekly in the non-breeding season. The biologist shall have the authority to establish minimum distances to active nests and to stop work if owls are showing signs of distress. • Burrowing owls may be removed from the project impact area only after consulting with CDFW. If the burrowing owl occurs on BLM land, then BLM shall also be consulted prior to removing owls from the project impact area. Methods of relocation	All project areas	• A qualified biologist conducts pre-construction survey for burrowing owl within 14 days prior to construction start • Implement appropriate measures if burrowing owls are observed on site	• Inyo County Public Works Department • Construction contractor • Qualified biologist • CDFW

Mitigation Measures	Applicable Locations	Monitoring/Reporting Action	Responsible and Involved Parties
would be determined during agency consultation and may include the use of one-way doors and/or excavation and collapsing of vacant burrows.			
MITIGATION MEASURE CUL-1: Cultural Resources Sensitivity Training and Inadvertent Discovery A professional archaeologist shall provide sensitivity training to supervisory staff prior to initiation of site preparation and/or construction, to alert construction workers to the possibility of exposing significant historic and/or prehistoric archaeological resources within the proposed project area. The training shall include a discussion of the types of prehistoric or historic objects that could be exposed and how to recognize them, the need to stop excavation at a discovery and within 50 feet of a discovery, and the procedures to follow regarding discovery protection and notification. An "Alert Sheet" shall be posted in staging areas, such as in construction trailers, to alert personnel to the procedures and protocols to follow for the discovery of a potentially significant historic and/or prehistoric archaeological resources.[1] In the event that an archaeological resource is discovered, ground disturbing work shall be halted within 50 feet of the find, and a qualified cultural resources specialist/archaeologist shall be brought to the site. The qualified cultural resources specialist/archaeologist	N/A	• All supervisory staff receive cultural resources sensitivity training prior to the initiation of construction	• Inyo County Public Works Department • Construction contractor • Qualified Archaeologist

[1] Significant prehistoric cultural resources may include:
a. Human bone, either isolated or intact burials.
b. Habitation, occupation or ceremonial structures as interpreted from rock rings/features, distinct ground depressions, differences in compaction (e.g., house floors).
c. Artifacts including chipped stone objects such as projectile points and bifaces; groundstone artifacts such as manos, metates, mortars, pestles, grinding stones, pitted hammerstones; and, shell and bone artifacts including ornaments and beads.
d. Various features and samples including hearths (fire-cracked rock; baked and vitrified clay), artifact caches, faunal and shellfish remains (which permit dietary reconstruction), distinctive changes in soil stratigraphy indicative of prehistoric activities.
e. Isolated prehistoric artifacts (Basin 2015).

Mitigation Measures	Applicable Locations	Monitoring/Reporting Action	Responsible and Involved Parties
shall evaluate the resource and determine whether it is (1) eligible for the CRHR (and thus a historic resource for purposes of CEQA); or (2) a unique archaeological resource as defined by CEQA. If the resource is determined to be neither a unique archaeological nor a historical resource, work may commence in the area. If the resource meets the criteria for either a historical or unique archaeological resource, or both, work shall remain halted within 50 feet of the find, and the qualified cultural resources specialist/archaeologist shall consult with County staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA Guidelines Section 15064.5(b). If the resource is determined to be prehistoric, the evaluation and determination of appropriate measures shall be coordinated with regional Native American tribes. Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts on cultural resources. If preservation-in-place and avoidance is not possible, data recovery shall be undertaken. The methods and results of data recovery work at an archaeological find shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System (CHRIS). Work in the area may commence upon completion of treatment, as approved by the County.			
MITIGATION MEASURE CUL-2: Paleontological Resources Sensitivity Training and Inadvertent Discovery A professional paleontologist shall provide sensitivity training to supervisory staff (County staff, biological monitor, and construction foreman) to alert construction workers to the possibility of exposing significant paleontological resources within the proposed project area. The training shall be conducted to recognize fossil materials in the event that any are uncovered during construction. In the event that a paleontological resource is uncovered during project implementation, all ground-disturbing work within a 50-foot radius shall be halted. A qualified paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts shall occur, no further effort shall be required. If the resource cannot be	N/A	• All supervisory staff receive paleontological resources sensitivity training	• Inyo County Public Works Department • Construction contractor • Qualified paleontologist

Mitigation Measures	Applicable Locations	Monitoring/Reporting Action	Responsible and Involved Parties
avoided and may be subject to further impact, a qualified paleontologist shall evaluate the resource and determine whether it is "unique" [2] under CEQA, Appendix G, part V. If the resource is determined not to be unique, work may commence in the area. If the resource is determined to be a unique paleontological resource, work shall remain halted, and the paleontologist shall consult with County staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA. Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts to paleontological resources. If preservation-in-place is not feasible and avoidance is not possible, the fossils shall be recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to Society of Vertebrate Paleontology (SVP) standard guidelines. Work may commence upon completion of treatment.			

