Provide Scour Mitigation for Tesla Wash Bridge on SR-86 & Z-drain Bridge on SR-111

IMPERIAL COUNTY, CALIFORNIA
DISTRICT 11 – IMP 86 & 111, PM: 60.5 & 44.7
EA:289600 / PI:1100000356

Draft Initial Study with Proposed Mitigated Negative Declaration

Prepared by the
State of California Department of Transportation

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried-out by The Department under its assumption of responsibility pursuant to 23 U.S.C. 327.

January 2011

General Information about This Document

What's in this document:
The California Department of Transportation (Caltrans), has prepared this Initial Study (IS), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in Imperial County, California. Caltrans is the lead agency under CEQA. The document tells you why the project is being proposed, what alternatives we have considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read the document.
- Additional copies of it, are available for review at: Caltrans District 11, 4050 Taylor Street, San Diego, CA, 92110 and at the Calipatria Library, 225 W Main, Calipatria, CA, 92233
- Submit comments via postal mail to:
  Dave Nagy
  Senior Environmental Planner
  4050 Taylor St, MS 242
  San Diego, CA 92110
  - Submit comments via email to: david_l_nagy@dot.ca.gov.
- Be sure to submit comments by the deadline: February 12, 2011

What happens next:
After comments are received from the public and reviewing agencies, Caltrans, may: (1) give environmental approval to the proposed project, (2) do additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Department of Transportation, Dave Nagy, Senior Environmental Planner, Caltrans District 11, 4050 Taylor St., MS:242, San Diego, CA 92110, 619-688-0224 Voice, or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

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11-IMP 86 & 111, PM: 60.5 & 44.7
EA: 289600 / Project ID: 1100000338

Provide scour mitigation for Tesla Wash Bridge on SR-86 and Z-drain Bridge on SR-111
In Imperial County
From PM: 60.5 & 44.7

INITIAL STUDY with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2)(C)

THE STATE OF CALIFORNIA
Department of Transportation

1/12/11
Date of Approval

Bruce April
Deputy District Director - Environmental
California Department of Transportation

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PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

Project Description

Tesla Wash Bridge (SR-86 PM 60.5)

The project proposes to:

- Place concreted rock lining in the channel bed underneath the Tesla Wash northbound bridge (58-0050R). The rock-lined channel or concreted rock slope protection (RSP) extends 20 ft upstream to 20 ft downstream of the State Route 86 (SR-86) bridge and is proposed to be three feet in depth with the top of the rock-lining matching the existing ground elevation.

Z-drain Bridge (SR-111 PM 44.7)

The project proposes to:

- Install a check dam 30 ft away from the downstream edge of deck of the Z Drain Bridge (58-0153) with rock slope protection.
- Re-grade the existing channel under Z drain to give the bent piles enough embedment to resist local scour conditions with fill material. Re-graded channel will begin a few feet upstream of the upstream edge of deck and end a few feet past the downstream edge.
- Place filter fabric and ¼ ton rip rap under the bridge between and around bents 2 and 3 on top of the re-graded area.
- Backfill with material to the design elevation and taper the backfill up-to/near the state right-of-way limit on the east side of the bridge.
- Fill and backfill material to consist of river gravel or other material coordinated with the Imperial Irrigation District.
- The bridge approach rail (or transition sections) that connect to the bridge rail and the end treatment do not meet current standards, and would be upgraded as part of the

proposed project. Depending on the construction the bridge rail may require an anchor, which would attach it to the new standard transition rail.

Determination

This Proposed Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt an MND for this project. This does not mean that Caltrans' decision regarding the project is final. This MND is subject to modification based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project, and pending public review, expects to determine from this study that the project would not have a significant effect on the environment for the following reasons:

The project would have no effect on Farmland/Timberland, Environmental Justice, Relocations, Hydrology and Floodplain, Geology / Soils / Seismic / Topography, Paleontology, Cultural Resources, Land use, Growth, Community Character and Cohesion, Utilities/Emergency Services, Water Quality Hazardous Waste, Noise, Climate Change, Coastal Zone and Air Quality.

In addition, the project would have no significant effect on Plant Species, Natural Communities, Invasive Species, Threatened and Endangered Species, or Cumulative Impacts.

The proposed project would have no significantly adverse effect on Wetlands, and Other Waters, or Animal Species, because the following mitigation measures would reduce the potential effects to insignificance:

- At Z-drain, sediment controls will be implemented to minimize indirect effects to the desert pupfish.
- The check dam installation at Z-drain will occur between November 1 and February 14, which is outside of the desert pupfish breeding season.
- At Tesla Wash, disturbed habitat within Caltrans right-of-way will be impacted. Desert wash and desert scrub habitat occurring outside Caltrans right-of-way will be avoided and will be designated as environmentally Sensitive Areas (ESA) on the project plans.
- The check dam installation at Z-drain will occur between November 1 and February 14, which is outside of the nesting season for the Yuma Clapper rail.
- All riparian and wetland areas outside of the project limits shall be designated as ESAs on the project plans.

- Caltrans biologists will monitor both locations within one week of start of construction. If active burrows or other sensitive habitat is observed, it will be designated as an ESA and temporarily fenced, if practical.

- No work shall occur within 100 feet of any active burrow.

- If merlin *(Falco columbarius)* are observed nesting or roosting, all trees providing potential nesting and roosting habitat will be designated as an ESA and temporarily fenced.

- No work shall occur within 100 feet of any active nest until the young have fledged.

- There is no tree removal as a result of the project.

- Best Management Practices (BMPs) would be incorporated into the project to prevent the spread of invasive species.

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Bruce April
Deputy District Director Environmental
District 11
California Department of Transportation

Date

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Chapter 1 Proposed Project

1.1 INTRODUCTION

The California Department of Transportation (Caltrans) proposes to mitigate bridge scour at the Tesla Wash (northbound) Bridge located on State Route 86 (SR-86) and the Z-drain Bridge located on State Route 111 (SR-111). Bridge scour, the erosion or removal of the streambed or bank material surrounding the foundations of bridge piers, has been identified as the leading cause of failures of our state's bridges. The project is located on SR-86 at PM: 60.5 & on SR-111 at PM: 44.7. Caltrans is the lead agency under CEQA. Figure 1 shows the location of proposed project.

SR-86 is a four-lane expressway throughout the project area. It begins at SR-111 north of Calexico and terminates at Interstate 10 (I-10) in Indio. SR-86 is designated a terminal access route to the National Network for Surface Transportation Assistance Act (STAA) for trucks. The primary purpose of SR-86 is to provide north-south access for interregional, intraregional, and international travel. SR-86 is the primary north-south route for interregional travel throughout Imperial County and the eastern Coachella Valley portion of Riverside County. SR-86 provides for intraregional travel between the Imperial and eastern Coachella Valley regions, and provides for intercity travel between several of the region's largest cities: Mexicali, Calexico, El Centro, Brawley, and Indio.

SR-111 is a conventional highway throughout the project area. It begins at the US Border in Calexico and terminates at I-10 west of White Water. SR-111 is designated a terminal access route to the National Network for Surface Transportation Assistance Act (STAA) for trucks. SR-111 serves traffic to and from Mexico via the international Port of Entry (POE) at Calexico. SR-111 is also a major intercity connector in the Imperial County, and serves as an urban arterial in some cities in Imperial County.

The purpose of the project is to correct and repair scour at two bridges. One on SR-86 and another on SR-111. Scour is caused by fast flowing water that contains abrasives that erode the bottom of waterways. If left unchecked, the supporting material beneath the bridge footing will erode and cause the bridge itself to collapse under its own weight. Public safety and ensuring the continued movement of goods and services is vital to the region.

