Chapter 3 Affected Environment, Environmental Consequences, and Mitigation

This chapter describes the probable impacts of the project build alternatives and the No-Build Alternative. The environmental impact analysis and proposed mitigation measures are based on preliminary project design and current information and circumstances. Technical reports were prepared as part of the environmental studies for the proposed action. These reports analyze existing conditions and identify potential impacts for the proposed alternatives. This chapter summarizes the findings of these reports and incorporates information that may be more current than the information contained in the final technical studies.

The data presented in this chapter reflects a worse case scenario for each alternative. These figures, often listed in hectare/acres, are approximations of the disturbance areas anticipated to construct the proposed project with existing technology. Final design of the project could alter these figures slightly. Continuing improvement of the project design has decreased impacts in certain areas over the life of the project. However, because of the limited construction area and the potential for unforeseen construction difficulties, the worse case scenario regarding impacts will be maintained throughout this document. Future changes to the design of the project would only reduce impacts. The project development team has established a goal to keep future impacts below the level established in this document.

For study purposes and to aid in the evaluation of the project limits, the project location was divided into 10 segments of approximately equal lengths, starting at the southern end of the project area (see Appendix F). Each segment is roughly 500 meters (1,640 feet) long. The segments were used to evaluate specific areas of impact within the project limits. Because of the area's topography and the changing visual perspectives, the segmentation of the project limits allowed for more defined analysis of specific locations. Comparisons between the proposed build alternatives can be made easily by looking at each segment and noting whether they are the same or different. In the same way, biological and visual impacts are easier to identify when referenced to segments within the project limits.

3.1 Land Use

3.1.1 Affected Environment

The proposed project is located entirely within the Mono Basin National Forest Scenic Area, which is subject to the provisions in the *Mono Basin National Forest Scenic Area Comprehensive Management Plan,* administered by the Inyo National Forest. The Mono Basin National Forest Scenic Area is a part of the Inyo National Forest. Nearly all of the land within Mono Basin is publicly owned. In the basin, privately owned land lies in and around the community of Lee Vining and along U.S. Highway 395. Within the project limits, approximately 80% of the land next to the highway right-of-way is privately owned. The remaining 20% is administered by the Inyo National Forest with one parcel being owned by the Bureau of Land Management.

A memorandum of understanding between the California Department of Parks and Recreation and the U.S. Forest Service was signed on May 5, 1986. The memorandum dealt with management of "relicted" lands at Mono Lake. The relicted lands in this case are lands, below the elevation of 1,956 meters (6,417 feet) above mean sea level, that have been uncovered as the water in Mono Lake recedes.

The memorandum states that the United States (the federal government) owns the relicted land that is right next to Forest Service property from the meander line at 1,956 meters (6,417 feet) elevation to the present ordinary high water mark. The federally owned relicted lands make up about 60% of the relicted lands at Mono Lake. The U.S. Forest Service is responsible for the federal uplands and adjoining relicted lands. The State of California owns the bed of Mono Lake below its present ordinary high water mark where the bed adjoins federal uplands, and it owns the bed of the lake below the elevation of 1,956 meters (6,417 feet) above mean sea level where the bed adjoins non-federal lands. The California Department of Parks and Recreation is responsible for the state-owned relicted lands. The Department of Parks and Recreation and the U.S. Forest Service agreed to a cooperative management direction for the Tufa State Reserve, South Tufa area and the scenic area's relicted lands.

Local Plan Consistency

Mono County is responsible for regulating the use of private land and Los Angeles Department of Water and Power land in Mono Basin and along the Upper Owens River in accordance with provisions of its general plan. The General Plan's Land Use

Element calls for "the orderly growth of Mono Basin communities in a manner that retains the small town character, coincides with infrastructure expansion, facilitates economic and community development, and protects the area's scenic, recreational, and natural resources." The General Plan's Circulation Element calls for providing and maintaining a safe local circulation system while protecting the natural environment. It recommends that safety improvements on U.S. Highway 395 along the west side of Mono Lake be a priority item in the 1998 State Transportation Improvement Program. Such improvements would include shoulder widening for safe use by bicyclists, additional turnouts for sightseers, and improvements to the Old Marina turnoff. These same recommendations are noted in the Mono County Regional Transportation Plan, 2001 update.

Section 4(f) Applicability Determination

Section 4(f) of the Federal Department of Transportation law provides special protection for public parks, recreation areas, wildlife and waterfowl refuges, and historic sites.

Near the project study area lies one county park and a State Reserve managed by California State Parks: County Park and the Mono Lake Tufa State Reserve. Both are located outside the project limits and would not be affected by the proposed alternatives.

However, the project is located within the *Mono Basin National Forest Scenic Area* as discussed in Section 3.1.1. The proposed project is consistent with the *Mono Basin National Forest Scenic Area Comprehensive Management Plan* (Management Plan). The project will take into account the impacts on the surrounding environment, including its potential to use land from property protected by Section 4(f). FHWA and Caltrans' staff have visited the project area, reviewed the *Management Plan*, and discussed the project with Inyo National Forest staff. Based on all of this, FHWA believes the National Forest lands within the project area contain no recreational or other activities or facilities subject to Section 4(f). Therefore, FHWA has determined that Section 4(f) is not applicable to the project.

3.1.2 Impacts

Alternative 1

An additional 3.67 hectares (9.07 acres) of new right-of-way would be required for Alternative 1. Approximately half of this property lies adjacent to land owned by the Inyo National Forest Service. The Inyo National Forest Service has been kept

informed of design and right-of-way needs through consultations and project development team meetings. The remaining right-of-way needs are split among private property owners, all of which have been informed of the project and the general issues regarding their property through public meetings, phone conversations and field meetings. In all, 5.39 hectares (13.32 acres) would temporarily be disturbed beyond the existing highway perimeter during the construction of Alternative 1. Activities associated with temporary ground disturbance include the following: fence rebuilding, utility relocation, construction staging, culvert replacement, and heavy equipment activity beyond the design catch points. Areas under new shoulders and all new cuts and fills required by the proposed project would be considered permanent ground impacts. In all, construction of Alternative 1 would result in approximately 1.49 hectares (3.69 acres) of permanent surface impacts within the project limits. Surface impacts would be offset by the mitigation measures proposed for visual and biological impacts detailed in Sections 3.12 and 3.15 of this document.