[2] A unique paleontological resource is any fossil or assemblage of fossils, or paleontological resource site or formation that meets any one of the following criteria:

- Is the best example of its kind locally or regionally;
- Illustrates a paleontological or evolutionary principle (e.g. faunal succession; plant or animal relationships);
- Provides a critical piece of paleobiological data (illustrates a portion of geologic history or provides evolutionary, paleoclimatic, paleoecological, paleoenvironmental or biochronological data);
- Encompasses any part of a "type locality" of a fossil or formation;
- Contains a unique or particularly unusual assemblage of fossils;
- Occupies a unique position stratigraphically within a formation; or
- Occupies a unique position, proximally, distally or laterally within a formation's extent or distribution (County of San Diego 2009).

Mitigation Measures	Applicable Locations	Monitoring/Reporting Action	Responsible and Involved Parties
MITIGATION MEASURE HAZ-1: Fire Prevention Procedures • Prior to ground disturbing activities, all workers on the project site shall be trained regarding the proper handling and/or storage of materials posing a fire hazard, potential ignition sources (such as cigarettes or sparking equipment), and appropriate types and use of fire protection equipment. • Fire suppression equipment, including fire extinguishers, water, and shovels, shall be available on-site at all times. • Vehicles shall not be parked in vegetated areas. • Smoking shall be allowed only in designated areas. The designated areas must be unvegetated. Cigarette butts shall be properly contained and transported off-site for disposal.	N/A	• All project personnel receive fire prevention training	• Inyo County Public Works Department • Construction contractor

Table D-2 Mitigation Measures - During Construction

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
MITIGATION MEASURE AIR-1: Dust and Engine Emissions Control Measures Construction activities shall comply with District Rule 401 regulations. In addition to reasonable precautions outlined in Rule 401, the following measures shall be incorporated during the installation of the bridge and realigned roadway approaches, and removal of existing road segments: 1. Water or dust palliatives shall be applied on dirt roads, material stockpiles, and other surfaces that could give rise to airborne dust and are subject to disturbance. 2. Water or dust palliatives shall be applied to prevent particulate matter from becoming airborne during the transportation or stockpiling of dusty materials. 3. Trucks hauling material shall be covered during transit. 4. Roadways shall be maintained in a clean condition. 5. Vehicles shall be limited to 15 miles per hour (mph) on unpaved roads, to the extent feasible. 6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). All construction equipment shall be maintained and properly tuned in accordance with manufacturer 's specifications. All equipment shall be checked by a certified visible emissions evaluator.	All project areas	• Exposed surfaces are watered • Haul trucks are adequately covered • Vehicle speeds limits are maintained • Idling times are minimized • All construction equipment is checked by a certified visible emissions evaluator	• Inyo County Public Works Department • Construction contractor
MITIGATION MEASURE BIO-1: Mojave Desert Tortoise Measures • A preconstruction survey shall be conducted by a qualified biologist within 14 days prior to construction. Burrows shall be inspected for desert tortoise or sign of recent use. All active burrows and recently active burrows shall be avoided during construction. If a desert tortoise is detected in a burrow on the project site, construction shall halt within 100 feet of the burrow and the CDFW and USFWS shall be contacted to discuss	All project areas where suitable habitat for Mojave Desert Tortoise is present	• All active burrows and recently active are avoided and monitored appropriately • Halt construction activities if desert tortoise is detected in project site	• Inyo County Public Works Department • Construction contractor • Qualified biologist