Bridge preservation is a high priority and scour mitigation will effectively extend the life of the bridges. The current status for both bridges is scour critical, meaning that engineering analysis indicates that in a significant hydraulic event, such as a 100 year flood, there is a probability that the bridge could sustain scour to its foundations that could cause loss of service of the bridge. Under typical stream-flow conditions, the bridges would not be vulnerable.

The estimated total cost of the project is approximately $6 million. The project is being funded through a State Highway Operations and Protection Program (SHOPP) and Bridge Scour Mitigation (HA21) Program.

1.2 PROJECT DESCRIPTION

The project proposes to repair the areas around the bridge footings and abutments where scour is taking place. The project is located on SR-86 at the Tesla Wash Bridge and SR-111 at the Z- drain Bridge in Imperial County. Depending on the location, repairs would include lining the waterways with concrete to protect footings and abutment or check dam installation to replace sediment that has washed away. Information on the proposed work at each location is detailed below. Figure 1 shows the project location.

Build Alternative:

Tesla Wash Bridge (SR-86 PM 60.5)

The project proposes to:

- Place concrete rock lining in the channel bed underneath the Tesla Wash northbound bridge (58-0050R). The rock-lined channel or concreted rock slope protection (RSP) extends 20 ft upstream to 20 ft downstream of the State Route (SR) 86 bridge and is proposed to be three feet in depth with the top of the rock-lining to match the existing ground elevation. Figure 2 and 3 show the current bridge condition and the proposed work.

A bridge replacement alternative was considered for the Tesla Wash Bridge, but was dropped at the preliminary design phase because it did not meet the project cost, scope and schedule.

Z drain Bridge (SR-111 PM 44.7)

The project proposes to:

- Install a check dam 30 ft away from the downstream edge of the deck of the Z Drain Bridge (58-0153) with rock slope protection.
- Re-grade, with fill material, under Z-drain to give the bent piles enough embedment to resist scour conditions. The re-graded channel will begin a few feet upstream of the upstream edge of deck and end a few feet past the downstream edge.
- Place filter fabric and ¼ ton rip rap under the bridge between and around bents 2 and 3 on top of the re-graded area.
- Backfill with material to the design elevation and taper the backfill up-to/near the State R/W limit on the east side of the bridge.
- Fill and backfill material to consist of river gravel or other material coordinated with the Imperial Irrigation District.
- The bridge approach rail (or transition sections) that connect to the bridge rail and the end treatment do not meet current standards, and would be upgraded as part of the proposed project. Depending on the construction the bridge rail may require an anchor, which would attach it to the new standard transition rail.

Figure 2 and 4 show the current bridge condition and the proposed work.

A bridge replacement alternative was considered for the Z-drain Bridge, but was dropped at the preliminary design phase because it did not meet the project cost, scope and schedule.

No- Build Alternative:

SR-86 & SR-111

Under the no build alternative, scour damage will continue at both the Tesla Wash and Z-drain overpasses and will eventually cause safety concerns regarding the stability of the bridges.

1.3 Permits and Approvals Needed

The following permits, reviews, and approvals would be required for project construction:

Agency	Permit/Approval	Status
United States Army Corps of Engineers	Section 404 Permit for filling or dredging waters of the United States	Pending
Regional Water Quality Control Board	Section 401 Water Quality Certification	Pending
California Department of Fish and Game	1602 Agreement for Streambed Alteration	Pending

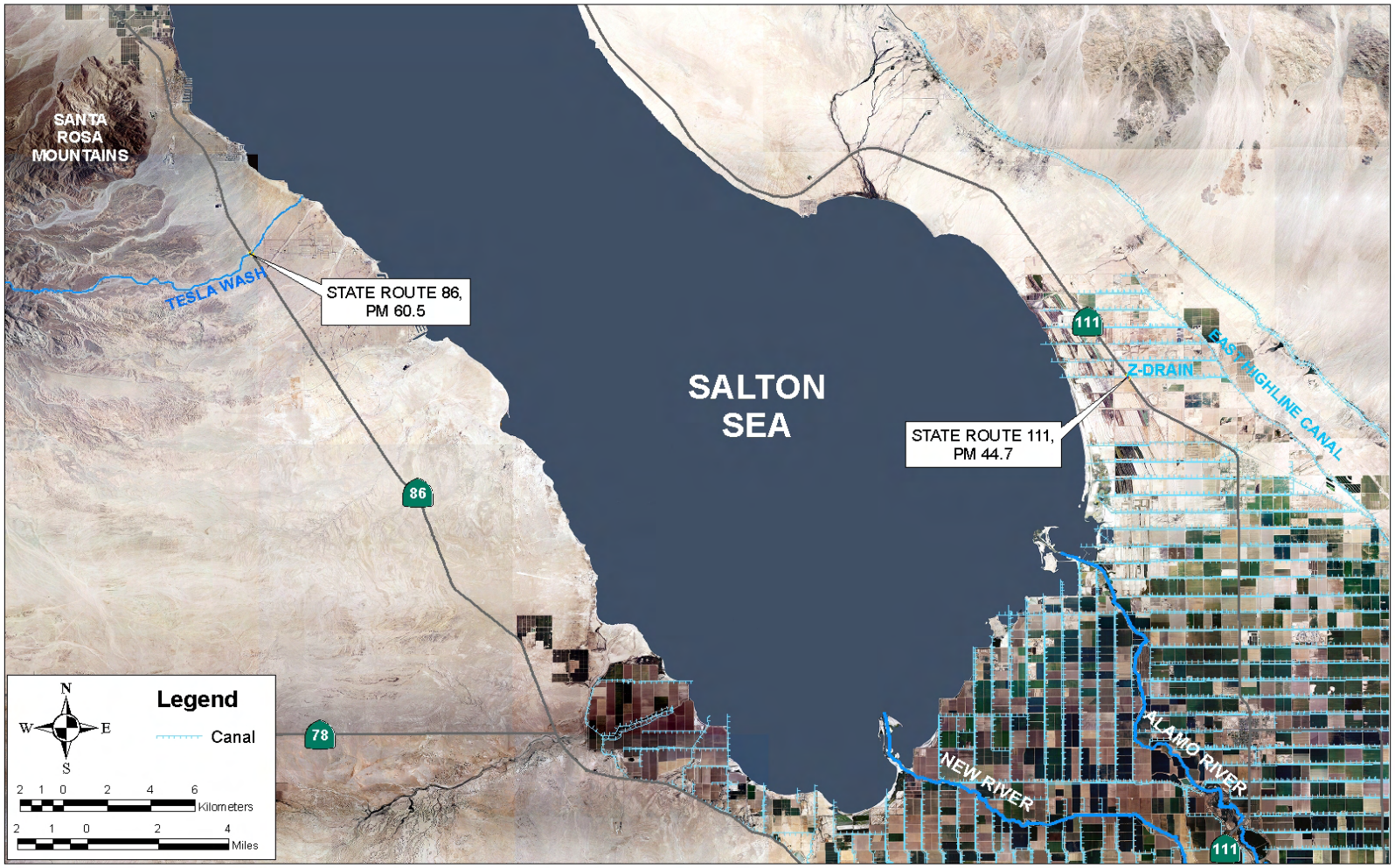

Figure 1: Project Location

Photos of Bridge Scour at State Route 86 Tesla Wash Bridge (above)

Figure 2: Photos of Bridge Scour at State Route 111 Z-drain Bridge.

