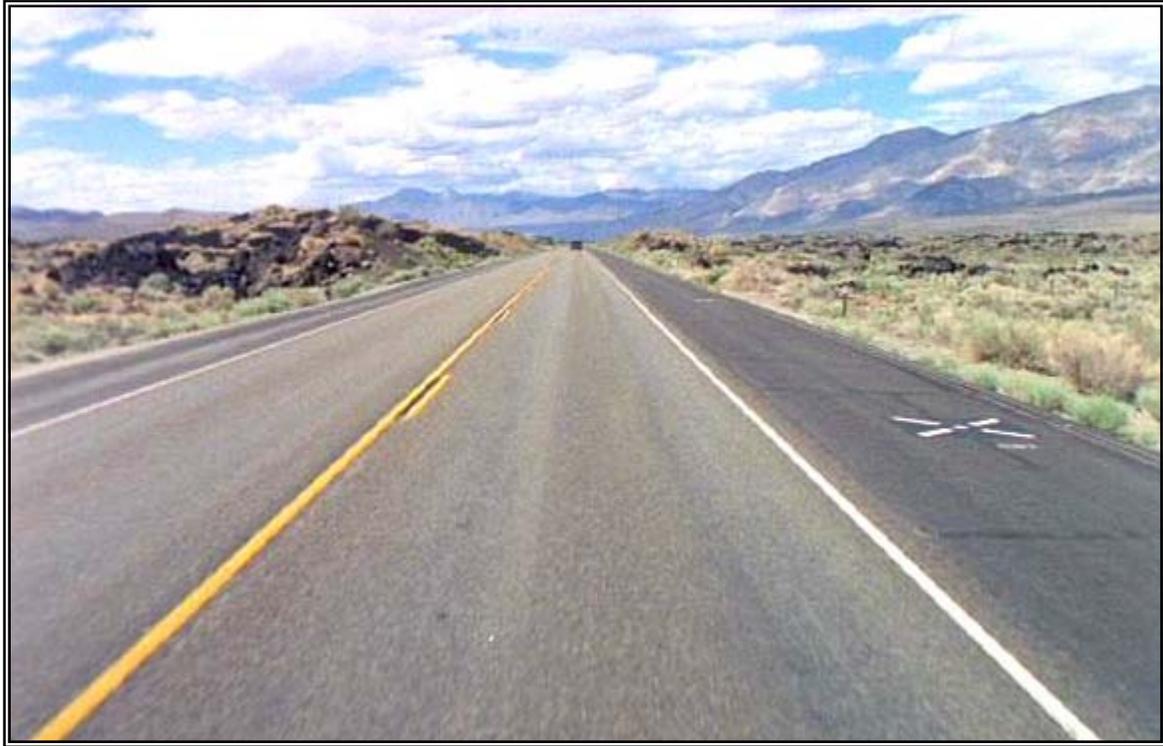


Black Rock Four-Lane Project



Environmental Assessment/Initial Study

On U.S. Highway 395, from 0.5 kilometers north of North Fork Road to 0.2 kilometers south of Elna Road, in Inyo County near Independence, California

09-INY-395-124.4/147.4

(PM 77.3/91.6)

09-214600

March 2003



General Information About This Document

What's in this document?

This document is an Environmental Assessment/Initial Study, which examines the potential environmental impacts of alternatives for the proposed project located in Inyo County, California. The document describes why the project is being proposed, alternative methods for constructing the project, the existing environment that could be affected by the project, and potential impacts from each of the alternatives.

What should you do?

- Please read this Environmental Assessment/Initial Study.
- We welcome your comments. If you have any concerns regarding the proposed project, please send your written comments to Caltrans by the deadline. Submit comments via regular U.S. mail to Caltrans, Attn: Mike Donahue, 2015 E. Shields, Suite 100, Fresno CA 93726; submit comments via email to Mike_Donahue@dot.ca.gov.
- Submit comments by the deadline: May 21, 2003.

What happens after this?

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 is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Mike Donahue, 2015 E. Shields, Suite 100, Fresno CA 93726; 559-243-8157 Voice, or use the California Relay Service TTY number, 1-800-735-2929.

Widen U.S. Highway 395 from two lanes to four lanes
from kilometer post 124.4 (post mile 77.3) to kilometer post 147.4 (post mile 91.6)
near Independence in Inyo County, California

**ENVIRONMENTAL ASSESSMENT/
INITIAL STUDY**

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

U.S. DEPARTMENT OF TRANSPORTATION
Federal Highway Administration, and
THE STATE OF CALIFORNIA
Department of Transportation

Date of Approval

Mike Donahue
Branch Chief
Southern Sierra Analysis Branch
Central Region Environmental Planning
California Department of Transportation

Date of Approval

Gary N. Hamby
Division Administrator
Federal Highway Administration



Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

On U.S. Highway 395, from 0.5 kilometers north of North Fork Road to 0.2 kilometers south of Elna Road, in Inyo County near Independence, California, the California Department of Transportation (Caltrans) proposes to construct 23 kilometers (14.3 miles) of four-lane expressway from kilometer post 124.4 (post mile 77.3) to kilometer post 147.4 (post mile 91.6). The project would upgrade 23 kilometers (14.3 miles) of existing two-lane conventional highway and improve the level of service, safety, and drainage along that segment of the route.

Determination

Caltrans has prepared an Initial Study, and determines from this study that the proposed project would not have a significant effect on the environment for the following reasons:

- The project would not increase floodplain or seismic hazards.
- There would be no significant effects on threatened or endangered species, nor to wetlands or riparian vegetation.
- The character and composition of traffic would not be affected.
- Impacts to cultural resources would be mitigated under the provisions of the Caltrans, Federal Highway Administration, and State Historic Preservation Officer Memorandum of Agreement.
- The project would have no significant effects upon business, industry, the economy, employment, agricultural resources, scenic resources, sensitive receptors, water quality, or air quality.
- The project would have no significant effect on land use, parklands, recreational facilities, community growth, neighborhoods, residences or educational facilities.

Mike Donahue
Branch Chief, Southern Sierra Analysis Branch
Central Region Environmental Planning
California Department of Transportation

Date



Summary

On U.S. Highway 395, from 0.5 kilometers north of North Fork Road to 0.2 kilometers south of Elna Road, in Inyo County near Independence, California, the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) propose to construct 23 kilometers (14.3 miles) of four-lane expressway from kilometer post 124.4 (post mile 77.3) to kilometer post 147.4 (post mile 91.6). Caltrans initiated this project, with the support of the Inyo County Local Transportation Commission. Essentially, this project would upgrade 23 kilometers (14.3 miles) of existing two-lane conventional highway to a four-lane expressway, improving route continuity. Currently, this two-lane segment lies between two four-lane stretches of U.S. Highway 395. This project would make the four lanes continuous.

Purpose and Need

U.S. Highway 395 is a vital transportation corridor connecting the Eastern Sierra region of California and Western Nevada to the Southern California metropolitan areas. All goods and services must arrive in the region via U.S. Highway 395 because there are no rail services there. Trucks comprise 17% of the traffic volume along the route, which is also heavily traveled by tourists.

With such heavy use and demand, the highway needs to be upgraded. At several locations, concrete headwalls and culvert pipe-ends create gaps within the shoulder recovery area. The clear recovery areas do not meet current standards at some locations due to high asphalt dikes, drainage structures, and high, steep slopes. Unpaved shoulders should be wider and free of obstructions throughout the project area.

The proposed project would improve the level of service of the roadway and would provide increased capacity to meet present and future traffic demands. A highway's level of service is rated from A through F, with A indicating traffic is flowing freely and F indicating traffic is severely congested or stopped. Caltrans identified a level of service of D for the existing highway. The level of service is expected to deteriorate to level E by the year 2015 if no improvements are made. The proposed project would ease peak traffic congestion and backed-up traffic, remove passing restrictions, separate opposing traffic, and provide standard shoulders. The additional lanes would reduce the number of unsafe passing maneuvers that occur on this stretch of highway.

The proposed U.S. Highway 395 project would upgrade the existing two-lane conventional highway that now lies between two four-lane sections of U.S. Highway 395. The upgrade would make that entire stretch four lanes, improving route continuity.

Project Alternatives

Three alternatives are being considered for the U.S. Highway 395 Black Rock four-lane expressway project: two build alternatives and a no-build alternative. The build alternatives, Alternatives 1 and 2, propose to convert the two-lane conventional highway to a four-lane expressway by constructing two new southbound lanes west of the existing highway. Both Alternatives 1 and 2 could be built, for the most part, within the existing right-of-way, which ranges from 45.7 meters (150 feet) to 91.4 meters (300 feet) wide. Both build alternatives would require an additional 8.232 hectares (20.34 acres) of public land at the north end of the project area. No homes or businesses would be affected by either alternative.

The main difference between Alternatives 1 and 2 is the median width. Alternative 1 would include a 30.5-meter (100-foot) median; Alternative 2 would include an 18.6-meter (61-foot) median. Otherwise, Alternatives 1 and 2 are the same. Both build alternatives would connect to the existing U.S. Highway 395 four-lane expressway to the south and the existing four-lane expressway (Fish Springs) to the north.

No-Build Alternative

The No-Build Alternative does not meet the project's purpose and need to improve level of service, highway design features, and route continuity. This alternative would keep the roadway as it is.

Recommended Alternative (Alternative 1)

The wider median width of Alternative 1 is superior to the narrower median width of Alternative 2 because it allows for flexibility in balancing the project earthwork, reduces headlight glare, and matches the existing four-lane expressway's southbound lane configuration to the west. Alternative 1 would also accommodate Surface Transportation Assistance Act of 1982 (STAA) trucks, reduce visual impacts, further separate travel directions, provide larger staging areas during construction, and allow for safer cross traffic movements. The environmental impacts associated with both Alternatives 1 and 2 are similar. Alternative 1 would adversely affect the same cultural sites as Alternative 2. Alternative 1 is the recommended alternative, based on superior engineering and safety considerations.



Figure A: Build Alignments

Environmental Consequences and Mitigation

The impacts associated with Alternatives 1 and 2 are similar. The project alternatives' minimal impacts to non-wetland resources, visual resources, and the larger impacts to cultural resources would be mitigated as described in the following paragraphs.

Non-Wetland Resources

The proposed project crosses three streams (Taboose Creek, Division Creek and Goodale Creek) and two dry washes classified as non-wetland "Other Waters" of the U.S. according to the Army Corps of Engineers guidelines. There are no wetlands associated with this project. The project would temporarily affect 0.15 hectare (0.37 acres) and permanently affect 0.11 hectare (0.27 acres) of streambed to "Other Waters" of the United States. These impacts would require Nationwide Permits #14 and/or Nationwide #33 according to Army Corps of Engineers regulations. In addition, riparian and streambed impacts associated with the project's three stream crossings and two wash crossings would be mitigated in accordance with a California Department of Fish and Game 1601 Streambed Alteration Agreement. Riparian habitat associated with these crossings would be mitigated in accordance with the 1601 California Department of Fish and Game Streambed Alteration Agreement and in accordance with any required mitigation outlined in agreement with the United States Army Corps of Engineers Nationwide Permits. In order to compensate for any

loss of habitat or value to the existing waterways and associated riparian vegetation, a combination of invasive species eradication, habitat enhancement, and preservation of existing habitat would be used. Riparian areas would be re-vegetated in accordance with all agreements to be obtained prior to construction.

Biology

No direct or indirect impacts to any special-status species would be expected to result because of this project. Two distinct habitat types — desert saltbrush scrub and blackbush scrub — were identified in the project area. Approximately 47.2 hectares (116.6 acres) would be permanently disturbed and 60.5 hectares (149.5 acres) would be temporarily disturbed. Caltrans' Standard Duff Provision would be applied to the proposed project area to lessen temporary and permanent impacts to natural vegetation. Areas of disturbance would be kept to the minimal area necessary to construct the project. A combination of stormwater pollution prevention procedures and construction best management practices would be used when applicable. Areas of temporary disturbance would be replanted using a combination of grass, shrub, and tree species native to the area.

Cultural Resources

Cultural resource studies for the proposed project identified 37 resources within the area of potential effects, including 30 archaeological sites, six historic resources, and one architectural resource. The State Historic Preservation Office (SHPO) on November 13, 2002, determined that seventeen archaeological sites were eligible for the NRHP within the project Area of Potential Effect (APE). Design considerations and establishment of Environmentally Sensitive Areas (ESAs) on the APE boundary would prevent adverse effects to CA-INY-3796, CA-INY-5277, CA-INY-5278, CA-INY-5281, CA-INY-5285/H, CA-INY-5812H, CA-INY-5871, CA-INY-5874, CA-INY-5875, CA-INY-5876, and CA-INY-5884. The proposed project would adversely affect the remaining six sites, including CA-INY-5267, CA-INY-5273/H, CA-INY-5275/H, CA-INY-5276, CA-INY-5873/H, and CA-INY-5877. Project impacts to the six archaeological sites identified within the APE total approximately 6.32 hectares (15.61 acres). A Finding of Adverse Effect document and a Memorandum of Agreement/Data Treatment Plan would detail the mitigation measures for the eligible NRHP archaeological sites impacted. Mitigation for the effects to these sites would include (1) establishment of ESAs; (2) data recovery mapping and excavations; (3) preparation of associated technical reports and studies; and (4) a public outreach effort.

Visual

The existing highway in the Black Rock Area is part of a designated Scenic Highway. This visual quality is considered one of the area's greatest resources. The region's natural beauty is vital to the tourist industry and to the area's quality of life. The project would result in the loss and degradation of some lava rock outcroppings. Measures to protect selected rock groupings in place on slopes and in median areas (where feasible) would visually blend the project site into the local landscape. The project would also result in the loss of native vegetation. Measures to mitigate these losses include the replanting/seeding of indigenous plant species to maintain the natural character of the area. In addition, topsoil or "duff" would be removed from all newly graded areas, stockpiled and replaced on the finished grade to return the native seed stock to the disturbed area. Cuts and fills created by this project would be graded to blend with the surrounding landforms. Contour-grading and increased slope rounding at the top of cuts and bottom of fills would visually blend the project into the natural landscape.

Coordination

The U.S. Fish and Wildlife Service, California Department of Fish and Game, State Historic Preservation Officer, Native American Heritage Commission, and the U.S. Army Corp of Engineers were consulted during the environmental studies for the proposed project. Caltrans also coordinated with the U.S. Bureau of Land Management and the Los Angeles Department of Water and Power for activities associated with cultural resource mitigation.

Permits

A permit from the California Department of Fish and Game would be required for a Section 1601 streambed alteration agreement, along with Nationwide 404 permits, #14 and #33, required from the Army Corps of Engineers. The California Regional Water Quality Control Board would have jurisdiction over construction activities adjacent to waterways under the Clean Water Act, Section 401.

A summary of potential impacts for each proposed alternative is provided below.