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
appropriate actions to avoid unpermitted take of the listed species. • Should a desert tortoise enter the project site, construction shall halt until the individual has exited the project site. • Vegetation removal should be minimized, and vehicle travel should be confined to designated routes. The existing Carroll Creek Road on BLM property and any temporary disturbance of staging or storage areas shall be reseeded after project construction. *Worker Environmental Awareness Training Measures* A Worker Environmental Awareness Training program shall be developed and implemented and shall include: • Explanation of the avoidance and minimization measures for biological resources and the possible penalties for not adhering to them; • General safety protocols such as hazardous substance spill prevention and containment measures, fire prevention and protection measures, and speed limits; • Explanation of the sensitivity and locations of the biological resources within and adjacent to work areas, and proper identification of these resources; • Natural history information on the sensitive biological resources including information on physical characteristics, photographs, distribution, behavior, ecology, sensitivity to human activities, legal protection, reporting requirements, and conservation measures required for the project; • Contact information for the approved biologist(s); • Direction to all workers to report all observations of special-status species and their sign to the approved biologist; • A training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines; and • Information regarding the effects of predation on the desert tortoise by common ravens and other predators, and the		• Vegetation removal is minimized • All project personnel receive training on biological resources prior to working on the site	

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
measures that have been developed to reduce the likelihood predators shall be attracted to the construction area.			
MITIGATION MEASURE BIO-2: Special-Status Bats • If construction work is to occur between April and August, a preconstruction survey for Pallid and Townsend's big-eared bats shall be conducted by a qualified biologist within 14 days prior to construction for any roosting bats underneath the existing bridge. • If roosting bats are observed: – An on-call biologist shall monitor the bats during initial ground-disturbing activities and increased bridge use (i.e., equipment mobilization and demobilization). If bats do not seem to be disturbed by the activities the monitoring frequency shall be scaled back. Construction workers shall reduce the frequency of crossings or halt activities if bats exhibit signs of distress. Activities may be allowed to resume at the biologist's discretion, or after bats have vacated the roost. – Work activities shall not occur within 50 feet of the bridge. Travel over the bridge would still be permissible as roosts were likely established with baseline noise level from existing vehicle access. – Lights are not to be used under or in the vicinity of the existing bridge during the roosting season, between April and August. Combustion equipment, such as generators, pumps, and vehicles, are not to be parked or engines started under the existing bridge or within 50 feet.	Within 50 feet of the existing bridge	• Necessary bat avoidance measures are implemented and observed	• Inyo County Public Works Department • Construction contractor • On-call biologist
MITIGATION MEASURE BIO-3: American Badger and Desert Kit Fox Mitigation and Monitoring Plan No fewer than 60 days prior to the start of any pre-construction site mobilization, Inyo County shall provide CDFW with a draft American Badger and Desert Kit Fox Mitigation and Monitoring Plan (plan) for approval. The final plan shall include, but is not limited to, the following procedures and impact avoidance measures:	All project areas	• Vehicle speeds limits are maintained • All excavated, steep-walled holes or trenches more than 2-feet deep are covered at the close of each working day	• Inyo County Public Works Department • Construction contractor • CDFW

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
Pre-Construction Measures • A preconstruction survey for kit fox or American badger dens shall be conducted by a qualified biologist within 14 days prior to construction. The survey shall include the entire project site and a 20-foot buffer around disturbed areas. If dens are detected each den shall be classified as inactive, potentially active, or definitely active. • Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox. • Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance. • If no tracks are observed in the tracking medium or no photos of the target species are captured after three consecutive nights, the den shall be excavated and backfilled by hand. • If tracks or the use of the den is observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next three to five nights to discourage the badger or kit fox from continued use. After verification that the den is unoccupied it shall then be excavated and backfilled by hand to ensure that no badgers or kit fox are trapped in the den. • If an active natal den is detected on the site, the CDFW shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for harm or mortality. The course of action would depend on the age of the pups/cubs, the location of the den on the site (e.g., is the den in a central area or in a perimeter location), the status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A no-disturbance buffer shall be defined by the qualified biologist, which shall be maintained around active natal dens. *Construction Measures*		• All construction structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods are inspected before being used or moved • All food-related trash is disposed of in securely closed containers and removed from project site at least once a week • No firearms are allowed Use of rodenticides and herbicides is restricted	

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
• All vehicle and equipment shall observe a daytime speed limit of 15-mph. All vehicle and equipment shall observe a night-time speed limit of 10-mph. • To prevent inadvertent entrapment of badgers, kit foxes, or other animals during construction phase of the proposed project, all excavated, steep-walled holes or trenches more than 2-feet deep shall be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, thorough inspections for trapped animals shall occur. If at any time a trapped or injured badger or kit fox is discovered, CDFW shall be contacted in writing within 24 hours. • All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for badger or kit fox before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a badger or kit fox is discovered inside a pipe, that section of pipe shall not be moved until CDFW has been consulted. • All food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once a week from the construction or project site. • No firearms shall be allowed on the project site. • Use of rodenticides and herbicides on or adjacent to the project site shall be restricted. This is necessary to prevent primary or secondary poisoning of badgers or kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation. If rodent control must be conducted, zinc phosphide shall be used because of a proven low risk to badger and kit fox.			