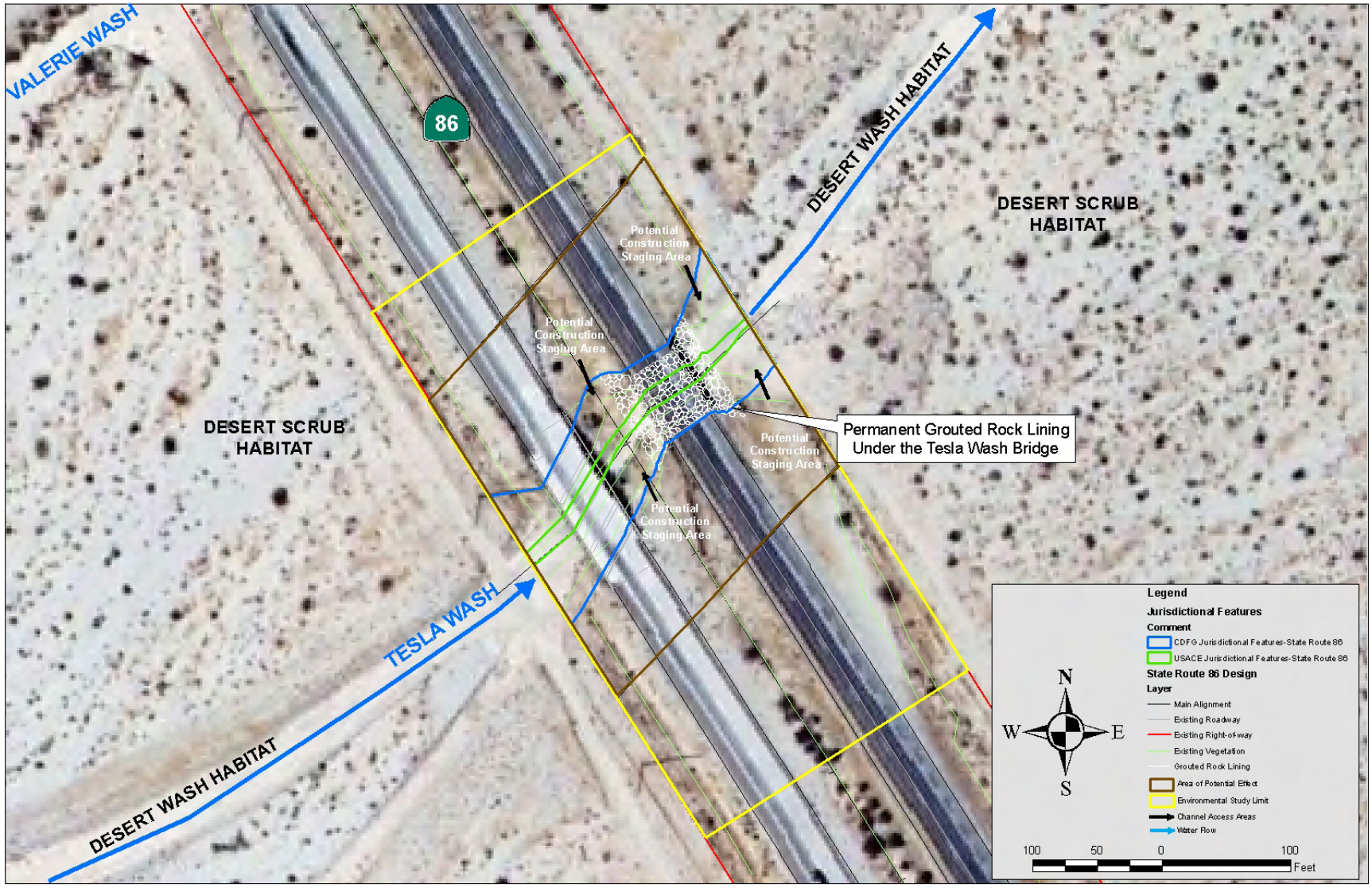

Figure 3: Tesla Wash (SR-86) proposed work

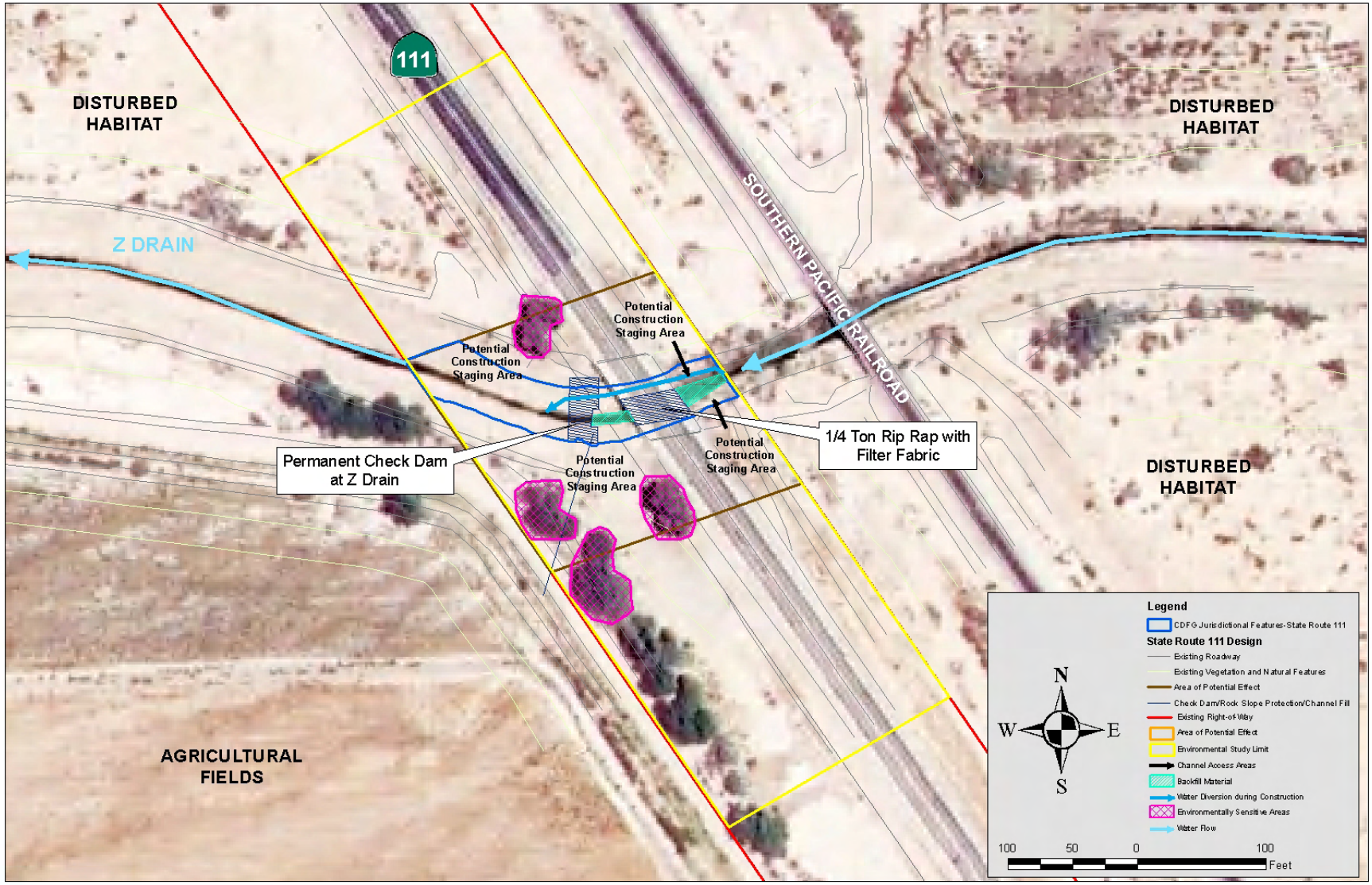

Figure 4: Z-drain (SR-111) proposed work

Chapter 2 – Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This chapter explains the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be effected by the project and potential impacts.