Table A: Summary of Potential Impacts from Alternatives				
Potential Impacts		Alternative 1	Alternative 2	No Action
Relocation	Business Displacements	No	No	No
	Housing Displacements	No	No	No
	Utility Service Relocation	Yes	Yes	No
Air Quality		No	No	No
Noise		No	No	No
Waterways and Hydrologic systems		Yes	Yes	No
Water Quality		No	No	No
Floodplain		No	No	No
Threatened or endangered species		No	No	No
Historic and archaeological preservation		Yes	Yes	No
Hazardous waste sites		No	No	No
Visual		Yes	Yes	No
Construction		No	No	No



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List of Abbreviated Terms

AADT	Annual Average Daily Traffic
ACOE	Army Corps of Engineers
APE	Area of Potential Effect
BLM	Bureau of Land Management
BMP	Best Management Practice
Caltrans	California Department of Transportation
Cm	Centimeter
DFG	Department of Fish and Game
DWP	City of Los Angeles Department of Water and Power
ESA	Environmental Sensitive Area
FHWA	Federal Highway Administration
FOAE	Finding of Adverse Effect
FRL	Foothills Resources Ltd.
ft	Foot/feet
FWS	U.S. Fish and Wildlife Service
ha	Hectare
HPSR	Historic Property Survey Report
km	Kilometer(s)
KP	Kilometer Post
LOS	Level of Service
m	Meter(s)
mi.	Mile(s)
mm	Millimeter
MOA	Memorandum of Agreement
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWP	Nationwide Permit
PM	Post Mile
PSR	Project Study Report
R/W	Right of Way
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SHPO	State Historic Preservation Officer
STAA	Surface Transportation Assistance Act of 1982
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resource Control Board
TASAS	Traffic Accident and Survey Analysis System
UST	Underground Storage Tank
VA	Value Analysis



Chapter 1 Purpose and Need

1.1 Introduction

U.S. Highway 395 near Independence, California, experiences operating deficiencies. The existing two-lane highway does not provide adequate passing opportunities and does not have uniform shoulder widths, resulting in motorists making unsafe passing maneuvers. The high traffic volume of slow-moving commercial trucks and large recreational vehicles adds to the problem. The proposed project would improve the operation of the highway by expanding the road to four lanes, creating uniform shoulders throughout the project limits, and adding a median to separate traffic.

This project proposes to construct 23 kilometers (14.3 miles) of four-lane expressway from kilometer post 124.4 (post mile 77.3) to kilometer post 147.4 (post mile 91.6) on U.S. Highway 395, from 0.5 kilometers north of North Fork Road to 0.2 kilometers south of Elna Road, in Inyo County near Independence (see Figures 1-1 and 1-2). Caltrans initiated this project, with the support of the Inyo County Local Transportation Commission.

When this portion of the highway was realigned in 1965, right-of-way was acquired with the expectation of building a four-lane divided expressway in the future. This project, which would build the four-lane divided expressway, was included in the 2002 Federal Transportation Improvement Program under Inyo County's Regional Transportation Improvement Program. The proposed project would essentially upgrade 23 kilometers (14.3 miles) of existing two-lane conventional highway to improve the road's level of service, operations, and drainage. The cost of the project is estimated at \$27,419,000, which includes \$27,109,000 for construction and \$310,000 for right-of-way and utility relocation. The project would be funded from the State Regional Improvement Program in the 2005/06 fiscal year.

Three alternatives are being considered for this project: two build alternatives (Alternatives 1 and 2) and a no-build alternative (Alternative 3). Alternative 1 would add two additional lanes to U.S. Highway 395 for southbound traffic and reconstruct the existing roadway for northbound traffic. The roadways would be separated by a 30.5-meter (100-foot) median. Alternative 2 is the same as Alternative 1, except that it would have an 18.6-meter (61-foot) median.

This project would connect the existing four-lane stretch of roadway at the southern end of the proposed project with the Fish Springs four-lane project to the north to make a continuous four-lane stretch of road.

1.2 Project Background

U.S. Highway 395, once known as the Three Flags Highway, originally crossed the United States from the Mexican border to the Canadian border. In the late 1920s, the roadway was straightened, graded and surfaced with oiled rock pavement. A typical section was a 10.8-meter-wide (36-foot-wide) graded roadbed with 6 meters (20 feet) of oiled surface. In the 1930s and 1940s, the road was widened to 6.6 meters (22 feet) with plant-mixed surfacing and 2.4-meter (8-foot) dirt shoulders. Over the years, the lanes have been widened to 3.6 meters (12 feet), the alignment has been modified, and various sections have been converted to four lanes.

U.S. Highway 395 is a vital transportation corridor connecting the Eastern Sierra region of California and Western Nevada to the Southern California metropolitan areas. All goods and services must arrive via U.S. Highway 395 because there are no rail services in the area. The highway is part the Subsystem of Highways for the Movement of Extra Legal Permit Loads and is a federal Surface Transportation Assistance Act route that authorizes use for larger trucks and gives them access to facilities off the route. U.S. Highway 395 is functionally classified as a “rural principal arterial” and is included in the Federal Aid Primary highway system. It is also included in the State Freeway and Expressway System, and the State Scenic Highway Master Plan. This route is also considered a “high emphasis route” as part of the Interregional Road System and connects transportation systems across four states.

Because of its location, this highway also facilitates tourism. According to a 2000 Origin-Destination Study in Inyo and Mono counties for U.S. Highway 395 conducted by Caltrans, 55 % of the traffic traveled for recreation purposes and 36 % of all vehicles coming into the Eastern Sierras originated from Southern California. The average occupancy rate per vehicle during the survey was 2.18.

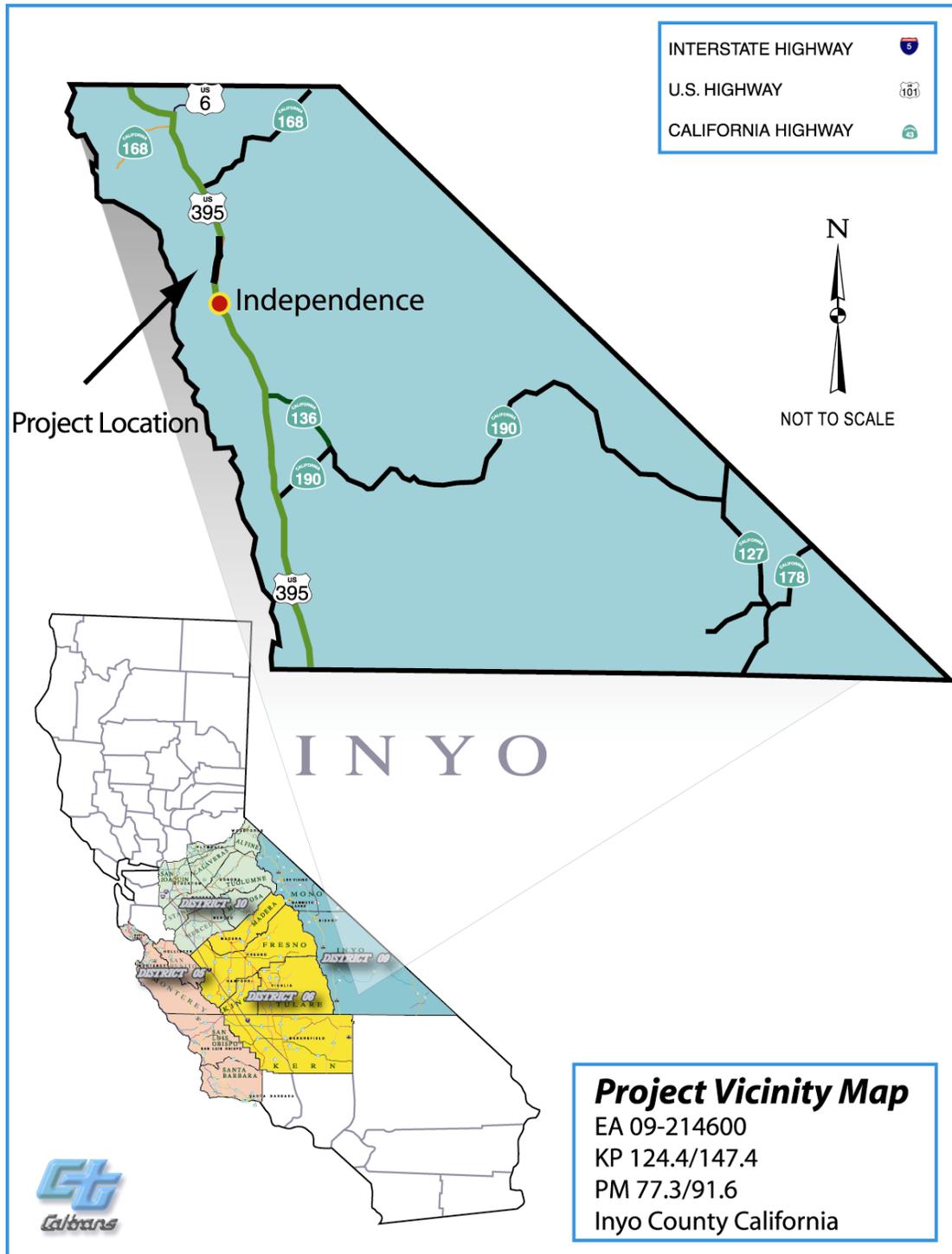


Figure 1.1: Project Vicinity Map



Figure 1.2: Project Location Map

Within the project limits, the existing highway lies on flat terrain at elevations ranging from 1170 meters (3839 feet) to 1,220 meters (4,003 feet). In 1958, the roadway was realigned from kilometer post 122.0 (post mile 75.8) to kilometer post 126.2 (post mile 78.4). In 1965, the roadway was realigned from kilometer post 126.2 (post mile 78.4) to kilometer post 142 (post mile 88.5). The roadway was constructed on an alignment bypassing Aberdeen for the purpose of future construction of a four-lane expressway. Right-of-way for future expansion to the west was also purchased at that time. As a result, there is sufficient right-of-way for 17 kilometers (10.5 miles) of the proposed 23-kilometer (14.3-mile) improvement.

1.3 Project Description

The Caltrans District 9 System Management Plan identifies U.S. Highway 395 as one of two major transportation corridors in the district. Alternatives 1 and 2 would comply with the plan's goal to "continue upgrading the Route 14/395 corridor to a four-lane facility." Both build alternatives are consistent with the May 2000 U.S. 395 Transportation Concept Report, which designates four-lane expressway as both the concept and the ultimate facility for this segment of U.S. Highway 395. If this project were completed, there would be a continuous four-lane segment from kilometer post 122.5 (post mile 76.1) in Inyo County to kilometer post 85.0 (post mile 52.8) just north of Lee Vining in Mono County, a total length of 170.9 kilometers (106.2 miles). The proposed project is consistent with the Inyo County Regional Transportation Plan.

The existing roadbed consists of a two lane, 7.3-meter (24-foot) wide road with varying shoulder widths up to kilometer post 146.6 (post mile 91.1). From this point north the highway transitions into a newly constructed four-lane expressway that proceeds into Big Pine, CA with standard 3-meter (10-foot) shoulders. The existing paved shoulder widths are 1.2-meters (4-feet) from kilometer post 124.4 (post mile 77.3) to kilometer post 126.2 (post mile 78.4). The shoulder widths for the remaining limits up to kilometer post 146.6 (post mile 91.1) are 2.4-meters (8-feet) for the southbound shoulder and 3-meters (10-feet) for the northbound shoulder. At several locations, concrete headwalls and culvert pipe-ends create gaps within the shoulder recovery area. The clear recovery area does not meet current standards at some locations due to high asphalt dikes, drainage structures, and high, steep slopes.

Construction of the proposed project would create a four-lane highway with uniform shoulder widths complying with current highway design standards.

1.3.1 Traffic Volumes

Highways 14 and 395 are the major elements of a transportation corridor connecting Southern California with Eastern Sierra recreation areas. According to a 2000 Origin and Destination Study conducted by Caltrans, 55% of the traffic traveled for recreational purposes and 36% of all vehicles coming into the Eastern Sierra region originated in Southern California. From this high percentage, it is easy to see why peak traffic periods correlate with three-day holidays and not commute periods. The “normal” weekday traffic is steady, but light. Some minor peaks are noted from commuters who work in Inyo County (for instance, in Independence), but reside in Bishop. Summaries of the various current and projected traffic data are presented in Table 1.1, based on 2001 traffic volume counts. The future traffic volumes are based on a growth rate of 1% per year.

Table 1.1: Traffic Data

Average Annual Daily Traffic	Current Year (2001)	Construction Complete (2008)	20-Year (2028)
Number of vehicles per day	6300	6,755	8,240
Percentage of trucks	16.6	16.6	16.6

According to the data in Table 1.1, increasing traffic volumes can be expected on U.S. Highway 395 well into the future.

1.3.2 Level of Service

Level of service is a measure of how free or constrained traffic travels along a road segment or through an intersection. For two-lane rural highways, level of service is determined in terms of percent time spent following and average travel speed. A four-lane determination is based on a combination of factors including maximum density, average speed, maximum volume to capacity ratio and maximum service flow rate. A level of service rating ranges from A indicating free-flowing traffic to F indicating extremely congested traffic. An F indicates substantial congestion with traffic demand exceeding capacity.

A September 2002 study conducted by Caltrans identified the current level of service for the proposed project segment as D (Figure 1.3). The level of service is expected to remain at D or deteriorate further if no improvements are made. Construction of either Alternative 1 or 2 would improve this segment of highway to the desired level of service A (Figure 1.4). Current and projected levels of service are presented in Table 1.2.

Table 1.2: Level of Service for U.S. Highway 395

Level of Service	2001	2008	2028
LOS for the segment, with no improvements made	D	D	D
LOS with the road upgraded to a 4-Lane Expressway	--	A	A

*Note: LOS calculations based on 30th highest hourly traffic volume

1.3.3 Safety Issues

At times, the existing roadway carries more traffic than it is designed to carry and operates at a reduced level of service. This is especially evident during weekends and holidays when traffic volumes are extremely heavy. Traffic starts to back up; a slow-moving trail of vehicles seemingly increasing travel time. Drivers become frustrated, and they attempt unsafe passing maneuvers. A factor contributing to the situation is the high volume of recreational vehicles (4.3%) and trucks (16.6%) using the route.

Because of the rural nature of the region, drivers of passenger cars tend to travel at a high rate of speed along the route. But trucks and recreational vehicles can't always keep up with those drivers, so traffic starts to "queue" (line up) behind the larger, slower-moving vehicles traveling in the same direction in the same lane. The faster cars want to pass, but barrier striping prohibits passing through 25% of the project limits. In areas without barrier striping, passing opportunities are further restricted by the high traffic volumes for a two-lane highway. The long travel time and its cumulative impacts on driver fatigue and behavior in dealing with the congestion results in frustrated drivers attempting unsafe maneuvers. Upgrading the existing two-lane conventional highway to a four-lane expressway would help alleviate the problems associated with traffic queuing.

Accident information is summarized in Table 1.3. The Traffic Accident and Survey Analysis System and Table B (an accident data sheet provided by the Caltrans traffic

investigation section) indicated that 28 accidents occurred on this portion of U.S. Highway 395 during a three-year period ending March 31, 2002. The traffic information showed a total accident rate (0.31) below the statewide average rate (0.60) for a similar facility.