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
• A representative shall be appointed by the County who will be the contact source for any employee or contractor who might inadvertently kill or injure a badger or kit fox or who finds a dead, injured or entrapped badger or kit fox. The representative shall be identified during the employee education program and their name and telephone number shall be provided to CDFW. • In the case of trapped animals, escape ramps or structures shall be installed immediately to allow the animal(s) to escape. *Distemper Measures* • The following measures are required to reduce the likelihood of distemper transmission: – No pets shall be allowed on the site prior to or during construction, with the possible exception of kit fox scat detection dogs during preconstruction surveys, and then only with prior CDFW approval; – Any kit fox hazing activities that include the use of animal repellents such as coyote urine must be cleared through CDFW prior to use; and – Any documented kit fox mortality shall be reported to CDFW and within 24 hours of identification. If a dead kit fox is observed, it shall be retained and protected from scavengers until CDFW determines if the collection of necropsy samples is justified.			
MITIGATION MEASURE BIO-4: Nesting Bird Measures • If project activities are scheduled to occur between February 1 and September 30, the County shall prepare a Nesting Bird Plan (NBP). The County shall provide CDFW with the opportunity to review and comment on the plan, by providing it) no later than 30 days prior to the initiation of project activities. The NBP will include project-specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur and that the project complies with applicable laws related to nesting birds and birds of prey. The NBP shall at a minimum include:	Within 500 feet of the all work areas	• No-disturbance buffers are enforced	• Inyo County Public Works Department • Construction contractor • Qualified biologist

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
– Monitoring protocols – Survey timing and duration – The creation, maintenance, and submittal to CDFW of a bird-nesting log – Project-specific avoidance and minimization measures. Avoidance and minimization measures shall include, at a minimum: project phasing and timing, monitoring of project-related noise, sound walls and buffers. • A pre-construction survey for active bird nests shall be conducted in all vegetated areas to be impacted and within 500 feet of the work areas. • The nesting bird survey shall be conducted by a qualified biologist within three days prior to construction start. • If no nesting or breeding behavior is observed, construction may proceed. • If an active nest is detected, a determination shall be made by a qualified biologist as to whether construction work shall affect the active nest. If it is determined that construction shall not affect an active nest, work may proceed. • If it is determined that construction activities are likely to impair the successful rearing of the young, a 'no-disturbance buffer' in the form of orange mesh Environmentally Sensitive Area (ESA) fencing shall be established around occupied nests to prevent destruction of the nest and to prevent disruption of breeding or rearing behavior. • The extent of the 'no-disturbance buffer' shall be determined by a qualified biologist in consultation with CDFW and shall depend on the level of noise or disturbance, line of sight between the nest and the disturbance area, the type of bird, ambient levels of noise and other disturbances, and other topographic or artificial barriers. • 'No-disturbance buffers' shall be maintained until the end of the breeding season or until a qualified wildlife biologist has determined that the nestlings have fledged.			

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
• If a nest is discovered by workers on the project site during daily inspections, work shall stop and the biologist shall be called to the site.			
MITIGATION MEASURE BIO-5: Burrowing Owl Measures To minimize impact to burrowing owls, a pre-construction survey for burrowing owl shall be conducted by a qualified biologist within 14 days prior to construction. If burrowing owls are observed on site, the following buffers shall be implemented to avoid impacts to occupied burrows: • No disturbance shall occur within approximately 250 feet during the breeding season of February 1 through August 31. • No disturbance shall occur within approximately 160 feet of occupied burrows during the nonbreeding season of September 1 through January 31. • Any occupied burrows shall be monitored daily by a qualified biologist during breeding season and weekly in the non-breeding season. The biologist shall have the authority to establish minimum distances to active nests and to stop work if owls are showing signs of distress. • Burrowing owls may be removed from the project impact area only after consulting with CDFW. If the burrowing owl occurs on BLM land, then BLM shall also be consulted prior to removing owls from the project impact area. Methods of relocation would be determined during agency consultation and may include the use of one-way doors and/or excavation and collapsing of vacant burrows.	All project areas	• Burrowing owl avoidance measures are implemented if an active nest is detected	• Inyo County Public Works Department • Construction contractor • Qualified biologist • CDFW
MITIGATION MEASURE CUL-1: Cultural Resources Sensitivity Training and Inadvertent Discovery A professional archaeologist shall provide sensitivity training to supervisory staff prior to initiation of site preparation and/or construction, to alert construction workers to the possibility of exposing significant historic and/or prehistoric archaeological resources within the proposed project area. The training shall include a discussion of the types of prehistoric or historic objects that could be exposed and how to recognize them, the need to	Within 50 feet of the archaeological discovery site	• All project personnel receive training on cultural resources prior to working on the site • "Alert Sheet" is posted in staging areas • Halt work and establish buffer around cultural resources if encountered	• Inyo County Public Works Department • Construction contractor • Professional archaeologist • Regional Native American Tribes