RESOURCES WITHOUT IMPACTS

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered but no adverse impacts were identified. Consequently, there is no further discussion regarding these issues in this document.

Air Quality – This project is a "safety improvement program" project, which makes it exempt from all emissions analyses per Title 40 CFR Section 93.126, Table 2. The project will not cause or contribute to new localized CO, PM2.5, PM10, or MSAT violations nor increase the frequency or severity of any existing exceedances.

Land Use – No land use impacts are anticipated as part of the project.

Growth – The project has no impacts on accessibility, and is located in a rural area; therefore the proposed project would have no influence on growth.

Farmlands/Timberlands – The proposed project would not impact any farmlands or timberlands.

Relocations – The proposed project would not require relocations.

Hydrology/Floodplain – There is no significant increase in water surface between the existing Federal Emergency Management Agency model and the proposed work.

Geology/Soils/Seismic/Topography – Impacts from geologic hazards are not expected.

Environmental Justice – The proposed project will not result in disproportionately high adverse effects on the health or environment of minority or low-income populations.

Cumulative Impacts – There are no cumulative impacts from the proposed project.

Community Character and Cohesion – A Caltrans' Community Impact Specialist analyzed potential community impacts resulting from the proposed project and the following conclusion was made: the proposed project would not create impacts to adjacent communities.

Hazardous Waste – Based on the hazardous waste review it was determined that the potential for encountering hazardous waste materials/issues for the proposed project is not anticipated.

Visual – There are no visual impacts from the proposed project.

Noise – There are no noise impacts associated with the proposed project.

Water Quality and Storm Water Runoff – A Storm Water Data Report would be prepared, and treatment Best Management Practices (BMPs) would be used to limit any impacts to water quality.

Climate Change – The proposed project would not have any impacts on Climate Change.

Plant Species – The proposed project would not have any impacts to plant species.

Coastal Zone – The proposed project does not lie within the coastal zone.

Paleontology – Grading and excavation activities associated with this project are minimal and would not impact paleontological resources.

Human Environment

1.1 Cultural Resources

Regulatory Language

"Cultural resources" as used in this document refers to all historical and archaeological resources, regardless of significance.

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as California Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet National Register of Historic Places listing criteria. It further specifically requires the Department to inventory state-owned structures in its rights-of-way.

Affected Environment

A screened undertaking for the proposed project was performed in March 2009. The project area limits (PAL) for the Tesla Wash Bridge and the Z-drain Bridge are both highly disturbed due to the previous construction activities. No cultural resources were observed within the proposed project PAL.

Environmental Consequences

Build Alternative:

The build alternative is designed to stay within the current state right-of-way, which is considered disturbed. No cultural resources or human remains would be affected by the build alternative.

No-Build Alternative:

The no-build alternative would have no impact to cultural resources.

Avoidance, Minimization,and/or Mitigation Measures

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section

5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact a District Cultural Resource Specialist so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Biological Resources

A Natural Environment Study (NES) was prepared for the proposed project in November 2010, and is incorporated by reference.

2.1 Natural Communities

Regulatory Language

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species.

Natural communities of special concern are those that are subject to regulation under the Clean Water Act as administered by the United States Army Corps of Engineers (USACE); are considered rare within the region or sensitive by the California Department of Fish and Game (CDFG); or support special status plants or animals protected under the federal endangered species act or California endangered species act.

Affected Environment

Habitat in the median and immediately adjacent to SR-86 (Tesla Wash) is disturbed, with sparse desert wash and desert scrub vegetation, including, creosote bush (*Larrea tridentata*), brittlebush (*Encelia farinosa*), and palo verde (*Cercidium floridum*). More extensive desert wash and desert scrub habitat occurs adjacent to SR-86 outside of Caltrans right-of-way. Tesla Wash, which has sparse desert scrub vegetation, flows under SR-86 (Figure 3). No animals were observed with the SR-86 project area during field surveys.

Habitat in the median and immediately adjacent to SR-111(Z-drain) consists mainly of disturbed habitat with bare ground and non-native vegetation, including athel tamarisk (*Tamarix aphylla*), common reed (*Phragmites australis*), and barnyard grass (*Echinochloa* sp.), (Figure 4). There is sparse desert wash vegetation within the Z-drain channel and along the banks, including, sea purslane (*Sesuvium verrucosum*), arrow weed (*Pleuchea sericea*), catclaw acacia (*Acacia*

greggii), and Mojave seablite (*Suadea moquinii*). At SR-111, northern rough wing swallows (*Stelgidopteryx serripennis*) have been observed nesting under the Z-drain Bridge. During desert pupfish surveys, a muskrat (*Ondatra zibethicus*) and a spiny softshell turtle (*Apalone spinifera*) were detected within the drainage. Other animals observed during field surveys, were California quail (*Callipepla californica*), red winged blackbird (*Agelaius phoeniceus*), and greater roadrunner (*Geococcyx californianus*).

Environmental Consequences

Build Alternative:

Desert Scrub

At Telsa Wash, desert scrub occurs outside Caltrans right-of-way. Since it is located outside the environmental footprint, it will be avoided during construction and will be designated as an environmentally sensitive area (ESA).

Desert Wash

Desert wash occurs within Tesla Wash at SR-86. Tesla Wash is classified as jurisdictional waters of the U.S. by the USACE and as jurisdictional waters of the State by CDFG. It consists of a defined bed and bank that either lacks vegetation or is sparsely vegetated with upland desert scrub. Desert wash habitat outside the environmental footprint will be avoided during construction and will be designated as an ESA. The installation of the grouted rock lining at SR-86 will result in permanent impacts to 0.04 acre of USACE jurisdictional and 0.13 acre of CDFG jurisdictional desert wash habitat. Channel access, construction staging areas, and construction equipment access areas will result in temporary impacts to 0.03 acre of USACE jurisdictional and 0.33 acre of CDFG jurisdictional desert wash habitat.

Z-drain (SR-111), is an agricultural irrigation channel with sparse desert wash vegetation. Z-drain is not considered jurisdictional waters of the U.S. because it was created and is regularly maintained by the Imperial Irrigation District (IID), but it is deemed jurisdictional waters of the State by CDFG because it does provide limited habitat value. The installation of the check dam, ¼ ton rip rap with filter fabric, and backfill at SR-111 will result in impacts to permanent impacts to 0.06 acre of CDFG jurisdictional area. Channel access, construction staging areas, and construction equipment access areas will result in temporary impacts to 0.23 acre of CDFG jurisdictional area.

2.2 Wetlands and Other Waters

Regulatory Language

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 USC 1344) is the primary law regulating wetlands and surface waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army of Engineers (ACOE) with oversight by the Environmental Protection Agency (EPA).

The Executive Order for the Protection of Wetlands (E.O. 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Game (CDFG), the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFG before beginning

construction. If CDFG determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFG jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the ACOE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFG.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The RWQCB also issues water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

Affected Environment

Tesla Wash at SR-86 is classified as jurisdictional waters of the U.S. and jurisdictional waters of the State, and consists of a defined bed and bank that either lacks vegetation or is sparsely vegetated with upland desert scrub vegetation. The work at SR-86 will require a Section 404, Nationwide Permit 3 (Maintenance) and Nationwide Permit 33 (Temporary Construction, Access and Dewatering) for impacting jurisdictional waters of the United States regulated by the USACE; a 401 Certification from the Regional Water Quality Control Board; and a California Fish and Game Code 1602 Lake and Streambed Alteration Agreement for impacting habitat regulated by the CDFG.