Table 3.1: Ground Disturbance in Hectares (Acres) for Alternatives 1 & 2

Segment	Short-Term		Long-Term		Property Ownership
	Alternative 1	Alternative 2	Alternative 1	Alternative 2	
1	0.08 (0.2)	0 (0)	0.15 (0.38)	0 (0)	INFS
2	0.36 (0.89)	0.145 (0.36)	0.38 (0.95)	0 (0)	INFS
3	1.23 (3.04)	1.13 (2.8)	0.04 (0.1)	0 (0)	INFS
4	0.44 (1.11)	0.32 (0.8)	0.23 (0.57)	0 (0)	INFS
5	0.84 (2.1)	0.55 (1.36)	0.02 (0.07)	0.03 (0.07)	PRIVATE
6	0.53 (1.32)	0.534 (1.32)	0.008 (0.02)	0.008 (0.02)	PRIVATE
7	0.81 (2.01)	0.81 (2.01)	0.02 (0.05)	0.02 (0.05)	PRIVATE
8	0.056(0.14)	0.032 (0.08)	0.174 (0.43)	0.21 (0.52)	PRIVATE
9	0.. 457 (1.13)	0.457 (1.13)	0.072 (0.18)	0.072 (0.18)	PRIVATE
10	0.55 (1.38)	0.56 (1.38)	0.38 (0.94)	0.38 (0.94)	PRIVATE, BLM, LADWP
Total	5.39 (13.32)	4.548 (11.24)	1.493 (3.69)	0.72 (1.78)	

BLM= Bureau of Land Management **INFS=** Inyo National Forest Service
LADWP= Los Angeles Department of Water and Power

Alternative 2

An additional 3.52 hectares (8.7 acres) of new right-of-way would be required for Alternative 2. As mentioned previously, landowners have been informed of potential right-of-way needs associated with the project. A total of 4.55 hectares (11.24 acres) would temporarily be disturbed beyond the existing highway perimeter during the construction of Alternative 2 for the same reasons detailed in Alternative 1. In all, construction of Alternative 2 would result in approximately 0.72 hectare (1.78 acres) of permanent surface impacts within the project limits. As with Alternative 1, these impacts would be offset by the mitigation measures proposed in Sections 3.12 and 3.15 of this document.

Utilities that would need to be relocated include between 5 to 10 Southern California Edison utility poles, and telephone and fiber optic lines, which lie adjacent to the existing highway. The purchase of additional right-of-way would not affect the future land use designations of the project area.

Mono Basin National Forest Scenic Area

The following conclusions have been reached after careful examination of the *Mono Basin National Forest Scenic Area Comprehensive Management Plan, 1989*:

1. The project falls within the "Developed Land Use Category." This category consists of lands north of Lee Vining in a strip encompassing approximately one mile on each side of U.S. Highway 395 and above the elevation of 1,956 meters (6,417 feet). This area is mostly rural, with natural-appearing landscape and some development and structures. Private parcels in this area have historically been used for commercial, residential, and community purposes. Management emphasis on lands in this category is to maintain the rural and natural-appearing landscape, while allowing and providing for recreational and interpretive developments where appropriate. Limited development and continued use of privately owned land compatible with the purposes of the Scenic Area are consistent with the management plan for this portion of the Scenic Area.

2. A management "prescription" (applied to specific land use zones) states the management direction by resource element or activity that will apply to specific land within the Scenic Area. The Scenic Area is divided into four land use zones. Each land use prescription states an objective for management of the land, briefly describes the setting that would be expected to be found on those lands, and establishes guidance for the future management.

> This project falls under the Developed Recreation Zone prescription, whose purpose is to maintain existing developments and provide for new services and/or facilities in support of visitor use needs. The emphasis is on allowing developed facilities and opportunities that are compatible with the visual quality, recreation, and interpretive objectives for the Scenic Area. The Developed Recreation Zone prescription is applied to existing and potential areas of concentrated public use and development both in the public and private sectors, and to heavily used travel corridors.

The proposed project does not lie within the Mono Lake Tufa State Reserve and does not take away from the various recreational activities associated with the basin as a whole. The roadway lies along the western edge of the basin in an area where the topography limits recreational activities. This project would create improvements to the alignment that would be consistent with the management direction for the area. The public State Park and opportunities for dispersed recreational activities are all functions that take place away from the highway corridor and outside of the proposed project study area.

Land management activities within this developed zone are to be compatible with opportunities to enhance visitor uses and maintain visual quality, recreation and interpretive objectives for the Scenic Area. This project would create improvements within the highway corridor that are consistent with the management plan directions. Paving shoulders and realigning portions of the highway toward the view of Mono Lake may require some mitigation to soften the appearance of the planned retaining walls and cut slopes from key vantage points. Providing larger public turnouts and better access would enhance opportunities for viewing Mono Basin.

After a review of the Scenic Area Comprehensive Management Plan, Caltrans concludes that the proposed project would not have any adverse effect on this portion of the Scenic Area. The proposed project falls within all of the management guidelines and complies with the land use designations applied to this portion of the basin.

3.2 Social and Economic

Although the project area is mostly rural and lightly populated, U.S. Highway 395 serves the easterly communities of Mono County and is the primary traffic and

transportation corridor supporting several of the county's cities and unincorporated communities. The project is located along the western edge of the Mono Basin, with the community of Lee Vining to the south and Highway 167 to the north. The nearest community to the north is Mono City. Within the project limits, there are approximately four residents and three businesses that would be temporarily affected by the project's construction activities.

3.2.1 Affected Environment

Population

Mono County's population has steadily increased over the last decade. Between 1990 and 2000, Mono County's population increased by 29.1% to 12,853. California's population for the same time period increased 13.6%. Interim county population projections provided by the California State Department of Finance, Demographic Research Unit, estimate that this trend will continue for Mono County. The population is projected to reach 17,000 by the year 2020.

Mono County encompasses approximately 3,044 square miles. The county's population density for 2000 (4.2 persons per square mile) was extremely low compared to the California statewide average of 217.2 persons per square mile. Mammoth Lakes, which accounts for 49% of the total population within the county, is the sole incorporated community.

Census data indicates that in 2000 the county's population was 84.2% white; 0.5% black or African-American; 2.4% American Indian and Alaska Native; 1.1% Asian; 0.1% Native Hawaiian and other Pacific Islander; 9.5% some other race; and 2.2% two or more races.

Employment

In 2000, Mono County had a combined civilian labor force of 6,540. Important employment sectors in the county are services, trade, and government, which jointly account for 86% of the region's total employment. The county's unemployment rate for 2000 was 5.6%, higher than the state average of 4.6%. Unemployment in the region has historically been higher than the statewide average, but has mimicked past fluctuations (Figure 3).

Approximately 59% of Mono County's establishments employed less than five workers in 1998. One establishment employed more than 1,000 people. Two other establishments employed more than 100 people.

Tourism is the main source of employment in the region. The trade and services sectors, which jointly account for approximately 64.8% of the region's employment, are heavily oriented toward serving tourists. Services, the largest industry division in Mono County, accounts for 37.6% of the total employment. Other major industry sectors providing employment are trade at 27.2% and government at 21.88% of the total. Industry employment projections for the period 1997 to 2004 combine Mono County with Inyo County. Projections for the two-county area indicate that most of the jobs in future nonfarm wage and salary employment will be in the same three sectors. Services are projected to grow by 4.5%, sales and trade-related occupations by 15.5% and government by 4.3%. In all, employment projections indicate a 7.3% growth between 1997 and 2004 for all occupations combined for both Mono and Inyo counties. Local labor market conditions have been improving steadily over the last five years in Mono County. The county should continue to record job growth and declining unemployment rates.