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
stop excavation at a discovery and within 50 feet of a discovery, and the procedures to follow regarding discovery protection and notification. An "Alert Sheet" shall be posted in staging areas, such as in construction trailers, to alert personnel to the procedures and protocols to follow for the discovery of a potentially significant historic and/or prehistoric archaeological resources.[3] In the event that an archaeological resource is discovered, ground disturbing work shall be halted within 50 feet of the find, and a qualified cultural resources specialist/archaeologist shall be brought to the site. The qualified cultural resources specialist/archaeologist shall evaluate the resource and determine whether it is (1) eligible for the CRHR (and thus a historic resource for purposes of CEQA); or (2) a unique archaeological resource as defined by CEQA. If the resource is determined to be neither a unique archaeological nor a historical resource, work may commence in the area. If the resource meets the criteria for either a historical or unique archaeological resource, or both, work shall remain halted within 50 feet of the find, and the qualified cultural resources specialist/archaeologist shall consult with County staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA		• Archaeologist evaluate resource and determine treatment through consultation with County and regional tribes	

[3] Significant prehistoric cultural resources may include:
f. Human bone, either isolated or intact burials.
g. Habitation, occupation or ceremonial structures as interpreted from rock rings/features, distinct ground depressions, differences in compaction (e.g., house floors).
h. Artifacts including chipped stone objects such as projectile points and bifaces; groundstone artifacts such as manos, metates, mortars, pestles, grinding stones, pitted hammerstones; and, shell and bone artifacts including ornaments and beads.
i. Various features and samples including hearths (fire-cracked rock; baked and vitrified clay), artifact caches, faunal and shellfish remains (which permit dietary reconstruction), distinctive changes in soil stratigraphy indicative of prehistoric activities.
j. Isolated prehistoric artifacts (Basin 2015).

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
Guidelines Section 15064.5(b). If the resource is determined to be prehistoric, the evaluation and determination of appropriate measures shall be coordinated with regional Native American tribes. Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts on cultural resources. If preservation-in-place and avoidance is not possible, data recovery shall be undertaken. The methods and results of data recovery work at an archaeological find shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System (CHRIS). Work in the area may commence upon completion of treatment, as approved by the County.			
MITIGATION MEASURE CUL-2: Paleontological Resources Sensitivity Training and Inadvertent Discovery A professional paleontologist shall provide sensitivity training to supervisory staff (County staff, biological monitor, and construction foreman) to alert construction workers to the possibility of exposing significant paleontological resources within the proposed project area. The training shall be conducted to recognize fossil materials in the event that any are uncovered during construction. In the event that a paleontological resource is uncovered during project implementation, all ground-disturbing work within a 50-foot radius shall be halted. A qualified paleontologist shall inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts shall occur, no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, a qualified paleontologist shall evaluate the resource and determine whether it is "unique" [4] under CEQA, Appendix G, part V. If the resource is	Within 50 feet of the paleontological discovery site	• All project personnel receive training on paleontological resources prior to working on the site • Halt work and establish buffer around paleontological resources if encountered • Paleontologist evaluate discoveries and determine treatment	• Inyo County Public Works Department • Construction contractor • Professional paleontologist

[4] A unique paleontological resource is any fossil or assemblage of fossils, or paleontological resource site or formation that meets any one of the following criteria:

- Is the best example of its kind locally or regionally;

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
determined not to be unique, work may commence in the area. If the resource is determined to be a unique paleontological resource, work shall remain halted, and the paleontologist shall consult with County staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA. Preservation-in-place (i.e., avoidance) is the preferred method of mitigation for impacts to paleontological resources. If preservation-in-place is not feasible and avoidance is not possible, the fossils shall be recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to Society of Vertebrate Paleontology (SVP) standard guidelines. Work may commence upon completion of treatment.			
MITIGATION MEASURE CUL-3: Human Remains If human remains are encountered during construction, ground disturbing work shall halt within 50 feet of any area where human remains or suspected human remains are encountered in compliance with California law (Health and Safety Code section 7050.5; PRC sections 5097.94, 5097.98, and 5097.99). The County shall contact the Medical Examiner at the county coroner's office. The Medical Examiner has two (2) working days to examine the	Within 50 feet of the human remains discovery site	• Halt work and establish buffer around human remains if encountered	• Inyo County Public Works Department • Construction contractor • Medical Examiner • NAHC