Table 1.3: Three-Year TASAS Table - Ending March 31, 2002

Type and Number of Accidents		Accident Rate/Million Vehicle Miles		
Fatal	6		Actual	Statewide Average
Injury	12	Fatal	0.066	0.035
Property Damage Only	10	Fatal+Injury	0.20	0.31
Total	28	Total	0.31	0.60

In this three-year period there were 6 fatal accidents in the project area resulting in 8 persons killed. The Fatal Accident rate for this stretch of U.S. Highway 395 is 1.9 times higher than the Statewide Average. The primary causes of the accidents were as follows: 36% improper turning, 14% falling asleep, 7% failure to yield, 7% influence of alcohol, 4% other than driver, 4% speeding. There were 3 head-on collisions, all of which resulted in fatalities.

Of the total 28 accidents, 22 (79%) were accidents that involved a vehicle crossing the roadway centerline. Cross-centerline accidents all have the potential for collisions with opposing vehicles. Of the 22 cross-centerline accidents, 11 (50%) resulted in collisions with another vehicle. Five out of the six fatal accidents, eight out of the twelve injury accidents, and nine out of the ten property damage only accidents involved vehicles crossing the centerline. Summarizing the total persons killed and injured in these accidents, there were five (63%) out of a total of eight persons killed and twenty-eight (64%) out of a total of 44 persons injured in accidents involving vehicles crossing the roadway centerline. Cross-centerline type accidents have the highest contribution to both fatal and injury accidents in this section of highway.

Of the total 28 accidents, eighteen (62%) were caused by or resulted in a vehicle leaving the pavement. Fourteen out of the eighteen accidents (78%) were single vehicle accidents. Seven out of the fourteen (50%) single vehicle accidents were either fatal or injury accidents. Of the eighteen accidents involving a vehicle leaving the pavement, twelve vehicles overturned and eleven vehicles struck an object off of the roadway.

Both alternatives one and two would significantly reduce the accident rate for this segment of U.S. Highway 395. Having two lanes for each direction of travel would allow fast moving traffic to safely pass slow moving trucks and recreational vehicles. Head-on collisions would be drastically reduced, if not totally eliminated, by constructing a new roadway with a median separating the northbound and southbound lanes. Flattening embankment slopes and creating a wider roadside environment would reduce rollover type accidents.

The proposed project would improve the level of service of the roadway by increasing capacity to meet present and future traffic demands. It would also ease peak traffic congestion and queuing, remove passing restrictions, separate north and southbound traffic, and provide emergency parking areas. Widening the roadway to four lanes, adding a median and widening the shoulders would provide added room for emergency maneuvering and errant driver recovery.

LEVELS OF SERVICE

for Two-Lane Highways

Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		55+	Highest quality of service. Free traffic flow with few restrictions on maneuverability or speed. No delays
B		50	Stable traffic flow. Speed becoming slightly restricted. Low restriction on maneuverability. No delays
C		45	Stable traffic flow, but less freedom to select speed, change lanes or pass. Minimal delays
D		40	Traffic flow becoming unstable. Speeds subject to sudden change. Passing is difficult. Minimal delays
E		35	Unstable traffic flow. Speeds change quickly and maneuverability is low. Significant delays
F			Heavily congested traffic. Demand exceeds capacity and speeds vary greatly. Considerable delays

Source: 2000 HCM, Exhibit 20-2, LOS Criteria for Two-Lane Highways in Class 1

Figure 1.3: Level of Service Chart for Two-lane Highway

<h1 style="text-align: center;">LEVELS OF SERVICE</h1> <p style="text-align: center;">for Multi-Lane Highways</p>			
Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		60	Highest level of service. Traffic flows freely with little or no restrictions on maneuverability. No delays
B		60	Traffic flows freely, but drivers have slightly less freedom to maneuver. No delays
C		60	Density becomes noticeable with ability to maneuver limited by other vehicles. Minimal delays
D		57	Speed and ability to maneuver is severely restricted by increasing density of vehicles. Minimal delays
E		55	Unstable traffic flow. Speeds vary greatly and are unpredictable. Minimal delays
F		<55	Traffic flow is unstable, with brief periods of movement followed by forced stops. Significant delays

Source: 2000 HCM, Exhibit 21-3, Speed-Flow Curves with LOS Criteria for Multi-Lane Highways

Figure 1.4: Level of Service Chart for Multi-lane Highway



Chapter 2 **Alternatives**

2.1 Alternative Development Process

Three alternatives were developed for the proposed project. Alternatives 1 and 2, the build alternatives, propose to convert the conventional two-lane highway to a four-lane expressway. Alternative 3 is the No-Build Alternative.

When this portion of the highway was realigned in 1965, right-of-way was acquired with the expectation of building a four-lane divided expressway to the west. As a result, there is sufficient right-of-way for 17-kilometers (10.6-miles) of the proposed 23-kilometer (14.3-mile) project.

The District 9 Park and Ride Coordinator has recommended that Park and Ride facilities not be included in this project due to the small percentage of locally generated traffic. Although bicycle travel is allowed on this portion of Highway 395, there are no dedicated bike lanes and there are no future plans to provide them. Bicycle touring is becoming increasingly popular on the U.S. Highway 395 corridor and should be enhanced with the construction of 3.0-meter (9.8-foot) outside shoulders.

2.2 Alternatives Considered and Eliminated

2.2.1 Build Alternatives—East of Existing Alignment

Alternatives to the east were determined non-viable because of environmental, engineering, and cost considerations. For a large portion of the study limits, sufficient right-of-way existed west of the roadway. Construction of lanes to the east would encounter large areas of unsuitable material near the northern limits of the study area. Constructing to the east is not feasible for the following reasons:

1. The new southbound lanes on the Fish Springs Four-Lane project, directly north of the proposed project, were constructed to the west. The existing two-lane northbound/southbound highway within the project limits is on the same tangent as the new northbound lanes of the Fish Springs project. Widening to the east would introduce two more horizontal curves for the new northbound Black Rock lanes to transition to the existing northbound Fish Springs lanes. The addition of

more horizontal curves would reduce the route continuity of the highway and create an additional hazard.

2. The existing four-lane sections of road, south of the proposed Black Rock project, are generally west of the existing two-lane section of Black Rock project.
3. The exit and entrance ramps and the parking area at the Division Creek Rest Area would have to be reconstructed if the new lanes were constructed at a 30.5-meter (100-foot) offset to the east. If the lanes go to the west, only new deceleration/acceleration lanes and a median crossover need to be constructed.
4. The highway drainage as created with the 1965 realignment has proven to be adequate. Widening to the west would continue the existing drainage courses; widening to the east would alter some of the drainage characteristics.
5. The entire project vicinity has a very high density of archaeological sites, making it virtually impossible to avoid impacting archaeological resources altogether. Review of survey maps in the earliest stages of project design revealed a slightly higher density of prehistoric archaeological sites to the east of the existing alignment. This was probably due to these eastern areas being closer to the Owens River, which served as the focal point of prehistoric settlement of the region. In addition, these sites appeared to generally be larger and more complex, probably representing residential locations (i.e., camps and villages), rather than areas used short-term for resource collecting and processing. Residential sites have a greater likelihood of containing scientifically important features, such as housepit and hearths as well as human remains, which often have additional cultural and spiritual values for modern Native American communities.

2.2.2 All-Paved Four Lane

The all-paved alternative would have consisted of four 3.6-meter (12-foot) lanes, with northbound and southbound lanes separated by at least a 6.6 meter (22-foot) median and 3-meter (10-foot) outside shoulders in order to satisfy current expressway standards for a rural location. The minimum median width for an expressway is 18.6-meters (61-feet) paved or unpaved. Having a 6.6-meter (22-foot) median would require unjustifiable mandatory and advisory design exceptions. The facility would not meet State or Federal standards for a rural expressway. The costs for this alternative would be higher than that of a divided highway and it would not correct all of the deficiencies of the existing highway as effectively as a divided roadway. There

are no discernible cost savings realized in right of way acquisition or construction cost compared to the two proposed build alternatives. While the earthwork would be less for an all-paved roadway, the cost of the structural section would be higher because of the added paved width and the additional asphalt leveling needed to move the crown of the roadway.

Furthermore, the accident potential on all-paved, undivided, two-way highways is higher than on divided highways with wide medians. Oncoming traffic would be closer; maintenance in the median would be more difficult and unsafe. The all-paved highway would not have transitioned into the existing four-lane sections to the north and south without adding additional horizontal curves. Due to its estimated higher cost and higher accident potential, this alternative was not considered a viable alternative.

2.3 Alternatives Selected for Detailed Study

Three project alternatives were evaluated for this environmental document: Alternatives 1 and 2, which propose to convert the conventional two-lane highway to a four-lane expressway and differ only by median width, and Alternative 3, the No Build Alternative.

2.4 Project Alternatives

Final selection of an alternative will not be made until after the full evaluation of environmental impacts and full consideration of public hearing comments.

2.4.1 Alternative 1

Alternative 1 proposes to improve the existing highway to a four-lane expressway by constructing two new southbound lanes west of the existing alignment, from kilometer posts 124.4 to 147.4 (post miles 77.3 to 91.6). See Figure 2-1 for a cross-section view of this alternative.

The existing lanes would be rehabilitated and used as northbound lanes. Improvements to the existing roadbed from kilometer posts 124.4 to 126.2 (post miles 77.3 to 78.4) and kilometer posts 144.6 to 146.6 (post miles 89.9 to 91.1) would consist of resurfacing and widening the shoulders to current standards. The roadway

cross-slope and embankment slopes would be upgraded as needed throughout the length of the project.

New southbound lanes would be constructed parallel to the existing alignment with a 30.5-meter (100-foot) median. The typical cross-section would consist of two 3.6-meter (12-foot) travel lanes, 1.5-meter (5-foot) left shoulder and 3.0-meter (10-foot) right shoulder (see Figure 2-1). There is adequate right-of-way from kilometer posts 126.2 to 143.7 (post miles 78.4 to 89.3) with some right-of-way required outside these limits. This alternative would comply with the route concept of a four-lane, divided, access control expressway.

Four intersections connect with county roads. Several intersections along the existing highway would need to be realigned to provide improved roadway connections. Existing drainage crossings would need to be extended in the areas of shoulder widening. Sufficient right-of-way would be acquired in these locations for the improvements and also to accommodate future maintenance of the facilities. The current county roads would provide crossover medians connecting north and southbound traffic.

Within the project limits is an affected utility: an underground Verizon (GTE) telephone fiber-optic cable located west of the highway. Verizon plans to relocate its cable east of the highway. The line would eventually cross the highway from east to west at a location just north of the Aberdeen Station Road connection.

Estimated costs for Alternative 1 are as follows: \$27,109,000 for roadway items; \$60,000 for expected right-of-way acquisition; and \$250,000 for required utility relocation. Total combined costs are estimated at \$27,419,000 for Alternative 1.

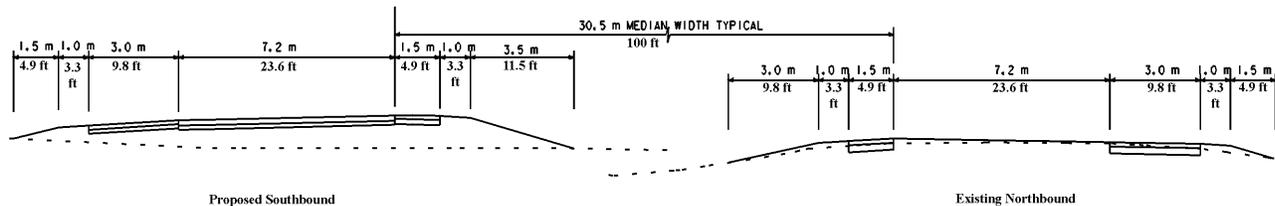


Figure 2.1: Proposed Typical Cross-Section: Alternative 1

2.4.2 Alternative 2

This alternative proposes constructing a divided four-lane expressway in the same way described under Alternative 1, but the median separation would be the minimum

18.6 meters (61 feet) as required by the Caltrans Design Manual, instead of 30.5 meters (100 feet) (see Figure 2-2).

Estimated costs for Alternative 2 are as follows: \$27,692,000 for roadway items; \$60,000 for anticipated right-of-way acquisition; and \$250,000 for required utility relocation. Total combined costs are estimated at \$28,002,000 for Alternative 2.

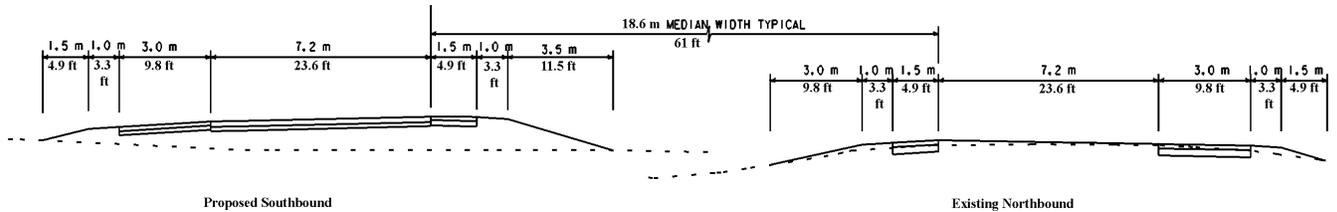


Figure 2.2: Proposed Typical Cross-Section: Alternative 2

2.4.3 No Action Alternative

Alternative 3 is the “no build” alternative, which would keep the roadway as it is. The No Build Alternative is not considered a viable alternative because there would be no relief from existing deficiencies. As traffic volumes increase, the existing conditions and level of service would continue to deteriorate to an unacceptable level.

2.4.4 Recommended Alternative

Alternative 1 is the recommended alternative. The concept for this alternative is essentially the same as that for Alternative 2, but allows for 30.5 meter (100 foot) medians that are 12 meters (39 feet) wider than the medians associated with Alternative 2. Besides not featuring the engineering and safety drawbacks listed below for Alternative 2, this Alternative is also safer to construct, as the wider median affords larger staging areas during construction. The wider median also allows for safer movements of cross traffic on intersecting county roads, enabling temporary storage space for trucks and large recreational vehicles not available with Alternative 2.