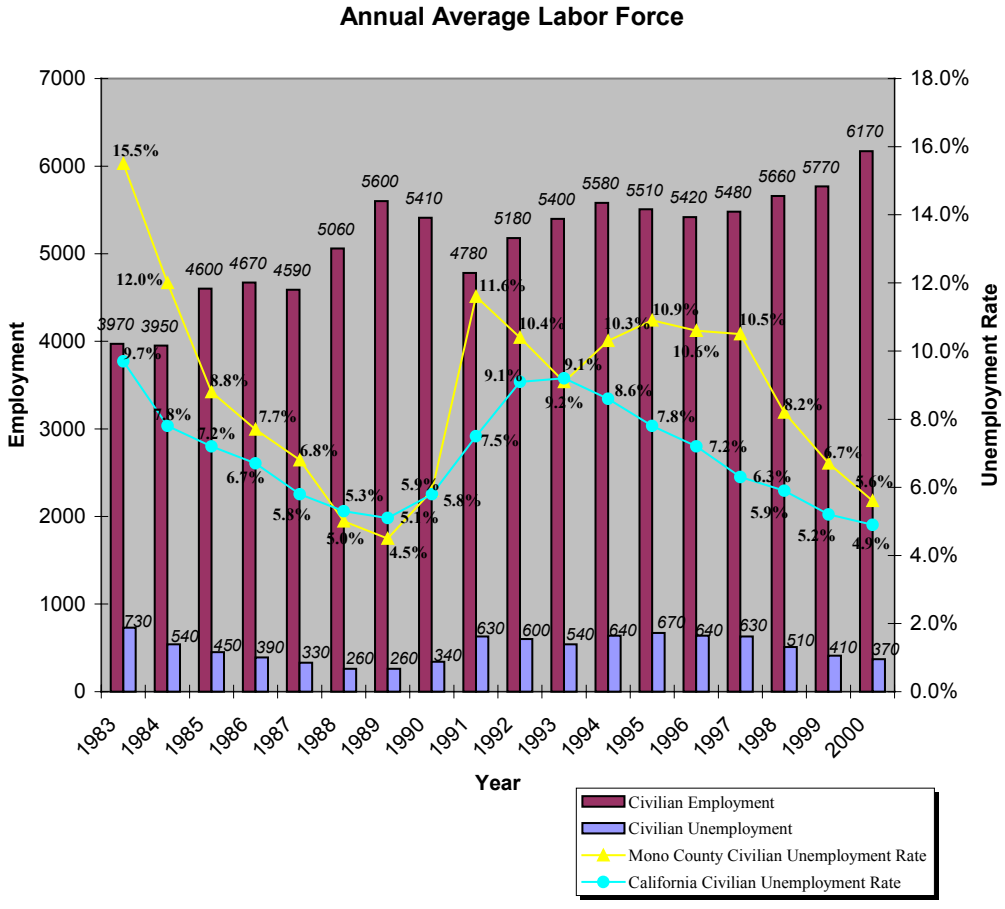

Figure 3.1: Annual Average Labor Force for Region

Income

In 1998, per-capita personal income averaged $25,020 in Mono County. This income level is lower than the statewide average of $28,175 for the same time period. The average earnings per job in 1997 were $20,891, increasing to $23,144 in 1998.

Services, trade, and government are the region's largest sources of earnings. The service sector has increased in importance as a source of earnings, while trade and government have contributed relatively stable shares of earnings.

3.2.2 Impacts

Environmental Justice

Executive Order 12998, 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.

No minority or low-income populations have been identified that would be adversely affected by the proposed project as determined above. Therefore, this project is not subject to the provisions of Executive Order 12898.

Public Safety/Local Accessibility

Construction of the project would cause some temporary disruption and inconvenience to businesses and residents because of the project's location and the natural obstacles present. Because U.S. Highway 395 is a vital transportation corridor within the county, it would not be closed during construction. Traffic flow through the construction zone would be decreased because of the limited availability of detour space. Residents within the project limits would also experience temporary disruption and inconvenience. To minimize impacts, one-way traffic control would be necessary during construction.

Emergency services to Lee Vining would not be affected by the proposed project. Lee Vining is south of the project location and just north of the Highway 120 junction with U.S. Highway 395. The Mono County Sheriff's Department indicated that the Lee Vining Fire Department handles first response medical attention needs, with transport coming from June Lake, 13 miles south of Lee Vining. The project limits

are well north of the community of Lee Vining, so construction activities would not affect response times.

3.3 Relocation

3.3.1 Affected Environment

In September 2001, a Relocation Impact Report was completed for the proposed project. The purpose of the study was to determine what effect the proposed project would have on the residential and non-residential occupants within the various proposed project alignments, specifically in regard to any displacement of existing structures and their occupants.

3.3.2 Impacts

The estimates prepared for these alternatives, as summarized in the 2001 Right-of-way Data Sheet and Draft Relocation Impact Report, showed the possibility for the relocation of a rental unit. The data sheet describes the rental unit as being a single-family residence having two occupants. Because there are several available rental units in the area, the relocation of the two occupants, if necessary, should not pose a problem for the project or place undue impact on the local communities in the surrounding area. Therefore, it has been determined that there is no major 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.

The project development team has made every effort to avoid this rental unit through careful design of the project alternatives, and the alternatives as currently proposed would not affect it. Since the property is located near a large highway curve, final design or construction requirements could change the impact area of the highway improvement.

If acquisition of property and relocation becomes necessary, all activities would then be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources would be available to those who are displaced, without discrimination.

A total of 3.67 hectares (9.07 acres) of additional right-of-way would be required for construction of Alternative 1, and 3.52 hectares (8.7 acres) would be required for

construction of Alternative 2. Utilities that would need to be relocated include between five to 10 Southern California Edison utility poles and telephone and fiber optic lines, which lie next to the existing highway.

3.4 Pedestrian and Bicycle Facilities

Bicycle Lanes

Bicycle travel is permitted on this portion of U.S. Highway 395, and summertime bicycle touring is increasingly popular in the Mono Lake National Forest Scenic Area. Currently, there are no dedicated bike paths or lanes, nor are any proposed by this project. Construction of wider shoulders will, however, enhance the use of bicycles in this region, while reducing possible conflicts with automobiles and recreational vehicles.

3.5 Air Quality

3.5.1 Affected Environment

The project is located in the Great Basin Unified Air Pollution Control District. The Mono County Regional Transportation Plan, 1999 update, states that the Mono County Local Transportation Commission voted to support the Caltrans District 9, 1998, Interregional Improvement Program (IIP) priority listing of projects. The Mono Lake Shoulder Widening project ranked sixth on the priority list. This project is listed in Mono County's 2002 State Transportation Improvement Program.

The only identified air quality parameter that does not conform to existing state and federal standards is particulate matter (PM-10), or nuisance dust. The Environmental Protection Agency has given the Mono Basin a "Serious Classification" for PM-10. The exposed lakebed around Mono Lake has been identified as the source of particulate matter. If the lake level increases, as past court cases have mandated, it is expected the area would one day meet particulate matter standards.

Non-attainment designations outside the town of Mammoth Lakes are not related to the transportation system. Mono County has been designated as a non-attainment-transitional area for the state ozone standard. The state standard for ozone is exceeded in Mammoth Lakes for a few hours several days a year in the summer months. The State Air Resources Board has concluded that ozone in the Great Basin Air Basin is transported from the San Joaquin Valley Air Basin. The Great Basin Unified Air

Pollution Control District has adopted an ozone attainment plan for Mono County that identifies the county as an ozone transport area.