Z-drain at SR-111 is not considered jurisdictional wetlands by the USACE because it was created and is regularly maintained by the IID to carry water from the agricultural fields to the Salton Sea, but it is deemed jurisdictional waters of the State by CDFG because it does provide limited habitat value. The work at SR-111 will require a California Fish and Game Code 1602 Lake and Streambed Alteration Agreement for impacting habitat regulated by the CDFG.

Environmental Consequences

Below is a summary of temporary and permanent impacts to the waters of the U.S. and waters of the State as a result of the project alternatives.

Table 1: Potential Impacts to Waters of the U.S. and Waters of the State as a Result of the Project Alternatives.

Project Alternative	Waters of the U.S. (USACE)		Waters of the State CDFG	
	Permanent	Temporary	Permanent	Temporary
State Route 86, Telsa Wash	0.04	0.03	0.13	0.33
State Route 111, Z-drain	--*	--*	0.06	0.23

*No impacts to waters of the U.S. at State Route 111, irrigation drainage was artificially created from uplands.

Avoidance, Minimization,and/or Mitigation Measures

- Temporary streambed impacts would be restored to pre-construction conditions once the project is over.

2.3 Animal Species

Affected Environment

The analysis of project impacts on listed species includes the permanent impacts of the channel lining with grouted rock at SR-86 (Figure 3) and the check dam, ¼ ton rip rap with filter fabric, and backfill installation at SR-111 (Figure 4), and temporary impacts such as channel access, construction staging areas, and construction equipment access areas at each location. Because the impacts are minor and of short duration, indirect impacts should be minimal. The biological resource data for the environmental footprint was obtained through field efforts from 2007 to 2009, the United States Fish and Wildlife Service (USFWS) species list, the California Natural Diversity Database (CNDDB), and coordination with resource agencies, such as the CDFG. The following species discussed were either observed historically within one mile of the project areas or had the potential to be in the area based on habitat observed at each location.

Desert Pupfish (*Cyprinodon macularius*)

The desert pupfish is a federally endangered species and state endangered species. In Imperial County, the species is restricted to the Salton Sea, the San Felipe Creek and its tributaries, and a few shoreline pools and irrigation drains along the Salton Sea. Desert pupfish are adapted to harsh desert environments and are capable of surviving extreme environmental conditions, including high water temperatures and salinity levels.

Flat-tailed Horned Lizard (*Phrynosoma mcallii*)

The flat-tailed horned lizard (FTHL) is proposed to be listed as a federally threatened species by the USFWS and a sensitive species listed by the Bureau of Land Management (BLM) due to its limited range and loss of habitat due to development. FTHLs are most often associated with creosote (*Larrea tridentata*)-white bursage (*Ambrosia dumosa*) series of Sonoran desert scrub.

Fine sand is necessary for burrowing to avoid extreme temperatures, as well as shading provided by the desert scrub vegetation and a good supply of ants, which make up the primary diet of the FTHL.

Yuma Clapper Rail (*Rallus longirostris yumanensis*)

The Yuma clapper rail is a federally endangered species and state threatened species and is protected under the Migratory Bird Treaty Act. It breeds in marsh habitat along the Colorado River and around the southeastern portion of the Salton Sea and probably winters in salt or brackish waters in Mexico. Its primary habitat is mature cattail (*Typha* spp.)-tule (*Scirpus* spp.) stands in shallow water near high ground.

Burrowing Owl (*Athene cunicularia*)

The burrowing owl is a state listed species of concern and is protected under the Migratory Bird Treaty Act. It is a subterranean nester, using burrows created by burrowing mammals, and may also use man-made structures such as culverts. Burrowing owls forage in dry annual or perennial grasslands with low-growing vegetation and will often forage in agricultural fields in developed areas.

Merlin (*Falco columbarius*)

The merlin is a state listed species of concern and is protected under the Migratory Bird Treaty Act. It requires clumps of trees or windbreaks for nesting in open country and can be found at the edges of deserts and grasslands.

Enviromental Consequences

Build Alternative

Desert pupfish were observed in 2005 at the mouth of the Salton Sea leading into Z-drain, approximately 1.68 miles west of the SR-111 envrionmental footprint. On April 28, a Caltrans Biologist with a CDFG Biologist, conducted a desert pupfish survey in Z-drain downstream of SR-111 to Davis Road. Ten traps were baited and set for two hours. No fish were detected in any of the traps. No designated critical habitat for desert pupfish is found within the project area of Tesla Wash or Z-drain (USFWS 1986).

Potential habitat for FTHL (desert scrub habitat) occurs adjacent to the Tesla Wash and the SR-86 environmental footprint. However, no FTHL were observed within the environmental footprint during surveys and the nearest historical record on the CNDDB was approximately 3.1 miles from the project location at the Ocotillo Wells State Vehicular Recreation Area. The project also does not occur within a FTHL Management Area or Research Area (FTHL Interagency Coordinating Committee 2003). Project impacts to FTHL are not anticipated.

An active burrowing owl burrow was documented in 2007 within 0.13 mile southeast of the environmental footprint for the SR-111 (Z-drain). No active burrows or burrowing owls were observed during field surveys of the environmental footprint.

Yuma clapper rail have historically been observed approximately 3 miles west of the SR-111 (Z-drain) environmental footprint within the Wister Waterfowl Management Area, along the southeast shore of the Salton Sea. During field surveys, no Yuma clapper rail were identified within the environmental footprint. No designated critical habitat for Yuma clapper rail is found within the project area of Tesla Wash or Z-drain. Sparse desert wash vegetation occurs within the Z-drain channel, but mature stands of cattail and tule were not identified in the environmental footprint.

A merlin was observed in tamarisk woodland habitat in 2007 within 0.34 mile of the environmental footprint for SR-111(Z-drain). Mature athel tamarisk (*Tamarix aphylla*), which could provide roosting or nesting habitat, were found north and south of the Z-drain channel within and adjacent to the environmental footprint for SR-111(Z-drain).

No Build Alternative

The No Build Alternative would not have permanent or temporary impacts to animal species within the project limits

<u>Avoidance, Minimization,and/or Mitigation Measures</u>

As a result of implementing the below avoidance and minimization measures, impacts to desert pupfish, Yuma clapper rail, burrowing owls, or Merlins are not anticipated.

- At SR-111(Z-drain), sediment controls will be implemented to minimize indirect effects to the desert pupfish.
- The check dam installation at SR-111(Z-drain) will occur between November 1 and February 14, which is outside of the desert pupfish breeding season.
- The check dam installation at SR-111(Z-drain) will occur between November 1 and February 14, which is outside of the nesting season for the Yuma Clapper rail.
- At SR-86 (Tesla Wash), disturbed habitat within Caltrans right-of-way will be impacted. Desert wash and desert scrub habitat occurring outside Caltrans right-of-way will be avoided and will be designated as ESAs on the project plans.
- All riparian and wetland areas outside of the project limits (for Tesla Wash and Z-drain) shall be designated as ESAs on the project plans.

- Caltrans biologists will monitor both locations within one week of start of construction. If active burrows or other sensitive habitat is observed, it will be designated as an ESA and temporarily fenced, if practical.
- No work shall occur within 100 feet of any active burrow.
- If merlin are observed nesting or roosting, all trees providing potential nesting and roosting habitat will be designated as an ESA and temporarily fenced, if practical.
- No work shall occur within 100 feet of any active nest until the young have fledged.
- There is no tree removal as a result of the project.
- Best Management Practices (BMPs) would be incorporated into the project to prevent the spread of invasive species.