Alternative 2 features a median only 18.6-meters (61-feet.) in width or approximately 12-meter (39-feet.) narrower than Alternative 1. Environmental impacts associated with both Alternatives 1 and 2 are similar. Alternative 2 would adversely affect the same cultural sites depicted in Section 3.6 as Alternative 1, but also has several disadvantages from engineering and safety standpoints:

1. U.S. Highway 395 is part of the Subsystem of Highways for the Movement of Extra Legal Permit Loads and is a federal Surface Transportation Assistance Act (STAA) route that authorizes use for larger trucks and gives them access to facilities off the route. A STAA design vehicle would encroach into the inside shoulders of the highway when making a turning movement into this narrower median refuge. The narrower median is not ideal for stretches of highway with numerous road intersections, as the turning lanes associated with these intersections are difficult to accommodate safely.
2. The narrower median complicates balancing the earthwork for the project, increases headlight glare, and increases the likelihood of head-on collisions. Traffic data suggests that drivers who had fallen asleep at the wheel caused 14 percent of the accidents occurring during a three-year period ending March 31, 2002. The wider median of Alternative 1 would provide additional traffic separation.
3. Alternative 2 would fail to match up to an existing four-lane facility to the north that contains a 30.5-meter (100-foot.) median and a four-lane facility to the south proposing a 30.5-meter (100-foot.) median. Curves would need to be added to facilitate the transitions between highway projects. Such curves would disrupt the otherwise straight segment of U.S. Highway 395 within this region of Inyo County.
4. Alternative 2 would decrease the design flexibility afforded by a wider median when dealing with physical impacts to the project limits detailed in Section 3.1 and Section 3.3.1.2. Visual impacts and impacts to the Botanical Management Area can be reduced by preserving much of the natural vegetation and rock outcroppings within the median.

Alternative 3, the “no-build” alternative, would leave U.S. Highway 395 in its present condition. This alternative would not provide the upgrades needed to improve traffic operations, with the attendant benefits of improved safety and increased regional transport.



Chapter 3 Environmental Impacts and Mitigation

This chapter describes the existing environmental setting of the project area. A “project study area” has been drawn to identify the geographic limits of the potential direct and indirect effects of the proposed project, particularly for visual and cultural resources. This study area encompasses both build alternatives.

The design concepts of the two build alternatives are very similar, differing only in median width and cost. As far as physical ground disturbance expected from the construction activities are concerned, both build alternatives would create similar physical impacts within the project study area. Therefore, impacts resulting from the proposed project have been referenced to the project study area rather than the individual build alternatives.

3.1 Visual

3.1.1 Affected Environment

The existing highway in the Black Rock area is part of a designated Scenic Highway. This visual quality is considered one of the area’s greatest resources. The natural beauty of the region is not only vital to the tourist industry but to the local quality of life.

3.1.2 Impacts

The visual sensitivity of a region depends on the visibility of the area and its “landscape character.” The valley landscape is subordinate to the dynamic value of the surrounding views, but it provides a valuable changing texture for the motorist traveling the highway. The landscape can also provide opportunities for the public to stop briefly to enjoy the character of the natural landscape.

The construction of an additional two-lane roadway would not obviously degrade the existing views. Offsite views of the project area would be affected because of construction and the loss of vegetation and elements of landscape character. In addition, the project would result in the loss and degradation of some lava rock (Black Rock) outcroppings. Measures to protect selected rock groupings on slopes

and in median areas (where feasible) should help to blend the project site into the local landscape and maintain a natural setting.

3.1.3 Mitigation

This project would result in the loss of native vegetation. Measures recommended to mitigate these losses would include replanting/seeding indigenous plant species to maintain the natural character of the area. In addition, topsoil or “duff” would be removed from all newly graded areas, stockpiled and replaced on the finished grade to return the native seed stock to the disturbed areas.

Cuts and fills created by this project would be graded to blend with the surrounding landforms. Contour-grading and increased slope rounding at the top of cuts and bottom of fills would visually blend the project into the natural landscape. Slopes should have a rolling surface without sharp edges, and the slope should be left with a rough texture to promote faster vegetation growth and reduce erosion. Slope gradients of 3 to 1 or flatter should be used to allow moisture to be absorbed and to slow runoff.

Grading and erosion control mitigation with native seeds and wildflowers, applied during construction, would promote the establishment of a strong stand of native vegetation. Along with preserving some of the native rock outcroppings, these measures should return the visual character of the landscape back to its original natural quality.

3.2 Air Quality

3.2.1 Affected Environment

The proposed project lies within the Great Basin Unified Air Pollution Control District, which has headquarters in Bishop, California. Data obtained from the control district indicates the overall air quality in this region is very good. The only known parameter that occasionally exceeds state and federal standards are particulates, called PM-10 and/or PM-2.5. The sources of these particulate matter are areas along the Owens River and/or from Owens Lake (dry), several miles south of the project limits, especially when winds exceed 10 miles per hour. These particulates can create health hazards for residents many miles north and south of the source.

3.2.2 Impacts

With the exception of PM-10, the area within Inyo County fully conforms to both state and federal air quality standards. The Great Basin Unified Air Pollution Control District has prepared a plan to control PM-10. Inyo County's Regional Transportation Plan, accompanied by an approved Environmental Impact Statement, lists the Black Rock Four-Lane project as meeting all regional air quality standards.

Qualitative consideration was given to the proposed project's affect on existing and new PM-10 violations at the microscale level. Given the build alternatives' characteristics and location as well as regional efforts and plans to attain the PM-10 standard, the project would not worsen any existing PM-10 violation or create a new PM-10 violation. The project itself would not be expected to result in increased vehicle trips, but rather would re-distribute those vehicle trips that would be generated in any event along the U.S. Highway 395 corridor to Bishop. Also, the project would not affect overall vehicle miles traveled because the distance associated with the proposed project would parallel an existing stretch of U.S. Highway 395 that transitions into existing four-lane facilities to the north and south. Vehicle miles traveled are not expected to increase as a result of the proposed project.

A short-term, microscale air quality impact from nuisance dust could result from construction-related activities. Nuisance dust is defined as "larger than PM-10" and usually is not considered a health concern. However, nuisance dust can create safety concerns for the traveling public. Enforcement of the dust controls as specified in the Caltrans Standard Specifications, Section 17 and 18, would minimize these concerns and reduce the potential for short-term visibility problems.

Based on similar Caltrans projects, carbon monoxide levels would increase less than 1 parts per million, which correlates directly to "normal" traffic growth and not to the roadway improvement itself. Therefore, a full air study is not required for this project.

It is important to note there are no permanent receptors near this project. All abutting property is currently under public ownership and the likelihood of any new improvements or receptors in the foreseeable future is low.

Therefore, there would be no long-term impacts to air quality if this project were constructed. Vegetation of all newly disturbed dirt areas on this project would eliminate any long-term increases to the regional levels of nuisance dust. Short-term increases in particulate matter and nuisance dust would be controlled with Caltrans Standard Specifications, Section 17 and 18. This work shall consist of applying a

dust palliative for the prevention of nuisance dust. The dust palliative shall be applied in the amount and at the locations as directed by the project engineer.

3.3 Biological Environment

A field survey was conducted to look for known populations of sensitive plant species near the project area. Biological surveys consisted of walking paths parallel to the highway. Flora and fauna encountered on these paths were identified. Habitat types were documented and classified by dominant vegetation. Any other unusual or sensitive areas were also documented, including any washes, streambeds, riparian habitat, playas, alkaline areas, burrows, nests, or other conditions not common to the area or habitat or situation. All Army Corps of Engineers Waters of the U.S. were analyzed and delineated in accordance with Army Corps of Engineers regulations. Waters of the U.S. were delineated based upon the ordinary high water mark.

3.3.1 Vegetation

3.3.1.1 Affected Environment

Habitat types

The following vegetation types or combination of vegetation types were encountered in the project area:

- Desert saltbush scrub generally contains low-growing, grayish, microphyllous shrubs. These shrubs normally range in size from 0.3 meters (0.9 feet) to 1.0 meters (3.3 feet). This habitat generally occurs on areas surrounding playas or on slightly higher ground, and is widely scattered on margins of dry lakebeds in the Colorado, Mojave and Great Basin deserts.
- Blackbush scrub occurs on dry, well-drained slopes and flats with shallow, often calcareous soils of very low water-holding capacity. This habitat type often coincides with Great Basin sagebrush scrub, Joshua tree woodland, or Pinyon and juniper woodlands, but typically at somewhat lower elevations, with a warmer and drier climate.
- Riparian habitat consists of shrubs and trees in the stream, with species in the willow (*Salix*) family and Fremont's cottonwood (*Populus fremontii*). Forbs include cattail (*Typha latifolia*), rushes (*Juncus ssp.*) and water cress (*Rorippa nasturtium-aquaticum*).

Botanical Management Area

The Caltrans Office of State Landscape Architecture established approximately 20 Botanical Management Areas throughout California. Botanical Management Areas are examples of California plant communities as they may have appeared hundreds and thousands of years ago before European settlement. The Botanical Management Area program identifies, studies, and manages State Highway right-of-way locations that are natural remnants of California's botanical diversity. One such Botanical Management Area resides within the proposed project limits: the Division Creek Botanical Management Area.

The site is located along a two-mile stretch of U.S. Highway 395 in Inyo County, on the west side of the Owens Valley, approximately 14.5 kilometers (9 miles) north of the town of Independence from kilometer post 132.6 to 135.8 (post mile 82.4 to post mile 84.4). The site consists of all Caltrans right-of-way on both sides of the existing highway between these post mile limits. The predominant plant communities at the Botanical Management Area are fourwing saltbush scrub and big sagebrush scrub, both of which are desert scrub communities. The Division Creek Botanical Management Area was nominated because of its location on a lava flow and its potential to contain special-status species and other soil-obligate type plants. The visual character of the Botanical Management Area is what distinguishes it apart from other regions of the Owens Valley. Section 3.1 of this document describes the qualities that make this project unique in terms of visual context.

3.3.1.2 Impacts

In all, a total of 60.5 hectare (149.5) acres would temporarily be disturbed during the construction of the proposed project. Activities associated with temporary ground disturbance include the following: fence rebuilding, utility relocation, construction staging, heavy equipment activity beyond the design catch points, and median grading. Areas under new shoulders and all new cuts and fills required by the proposed project are being considered permanent ground impacts. Overall construction of the proposed project would result in approximately 47.2 hectare (116.6 acres) of permanent ground disturbance within the project limits. No special status species were observed within the project study area. Construction of the proposed project would not have an impact on special status species (Table 3.1).

Habitat types

Temporary impacts to both saltbush scrub and blackbush scrub would total 60.5 hectare (149.5 acres). Permanent impacts to both saltbush scrub and blackbush scrub would total 47.2 hectare (116.6 acres) for the project as proposed.

Riparian habitat associated with Division Creek (0.008 hectare/0.02 acres) and Taboose Creek (0.02 hectare/0.05 acres) would be directly impacted in the form of permanent loss. Application of the recommended mitigation measures would minimize impacts to vegetation.

Botanical Management Area

No special status species were observed within the project study area. Impacts to the Botanical Management Area make up a portion of the impacts detailed above regarding habitat types. The botanical management area consist of the desert scrub plant communities that would be impacted by project construction between kilometer post 132.6 to kilometer post 135.8 (post mile 82.4 to 84.4).

The Site-Specific Management Plan for the Division Creek Botanical Management Area written in January of 2001 anticipated the proposal of this project. As such, short and long-term guidelines were established to minimize construction and maintenance disturbances to the botanical management area. Impacts to the management area would be minimized with application of the established guidelines and recommended mitigation.

3.3.1.3 Mitigation

Habitat Types

Caltrans Standard Duff Provision would be applied to the proposed project in efforts to mitigate temporary and permanent impacts to natural vegetation. This work shall consist of excavating, stockpiling, removing from stockpiles, spreading, and compacting duff to be placed on designated excavation and embankment slopes prior to applying erosion control measures. Duff shall consist of a mixture of soil and existing decomposed, chopped, broken or chipped plant material, leaves, grasses, weeds, and other plant material excavated from areas within the project limits.

Areas of disturbance would be kept to the minimal area necessary to construct the project. Environmentally Sensitive Areas would be utilized to control disturbances. In order to minimize the temporary impacts and prevent soil erosion a combination of storm water pollution prevention procedures and construction best management practices would be utilized when applicable. Areas of temporary disturbance would

be re-vegetated using a combination of grass, shrub, and tree species native to the area. Riparian areas would be re-vegetated in accordance with replacement ratios outlined within the 1601 Streambed Alteration Agreement to be obtained prior to construction. In the past these replacement ratios have varied from two for every one tree removed up to six for every one tree removed, based largely on the size of the trees being removed.

Botanical Management Area

The largest short-term challenge for the Botanical Management Area is to protect native vegetation as much as possible during construction. A primary way to preserve native vegetation during construction is to preserve the topography and vegetation of the future median as much as possible. Rather than grading the entire median, the middle section of the median (minus the area on either side that will be graded for shoulder and shoulder backing) would be left alone. Though leaving the median alone during construction may not be as convenient as grading it, once construction is completed,

- no resources will be needed to re-vegetate the median.
- there will be far less disturbed ground on which invasive non-native species are likely to colonize.
- a median with natural topography, including rock formations, is more scenic and will help decrease driver boredom, and
- the rolling topography of the median will help shield drivers from the headlights of oncoming traffic.

During construction, occasional roads crossing the median are constructed so that equipment can access the current road. Unless absolutely necessary, none of these roads would be built within the limits of the Botanical Management Area. The protection of native vegetation during construction would consist of the following activities when applicable:

- Educate all personnel who will be working on the construction or roadway maintenance projects about the Botanical Management Area's botanical resources, the guidelines designed to protect the resources, and their responsibility to follow the guidelines.
- Protect vegetation that will not be disturbed, including all vegetation in the future median, by fencing or flagging the area and marking it as a no-entry zone.

- Flag around the drip-lines of trees as no-entry zones.
- In areas where vegetation cannot be protected, remove and store topsoil, which contains the native seed bank and organic matter.
- Clean machinery when moving from an area containing non-native plants to the Botanical Management Area.
- Move excess soil to stockpile or dump sites rather than spreading it on existing vegetation.
- Borrow materials from sites free of non-native species.
- Locate borrow pits where native vegetation will not be disturbed.
- Prevent erosion.
- Place stockpile, dump, and borrow pit sites off of the Botanical Management Area.
- Designate vehicle and machinery parking sites where vehicles will create the least disturbance to native vegetation.
- Plan and mark vehicle and machinery turning points in areas where they will not disturb native vegetation.
- Restore the natural topography after construction.
- Replace the stockpiled topsoil in disturbed areas.
- Do not create any additional disturbance while cleaning up the construction area.
- Remove all litter and construction debris from the Botanical Management Area.

As outlined in the Site-Specific Management Plan for the Division Creek Botanical Management Area, it is the responsibility of the Caltrans Landscape Architect with the assistance of the Caltrans Resident Engineer assigned to the project to:

- Before construction begins, walk through the construction area and flag areas that should not be disturbed (which includes all vegetation that does not need to be removed for construction), the boundaries of construction activities, and official access roads,
- Communicate the construction guidelines with the construction project manager and the contractor.
- Hold a tailgate meeting with the contractor and construction workers to inform them about the guidelines and construction area limits, areas that should not be disturbed (no-entry zones), and access roads,
- Monitor (or confirm that another person is monitoring) to ensure that the guidelines are being followed during construction, and

- Before the contractor is officially signed off, inspect the site and be satisfied with its condition after post-construction clean up and rehabilitation is finished.

Persistent application of the management plan's guidelines would minimize any construction-related impacts to the Botanical Management Area, while preserving the visual qualities of this portion of U.S. Highway 395.