3.5.2 Impacts

Even though the project is within a non-conformity area for PM-10, the project as presently proposed is exempt from the Federal Highway Administration requirement for conformity determination, per 40 CFR Section 93.126, Exempt Projects. The proposed build alternatives would not substantially alter the existing horizontal alignment or any vertical grades, and would not add any new lanes to the existing two-lane road. Because of this, the build alternatives would not have any long-term effect to the region's existing air quality. In addition, the proposed project would conform to the State Implementation Plan as required by the 1990 Federal Clean Air Act. Provided that windblown dust is controlled during construction activities, the project should therefore not affect air quality. Material sites and batch plants, if used, would require permits from the Air Pollution Control District. Dust control measures would be in accordance with Caltrans' Standard Specifications, and any further details necessary would be specified in the Contract Special Provisions.

3.6 Noise

3.6.1 Affected Environment

The Caltrans Traffic Noise Analysis Protocol contains policies and procedures that fulfill the highway noise analysis and abatement/mitigation requirements of the following state and federal environmental statutes:

- California Environmental Quality Act (CEQA)
- National Environmental Policy Act (NEPA)
- Title 23 United States Code of Federal Regulations, Part 772 "Procedures for Abatement of Highway Traffic Noise and Construction Noise" (23 CFR 772)
- Section 216 et seq. of the California Streets and Highways Code

This protocol provides policies, procedures, and practices to be used by agencies that sponsor new construction or reconstruction transportation projects. The protocol is designed to evaluate the potential traffic and construction-generated noise impacts, and determines reasonable and feasible noise abatement/mitigation for Type 1 projects. A Type 1 project is defined by 23 CFR 772 as follows: A proposed federal

or federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes.

All proposed projects are first screened to determine whether a detailed noise analysis is necessary. If a project passes the screening process, further analysis is normally not necessary. The following is a summary of the screening steps:

1. Determine if there are potentially affected receivers (sound receivers, such as houses, schools, parks, and so on). If there are no affected receivers, no further analysis will be necessary.

2. Determine if the project will be along an existing alignment or realignment. If it will be on a new alignment, the screening procedure cannot be used, and a detailed analysis is required.

3. Determine if shielding (or lack thereof) of the receivers will be the same or improved after the project. If it is not, a detailed analysis is required.

4. Measure the existing worst hourly noise levels at the critical receivers. If the existing noise levels are less than 5 decibels below the applicable Noise Abatement Criterion, a detailed analysis is required.

5. If the increase in noise levels after the project is 3 decibels or more above current noise levels, a detailed analysis is required. The increase is calculated from a simple formula involving existing and future traffic, and existing and future roadway-to-receiver distances.

3.6.2 Impacts

For Type 1 projects, traffic noise must be studied for all alternatives under consideration, and traffic noise impacts identified. If impacts are identified, noise abatement must be considered, with feasible and reasonable abatement measures included in the environmental documentation. The first step is to determine whether the proposed project is a Type 1 highway project. For this project, no major alterations to the horizontal or vertical alignments would be made, and no additional traffic lanes would be added. The proposed project is a shoulder-widening project with improved drainage facilities. This is not a Type 1 project, so it does not require a detailed noise study. Because several receptors lie within the project limits, a screening checklist from the Traffic Noise Analysis Protocol was used to assist in

making this determination. Completion of the checklist indicated that no further study was warranted.

3.7 Water Quality

3.7.1 Affected Environment

Most of the existing drainage facilities on this stretch of U.S. Highway 395 were installed in 1934 when the highway was realigned. The culverts installed at that time measured a maximum of 45.7 centimeters (18 inches) in diameter. In 1971, additional culverts were installed. Two pipes were added at an unnamed perennial creek in the vicinity of Tioga Lodge at kilometer post 87.1 (post mile 54.1). The pipes measured 914 millimeters (36 inches) in diameter.

The perennial creek (the Mono Crater quad map shows no name for the perennial flow) as well as several perennial seepages would require special attention when the drainage facilities are upgraded. The seepages come from several wetland and riparian areas scattered along the west side of the highway north of the creek.

3.7.2 Impacts

At kilometer post 87.1 (post mile 54.1), the existing culvert would be upgraded from two corrugated steel pipes measuring 914 millimeters (36 inches) in diameter to a large reinforced concrete box culvert.

Most of the existing drainage culverts are 64 years old. They are 45.7 centimeters (18 inches) in diameter; the current minimum standard is 60.9 centimeters (24 inches). Some inlets and outlets have been buried, making the culverts useless for years. For these reasons, as well as for more capacity, new culverts measuring 60.9 centimeters (24 inches) in diameter are recommended at the following locations:

> kilometer posts 85.5, 85.8, 86.1, 86.3, 86.7, 87.2, 87.4, 87.5, 87.9, 88, 88.4, 88.7, 89, 89.3 (post miles: 53.1, 53.3, 53.5, 53.6, 53.9, 54.2, 54.3, 54.4, 54.6, 54.7, 54.9, 55.1, 55.3, 55.5, respectively)

In addition, at kilometer post 86.9 (post mile 54), it is recommended that a culvert be installed at a slant to drain farther to the south, away from an existing structure.

Mono Lake receives water for each drainage system. Upgrading the individual units would require steps to prevent downstream sediment contamination into the lake or

nearby wetland areas. Construction activities would require prevention measures, and storm water protection would be needed at each location.

3.7.3 Mitigation

The proposed project would be 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 would disturb more than 0.4 hectare (one acre) of native ground, or other projects that could potentially affect streams and freshwater aquifers.

Currently, when a project is expected to disturb more than 0.4 hectare (one acre) of soil, the following is required:

1. A Notification of Construction must be submitted to the appropriate Regional Water Quality Control Board at least 30 days before the start of construction. (The Notification of Construction is usually prepared and submitted by the project engineer.) The Notification of Construction form asks for tentative start date and duration, location, description of the project, estimate of affected area, name of the resident engineer (or other construction contact) with telephone number, and so on.
2. A Storm Water Pollution Prevention Plan is to be prepared and implemented during construction to the satisfaction of the resident engineer.
3. A Notice of Construction Completion 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 are met.

Erosion control, with dikes, downdrains and dissipaters, would be used to control runoff water flow.

Potential impacts (erosion, accidental spills of hazardous materials and disruption of natural drainage patterns) to water quality during construction can be addressed in both the design and construction phases. During the construction phase, the contractor is responsible, as stated in Caltrans' Standard Specification Section 7-1.0G, for submitting a comprehensive Water Pollution Control Plan to eliminate potential impacts during construction. The Water Pollution Control Plan must explain in detail how the contractor intends to alleviate potential impacts to water quality during the construction. This includes, but is not limited to, the following:

1. Measures to control temporary erosion from storms for the duration of construction.
2. Measures to prevent alkaline (green water), produced as a result of concrete being poured, from entering surface waters.
3. The location of concrete washout areas.
4. The contractors' plans for equipment crossing surface water bodies.
5. The location of the equipment storage area.
6. Preventative and emergency measures that will be taken in case of an accidental spill of oil and/or fuel.
7. Measures to prevent debris from falling into surface waters.
8. Water quality protective measures to be taken while working in and near surface waters.
9. Plans and timing for winterization of the job if construction lasts more than one construction season.