California Endangered Species Act Consultation Summary

The state endangered desert pupfish and state threatened Yuma clapper rail have been observed historically near the SR-111 Z-drain Bridge, but none were observed during field surveys. Desert pupfish were not observed during protocol desert pupfish surveys conducted by Caltrans and CDFG. Caltrans has also corresponded with CDFG during the planning phase to discuss potential avoidance and minimization measures to implement during construction. The avoidance and minimization measures implemented during the project should prevent impacts from occurring to desert pupfish and Yuma clapper rail. If project plans change, which may result in potential effects to state listed species; if state listed species are detected at either location before or during construction; or if additional information on the distribution of listed species becomes available that results in potential effects as a result of construction at either location, Caltrans will initiate Section 2080.1 Consistency Determination consultation with CDFG while undergoing the federal consultation process. Appendix A contains the California Natural Diversity Database Species List.

Construction Impacts

2.4 Utilities

At the Z-drain Bridge an oil line exists along the east side of the bridge outside of state right-of-way (R/W) that is owned by Kinder Morgan Energy. The proposed project will avoid the oil line which is partially visible going across the Z-drain, making it helpful to locate and avoid.

The temporary check dam or diversion pipes that would be used as part of the project, located on the east side of the bridge, within State R/W, will be kept over 10 ft away from the high risk oil line.

Additional utilities exist within the project footprint, including underground phone cables that would be protected in place during construction.

2.5 Community Related Construction Impacts

The potential community impacts anticipated from the proposed project are construction-related. On SR-86 at Tesla Wash, one temporary lane closure would occur during construction. The construction schedule would be designed around any special events and/or seasonal crowds. Coordination with local jurisdictions would take place to implement the best public outreach methods to inform the public of upcoming lane closures and/or detours.

2.6 Invasive Species

The habitat occurring within both project areas are moderately infested with invasive plant species, including athel tamarisk and barnyard grass at Z-drain (SR-111), many of which occur because they colonized following previous site disturbances. The project would comply with the requirements of Executive Order 13112, which seeks to prevent the introduction and spread of invasive species by incorporating best management practices (BMPs) during project construction. BMPs, such as inspection and cleaning of construction equipment, will be implemented to prevent the spread of invasive species to other areas.

2.7 Air Quality

Construction pollution abatement measures will be included in the final plans and specifications for the project for the purpose of limiting particulate matter emissions from the construction activities and/or normal use and operation associated with the project that are contained in the applicable implementation plan.

2.8 Emergency Services

No long term impacts to emergency services are anticipated from the project, but temporary lane closures could occur from construction activities at both locations.

Impacts to emergency services during construction will be minimized by the implementation of a Transportation Management Plan (TMP). The TMP may include the following strategies:

- A public awareness campaign prior to and during construction.
- Motorist information strategies, including changeable message signs, and ground mounted signs.
- Incident Management elements including Construction Zone Enhanced Enforcement Program (COZEEP) to provide police assistance and surveillance, and the Freeway Service Patrol and Traffic Management Team (TMT) to provide towing and assistance to motorists during breakdowns.

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Chapter 3: List of Preparers

Barnes, Henry - Landscape Architect- BLA from Cal Poly San Luis Obispo, 4 years Caltrans Experience.

Barron, Claudia - Graphic Designer III, B.F.A. Illustration from Syracuse University, 19 years Caltrans experience.

Basinski, Katie – Associate Environmental Planner, B.A. Geography from San Francisco State University, 3 years Caltrans experience.

Galloway, Michael - Associate Biologist, M.A. Marine Biology from San Francisco State University, 10 years Caltrans experience

Johansson, Kenneth H, P.E. (70391) - Air Quality Specialist, Bachelor of Science in Civil Engineering, San Diego State University, Master of Science in Transportation Management, San Jose State University / Mineta Transportation Institute, 7 years of Highway Design Experience

Kloth, Joel - Engineering Geologist, Range D, B.S. Geology from California Lutheran University, Ten Years Caltrans experience

Lamphere, Pauline - Environmental Planner, Bachelor of Business Administration, Associate of Science, Bachelor of Science (Biology), Masters of Water Resources, Permit Specialist (5 yrs of experience[3years at Caltrans & 2 years at the Regional Water Quality Control Board])

Nagy, Dave – Environmental Branch B Chief, B.S. Forestry and Natural Resource Management from California Polytechnic State University, San Luis Obispo, 10 years Caltrans experience

Trudell, Michelle - Associate Environmental Planner, M.A. City Planning from San Diego State University, B.A. Environmental Studies from University of California Santa Barbara, 11 years Caltrans experience.

Tsunoda, Koji - Environmental Planner (Archaeology), M.A. from San Diego State University, 2 years of Caltrans experience.

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Chapter 4 Distribution List

Imperial Valley Associations of Governments 940 West Mani Street, Ste 208 El Centro, CA, 92243	Imperial County Board of Supervisors 940 W. Main Street, Ste 212 El Centro, CA, 92243	CHP-El Centro (625) 2331 Hwy. 86 Imperial, CA, 92251
Regional Water Quality Control Board Colorado River Basin 73-720 Fred Waring Drive Ste 100 Palm Desert, CA 92260	US Army Corps of Engineers Stephanie Hall Los Angeles District 915 Wilshire Blvd., Ste 980 Los Angeles, CA 90017	State Clearing House Office of Planning & Research 1400 Tenth Street Sacramento, CA 95814
Salton Community Services District P.O. Box 5268, Salton City CA 92275	The Honorable Juan Vargas 40th Senate District 1224 State St., Suite D El Centro, CA 92243	The Honorable Manuel Perez Assemblyman, District 80 1625 West Main St, Ste 220 El Centro, CA, 92243
James Sheridan California Department of Fish and Game, Regional Office 3602 Inland Empire Boulevard Suite C-220 Ontario, CA 91764	Calipatria Library 225 W Main Calipatria, CA, 92233	Claudia Beltran Imperial Irrigation District Water Department/Engineering Services 333 East Barioni Blvd Imperial, CA 92251
The Honorable Barbara Boxer U.S. Senator 3403 10th Street, Suite 704 Riverside, CA 92501	The Honorable Dianne Feinstein U.S. Senator 750 B Street, Suite 1030 San Diego, CA 92101	The Honorable Bob Filner U.S. Representative 1101 Airport Road, Ste D Imperial, CA 92251
Imperial County Clerk County Administration Center 940 Main Street Suite 202 El Centro CA 92243	Salton Sea Recreation Area 100-225 State Park Road North Shore, CA 92254	Executive Director State Water Resources Board 1001 I Street Sacramento, CA 95814
Southern California Association of Governments Imperial County Regional Office 1224 W. State Street, Suite B El Centro, CA 92243	Imperial County Planning & Development Services 801 Main Street El Centro, CA 92243-2811	

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APPENDIX A: California Natural Diversity Database Species List:

CNDDB Element Query Results: State Route 86-Tesla Wash Bridge, Seventeen Palms and Truckhaven USGS Quads, October 6, 2010