- Illustrates a paleontological or evolutionary principle (e.g. faunal succession; plant or animal relationships);
- Provides a critical piece of paleobiological data (illustrates a portion of geologic history or provides evolutionary, paleoclimatic, paleoecological, paleoenvironmental or biochronological data);
- Encompasses any part of a "type locality" of a fossil or formation;
- Contains a unique or particularly unusual assemblage of fossils;
- Occupies a unique position stratigraphically within a formation; or
- Occupies a unique position, proximally, distally or laterally within a formation's extent or distribution (County of San Diego 2009).

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
remains after being notified by the County. When the remains are determined to be Native American, the Medical Examiner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall immediately notify the identified Most Likely Descendant (MLD), and the MLD has 48 hours from the time they are granted access to the site to make recommendations to the landowner or representative for the respectful treatment or disposition of the remains and grave goods. If the MLD does not make recommendations within 48 hours, the area of the property must be secured from further disturbance. If there are disputes between the landowner and the MLD, the NAHC shall mediate the dispute to attempt to find a resolution. If mediation fails to provide measures acceptable to the landowner, the landowner or his/her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.			
MITIGATION MEASURE HAZ-1: Fire Prevention Procedures • Prior to ground disturbing activities, all workers on the project site shall be trained regarding the proper handling and/or storage of materials posing a fire hazard, potential ignition sources (such as cigarettes or sparking equipment), and appropriate types and use of fire protection equipment. • Fire suppression equipment, including fire extinguishers, water, and shovels, shall be available on-site at all times. • Vehicles shall not be parked in vegetated areas. • Smoking shall be allowed only in designated areas. The designated areas must be unvegetated. Cigarette butts shall be properly contained and transported off-site for disposal.	All project areas	• Fire prevention tools and water are maintained on site • Vehicles are parked in unvegetated areas • Smoking occurs in designated, unvegetated areas and cigarette butts disposed of properly	• Inyo County Public Works Department • Construction contractor

Table D-3 Mitigation Measures - After Construction

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
MITIGATION MEASURE BIO-1: Mojave Desert Tortoise Measures • A preconstruction survey shall be conducted by a qualified biologist within 14 days prior to construction. Burrows shall be inspected for desert tortoise or sign of recent use. All active burrows and recently active burrows shall be avoided during construction. If a desert tortoise is detected in a burrow on the project site, construction shall halt within 100 feet of the burrow and the CDFW and USFWS shall be contacted to discuss appropriate actions to avoid unpermitted take of the listed species. • Should a desert tortoise enter the project site, construction shall halt until the individual has exited the project site. • Vegetation removal should be minimized, and vehicle travel should be confined to designated routes. The existing Carroll Creek Road on BLM property and any temporary disturbance of staging or storage areas shall be reseeded after project construction. *Worker Environmental Awareness Training Measures* A Worker Environmental Awareness Training program shall be developed and implemented and shall include: • Explanation of the avoidance and minimization measures for biological resources and the possible penalties for not adhering to them; • General safety protocols such as hazardous substance spill prevention and containment measures, fire prevention and protection measures, and speed limits; • Explanation of the sensitivity and locations of the biological resources within and adjacent to work areas, and proper identification of these resources; • Natural history information on the sensitive biological resources including information on physical characteristics, photographs, distribution, behavior, ecology, sensitivity to human activities, legal protection, reporting requirements, and conservation measures required for the project;	The existing Carroll Creek Road and temporary disturbed staging areas	• Reseed the BLM segments of the existing Carroll Creek Road and temporary disturbed staging areas with native weed species	• Inyo County Public Works Department • Construction contractor

Mitigation Measures	Applicable Location	Monitoring/Reporting Action	Responsible and Involved Parties
• Contact information for the approved biologist(s); • Direction to all workers to report all observations of special-status species and their sign to the approved biologist; • A training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines; and • Information regarding the effects of predation on the desert tortoise by common ravens and other predators, and the measures that have been developed to reduce the likelihood predators shall be attracted to the construction area.			