Standard mitigation measures are outlined in the Best Management Practices defined in Caltrans Standard Specifications. Typical measures include stream diversion through pipes, sediment basins and traps for capturing turbidity, and the use of coffer dams when necessary. Features appropriate for each stream crossing would take into consideration the flow during the season and other variables associated with each separate stream channel. For the proposed project, these details would be determined through consultation with the California Department of Fish and Game during the Section 1601 Streambed Alteration Permit Application process.

If adequate measures and precautions are taken, the project would not adversely affect the water quality in the project area. With enforcement of the Caltrans specifications, Section 7-1.01 G, and storm water policies, and with the oversight provided by outside agencies, impacts to water quality should be eliminated or avoided.

3.8 Floodplain

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in a floodplain unless it is the only practicable alternative.

3.8.1 Affected Environment

The project lies along the western edge of Mono Lake Basin, at the base of the steep eastern flank of the Sierra Nevada Mountain Range. The elevation at the roadway is about 1975.1 meters (6,480 feet). The drainage basins extend up to the elevation of 3,563.1 meters (11,690 feet) at Lee Vining Peak, west of the highway. The drainage courses dropping down toward the highway are very steep, with an average slope of 30%. The average annual precipitation in the area is about 12.7 to 33 centimeters (5 to 13 inches) per year, occurring mostly as snowfall.

3.8.2 Impacts

The proposed shoulder widening and drainage improvement project would not raise the 100-year floodplain. Floodplain impacts have been minimized for the project because of the transverse culvert crossings, steep drainage slopes, and the avoidance of floodplain encroachments. The proposed project would not result in impacts to the natural floodplain and would not hinder or close the roadway in the event of flooding.

3.9 Wetlands

Wetlands occur in a variety of habitats throughout the Mono Basin. During the biological field surveys, "potential wetland areas" were identified and mapped for further study. These areas then became the focus of a wetland assessment. Habitat targeted for these studies included meadows, spring seeps, live stream zones and any associated riparian vegetation. Each target area was surveyed, data sample point locations were mapped and site-specific information was gathered and evaluated following procedures outlined in the 1987 Corps of Engineers Wetland Delineation Manual. For the site to be classified as a jurisdictional wetland, the manual requires that three criteria must be present: dominant wetland/hydrophytic (water-loving) vegetation, hydric soils (soils that have developed in wet or flooded conditions), and hydrology. Wetland determinations were made within the project area, based on the presence of all mandatory criteria.

3.9.1 Affected Environment

Wetlands, as defined by the Army Corps of Engineers, are present within Segments 8 and 9 of the project limits. Within Segment 8, wetlands straddle both sides of the highway. West of the highway is 0.076 hectare (0.19 acre) of wetland habitat; east of

the highway is 0.02 hectare (0.05 acre) of wetland habitat. Segment 9 contains 0.064 hectare (0.16 acre) of wetland habitat west of the southbound lane.

Jurisdictional wetlands are regulated by the Army Corps of Engineers under Section 404 of the Clean Water Act. Caltrans requested that a Corps jurisdictional determination be made and that confirmation of the wetland delineation be confirmed with the submission of a Wetland Assessment Report in March 2003. A correspondence followed from the Army Corps of Engineers stating that the proposed activities would comply with the terms and conditions of a Nationwide Permit 14 (Appendix G).

Wetland areas in the project area contain wetland plants and hydric soils, and are saturated for at least 14 days during the growing season. Meadow areas appear to be watered from a source of both surface and subsurface flows immediately west of existing U.S. Highway 395. Existing wetland hydrology appears to flow beneath U.S. Highway 395 and continues to water the meadow east of the highway.

Wetlands serve as a "bio-filter," trapping sediments, organic matter, and other chemical influences on waters before they discharge into Mono Lake. Wetlands also contribute to groundwater recharge/discharge, flood control during heavy runoff years, geo-chemical storage (of sulfur, iron, manganese and other sedimentary minerals), and wildlife habitat diversity.

3.9.2 Impacts

Alternatives 1 and 2 would affect approximately 0.02 hectare (0.05 acre) of wetland habitat within Segment 8 and 0.004 hectare (0.01 acre) within Segment 9. However, both alternatives would create approximately 0.07 hectare (0.18 acre) of wetland habitat as a result of project design considerations applied to Segments 8 and 9. After construction, the project would have no net loss of wetland habitat within Segments 8 and 9. In addition, the proposed build alternatives would have a positive long-term effect on this vegetation habitat as a result of the mitigation measures proposed (see Table 3.5 in Section 3.12.2).

While the above short-term impacts are unavoidable, wetland impacts were minimized through a variety of design and structural modifications. Proposed mitigation measures discussed in Section 3.9.3 would create a net increase in wetland habitat, so overall project impacts would be minimal. Correspondence with the Army

Corps of Engineers determined that the project would fall under a Nationwide Permit 14.

Project-related impacts to wetland habitat are considered short-term consequences of construction and would be offset by the long-term goals and design details built into the project alternatives. No long-term impact is expected from the proposed project.

3.9.3 Mitigation

Currently, the highway bisects wetland habitat in Segment 8 and is an eastern border for habitat within Segment 9 of the project limits. The highway is built upon an elevated surface that extends outward as it approaches ground level, creating a trapezoidal highway embankment with the widest portion closest to the ground and the narrowest portion closest to the highway (see Figures 3.2 and 3.3).

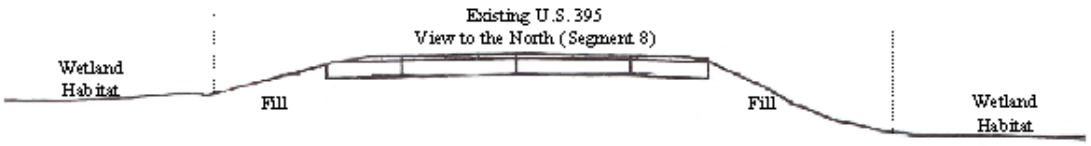

Figure 3.2: U.S. Highway 395 Cross-Section-Segment 8

Figure 3.3: U.S. Highway 395 Cross-Section-Segment 9

The Project Development Team decided to minimize impacts to nearby wetland habitat by minimizing encroachment of the highway embankment into wetland areas. This could be accomplished by using vertical retaining structures, instead of fill embankments, at these sensitive locations. Another benefit to this is that the removal of existing fill material would expose new ground surface right next to existing wetland habitat (see Figures 3.4 and 3.5 in Section 3.12.2). This would expose approximately 0.065 hectare (0.16 acre) of land within Segment 8 and 0.008 hectare

(0.02 acre) of land within Segment 9 adjacent to existing wetland habitat. In total, approximately 0.073 hectare (0.18 acre) of land would be removed from highway use and reverted back to wetland habitat over time.