Scientific Name	Common Name	Element Code	OccCount	Federal Listing	State Listing	Global Rank	State Rank	CNPS List	Other Status	Habitat
Chaenactis carphoclinia var. peirsonii	Peirson's pincushion	PDAST20042	7	None	None	G5T1	S1.3	1B.3		SONORAN DESERT SCRUB / OPEN ROCKY OR SANDY SITES (3-80 meters)
Falco mexicanus	Prairie falcon	ABNKD06090	1	None	None	G5	S3			DRY, OPEN TERRAIN, EITHER LEVEL OR HILLY / BREEDING SITES LOCATED ON CLIFFS / FORAGES FAR AFIELD, EVEN TO MARSHLANDS AND OCEAN SHORES
Phrynosoma mcallii	Flat-tailed horned lizard	ARACF12040	5	Proposed Threatened	None	G3	S2		BLM Sensitive	RESTRICTED TO DESERT WASHES AND DESERT FLATS IN IMPERIAL COUNTY / CRITICAL HABITAT ELEMENT IS FINE SAND, INTO WHICH LIZARDS BURROW TO AVOID TEMPERATURE EXTREMES / REQUIRES VEGETATIVE COVER
Toxostoma lecontei	Le Conte's thrasher	ABPBK06100	1	None	None	G3	S3			DESERT RESIDENT; PRIMARILY OF OPEN DESERT WASH, DESERT SCRUB, ALKALI DESERT SCRUB, AND DESERT SUCCULENT SCRUB HABITATS / COMMONLY NESTS IN A DENSE, SPINY SHRUB OR DENSELY BRANCHED CACTUS IN DESERT WASH HABITAT, USUALLY 2-8 FEET ABOVE GROUND
Xantusia gracilis	Sandstone night lizard	ARACK01040	1	None	None	G1	S1			KNOWN ONLY FROM THE TRUCKHAVEN ROCKS IN THE EASTERN PART OF ANZA-BORREGO STATE PARK / FOUND IN FISSURES OR UNDER SLABS OF EXFOLIATING SANDSTONE AND RODENT BURROWS IN COMPACTED SANDSTONE AND MUDSTONE
Xylorhiza orcuttii	Orcutt's woody-aster	PDASTA1040	23	None	None	G2G3	S2	1B.2		SONORAN DESERT SCRUB / ARID CANYONS; OFTEN IN WASHES (265-365 meters)
	Desert palm oasis woodland	CTT62300CA	2	None	None	G3	S3.2			PALM WOODLAND

CNDDB Element Query Results: State Route 111-Z-Drain Bridge, Wister USGS Quad, October 6, 2010

Scientific Name	Common Name	Element Code	OccCount	Federal Listing	State Listing	Global Rank	State Rank	CNPS List	Other Status	Habitat
Astragalus insularis var. harwoodii	Harwood's milk-vetch	PDFAB0F491	1	None	None	G5T3	S2.2	2.2		DESERT DUNES / OPEN SANDY FLATS AND SANDY OR STONY DESERT WASHES; MOSTLY IN CREOSOTE BUSH SCRUB (-50-500 meters)
Athene cunicularia	Burrowing owl	ABNSB10010	5	None	None	G4	S2			OPEN, DRY ANNUAL OR PERENIAL GRASSLANDS, DESERTS & SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION / SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL
Chamaesyce abramsiana	Abrams' spurge	PDEUP0D010	1	None	None	G4	S1.2			MOJAVEAN DESERT SCRUB, SONORAN DESERT SCRUB / SANDY SITES (-5-915 meters)
Cyprinodon macularius	Desert pupfish	AFCNB02060	7	Endangered	Endangered	G1	S1			DESERT PONDS, SPRINGS, MARSHES AND STREAMS IN SOUTHERN CALIFORNIA / CAN LIVE IN SALINITIES FROM FRESH WATER TO 68 PPT, CAN WITHSTAND TEMPS FROM 9 - 45 C & DISSOLVED OXYGEN LEVELS DOWN TO 0
Dendroica petechia brewsteri	Yellow warbler	ABPBX03018	1	None	None	G5T3	S2			RIPARIAN PLANT ASSOCIATIONS / PREFERS WILLOWS, COTTONWOODS, ASPENS, SYCAMORES, & ALDERS FOR NESTING & FORAGING / ALSO NESTS IN MONTANE SHRUBBERY IN OPEN CONIFER FORESTS
Falco columbarius	Merlin	ABNKD06030	2	None	None	G5	S3			SEACOAST, TIDAL ESTUARIES, OPEN WOODLANDS, SAVANNAHS, EDGES OF GRASSLANDS AND DESERTS, FARMS AND RANCHES / CLUMPS OF TREES OR WINDBREAKS ARE REQUIRED FOR ROOSTING IN OPEN COUNTRY
Icteria virens	Yellow-breasted chat	ABPBX24010	1	None	None	G5	S3			SUMMER RESIDENT; INHABITS RIPARIAN THICKETS OF WILLOW & OTHER BRUSHY TANGLES NEAR WATERCOURSES / NESTS IN LOW, DENSE RIPARIAN, CONSISTING OF WILLOW, BLACKBERRY, WILD GRAPE / FORAGES AND NESTS WITHIN 10 FT OF GROUND
Incilius alvarius	Sonoran desert toad	AAABB01010	1	None	None	G5	SH			BREEDS IN TEMPORARY POOLS & IRRIGATION DITCHES ALONG THE COLORADO RIVER AND SOUTHERN IMPERIAL VALLEY
Lithobates yavapaiensis	Lowland leopard frog	AAABH01250	1	None	None	G4	SX			WERE FOUND ALONG THE COLORADO RIVER AND IN STREAMS NEAR THE SALTON SEA
Rallus longirostris yumanensis	Yuma clapper rail	ABNME0501A	2	Endangered	Threatened	G5T3	S1			NESTS IN FRESH-WATER MARSHES ALONG THE COLORADO RIVER AND ALONG THE SOUTH AND EAST ENDS OF THE SALTON SEA / PREFERS STANDS OF CATTAILS AND TULES DISSECTED BY NARROW CHANNELS OF FLOWING WATER; PRINCIPLE FOOD IS CRAYFISH
Scaphiopus couchii	Couch's spadefoot	AAABF01020	1	None	None	G5	S2.3			TEMPORARY DESERT RAINPOOLS THAT LAST A LEAST 7 DAYS, WITH WATER TEMPS > 15 C & WITH SUBTERRANEAN REFUGE SITES CLOSE BY / AN INSECT FOOD BASE ESPECIALLY TERMITES MUST BE AVAILABLE
Xyrauchen texanus	Razorback sucker	AFCJC11010	1	Endangered	Endangered	G1	S1			FOUND IN THE COLORADO RIVER BORDERING CALIFORNIA / ADAPTED FOR SWIMMING IN SWIFT CURRENTS BUT ALSO NEED QUIET WATERS. SPAWN IN AREAS OF SAND/GRAVEL/ROCKS IN SHALLOW WATER

Global Rank:
G1= < 6 viable element occurrences (EOs) OR < 1,000 individuals OR < 2,000 acres
G2= 6-20 EOs OR 1,000-3,000 individuals Or 2,000-10,000 acres
G3= 21-80 EOs OR 3,000-10,000 individuals Or 10,000-50,000 acres
G4= Apparently secure globally, but factors exist to casue some concern
G5= Population or stand secure to ineradicable globally due to being commonly found
T= Global rank of the subspecies

State Rank:
S1= < 6 viable element occurrences (EOs) OR < 1,000 individuals OR < 2,000 acres
S2= 6-20 EOs OR 1,000-3,000 individuals Or 2,000-10,000 acres
S3= 21-80 EOs OR 3,000-10,000 individuals Or 10,000-50,000 acres
S4= Apparently secure in California, but factors exist to casue some concern
S5= Population or stand secure to ineradicable in California due to being commonly found
0.1= very threatened, 0.2= threatened, 0.3= no current threats known

California Native Plant Society (CNPS) List:
List 1A: Plants presumed extinct in California
List 1B: Plants rare, threatened, or endangered in California and elsewhere
List 2: Plants rare, threatened, or endangered in California, but more common elsewhere
List 3: Plants in which more information is required
List 4: Plants of limited distribution
0.1= seriously threatened in CA, 0.2= fairly threatened in CA, 0.3= not very threatened in CA

APPENDIX B: CEQA Environmental Checklist:

PROJECT DESCRIPTION AND BACKGROUND

Project Title:	Tesla Wash / Z-drain
Lead agency name and address:	Caltrans District 11 4050 Taylor Street San Diego, CA, 92110
Contact person and phone number:	Dave Nagy 619-688-0224
Project Location:	Imperial County, Sr-111 PM: 44.7 and SR-86 PM: 60.5
Project sponsor's name and address:	Caltrans District 11 4050 Taylor Street San Diego, CA, 92110
General plan description:	Imperial County General Plan
Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation.)	Mitigate bridge scour at the Tesla Wash Bridge on SR-86 and the Z-drain Bridge on SR-111.
Surrounding land uses and setting; briefly describe the project's surroundings:	Agriculture, Recreation
Other public agencies whose approval is required (e.g. permits, financial approval, or participation agreements):	California Department of Fish and Game, U.S. Army Corp of Engineers, Regional Water Quality Control Board

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 3 for additional information.