3.3.2 Wildlife

3.3.2.1 Affected Environment

A literature search and initial field surveys were used to obtain information relevant to the project. This literature review resulted in a list of special status species with the potential to occur in and around the project area (Armes 2003).

A list of federally listed, proposed, and candidate species dated January 9, 2003 was received for the proposed widening project, (Appendix D), from the U.S. Fish and Wildlife Service. Of these, only four were classified as 'Endangered'; one was classified as 'Threatened', and one was classified as 'Candidate species'. Table 3.1 depicts the species mentioned above plus those identified by the literature search.

3.3.2.2 Impacts

During the course of biological surveys special attention was given to all the species listed as potentially occurring within the project vicinity. Although some of these species have the potential to utilize the habitat within or near the project area (none were observed), based on survey results, provisions, and protocols no effects are expected to occur to any special status species as a result of this project. No special status species were observed within the project study area. Construction of the proposed project would not have an impact on special status species (Armes 2003).

Table 3.1: Federal and State Listed, Proposed, Candidate and Species of Concern within the Project Area.

Common Name	Species	Status	Impacts
Mammals			
Owens valley vole	<i>Microtus californicus vallicola</i>	FSC, CSC	None
California Big horn sheep	<i>Ovis canadensis californica</i>	FSC, ST	None
Birds			
Bald eagle	<i>Haliaeetus leucocephalus</i>	FT	None
Osprey	<i>Pandion haliaetus</i>	CSC	None
Long eared owl	<i>Asio otus</i>	CSC	None
Yellow breasted chat	<i>Icteria virens</i>	CSC	None
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	C, SE	None
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	FE, SE	None
Lest bell's vireo	<i>Vireo bellii pusillus</i>	FE	None
Fish			
Owens speckled dace	<i>Rhinichthys osculus</i>	FSC, CSC	None
Owens pupfish	<i>Cyprinodon radiosus</i>	FE, SE	None
Owens tui chub	<i>Gila bicolor snyderi</i>	FE, SE	None
Plants			
Inyo County star-tulip	<i>Calachortus encavatus</i>	FSC, CNPS 1B	None
Nevada oryctes	<i>Oryctes nevadensis</i>	FSC, CNPS 1B	None
Raven's milk vetch	<i>Astragalus monoensis v. ravenii</i>	FSC	None
Father Crowley's lupine	<i>Lupinus padre crowleyi</i>	FSC, CNPS 1B	None
Owens valley checkerbloom	<i>Sidalcea covillei</i>	FSC, SE	None
Geyer's milk-vetch	<i>Astragalus geyeri var. geyri</i>	CNPS 2	None
Naked milk-vetch	<i>Astragalus serenoii var. shockleyi</i>	CNPS 2	None
Ripley's gilia	<i>Gilia ripleyi</i>	CNPS 2	None
Sagebrush loeflingia	<i>Loeflingia squarrosa var. artemisiarum</i>	CNPS 1B	None
Narrow leaved cottonwood	<i>Populus angustifolia</i>	CNPS 2	None
Pinyon rock cress	<i>Arabis dispar</i>	CNPS 2	None
Darwin rock cress	<i>Arabis pulchra var. munciensis</i>	CNPS 2	None

FE=Federal Listed as Endangered

FT=Federal Listed as Threatened

FSC=Federal Species of Concern

C =Candidate species for which the Fish and Wildlife Service has on file sufficient information on the biological vulnerability and threats to support proposals to list as endangered or threatened.

SE= State Listed as Endangered

ST= State Listed as Threatened

CSC=California Species of Concern

CNPS 1B=California Native Plant Society listing for plants rare, threatened, or endangered in California.

CNPS 2= California Native Plant Society listing for plants rare, threatened, or endangered in California. But more common elsewhere.

3.4 Land Use

3.4.1 Affected Environment

Nearly all the adjacent land is classified as open-space and is owned by either the U.S. Bureau of Land Management or Los Angeles Department of Water and Power. There is only one improved parcel within the project limits. The Division Creek Roadside Safety Rest, owned and operated by Caltrans at kilometer post 135.2 (post mile 84.0), was constructed in 1975. It sits on the east side of the existing highway and, except for modifications to the entrance and exit roads, the rest area would not be affected by either build alternative. No other improvements exist within the project limits. Because the land is under public ownership, no additional improvements are expected for the foreseeable future.

The proposed project lies entirely within Owens Valley along the eastern side of the Sierra Nevada mountain range. Roadway elevations vary on or around the 1,158-meter (3,800-foot) contour as the road meanders northward. The topsoil is composed of lightweight volcanic matter, with scattered ridges and large fragments of hardened black ash, referred to locally as “Malapi” fields. This material has either flowed or been spewed from the several volcanic cones located in the region. The project’s name originates from the visual impact left behind by these prehistoric events.

The region surrounding this project is generally high desert with a semi-arid climate. The Owens Valley lies within the “rain shadow” of the Sierra Nevada Range, which accounts for the low moisture values. Of the six drainages present within the project limits, only one remains in its nature channel. Many have been altered by the Los Angeles Department of Water and Power for other beneficial uses.

Vegetation throughout the project area consists primarily of the typical high desert upland types of lightly scattered rabbit and sagebrush. Division Creek Ditch and Taboose Creek crossings contain the typical riparian scrub vegetation of willows, wild rose and/or cottonwood trees.

3.4.2 Impacts

The Inyo County General Plan includes a Circulation Element established in 1982. The Highways category states “It is the goal of Inyo County that the existing highway system be maintained or improved to provide for the safe and expeditious movement of people and goods.” It is the policy of Inyo County to:

- Realize that maintenance, rehabilitation, and reconstruction of the existing highway system have first call on available funds.
- Recommend operational improvements for safety and maximum service efficiency as a second priority.
- Support new highway facilities where, as compared with other alternatives, this is the most effective way to improve overall transportation system operations.
- Actively pursue methods and means to convert all of U.S. Highway 395 to a four-lane facility within the county.
- Support plans that propose multi-modal uses of the highway system.

This project, which would build the four-lane divided expressway, was included in the 2002 Federal Transportation Improvement Program. The proposed project would not impact any current or future land use plans and is consistent with the goals set forth in the Inyo County General Plan Circulation Element.

3.5 Social and Economic

3.5.1 Affected Environment

The proposed project lies in a rural area that is lightly populated. However, the project serves the communities in the eastern portion of Inyo and Mono counties, and is the primary traffic and transportation corridor supporting several cities and unincorporated communities. Encompassing more than 10,000 square miles, Inyo County is the second largest county in California. Surrounding counties include Mono County to the north, Fresno and Tulare counties to the west, and Kern and San Bernardino counties to the south; the state of Nevada lies to the east. Located relatively close to major tourist attractions, including Mammoth Mountain and Yosemite National Park, Inyo County has become a popular destination for fishing, hiking, and climbing, among other recreational activities. Death Valley, Kings Canyon and Sequoia National Parks are widely accessed from the Owens Valley. As a result, the tourism industry plays a major role in the county's economy.

3.5.1.1 Population

The 2000 Census data for Inyo County reflects a population of 18,000 residents. The largest city, Bishop, recorded a population of 3,600 residents in 2000, an increase of

3% over the 1990 Census figures. The population of Inyo County is projected to reach 20,700 by the year 2020, indicating growth of 15% over the next 20 years.

Census data reveals that the population is comprised of: 80.1% White; 0.2% Black or African-American; 10.0% American Indian and Alaska Native; 0.9% Asian; 0.1% Native Hawaiian and other Pacific Islander; 4.6% reported some other race; 4.1% reported two or more races. Approximately 12.6% of Inyo County's population reported being of Spanish or Latino origin; and approximately 74.4% reported being White, not of Hispanic/Latino origin.

3.5.1.2 Employment

The 2000 annual average employment statistics for the county shows that the civilian labor force is down slightly from 1999 to just over 7,100 workers. The annual average unemployment rate for 2000 was 5.6%. While higher than the state's rate of 4.9% for the same year, the unemployment rate in Inyo County has been steadily declining since 1996.

According to the 2000 annual average statistics, total employment is dominated by government, services, and retail trade industries. Government jobs accounted for the largest share, almost 35% of all employment. Services made up over 24% (over 1,800) of the total. Retail trade contributed 24% (over 1,800) of the total employment, with the majority of jobs in the "eating and drinking places" component.

Since 1996, unemployment rates in both Inyo County and neighboring Mono County have declined, indicating increased employment opportunities in the area. The Inyo County annual average unemployment rate has dropped a cumulative 2.8%, from a high of 8.4% in 1996 and a low of 5.6% in 2000.

3.5.1.3 Income

In 1998, per-capita personal income averaged \$23,468 in Inyo County. This income level is lower than the statewide average of \$28,172 for the same period. The average income per job in 1998 was \$25,123. The county shows a smaller incidence of poverty than for the state as a whole. In the county, 14% were reported below the poverty level, while the figure for the state was 16%.

From 1996 through 2000, wage and salary employment for Inyo County added 370 jobs, a cumulative growth of 5%. In 2000, the county added 30 jobs, posting growth in retail trade and manufacturing. Within retail trade, all new jobs were in the "eating and drinking places" component, reflecting growth in a tourist-based economy.

3.5.2 Impacts

3.5.2.1 Relocation Impacts

A Relocation Impact Study was prepared by Caltrans for the proposed alternatives. Due to the project's rural location, the estimates prepared for the project alternatives showed that no relocation assistance was necessary. There are no communities, residents, or structures residing within the project limits, except for a Caltrans rest area. Therefore, there would be no impact to owners, tenants, businesses or persons in possession of real property to be acquired who would qualify for relocation benefits under the Uniform Relocation Assistance and Real Property Acquisition Act of 1970.

A total of 8.232 hectares (20.34 acres) of additional right-of-way would be required for the proposed project. There is currently sufficient Caltrans right-of-way for 17.5 kilometers (10.87 miles) of the proposed 23 kilometers (14.29 miles) required for the project. The purchase of additional right-of-way would not affect the future land use designations of the project area.

3.5.2.2 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President Clinton on February 11, 1994, directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

The proposed project is located within a rural environment. There are no communities, residents, or structures residing within the project limits. No minority or low-income populations have been identified that would be adversely impacted by the proposed project as determined above. Therefore, this project is not subject to the provisions of E.O. 12898.

3.6 Historic and Archaeological Preservation

3.6.1 Affected Environment

Assorted survey efforts resulted in the identification of 37 cultural resources within the Black Rock project area. The Area of Potential Effect, defined for cultural resources, depicts the most expansive design of the three project alternatives and encompasses the areas of the other two alternatives. Construction activities associated with this alternative were incorporated into the Area of Potential Effect, which

extends up to 75 meters (246 feet) west and 25 meters (82 feet) east of the existing centerline throughout most of the project limits. These limits were derived from existing Caltrans right of way boundaries. In addition, construction activities could extend as far as 230 meters (755 feet) west and 60 meters (197 feet) east of the existing centerline at specific locations due to construction staging activities, intersection realignments, culvert/drainage improvements, and utility relocations.

The 37 cultural resources included 30 archaeological sites, six historic resources (water ditches and roads) and one building. None of these cultural resources had been previously determined eligible for the National Register of Historic Places. Two archaeological sites within the project Area of Potential Effect had been determined ineligible for the National Register of Historic Places by the State Historic Preservation Officer.

Based on evaluations conducted by Caltrans on the cultural resources identified within the project Area of Potential Effect, 10 archaeological sites were identified as possessing the qualities necessary to be considered eligible for listing on the National Register of Historic Places and for placement on the California Register of Historic Resources. During the evaluation of these 10 archaeological sites, the State Historic Preservation Office recommended that an additional seven sites be assumed eligible for inclusion in the National Register for the purposes of the present undertaking, bringing the overall total of eligible archaeological sites to seventeen. Of these seventeen sites only six would be adversely affected by the proposed project. The following is a description of these sites. The sites' prehistoric and/or historic components have been identified along with characteristics that attribute them as eligible/ineligible candidates for the National Register of Historic Places. Impacts to the sites vary from a minor disturbance of a specific location within a site, to multiple impacts over a large surface area, depending on the sites' size and location within the project's APE. For the remaining eleven sites, National Register of Historic Places contributing features will not be impacted by the project and therefore will be discussed in the mitigation section of this chapter.

CA-INY-5267

This prehistoric site is a moderate sized lithic scatter, which appears to be a seasonal encampment. Further investigation of the site revealed an expansive scatter of prehistoric materials that are spatially segregated into four separate areas within the site. Artifacts recovered from each are of variable type and abundance. Each

furnished sufficiently large collections of tools and flaking debris that could be used in evaluating changes in technology and raw material use over time.

Archaeological deposits at CA-INY-5267 retain much of their integrity and have the demonstrated potential to contribute information about the past, making the site of unquestionable research value. This site is eligible for the National Register of Historic Places under Criterion D.

CA-INY-5273/H

This large intermittent settlement site consists of four prehistoric and two historic components. The prehistoric component suggest a small lithic workshop area or temporary camp, while the historic component of the site is composed of domestic refuse and is likely the product of local, rural households.

Investigations at CA-INY-5273/H revealed an extensive deposit characterized by a general low-density scatter of cultural material with concentrations of flaked stone, groundstone, faunal bone, stone, shell, and bone beads, and pottery in variable combinations that comprise several clusters across the site.

The prehistoric archaeological deposits of CA-INY-5273/H retain much of their integrity and have demonstrated the potential to contribute information about the prehistory of the area. However, the historical deposits at the site have been systematically sampled and documented, and no longer have the potential to contribute additional information important to our understanding of the history of the area. CA-INY-5273/H therefore is eligible for the National Register of Historic Places under Criterion D for values associated with the prehistoric deposits; the historic deposits do not appear to contribute to this eligibility.

CA-INY-5275/H

Site CA-INY-5275/H is a large occupation site that contains distinct historic and prehistoric components. The historic component suggest that the site and surrounding land was occupied and used by local Paiutes through the historic period into the 1920s. The prehistoric component suggests a temporary camp or occupation area used for the maintenance or rejuvenation of tool stones.

Evaluations at the prehistoric component produced an extensive and varied assemblage characterized by a general low-density scatter of cultural material. The historic component exhibited undisturbed trash deposits and a detailed documentary

record of a local Paiute family, The Olds, who lived at the site from approximately 1870 to the 1920s.

Excavations revealed extensive and varied assemblages related to chronology, settlement, subsistence, and economic and sociopolitical organization, rendering the site eligible to the National Register of Historic Places. Site CA-INY-5275/H is therefore eligible for the National Register of Historic Places under Criterion D for both its prehistoric component and its historic component relating to the Olds family.

CA-INY-5276

This site is a moderate-sized occupation site with associated flaked and groundstone tool debris. The site identified discrete concentrations of artifacts, A, B, and C, to the west of the highway, and a large, more general scatter of artifacts to the east of the highway. Concentrations A and B lie within the Area of Potential Effect and are vulnerable to highway construction. Concentration C lies outside of the Area of Potential Effect and will not be impacted by the build alternatives.