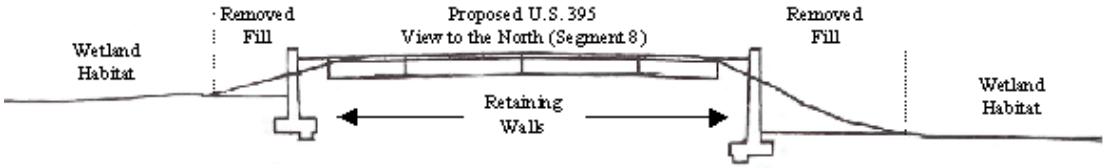

Figure 3.4: Proposed U.S. Highway 395 Cross-Section-Segment 8

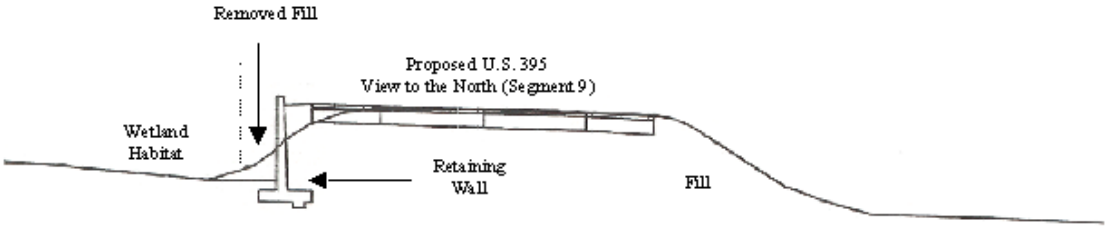

Figure 3.5: Proposed U.S. Highway 395 Cross-Section-Segment 9

With the revegetation efforts proposed in Section 3.12 of this document and the continued existence of the wetland habitat, over time this exposed ground would take on the characteristics of the adjacent wetland habitat. Ultimately, this would create a net increase in wetland habitat next to U.S. Highway 395 (see Figures 3.6 and 3.7).

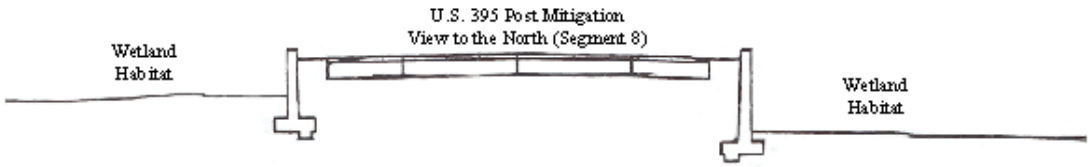

Figure 3.6: U.S. Highway 395 Cross-Section Post Mitigation-Segment 8

Figure 3.7: U.S. Highway 395 Cross-Section Post Mitigation-Segment 9

3.10 Wildlife

The project area was studied to identify biological resources present along the existing highway alignment. Biological surveys assessed the extent of potential impacts for each of the proposed alternatives. The build alternatives differ mainly in the amount of proposed cut and fill required for shoulder widening and pullout improvement.

Field surveys mapped out habitat types and surveyed flora and fauna species. A wetland delineation was also conducted for the proposed project. The list of species analyzed in this document was developed using the California Natural Diversity Database search of the Mount Dana and Lundy quads, a Species List obtained from the U.S. Fish and Wildlife Service, the USDA Forest Service Region 5 Sensitive Animal Species by Forest (USDA 1998), and the California Native Plant Society's Electronic Inventory, 6th Edition, 2001. Table 3.2 shows the species studied.

3.10.1 Affected Environment

The study area covers a variety of habitat types, from sagebrush scrub to areas exhibiting riparian and wetland characteristics. Several small streams and springs cross the study area and empty into Mono Lake to the east. They are either spring fed or are watered by the melting snow-pack from mountains west of the highway. Fish were not observed in these small tributaries.

Mono Lake is a State Reserve designated by the Department of Parks and Recreation for the protection of tufa and other natural resources found within the basin. The general area beyond the lake has been designated as the Mono Basin National Forest Scenic Area by the United States Forest Service. The lakeshore itself is well outside the project study area.

Table 3.2: Federal and State Special-Status Species

Common Name	Scientific Name	Status
Yosemite toad	Bufo canorus	CSC, FSS
Northern goshawk	Accipiter gentilis	CSC, FSS
Bald eagle	Haliaeetus leucocephalus	FT, SE
Swainson's hawk	Buteo swainsoni	ST, CSC
Willow flycatcher	Empidonax traillii	SE, FSS
Western snowy plover	Charadrius alexandrinus nivosus	ST
Yellow warbler	Dendroica petechia brewsteri	CSC
Sierra Nevada Mountain beaver	Aplodontia rufa californica	CSC
Sierra Nevada red fox	Vulpes vulpes nectator	ST, FSS
Pacific fisher	Martes pennanti pacifica	CSC
California wolverine	Gulo gulo luteus	ST, FSS
Tiehm's rock cress	Arabis tiehmii	CNPS 1B
Single-spiked sedge	Cares scirpoidea ssp. Pseudoscirpoidea	CNPS 2
Tahoe draba	Draba asterophors var. asterophora	CNPS 1B
Subalpine draba	Draba praealta	CNPS 2
Small-flowered fescue	Festuca minutiflora	CNPS 2
Mono Lake lupine	Lupinus duranii	CNPS 1B
Utah monkey flower	Mimulus glavratus ssp. Brachycarpa	CNPS 2
Frog's-bit buttercup	Ranunculus hydrocharoides	CNPS 1B
Short-fruited willow	Salix brachycarpa ssp. Brachycarpa	CNPS 2
Snow willow	Salix nivalis	CNPS 2
Oregon campion	Silene oregana	CNPS 2
Masonic Mountain jewel-flower	Streptanthus oliganthus	CNPS 1B
Foxtail thelypodium	Thelypoduim integrifolium ssp. Complanatum	CNPS 2

SE= State Listed as Endangered **ST**= State Listed as Threatened **FSS**= Forest Service Sensitive, Inyo N.F.

FT= Federally Listed Threatened **CSC**= California Species of Concern

CNPS 1B= California Native Plant Society's Listing for Plants Rare, Threatened or Endangered in CA and Elsewhere

CNPS 2= California Native Plant Society's Listing for Plants Rare, Threatened, or Endangered in California, but more common elsewhere

3.10.2 Impacts

Of the 24 special-status species analyzed in this document, a "no effect" determination was made for all of them (see Table 3.4 in Section 3.12.2). Impacts to transient or resident wildlife would result from the temporary and permanent loss of natural habitat and existing vegetation communities, as well as general habitat disturbance during construction. Wildlife sensitive to construction-related disturbances would be temporarily displaced to nearby undisturbed areas, increasing competition for resources at those locations. These impacts are considered short-term because of the high adaptability of most common wildlife species. Visual mitigation proposed in Section 3.15.3 would restore much of the wildlife habitat affected.

Acoustic surveys for bats were conducted on August 21, 2002. Acoustic survey results did determine the presence of bats, but activity levels within the project area were minimal, with very few bats observed (Table 3.3). The proposed project is not expected to affect any bat species, based on the fact that habitat that will be permanently removed has been hedged by livestock and is in general poor condition. Roosting habitat within the boundaries of the project will not be touched, cliffs do not exist within the project area, and large trees within the project will not be removed. It has been determined that the proposed project will not adversely affect any of the bat species identified within the project limits.