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

DETERMINATION:

On the basis of this initial evaluation:

☐	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☒	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required

Signature: Katie Bosinski	**Date:** 1/1/2011
Printed Name: Katie Bosinski	**For:**

CEQA Environmental Checklist

11-IMP-SR86/SR111	60.5/44.7	289600
Dist.-Co.-Rte.	P.M/P.M.	E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
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	☐	☐	☐	☒
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 which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	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 by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by 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 which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	☐	☐	☐	☒
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
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 non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

V. CULTURAL RESOURCES: Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

VI. GEOLOGY AND SOILS: Would the project:

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?	☐	☐	☐	☒
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

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

VII. GREENHOUSE GAS EMISSIONS: Would the project:

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 emissions of greenhouse gases?	☐	☐	☐	☒

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
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 one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
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?	☐	☐	☐	☒

IX. HYDROLOGY AND WATER QUALITY: Would the project:

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 pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
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) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

X. LAND USE AND PLANNING: Would the project:

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?	☐	☐	☐	☒

XI. MINERAL RESOURCES: Would the project:

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

XII. NOISE: Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) 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 two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
) 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?	☐	☐	☐	☒

XIII. POPULATION AND HOUSING: Would the project:

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

XIV. PUBLIC SERVICES:

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XV. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
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?	☐	☐	☐	☒
XVI. TRANSPORTATION/TRAFFIC: Would the project:				
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
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 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially 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?	☐	☐	☐	☒
b) Does 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)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

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APPENDIX C: Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
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Flex your power!
Be energy efficient!

July 20, 2010

TITLE VI
POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Charles Wahnon, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1823 14th Street, MS-79, Sacramento, CA 95811. Phone: (916) 324-1353 or toll free 1-866-810-6346 (voice), TTY 711, fax (916) 324-1869, or via email: charles_wahnon@dot.ca.gov.

Cindy McKim
CINDY McKIM
Director

APPENDIX D ENVIRONMENTAL COMMITMENTS RECORD (ECR)

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
					Initial	Date		Initial	Date
DESIGN KICK-OFF	Project Manager	Beginning of 1 Phase							
PRE-LOG-IN REVIEW	Design	90% Plans							
ENVIRONMENTAL PS&E REVIEW	Environmental Coordinator	District PS&E Circulation							
IN-HOUSE PRECONSTRUCTION MEETING	Project Manager	Contract Award							
TRANSFER RESIDENT ENGINEER BOOK	Project Engineer (RE)	Preconst Meeting							
PREJOB MEETING WITH CONTRACTOR	Construction	Beginning of Construction							
ENVIRONMENTAL COMPLIANCE REVIEW	Construction	Safety Review							
DESIGN FEATURES MEMORANDUM	Construction / Design	Post Construction							
Permits									
Section 404 Permit for filling or dredging waters of the United States	Permits/RE/ Construction/Env B	Pre-Construction/ Construction							
Section 401 Water Quality Certification	Permits/RE/ Construction/Env B	Pre-Construction/ Construction							
1602 Agreement for Streambed Alteration	Permits/RE/ Construction/Env B	Pre-Construction/ Construction							
BIOLOGY									
At Z-drain, sediment controls will be implemented to minimize indirect effects to the desert pupfish.	RE/ Construction/Env B	Pre-Construction/ Construction							
The check dam installation at Z-drain will occur between November 1 and February 14, which is outside of the desert pupfish breeding season, and Bird Breeding Season	RE/ Construction/Env B	Pre-Construction/ Construction							
Desert wash and desert scrub habitat occurring outside Caltrans right-of-way will be avoided and will be designated as environmentally Sensitive Areas (ESA) on the project plans.	RE/ Construction/Env B	Pre-Construction/ Construction							
All riparian and wetland areas outside of the project limits shall be designated as ESAs on the project plans.	RE/ Construction/Env B	Pre-Construction/ Construction							
Caltrans biologists will monitor both locations within one week of project construction. If active burrows or other sensitive habitats are observed, they will be designated as an ESA and temporarily fenced, if practical.	RE/ Construction/Env B	Pre-Construction/ Construction							
No work shall occur within 100 feet of any active burrow.	RE/ Construction/Env B	Pre-Construction/ Construction							

APPENDIX D ENVIRONMENTAL COMMITMENTS RECORD (ECR)

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
					Initial	Date		Initial	Date
If birds are observed nesting or roosting, all trees providing potential nesting and roosting habitat will be designated as an ESA and temporarily fenced.	RE/ Construction/Env B	Pre-Construction/ Construction							
No work shall occur within 100 feet of any active nest until the young have fledged.	RE/ Construction/Env B	Pre-Construction/ Construction							
There is no tree removal as a result of the project.	RE/ Construction/Env B	Pre-Construction/ Construction							
Best Management Practices (BMPs) would be incorporated into the project to prevent the spread of invasive species.	RE/ Construction/Env B	Pre-Construction/ Construction							
Cultural									
If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted.	RE/ Construction/Env B	Construction							
Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact a District Cultural Resource Specialist so that they may work with the MLD on the respectful treatment and disposition of the remains.	RE/ Construction/Env B	Construction							
If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.	RE/ Construction/Env B	Construction							
Visual									
All rock slope protection and culverts improvements shall blend in with the natural desert environment. This may include the use of an environmentally safe staining treatment that simulates "desert varnish". All existing non-exotic desert vegetation shall be avoided and preserved when possible.	RE/ Construction/Env B	Pre-Construction/ Construction							
Replacement planting, if required, will be coordinated with District Ecological Studies and Stewardship.	RE/ Construction/Env B	Pre-Construction/ Construction							

APPENDIX D ENVIRONMENTAL COMMITMENTS RECORD (ECR)

Task and Brief Description	Responsible Branch / Staff	Timing / Phase	NSSP	Action Taken to Comply with Task	Task Completed		Remarks	Environmental Compliance	
					Initial	Date		Initial	Date
Air Quality									
Construction pollution abatement measures will be included in the final plans and specifications for the project for the purpose of limiting particulate matter emissions from the construction activities and/or normal use and operation associated with the project that are contained in the applicable implementation plan.	RE/ Construction/Env B	Pre-Construction/ Construction							
Community									
The construction schedule would be designed around any special events and/or seasonal crowds.	RE/ Construction/Env B	Pre-Construction/ Construction							
Water Quality									
Construction should occur during the dry season	RE/ Construction/Env B	Pre-Construction/ Construction							
Implement usage of construction BMPs	RE/ Construction/Env B	Pre-Construction/ Construction							