While portions of the site have been severely impacted by previous road construction, it is clear that large portions of the site retain integrity and can address an array of research themes, including paleoenvironmental reconstruction, refinement of existing cultural chronologies, settlement and mobility, subsistence intensification, economic and sociopolitical organization, and site formation processes. CA-INY-5276 is eligible for the National Register of Historic Places under Criterion D.

CA-INY-5873/H

This is a relatively small prehistoric and historic archaeological site. Roughly a quarter of the site, 1300 square meters (0.32 acres) falls within the Area of Potential Effect as currently defined. Phase II investigations identified two cultural components. Surface deposits are characterized by historic era Native American remains and traces of prehistoric material. Beneath this, at depths below 30 centimeters (11.8 inches), is a second prehistoric component dating to the Newberry Period. The historic component appears to be part of a larger historic activity area associated with an old ranching or fruit growing operation, while the prehistoric components suggests periodic usage as a temporary campsite.

Given the vertical separation of the two components, the Newberry remains offer an unusual opportunity to expand and refine our understanding of this critical interval in the culture history of the Eastern Sierra, where only a handful of sites dating to this

period have been investigated. Of particular interest in this regard are issues relating to the chronology, settlement mobility, and subsistence patterns of Newberry populations, leading up to the seemingly explosive intensification in land use beginning around 1300 BP. Meanwhile, the historic era refuse can be used to explore subsistence, technological, and other behavioral changes brought about by the rapid acculturation of native Paiute peoples as they were incorporated into the dominant Euroamerican economy in the late 19th and early 20th century. In short, the integrity and data potential hold great promise to contribute information on a variety of currently outstanding issues on the prehistory and history of the Inyo/Mono region. CA-INY-5873/H is eligible for the National Register of Historic Places under Criterion D.

CA-INY-5877

This moderate sized prehistoric site contains a diverse set of cultural remains identifying it as a residential encampment used for various purposes and likely occupied by inclusive social units. While the presence of groundstone, pottery, and limited amounts of paleobotanical remains implies some vegetal processing, recovery of projectile points, bifaces, and animal bones suggest an emphasis was also placed on hunting activities.

The late prehistoric interval in Owens Valley was marked by dramatic changes in resource and habitat use, the organization of technology, and the nature of social formations. Intact and varied archaeological deposits of the sort preserved at CA-INY-5877 are crucial to developing and refining models concerning the mode and tempo of these cultural adjustments. Despite some disturbances to the site periphery, the deposit retains excellent structural differentiation, and contains a host of data pertinent to issues of settlement and mobility, subsistence intensification, and economic and sociopolitical organization. CA-INY-5877 is eligible for the National Register of Historic Places under Criterion D.

Architectural Resources

Initial field survey of the project area revealed the presence of only one building in the project vicinity: the Division Creek Rest-Stop building. Built in 1966, this building was evaluated as not eligible to the National Register of Historic Places by Caltrans Architectural Historian Robert Pavlik in December of 1999. The proposed project would not result in any impacts to architectural resources.

3.6.2 Impacts

Caltrans and consultants conducted cultural resource studies between 1996 and 2001. Cultural resource surveys were performed specifically for the Black Rock project in 1999 and 2000 and were supplemented by previous district-wide cultural surveys and the Fish Springs Four-Lane project surveys.

Cultural resource studies were done to comply with Section 106 of the National Historic Preservation Act and Section 15064.5 (a)(2)-(3) of the guidelines for the California Environmental Quality Act. The Historic Properties Survey Report presents a summary of the 30 archaeological sites, six historic sites, and one architectural site located within the Area of Potential Effect.

The State Historic Preservation Office concurred on November 13, 2002, that the ten potentially eligible archaeological sites identified by Caltrans, CA-INY-5267, CA-INY-5273/H, CA-INY-5275/H, CA-INY-5276, CA-INY-5281, CA-INY-5285/H, CA-INY-5873/H, CA-INY-5874, CA-INY-5875, and CA-INY-5877, are eligible for inclusion in the National Register of Historic Places according to Criterion D. Criterion D applies to properties that have yielded or are likely to yield information important to prehistory or history. The State Historic Preservation Office also recommended that sites CA-INY-3796, CA-INY-5277, CA-INY-5278, CA-INY-5812H, CA-INY-5871, CA-INY-5876, and CA-INY-5884 be assumed eligible for the purposes of the present undertaking (Appendix E). In all, sixteen archaeological sites and one non-archaeological historic-period site have been identified as being eligible for inclusion in the National Register of Historic Places. The State Historic Preservation Office also concurred that the remaining 14 archaeological sites, five historic sites, and one architectural resource (Division Creek Roadside Rest Area) were not eligible for the National Register of Historic Places.

Construction related impacts to cultural sites identified within the Area of Potential Effect would total approximately 6.32 hectare (15.64 acres). Of the total 60.5 hectare (149.5 acres) anticipated to be impacted by project construction, only 10.4 % of this area is comprised of cultural sites found within the project's APE. Construction activities associated with the addition of two new southbound lanes would adversely affect portions of sites: CA-INY-5267, CA-INY-5273/H, CA-INY-5275/H, CA-INY-5276, CA-INY-5873/H, and CA-INY-5877. Application of the proposed mitigation measures outlined in Section 3.6.3 would minimize impacts to cultural resources.

CA-INY-5267

The proposed build alternatives would impact approximately 0.982 hectare (2.427 acres) which is roughly 11.7% of the total site area and only 1.6% of the total ground disturbance for the entire length of the project.

CA-INY-5267 would be impacted by a proposed highway fill section with a maximum height of 1-meter (3.3-feet) at this location. Of the four artifact concentrations identified within the site, two lie safely outside the project impact area. Consequently, no further work is necessary at either of these locations. The limited amount of archaeological data available from the sparse surface/near-surface scatter comprising the third concentration was substantially collected during test evaluations. Therefore, further work at this location would contribute nothing of importance about the past and additional treatment is unwarranted.

Only one concentration of artifacts should be impacted by the build alternatives. Most of this location would be disturbed or destroyed during construction, resulting in only a small portion remaining outside the project impact area.

CA-INY-5273/H

CA-INY-5273/H would be impacted by a proposed highway cut section with a maximum depth of 1 meter (3.3 feet) at this location. Relocation of a fiberoptic line to the east of the right-of-way fence on the east side of the existing facility would physically damage a small portion of the site (3.4%), which has been determined as contributing to its National Register of Historic Places eligibility. The rest of the contributing elements of the site are located outside of the project impact area. Impacts associated with construction of the new facility have been estimated to be 0.866 hectare (2.141 acres), approximately 1.4% of the total impact for the entire length of the project.

CA-INY-5275/H

CA-INY-5275/H would be impacted by a proposed highway fill section at this location. Construction activities and the re-channeling of Taboose Creek would physically damage prehistoric portions of the site, which are not contributing to the National Register of Historic Places eligibility. These activities would also physically damage historical features that have been determined as contributing to the National Register of Historic Places eligibility. Impacts to site CA-INY-5275/H are estimated to be 3.295 hectare (8.142 acres). Total impact amounts to 6.8 % of the total historic

component area, much of which lies west of the existing alignment. Total site impact represents 5.4 % of the total impact for the entire length of the project.

CA-INY-5276

A proposed highway fill section at this location would impact CA-INY-5276. Construction activities would physically damage portions of Concentration A and B along with areas to the east of the highway, which have been determined as contributing to the National Register of Historic Places eligibility of the site. Concentration C lies outside of the Area of Potential Effect and would not be impacted by the build alternatives. Construction related impacts to site CA-INY-5276 would total 0.54 hectare (1.334 acres), or 9% of the total site area. Total site impact represents 0.9 % of the total impact for the entire length of the project.

CA-INY-5873/H

A proposed highway fill section at this location would impact CA-INY-5873/H. Construction activities would damage the eastern portion of the site, which has been determined as contributing to the National Register of Historic Places eligibility of the site. A total of 0.003 hectare (0.007 acres) are expected to be disturbed during construction which constitutes only 0.3 % of the total site area. Total site impacts represent 0.004 % of the total impact for the entire length of the project.

CA-INY-5877

The site would be impacted by a proposed highway fill section at this location. Construction activities, relocation of Division Creek (piped in this location), and reconfiguring of utility access roads would physically damage portions of the site which have been determined as contributing to its National Register of Historic Places eligibility. A total of 0.52 hectare (1.285 acres) would be impacted by construction of the proposed project, which represents about 99.2 % of the total site area. Total site impact represent 0.85 % of the total impact for the entire project.

3.6.3 Mitigation

Avoidance is the preferred method of treating sites eligible for the National Register of Historic Places, however, due to the high number of cultural sites located near the Area of Potential Effect of the proposed project this does not seem possible in many instances. When possible, avoidance was implemented. Design considerations and establishment of Environmental Sensitive Areas on the Area of Potential Effect

boundary would prevent adverse effects to CA-INY-3796, CA-INY-5277, CA-INY-5278, CA-INY-5281, CA-INY-5285/H, CA-INY-5812H, CA-INY-5871, CA-INY-5874, CA-INY-5875, CA-INY-5876, and CA-INY-5884. Data recovery would not be necessary for these sites. Portions of the properties lying outside the Area of Potential Effect would be protected from construction activities by ESA fencing. The proposed project would adversely affect the remaining six sites, including CA-INY-5267, CA-INY-5273/H, CA-INY-5275/H, CA-INY-5276, CA-INY-5873/H, and CA-INY-5877.

A Finding of Adverse Effect (FOAE) and Memorandum of Agreement (MOA) with the Data Treatment Plan are currently being prepared for the project which would include sites CA-INY-5267, CA-INY-5273/H, CA-INY-5275/H, CA-INY-5276, CA-INY-5873/H, and CA-INY-5877. These documents would state that the proposed project would have an adverse impact on these sites, and recommend appropriate mitigation measures to be implemented. Impacts to the affected sites would be mitigated by the tasks defined in the Data Treatment Plan. A Finding of Adverse Effect/Memorandum Of Agreement/Data Treatment Plan would be submitted to the State Historic Preservation Office (SHPO) for review and comment prior to the final environmental document being approved. The recommended mitigation measures for each site adversely impacted are listed in Table 3.2.

Table 3.2: Site Impacts and Proposed Mitigation

Site	Impact Area in Ha (Acres)	Mitigation
CA-INY-5267	0.982 (2.427)	ESA, Data Recovery, Monitoring
CA-INY-5273/H	0.866 (2.141)	ESA, Data Recovery, Monitoring
CA-INY-5275/H	3.295 (8.142)	ESA, Data Recovery, Monitoring
CA-INY-5276	0.54 (1.334)	ESA, Data Recovery, Monitoring
CA-INY-5873/H	0.003 (0.007)	ESA, Data Recovery, Monitoring
CA-INY-5877	0.52 (1.285)	Data Recovery, Monitoring
Total	6.206 (15.336)	

ESA= Environmental Sensitive Area protected by fencing.

Information received to date indicates these archaeological sites do not warrant preservation in place because the sites appear to be important chiefly for what can be learned through data recovery.

The project impact to the historic/prehistoric sites would be mitigated under the terms of a Memorandum of Agreement (MOA)/Data Treatment Plan. The Finding of

Adverse Effect describes the establishment of Environmentally Sensitive Areas, as well as data recovery excavations with associated reporting, publication of findings, and public outreach. The MOA/Data Treatment Plan and the Finding of Adverse Effect would be submitted for SHPO concurrence prior to the final environmental document approval.

Standard Caltrans procedures require that if previously unidentified cultural resources are encountered during clearing or construction, work will cease in that area until the requirements of 36 CFR 800.13 have been met. The discovery of an unknown resource during construction is to be reported immediately to the Resident Engineer, who would order work in the area of the resource stopped and would give notice to the appropriate agencies to evaluate the importance of the site. If the findings are substantial and construction work cannot continue without conducting more extensive investigation, the District Environmental Branch would advise the Resident Engineer.

3.7 Geology and Soils

3.7.1 Affected Environment

The project area is located within the Basin and Range Geologic Province of California. This province is a series of horst and graben extensional features that are oriented in a general north-south direction. The Sierra Nevada and Inyo-White Mountains are rising with respect to the Owens Valley that is dropping along normal faults located on the east and west sides of the valley. Numerous alluvial fans have formed and are forming at the base of these mountain ranges along the edges of the valley.

The area through which the proposed project would be built is underlain by a thick sequence of quaternary alluvium that is overlain by quaternary lava flows in three areas. The lava flows originated near the base of the Sierra Nevada Mountains to the west of the project and flowed across the alluvium toward the east. At the north end of the project, granodiorite rock is exposed in an existing road cut. The soils in the alluvial areas can be classified as poorly sorted silty sand, sand, and gravel with scattered to abundant cobbles and boulders.

3.7.2 Impacts

The project is located in a seismically active area. Available geologic information indicates the presence of an active fault near the project area. The geologic processes

that have caused earthquakes in the past can be expected to continue. The Sierra Nevada-Owens Valley Fault, the White Mountain Fault, and the Independence Fault lie closest to the project. The risk of a strong earthquake, while low, is not to be ignored. A strong earthquake could introduce ground rupture to areas of Bishop, Big Pine, and Lone Pine. Strong ground shaking would occur throughout the valley.

An earthquake measuring 7.8 took place along the Sierra Nevada-Owens Valley Fault in 1872. Several traces of this fault have been mapped under the Alquist Priolo Earthquake Fault Zoning Act near the project site. The fault roughly parallels the alignment of this project approximately five to six kilometers (3 to 3.7 miles) to the east of the present alignment from the south end of the project north to Black Rock. From Black Rock to the north the fault approaches the alignment finally crossing the existing alignment at kilometer post 144.61 (post mile 90). The Sierra Nevada-Owens Valley fault is considered active because of recent movement. A fault is considered by the State of California to be active if geologic evidence indicates that movement on the fault has occurred in the last 11,000 years, and potentially active if movement is demonstrated to have occurred in the last 2 million years.

The White Mountain fault has been mapped within 2 kilometers (1.2 miles) to the east of the project near kilometer post 144 (post mile 89). The Independence Fault is located approximately 10 kilometers (6.2 miles) to the south of the project limits.

Ground shaking is the primary cause of structural damage during an earthquake and is considered one of the most likely damage-producing phenomena for this project. The magnitude, duration, and vibration frequency characteristics will vary greatly, depending on the particular causative fault and its distance from the project. It is also reasonable to assume that surface rupture may occur near or within this project site in the future if a moderate or large earthquake on the Sierra Nevada-Owens Valley Fault occurs. Due to the location of the fault relative to the various project alternatives, this potential cannot be entirely avoided. However, this potential also exists for the existing U.S. Highway 395 and therefore the proposed project does not generate a new hazard exposure. The lower the heights of embankments and more shallow the depths of proposed cuts, the easier it will be to repair damage caused by either ground rupture or shaking. The project as proposed would not have an impact on people or structures regarding exposure to geologic processes of the Owens Valley.