Table 3.3: Project Effects on Bat Species

Common Name	Scientific Name	Status	Habitat Associated With	Expected Occurrence within Project	Determination
Spotted bat	Euderma maculatum	FSC, CSSC	Cliff Roosting	F, M	No Effect
Small-footed myotis	Myotis ciliolabrum	FSC	Multiple habitat	M	No Effect
Long-eared myotis	Myotis evotis	FSC	Multiple habitat	F, M	No Effect
Fringed myotis	Myotis thysanodes	FSC	Multiple habitat	M	No Effect
Long-legged	Myotis volans	FSC	Multiple habitat	M	No Effect
Yuma myotis	Myotis yumanensis	FSC	Multiple habitat	F, M	No Effect

FSC = Federal Species of Concern **CSSC** = California Department of Fish and Game, Species of Special Concern **Multiple Habitat** = cavity (mines and caves), crevice (cliffs and bridges), foliage (trees important) **F** = foraging resident; **M** = may stop over during seasonal migration; **U** = unlikely to use habitat; **B** = breeding resident

Highways can be barriers for deer and the proposed shoulder-widening project does involve adding more pavement (shoulder expansion), making the highway footprint wider. This project has the potential to increase wildlife mortality because deer will have a wider vehicle travel-way to cross. However, improving visibility (with wider shoulders) for both the traveling public and wildlife would result in a decrease in highway wildlife mortality numbers. This is due in part to an expected increase in visibility along the edge of the traffic lanes. Wider shoulders would improve visibility and can provide increased reaction time for drivers to avoid a collision with wildlife attempting to cross the highway.

3.10.3 Mitigation

In accordance with the Migratory Bird Treaty Act (16 U.S.C. 703-711), it is recommended that the contract special provisions outlined in Appendix H be implemented on this project. This would ensure that migratory birds, their occupied nests, and their eggs are protected from construction disturbance.

The potential for deer movement within the project limits does exist. The following measures are recommended by Caltrans to keep motorists safe and not impede deer movement along the western slopes. Caltrans will not drape slopes for rockfall protection with material that could trap or entangle deer or other mammals. No rockfall fencing at the base of slopes will be installed.

It is recommended that Caltrans maintenance personnel continue monitoring accident and road kill data within the project boundaries to document and record deer/vehicle mortality numbers. At the end of a 3-5 year period, mortality data (as well an any other information with scientific validity) can then be used to justify whether or not a separate wildlife crossing improvement project is warranted within the project limits. Current data does not support its construction as part of this project. The design of such a project should consider among the possibilities, an undercrossing structure that is a minimum of 9 meters (30 feet) wide and 5 meters (15 feet) tall. This would provide a safe location for deer to the highway.

3.11 Threatened and Endangered Species

No sensitive wildlife species were encountered or observed in the proposed project study area. The project as currently proposed would have no adverse effect on any listed or sensitive species within the limits of the project study area.

Only one sensitive species has been reported as occurring in the proposed project study area. Unconfirmed road-kill specimens of the Sierra Nevada Mountain beaver have been reportedly observed in 1981, 1984, and 1990. One road-kill Sierra Nevada Mountain beaver skull was found and collected in 1990. All other sensitive species identified during literature review were not reported within the study area. Subsequent field surveys turned up no further evidence of their existence within the study area. If a beaver is observed within the construction zone, construction will stop until the beaver leaves the construction area.

3.12 Vegetation

During June, July, August, September and October 1999, a Caltrans biologist conducted surveys on foot for rare plants and sensitive wildlife resources throughout the study area. Prior to these field visits, air photos, U.S. Forest Service soil surveys and vegetation mapping were evaluated for suitable conditions for sensitive species. For every sensitive plant and animal identified during literature review, information was gathered on habitat requirements, species distribution, location of nearby (identifiable) populations, specific field-identifying characteristics, survey protocol, and distinguishing characteristics from closely related species that may also occur within the study area.

3.12.1 Affected Environment

While the basin supports at least six dominant vegetation communities, only five distinctly occur within the project study area: sagebrush scrub; wetlands; pinyon-juniper; riparian; and lake terrace barrens. These communities are influenced by the basin's physiography (geology, soil type, slope aspect, water availability, drainage, and temperature) and exposure to wind and sunlight.

Past volcanic activity coupled with frequently gusty winds have contributed to geologically young and nutrient-poor soils throughout the basin. Poor soils, the high elevation and seasonally cooler temperatures have resulted in a shorter growing season for many of the plants. The climate is generally dry, with precipitation ranging

from 12.7 to 33 centimeters (5 to 13 inches) annually. Most precipitation comes from snow during winter months. At this elevation, freezing conditions can occur 10 months out of the year.

Throughout the project study area, a fair amount of disturbance exists because of the proximity of the existing highway, scattered residences and businesses, grazing practices, utility locations, and lands managed for recreation use (such as the old county boat launch facility and the skeet shooting range). These roadside areas are maintained by Caltrans and typically contain adventive (disturbance adapted) species such as rabbit brush and an assortment of weedy plants such as Russian thistle, wild mustard, foxtail and bassia.

The following is a general description of the vegetation communities present within the project limits (except for wetlands, which is discussed in Section 3.9 of this document).

3.12.1.1 Sagebrush Scrub Habitat

The most dominant community type is sagebrush scrub. It is also the most widespread plant community in the Mono Basin. Sagebrush scrub is characterized by moderately spaced shrubs with an occasional scattered understory of herbaceous plants, growing on soils composed of volcanic ash, glacial till or granitic-derived/alluvial deposits. These soils are typically deep, well drained, and non-alkaline in nature. Plants that grow here must be able to tolerate the extremes of heat in the summer and cold in the winter, as well as occasional seasonal drought or a substantial winter snow pack. To adapt to these conditions, most plants have developed deep taproots or an extensive surface root system to take advantage of existing groundwater or an infrequent Mono Basin rain.

Plant species observed in the sagebrush scrub community are big sagebrush (*Artemisia tridentata*), bitterbrush (*Purshia tridentata*), desert peach (*Prunus andersonii*), spiny hopsage (*Grayia spinosa*), buckwheat (*Eriogonum umbellatum*), and the occasional prickly poppy (*Argemone munita*) and giant blazing star (*Mentzelia laevicaulis*). Wildlife species here include black-tailed jackrabbit (*Lepus californicus*), pygmy rabbit (*Brachylagus idahoensis*), grasshopper mouse (*Onychomys leucogaster*), and the sagebrush vole (*Lagurus curtatus*).

3.12.1.2 Pinyon-Juniper Habitat

The presence of pinyons and junipers in an otherwise sagebrush zone indicates that local precipitation has increased. Moisture availability, altitude, and depth of soil

determine the distribution of tree species. This plant community occurs mostly west of the existing highway, but there are several small patches to the east. There is very little pinyon-juniper habitat within the project area. Much of it occurs higher up along the western slopes of the project area; hardly any is present to the east. Examples can be found within Segments 4 and 6 of the project area.