3.8 Hazardous Waste Sites

3.8.1 Affected Environment

An Initial Site Assessment was performed for the proposed project. A review of past construction projects and a check of Inyo County records through this region indicated ranching and livestock grazing have been the only land uses within project limits.

In 1996, the Caltrans removed an underground storage tank from the existing right-of-way near kilometer post 140.8 (post mile 87.5). The fuel tank was from the old Taboose Creek Ranch, which Caltrans had purchased for a 1960 roadway improvement project. The tank was located on the “as built” plan sheets, found in the field and then removed by contract. A “Letter of Closure” from Inyo County was issued for the site in August 1996.

Without any other indications of past land uses, which could lead to potential hazardous waste locations, Caltrans concludes that no further site investigation activities would be anticipated as there are no known hazardous waste locations within the project limits. If additional information were disclosed to the contrary, further action would be taken.

3.9 Water Quality

3.9.1 Affected Environment

Six creeks lie within the project limits: Thibau, Sawmill, Division, Goodale, Taboose, and Black Canyon Creek. Only Taboose Creek at kilometer post 140.8 remains in its original channel and has been left relatively unaltered by the Los Angeles Department of Water and Power over the years.

Division Creek, Taboose Creek, and Goodale Creek would be the only creek crossings affected by the proposed project. To prevent quality degradation or flow disruptions downstream, close coordination with Los Angeles Department of Water and Power would be mandatory for all three.

3.9.2 Impacts

At Division Creek, Taboose Creek and Goodale Creek, construction activities could create short-term impacts from storm-related soil erosion or equipment intrusion.

Sensitive downstream beneficial uses, such as the Los Angeles Aqueduct and more importantly the Black Rock Fish Hatchery, could be affected by sediment transport and/or increased turbidity (water murkiness). Poor culvert design or channel realignment could result in long-term soil erosion.

Work in and around Division, Taboose and Goodale creeks must conform to the requirements of Best Management Practices as outlined in the Regional Water Board previously-issued Board Order No. 6-87-57. These, along with a Fish and Game 1601 permit, the enforcement of the Caltrans Standard Specifications, Section 7-1.01G and implementation of a Storm Water Pollution Prevention Program, should provide sufficient controls to prevent any short-term impacts during construction.

Potential long-term impacts from ongoing erosion problems could be minimized by vegetating all disturbed soil areas on the project. The following long-term controls should be incorporated into the project:

1. The invert of the Taboose Creek crossing must be placed 1.0 foot below the flow-line or baffles must be placed on the invert to allow fish to pass.
2. Overside drains should either be pipe- or rock-lined ditches extending to the toe of the slope and not dumped directly into any creek channel.
3. Overside drains must be dumped into rock-lined sediment or catch basins.
4. Lost riparian habitat should be replaced, in kind, on the same waterway at a ratio of 1 to 1.
5. All culverts, new or extended, should have special treatment at both ends — this could range from PCC headwalls, flared-end sections and/or rock slope protection.
6. There would be minimum use of dikes at roadway edges to avoid concentrated runoff flows.

With long-term controls incorporated into the contract and short-term controls enforced properly during construction, there would be no impacts to the water-related issues of the proposed project.

3.9.3 Mitigation

The proposed project is covered by the Caltrans Statewide National Pollutant Discharge Elimination System Permit No. CAS000003 (SWRCB No. 99-06-DWQ). This construction stage permit requires a written Storm Water Pollution Prevention

Plan for projects that involve disturbance of more than five acres of native ground, or other projects that could potentially affect streams and freshwater aquifers.

Presently, when the project is expected to disturb more than five acres of soil, the following is required:

1. A Notification of Construction (NOC) is to be submitted to the appropriate Regional Water Quality Control Board at least 30 days prior to the start of construction. (The NOC is usually prepared and submitted by the project engineer.) The NOC form requests a tentative start date and duration, location, description of project, estimate of affected area, name of resident engineer (or other construction contact) with telephone number, etc.
2. A Storm Water Pollution Prevention Plan is to be prepared and implemented during construction to the satisfaction of the resident engineer.

Potential impacts (erosion, accidental spills of hazardous materials and disruption of natural drainage patterns) to water quality during construction would be addressed in both the design and construction phases. During the construction phase, the contractor is responsible, as stated in the Caltrans Standard Specification Section 7-1.01G, for submitting a comprehensive plan outlining steps to eliminate potential impacts during construction. The plan must address and delineate in detail how the contractor intends to alleviate potential impacts to water quality during construction. For this project, the Storm Water Pollution Prevention Plan mentioned in this section would satisfy this requirement.

A Notice of Construction Completion (NOCC) is to be submitted to the Regional Water Quality Control Board upon completion of the construction and stabilization of the site. A project would be considered complete when the criteria for final stabilization in the State General Construction Permit is met.

3.10 Floodplain

3.10.1 Affected Environment

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations 650 subpart A.

A 100-year floodplain is defined as “the area subject to flooding by the flood or tide having a 1% change of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the 100-year floodplain.”

3.10.2 Impacts

The proposed project crosses six creeks within the project limits. Of these, only one still remains in its original, natural channel. The other five have all been altered by the Los Angeles Department of Water and Power for other uses. The Los Angeles Aqueduct eventually intercepts each of these creeks for export south or spread for percolation and groundwater enhancement.

The Owens River is parallel and east of the existing highway. The river is diverted into the Los Angeles Aqueduct at about kilometer post 138.2 (post mile 85.9). The proposed project is well outside the limits of the Owens River floodplain. The proposed highway drainage would be designed to convey the 100-year flow without raising the elevation of the 100-year floodplains for the creeks and drainage channels within the project limits.

The proposed project does not consist of a longitudinal encroachment or an encroachment on a 100-year floodplain because it does not result in flooding risks, impact to natural floodplain values, or potential for interruption or termination of a transportation facility in the event of flooding. The proposed highway project would not support incompatible floodplain development.

3.11 “Other Waters” of the United States

3.11.1 Affected Environment

No U.S. Army Corps of Engineers jurisdictional wetlands, as defined in the 1987 Army Corps of Engineers Wetlands Delineation Manual, exists within the project limits. No wetlands would be affected as a result of this project.

Jurisdictional “Other Waters” of the United States, as defined by the Clean Water Act (33 USC 1344), exist within the project limits. USGS Quad Maps indicate several small drainages exist within project limits: Thibau Creek (kilometer post 127.0/post mile 78.9), Sawmill Creek (kilometer post 130.3/post mile 80.9), Division Creek (kilometer post 135.2/post mile 84), Goodale Creek (kilometer post 138.2/post mile 85.8) and Taboose Creek (kilometer post 140.8/post mile 87.5). Because of various

Los Angeles Department of Water and Power controls, Taboose Creek contains the only unrestricted, natural-flowing creek of the project. A sixth creek, Black Canyon (kilometer post 129/post mile 80.2), flows intermittently.

Near kilometer post 127.0 (post mile 78.9), the roadway crosses a conduit containing Thibau Creek. The Los Angeles Department of Water and Power now picks up the flow in a conduit well above the roadway and takes it directly into the aqueduct, 1.2-kilometers (0.75-mile) downstream and east of the highway.

At kilometer post 130.3 (post mile 81.0), Sawmill Creek, a perennial flow, crosses U.S. Highway 395 in a 600-millimeter (24-inch) conduit. Like Thibau Creek, Sawmill is intercepted well above the roadway and taken directly into the aqueduct to the east. No identifiable, natural channel was noted within the project area.

At kilometer post 135.2 (post mile 83.9), the intermittent flow of Division Creek crosses the roadway. The water is dumped from a large 900-millimeter (36-inch) conduit just west of the existing highway, but outside the project limits. This is the tail water from a powerhouse about two miles upstream. The water dumps into a man-made ditch where it is carried past the Caltrans Roadside Rest Area, through the state-owned Black Rock Fish Hatchery about 1.2 kilometers (0.75 mile) to the east and on into the aqueduct just beyond the hatchery.

Goodale Creek crosses U.S. Highway 395 near kilometer post 138.2 (post mile 85.9). The perennial creek has been diverted into a concrete-lined ditch, "Aberdeen Ditch," well upstream from the highway and is carried directly in the aqueduct about 0.6 kilometer (1.0 mile) east of the existing highway.

Taboose Creek crosses the highway near kilometer post 140.8 (post mile 87.5). This perennial flow is the only unaltered channel within the project limits. The flow is picked up in a ditch and carried to the aqueduct about 0.6 kilometer (1 mile) east of the highway.

West of kilometer post 129 (post mile 80.0), Black Canyon Creek flows as an intermittent stream. Estimates as high as 0.28 cubic meters per second (10 cubic feet per second) are mechanically spread west of the existing highway for groundwater recharge by Los Angeles Department of Water and Power.

All six creeks emanate out of the Sierra Nevada range and flow west to east. Each is intercepted by the Los Angeles Department of Water and Power aqueduct for export south or spread for percolation and groundwater enhancement. There are no wetlands

adjoining any of these flows, and only Taboose Creek contains naturally-occurring riparian habitat. The wetted perimeter of the Division Creek conduit outlet ditch also contains riparian habitat.

3.11.2 Impacts

A total of 0.1 hectare (0.262 acre) of permanent streambed impact to “Other Waters” of the United States would result from the proposed project. Table 3.3 summarizes the location, the type of waterway, the area of riparian and streambed impact, volume of fill, and volume of rock slope protection to be placed.

Table 3.3: Impacts to “Other Waters” of the United States (Ha/Acres)

KP (PM)	Feature	Disturbed Area in Hectare (acres)		Volume of Fill in Channel M ³ (ft ³)	Volume of RSP M ³ (ft ³)
		Permanent	Temporary		
125.8 (78.19)	Dry Wash	0.03 (0.074)	0.055 (0.135)	150 (5,297)	110 (3,884)
128 (79.59)	Dry Wash	0.036 (0.088)	0.043 (0.106)	60 (2,188)	100 (3,531)
134.9 (83.88)	Division Creek	0.025 (0.061)	0.032 (0.079)	70 (2,472)	100 (3,531)
140.8 (87.53)	Taboose Creek	0.016 (0.039)	0.021 (0.051)	50 (1,765)	120 (4,237)
138.2 (85.90)	Goodale Creek	0	0.016 (0.039)	0	0
Totals		0.107 (0.262)	0.167 (0.41)	330 (11,653)	430 (15,185)

(M³) = Cubic Meters

Ha = Hectare

RSP= Rock Slope Protection

Two dry washes contain water only during periods of storm runoff. Division Creek and Taboose Creek are perennial streams and contain associated riparian vegetation and habitat. Division Creek, Taboose Creek and Goodale Creek are the only creek crossings that would require extra attention. The other three crossings are either in a conduit or never reach U.S. Highway 395.

Goodale Creek traverses the State right-of-way in a concrete lined ditch; the natural watercourse has already been permanently disturbed. Therefore, no further permanent disturbance to Goodale Creek would occur during the construction of the project. In order to construct a permanent culvert under the proposed highway lanes, Caltrans engineers would create a temporary diversion. The diversion would consist of placing a temporary culvert or the grading of a temporary channel parallel but offset to the existing concrete ditch. The existing concrete ditch would eventually be

breached allowing Goodale Creek to flow into the temporary diversion and thus de-water the existing ditch for the construction of the new highway culvert. It is estimated that the temporary disturbance limited to the extent of the high water line caused by the construction of the new culvert and the temporary diversion system would amount to 160 m².

3.11.3 Mitigation

The following permits would encompass all five drainages summarized in Table 3.3:

- Clean Water Act Section 401, Water Quality Certification, would be required from the Regional Water Quality Control Board.
- Clean Water Act Section 404 Permit. Based on specifications provided by the project engineer, the project would be within the threshold of a Nationwide Permit #14 Road Crossings and #33 Temporary Construction and Access.
- A Section 1601 Streambed Alteration Agreement, California Department of Fish and Game, would be processed for the project.

To compensate for any loss of habitat or value to the existing waterways and associated riparian vegetation, a combination of invasive species eradication, habitat enhancement, and preservation of existing habitat would be used. Riparian areas would be re-vegetated in accordance with the 1601 Streambed Alteration Agreement, to be obtained before construction.

All special provisions presented and agreed to by the involved agencies (Department of Fish and Game, Army Corps of Engineers, U.S. Fish and Wildlife Service) or as part of an agreement to terms outlined in any required permit, including provisions, pre-construction surveys, or mitigation would be strictly complied with.

3.12 Noise

3.12.1 Affected Environment

One noise receptor lies within the limits of this project. That site, the Caltrans Division Creek Roadside Rest facility, sits next to the existing highway east of kilometer post 135.2 (post mile 84.0). This facility does not meet the criteria for a noise-sensitive land use and, therefore, would not require any special noise abatement attention.

There is no need for any existing noise level testing or future projections for either build alternative. Therefore, there would be no impacts from noise levels if the proposed project were constructed.

3.13 Construction

A Traffic Management Plan should not be required for Alternatives 1 or 2. Traffic can remain on the existing highway during construction of the new lanes and then be routed onto the new lanes during improvements to the existing lanes. Provisions would be made for staging construction for purposes of constructing new lanes, improving existing lanes and safe traffic movement.

During construction, the proposed project would generate temporary noise, dust, and air pollutants. Exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. However, the largest percentage of pollutants would be windblown dust generated during excavation, grading, hauling, and various other activities. Portable concrete batch plants are associated with this project. The operator of these plants would comply with all environmental requirements. The impacts of these activities would vary each day as construction progresses.

Caltrans Standard Specifications pertaining to dust control and dust palliative requirement are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1 of “Air Pollution Control” and Section 10 “Dust Control” require the contractor to comply with the Unified Air District’s rules, ordinances, and regulations.

With all the appropriate Caltrans measures in place, temporary construction-related impacts would be minimized.



Chapter 4 Cumulative Impacts

The proposed project by itself is not expected to measurably accelerate growth in the study area. Construction of a build alternative would not be expected to shift growth from one area to another within Inyo County. No growth-inducing impacts would be expected to result from these improvements, if approved.

The proposed project is consistent with the goals of the Inyo County Regional Transportation Plan to actively pursue methods and means to convert all of U.S. Highway 395 to a four-lane roadway within the county. Because of existing constraints imposed by environmental resources, the priorities of applicable land use policies, land ownership, and the lack of adequate existing infrastructure capacity (such as water and sewer lines to undeveloped properties); the project by itself is not expected to accelerate growth in the study area. However, together with other current and planned highway improvement projects in the region, the project could result in minor cumulative pressures for growth in the greater region.



Chapter 5 **List of Preparers**

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Appendix A Environmental Checklist

One of the basic purposes of the California Environmental Quality Act (CEQA) is to inform state, regional and local governmental decision makers and the public of impacts of proposed activities, and in particular, those impacts that are either significant or potentially significant.

Determining and documenting whether an activity may have a significant effect on the environment plays a critical role in the CEQA process. The following CEQA Environmental Significance Checklist is a device that was used to identify and evaluate any potential impacts from the proposed activity on physical, biological, social and economic resources. This checklist is not a National Environmental Policy Act (NEPA) requirement.

Differences do exist in the way impacts are addressed in CEQA environmental documents as compared to NEPA environmental documents. While CEQA requires that environmental documents state a determination of significant or potentially significant impacts, as has been done in the following CEQA checklist, NEPA does not. It can be seen that having to address significant or potentially significant impacts in joint CEQA and NEPA environmental documents can be confusing especially in those instances where the two laws and implementing regulations have different thresholds of significance.

Under NEPA, the degree to which a resource is impacted is only used to determine whether a NEPA Environmental Impact Statement (EIS) or some lower level of NEPA documentation would be required. Under NEPA, once the Federal agency has determined the magnitude of the project impacts and the level of environmental documentation required, it is the magnitude of the impact that is evaluated in the environmental document and no judgment of its degree of significance is deemed important in the document text. For the purpose of the impact discussion in this document, determination of significant or potentially significant impacts is made only in the context of CEQA. Although not explicitly identified in this document, impacts in the context of NEPA can be assumed to be minimal or non-existent.

Based on the results of the technical studies, it has been determined that the appropriate level of CEQA environmental documentation for this project is an Initial Study/Negative Declaration.

The following checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. The CEQA impact levels include potentially significant impact, less than significant impact with mitigation, less than significant impact, and no impact. Please refer to the following for detailed discussions regarding impacts:

CEQA:

- Guidance: Title 14, Chapter 3, California Code of Regulations, Sections 15000 et seq. (http://www.ceres.ca.gov/topic/env_law/ceqa/guidelines/)
- Statutes: Division 13, California Public Resource Code, Sections 21000-21178.1 (http://www.ceres.ca.gov/topic/env_law/ceqa/stat/)

In many cases, background studies performed in connection with the project indicate no impacts. A “no impact” under CEQA reflects this determination.

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

AESTHETICS - Would the project:

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

CULTURAL RESOURCES - Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Cause a substantial adverse change in the significance of a historical resource as defined in | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

§15064.5?

- | | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

HAZARDS AND HAZARDOUS MATERIALS -

Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

HYDROLOGY AND WATER QUALITY - Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

LAND USE AND PLANNING - Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

TRANSPORTATION/TRAFFIC - Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

UTILITIES AND SERVICE SYSTEMS - Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

MANDATORY FINDINGS OF SIGNIFICANCE -

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CEQA			
Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact

will cause substantial adverse effects on human beings, either directly or indirectly?



Appendix B Coordination and Consultation

The following agencies and organizations were consulted and coordinated with during the project development:

- **Bureau of Land Management.** Formal and informal consultation with the Bureau of Land Management has been initiated and maintained through all stages of the cultural resources identification/evaluation efforts.
- **California Department of Fish and Game.** Caltrans entered into consultation with the department regarding the proposed project impacts upon California listed species. A 1601 Streambed Alteration Agreement would be needed for construction activities near Division Creek and Taboose Creek to ensure maximum protection of riparian habitats affected by the proposed project.
- **City of Los Angeles Department of Water and Power.** The Department of Water and Power has been informed of the proposed project chiefly through Caltrans engineering staff, who have actively consulted with the department regarding engineering issues, such as the relocation of such features as the Department of Water and Power wells and access roads. Permission to excavate archaeological sites on the department's lands was obtained by Caltrans Right-of-Way staff.
- **Eastern California Museum in Independence.** A letter from Caltrans informed the museum directors of the proposed project and requested that they share any concerns they may have regarding the effects of the proposed project on historic-period resources. A second letter shared the findings of inventory studies, and similarly requested comments or concerns regarding the effects of the proposed project on historic-period resources.
- **Native American Coordination.** Documentation of Native American coordination between the Ft. Independence Indian Reservation and the Big Pine Paiute Tribe of the Owens Valley is provided in the Archaeological Survey Report and the Phase II Report for the Aberdeen/Black Rock Four-Lane Project. A proposed data recovery program would be implemented in accordance with a Memorandum of Agreement (MOA) among the Federal Highway Administration and the California State Historic Preservation Officer. The MOA would stipulate

that Native Americans be afforded the opportunity to monitor archaeological investigations.

- **Native American Heritage Commission and the Inyo County Coroner's Office.** After human remains were encountered, the commission and the coroner's office were notified to assign a Most Likely Descendent to the project.
- **Regional Water Quality Control Board.** Under the Clean Water Act (401), the Regional Water Quality Control Board has jurisdiction over construction activities adjacent to the waterways.
- **State Historic Preservation Officer.** Appendix E contains concurrence pursuant to the National Historic Preservation Act that cultural studies were adequate and that archaeological sites CA-INY-5267, CA-INY-5273/H, CA-INY-5275/H, CA-INY-5276, CA-INY-5281, CA-INY-5285/H, CA-INY-5873/H, CA-INY-5874, CA-INY-5875, CA-INY-5876, CA-INY-5877, CA-INY-3796, CA-INY-5277, CA-INY-5278, CA-INY-5812H, CA-INY-5871, and CA-INY-5884 were determined to be eligible for the National Register of Historic Places.
- **U.S. Army Corps of Engineers.** Under the Clean Water Act, the impacts of the proposed project to Jurisdictional Waters of the U.S. would be covered under Nationwide Permit 14 (Linear Transportation Crossings) and 33 (Temporary Construction, Access, Dewatering).
- **U.S. Fish and Wildlife Service.** Provided a list of federally listed, proposed, and candidate species that may occur in the Independence, Black Rock, and Tinemaha Reservoir Quads in Inyo County, California.
- **Public Information Meeting.** A public information meeting was held in Independence, California the evening of February 10, 2003. The event was held in an effort to keep local community members informed of future developments within Inyo County. The Black Rock Four-Lane project was presented with two other Caltrans projects proposed for Inyo County. Community members were allowed to view mapping, ask questions, and speak to project engineers. No concerns were raised that evening regarding the Black Rock Four-Lane project.



Appendix C Title VI Policy Statement

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5267
FAX (916) 654-6608



July 26, 2000

TITLE VI POLICY STATEMENT

The California State 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, sex and national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

A handwritten signature in black ink that reads "Jeff Morales".

JEFF MORALES
Director



Appendix D USFWS Species List



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

In Reply, Refer To: 2003.1021

January 9, 2003

David A. Armes
Environmental Division Central Region Biology Branch
California Department of Transportation
2015 E. Shields, Suite 100
Fresno, California 93726

Subject: Species Lists for U.S. Geological Survey Quadrangles: Black Rock, Independence, and Tinemaha Reservoir of Inyo County, California

Dear Mr. Armes:

This letter is in response to your request, which was received by us on December 3, 2002, for information on federally listed, proposed, or candidate species which may be present in or around the following 7.5-minute U.S. Geological Survey quadrangle maps: Black Rock, Independence, and Tinemaha Reservoir of Inyo County, California. California Department of Transportation, with funding from the Federal Highway Administration (FHWA), proposes to widen existing roadways in various locations from two lanes to four lanes.

The enclosed list of species fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Act. The FHWA, as the lead agency for the project, has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a construction project^{1/} which may require an environmental impact statement, the FHWA has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the FHWA determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve conflicts with respect to threatened or endangered species or their critical habitat prior to a written request for formal consultation. During this review process, the FHWA may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

^{1/} "Construction project" means any major Federal action which significantly affects the quality of the human environment designed primarily to result in the building of structures such as dams, buildings, roads, pipelines, and channels. This includes Federal actions such as permits, grants, licenses, or other forms of Federal authorizations or approval which may result in construction.

David A. Armes

2

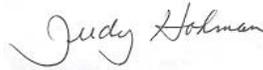
Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

Candidate species are those species presently under review by the Service for consideration for federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

The take of candidate species is not prohibited by the Act, however, we encourage you to consider their conservation in your planning process in the event they are listed prior to project completion. For information on other species of concern that may occur in the project area, the Service recommends that you review information in the California Department of Fish and Game's (CDFG) Natural Diversity Database and that you contact CDFG at (916)324-3812.

If you have any questions, please contact Robert McMorran of my staff at (805) 644-1766.

Sincerely,



Judy Hohman
Division Chief
Mojave/Great Basin Desert

Enclosure

**ENDANGERED, THREATENED, AND PROPOSED SPECIES
THAT MAY OCCUR ON QUADS: BLACKROCK, INDEPENDENCE, AND
TINEMAHA RESERVOIR
INYO COUNTY, CALIFORNIA**

TINEMAHA RESERVOIRBirds

Bald eagle	<i>Haliaeetus leucocephalus</i>	T
Least Bell's vireo	<i>Vireo bellii pusillus</i>	E
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	E
Yellow billed cuckoo	<i>Coccyzus americanus</i>	C

Fish

Owens pupfish	<i>Cyprinodon radiosus</i>	E
Owens tui chub	<i>Gila bicolor snyderi</i>	E

INDEPENDENCEBirds

Least Bell's vireo	<i>Vireo bellii pusillus</i>	E
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	E
Yellow billed cuckoo	<i>Coccyzus americanus</i>	C

BLACKROCKBirds

Least Bell's vireo	<i>Vireo bellii pusillus</i>	E
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	E
Yellow billed cuckoo	<i>Coccyzus americanus</i>	C

Fish

Owens pupfish	<i>Cyprinodon radiosus</i>	E
Owens tui chub	<i>Gila bicolor snyderi</i>	E

Key:

E	Endangered
T	Threatened
CH	Designated critical habitat
PE	Taxa proposed for listing as endangered
PT	Taxa proposed for listing as threatened
PCH	Critical habitat proposed for designation
C	Candidate species for which the Fish and Wildlife Service has on file sufficient information on the biological vulnerability and threats to support proposals to list as endangered or threatened.

* Species for which the National Marine Fisheries Service has responsibility. For more information, call the Santa Rosa Field Office at (707) 575-6050 or go to <http://swr.ucsd.edu/>.



Appendix E State Historic Preservation Office Concurrence Letter

STATE OF CALIFORNIA – THE RESOURCES AGENCY

GRAY DAVIS, Governor

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-8824 Fax: (916) 653-8824
calshpo@ohp.parks.ca.gov
www.ohp.cal-parks.ca.gov



13 November 2002

In Reply Refer To
FHWA010814A

Michael G. Ritchie
Division Administrator
California Division
Federal Highway Administration
980 Ninth Street, Suite 400
Sacramento, California 95814-2724

RE: HDA-CA, FILE NO. 09-INY-395-77.3/91.6, DOCUMENT NO. P40679 [FURTHER SECTION
106 CONSULTATION ON THE ABERDEEN-BLACKROCK FOUR-LANE PROJECT, U.S.
HIGHWAY 395, INYO COUNTY]

Dear Mr. Ritchie,

This letter is a response to your submission of the May 2002 *Supplemental Historic Property Survey Report for the Aberdeen-Blackrock Four-Lane Project on Route 395, Inyo County, California* (Supplemental HPSR). My comments on the submission here are made pursuant to 36 CFR Part 800, the regulations that implement Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f), as amended.

You request in your 9 July 2002 cover letter for the submission that I concur that the FHWA's determination of the area of potential effects (APE) for the subject undertaking and the agency's efforts to identify historic properties in that APE are adequate. You further request that I concur with the FHWA's determinations on the eligibility of 36 of the 37 properties that the agency identifies in the APE for inclusion in the National Register of Historic Places (National Register).

I am now able to concur that the FHWA's revision to the undertaking's APE in the Supplemental HPSR constitutes an adequate effort to comply with 36 CFR 800.4(a)(1). I understand the statement on page 3 of the Supplemental HPSR that "the cultural resources APE ... has been expanded in this HPSR to include the entire site boundaries of all archaeological sites lying within or partially within the APE" to be the sole content of that revision.

I concur that the FHWA's effort to identify historic properties in the APE is adequate pursuant to 36 CFR § 800.4(b).

I concur with the FHWA's determinations that

MICHAEL G. RITCHIE
13 NOVEMBER 2002
PAGE 2 of 3

F-WA010814A

CA-Iny-5267	CA-Iny-5285/H
CA-Iny-5273/H	CA-Iny-5873/H
CA-Iny-5275/H	CA-Iny-5874
CA-Iny-5276	CA-Iny-5875
CA-Iny-5281	CA-Iny-5877

are eligible for inclusion in the National Register.

I understand, on the basis of a recent (8 November 2002) email to me from FHWA Environmental Specialist Gary Sweeten, that the FHWA would like to change the agency's original 9 July 2002 National Register determination for CA-Iny-5876 of not eligible for inclusion in the National Register to eligible for inclusion in the National Register for the purposes of the present undertaking. I concur with the FHWA's latter determination.

I acknowledge the prior 16 April 1991 consensus determination [Office of Historic Preservation (OHP) File No. BLM910313A] that CA-Iny-3794 is not eligible for inclusion in the National Register. I further acknowledge a recent 30 October 2002 consensus determination (OHP File No. FHWA010814A) that CA-Iny-4590H, the Inyo County Wagon Road, is not eligible for inclusion in the National Register.

I concur with the FHWA's determinations that

CA-Iny-3795	CA-Iny-5282
CA-Iny-4773/H	CA-Iny-5872
CA-Iny-4786	CA-Iny-5283H
CA-Iny-5268	CA-Iny-5284H
CA-Iny-5269	CA-Iny-5813H
CA-Iny-5271	CA-Iny-5814H
CA-Iny-5272	P-14-6902
CA-Iny-5274/H	P-14-6903
CA-Iny-5280	

are not eligible for inclusion in the National Register.

I further concur with the FHWA's determination under the Interim Agreement to the 20 December 1989 *Memorandum of Understanding Regarding Evaluation of Post-1945 Buildings, Moved Pre-1945 Buildings, and Altered Pre-1945 Buildings* that the Division Creek Rest-stop is not eligible for inclusion in the National Register.

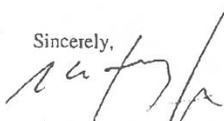
I am unable to concur at the present time with the FHWA's determinations that CA-Iny-3796, CA-Iny-5277, CA-Iny-5278, CA-Iny-5812H, CA-Iny-5871, and CA-Iny-5884 are not eligible for inclusion in the National Register. The evaluations of these properties in the HPSR do not provide sufficient information for me to comment on the National Register eligibility of each whole property. I recommend that the FHWA assume that the cited properties are eligible for inclusion in the National Register for the purposes of the present undertaking. If the FHWA is able to agree with this recommendation, please sign the signature block below to formally indicate such agreement, and, at your convenience, return a signed copy of the block to me for my files.

MICHAEL G. RITCHIE
13 NOVEMBER 2002
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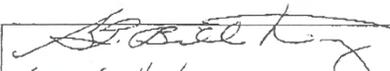
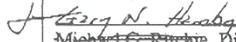
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Please direct any questions or concerns that you may have to Project Review Unit archaeologist Mike McGuirt at 916.653.8920 or at mmcguirt@ohp.parks.ca.gov.

Sincerely,



Dr. Knox Mellow
State Historic Preservation Officer


 Date 11-27-02
Michael G. Ritchie, Division Administrator
California Division, Federal Highway Administration

WKM:mdm