3.12.1.3 Riparian Habitat

Riparian refers to habitats along streams or rivers. This community type occurs at many locations within the project study area. Much of the habitat is concentrated in areas were moisture is readily available, yet not abundant enough to sustain a wetland habitat. The location at Post Office Creek is most notable, as it contains some classic riparian vegetation. Species composition of the riparian community that are found along this creek includes the tallest layer dominated by cottonwood/willow (*Populus sp./Salix sp.*), with smaller plants composed of wild rose/thicket (*Rosa sp.*) vegetation. Wildlife species expected to occur here are water shrew (*Sorex palustris*), beaver (*Castor canadensis*), long-tailed vole (*Microtus longicaudus*), and the western jumping mouse (*Zapus princeps*). Wildlife values for this habitat type are degraded because of the closeness of the Tioga Lodge and the highway. Throughout the project area, willow-dominated thickets occur as scattered clumps, linear stands or stand-alone plants. Riparian habitat is predominantly found in Segments 2, 4, 5, 6, 8 and 9 of the project limits.

3.12.1.4 Lake Terrace Barrens Habitat

This community type occurs on previously inundated historic lake terraces, located below the existing highway. The vegetation pattern of these terraces is typically sparse (when compared to other project area plant communities). Conditions that influence plant establishment on barrens are the lack of essential soil nutrients and the absence of available soil moisture (well drained/leached soils). Plants capable of adapting to these less-than-favorable site conditions occur in isolated clumps among open (barren) areas of exposed rock, tufa deposits, and sandy/cobbly soils. These areas exhibit the lowest percentage of vegetation cover identified within the project study area. This habitat type is predominant within Segment 3 of the project limits. Other than that, only a few isolated locations of lake terrace barrens habitat lie within the project area.

Plant species observed in the barrens community are rabbitbrush *(Chrysothamnus nauseosus ssp. Consimilis*), mountain mahogany (*Cercocapus ledifolius*), buckwheat (*Eriogonum sp.*) and giant wild rye (*Elymus cinereus*). Because of a lack of adequate

cover, the barrens habitat provides foraging and loafing habitat for very few wildlife species.

3.12.2 Impacts

The project, as currently proposed, would have no adverse effect on any listed plant or animal species or its respective habitat (see Table 3.4). The project would affect portions of the existing highway corridors' vegetation communities, resulting in both temporary and permanent biological impacts. Table 3.5 summarizes the expected temporary and permanent habitat impacts by alternative for each segment within the project limits.

To minimize impacts to these sensitive areas, structural modifications were incorporated into the project design where feasible. The proposed highway alignment was shifted to further minimize biological impacts.

No sensitive plant species were found along the proposed project study area. Other sensitive plants from the region surrounding the study area are species that occur either at higher elevations or on pumice flats east of Mono Lake. Appropriate habitats for these species do not occur within the proposed project study area.

3.12.2.1 Sagebrush Scrub Habitat

Table 3.5 depicts the impacts to sagebrush scrub habitat within the project limits. Alternative 1 would temporarily disturb 2.6 hectares (6.44 acres) of sagebrush scrub vegetation during construction. Approximately 0.82 hectare (2.03 acres) of this habitat would be permanently lost.

Alternative 2 would temporarily disturb 2.11 hectares (5.22 acres). Approximately .60 hectare (1.46 acres) of this would be permanently lost.

Project impacts are identical for both alternatives within Segments 3, 6, 7, 8, 9, and 10 of the project limits (refer to Table 3.5). Differences in sagebrush impact occur within Segments 1, 2, 4 and 5. A difference in permanent habitat loss of 0.22 hectare (0.54 acre) would occur between Alternative 1 and 2. This is because Alternative 2 lacks the intersection improvement, retaining walls, and amount of shoulder expansion proposed for Alternative 1.

However, because of the large regional base of this habitat type (estimated to be thousands of acres) and the disturbed nature of this existing plant community type

Table 3.4: Summary of Project Effects on Special-Status Species

Common Name	Scientific Name	Status	Direct Effect	Indirect Effect	Cumulative	Determination	Habitat Present
Yosemite toad	*Bufo canorus*	CSC, FSS	No	No	No	No effect	No
Northern goshawk	*Accipiter gentilis*	CSC, FSS	No	No	No	No effect	No
Bald eagle	*Haliaeetus leucocephalus*	FT, SE	No	No	No	No effect	No
Swainson's hawk	*Buteo swainsoni*	ST, CSC	No	No	No	No effect	Yes
Willow flycatcher	*Empidonax traillii*	SE, FSS	No	No	No	No effect	Yes
Western snowy plover	*Charadrius alexandrinus nivosus*	ST	No	No	No	No effect	No
Yellow warbler	*Dendroica petechia brewsteri*	CSC	No	No	No	No effect	Yes
Sierra Nevada Mountain beaver	*Aplodontia rufa californica*	CSC	No	No	No	No effect	No
Sierra Nevada red fox	*Vulpes vulpes nectator*	ST, FSS	No	No	No	No effect	No
Pacific fisher	*Martes pennanti pacifica*	CSC	No	No	No	No effect	No
California wolverine	*Gulo gulo luteus*	ST, FSS	No	No	No	No effect	No
Tiehm's rock cress	*Arabis tiehmii*	CNPS 1B	No	No	No	No effect	No
Single-spiked sedge	*Cares scirpoidea ssp. Pseudoscirpoidea*	CNPS 2	No	No	No	No effect	No
Tahoe draba	*Draba asterophors var. asterophora*	CNPS 1B	No	No	No	No effect	No
Subalpine draba	*Draba praealta*	CNPS 2	No	No	No	No effect	No
Small-flowered fescue	*Festuca minutiflora*	CNPS 2	No	No	No	No effect	No
Mono Lake lupine	*Lupinus duranii*	CNPS 1B	No	No	No	No effect	No
Utah monkey flower	*Mimulus glavratus ssp. Brachycarpa*	CNPS 2	No	No	No	No effect	No
Frog's-bit buttercup	*Ranunculus hydrocharoides*	CNPS 1B	No	No	No	No effect	No
Short-fruited willow	*Salix brachycarpa ssp. Brachycarpa*	CNPS 2	No	No	No	No effect	No
Snow willow	*Salix nivalis*	CNPS 2	No	No	No	No effect	No
Oregon campion	*Silene oregana*	CNPS 2	No	No	No	No effect	Yes
Masonic Mountain jewel-flower	*Streptanthus oliganthus*	CNPS 1B	No	No	No	No effect	Yes
Foxtail thelypodium	*Thelypoduim integrifolium ssp. Complanatum*	CNPS 2	No	No	No	No effect	Yes

SE= State Listed as Endangered **ST**= State Listed as Threatened **FSS**= Forest Service Sensitive, Inyo N.F.

FT= Federally Listed Threatened **CSC**= California Species of Concern

CNPS 1B= California Native Plant Society's Listing for Plants Rare, Threatened or Endangered in CA and Elsewhere

CNPS 2= California Native Plant Society's Listing for Plants Rare, Threatened, or Endangered in California. But more common elsewhere

located immediately adjacent to the highway, project impacts on this habitat type are not considered substantial. No mitigation measures are currently being proposed, although visual mitigation proposes planting all disturbed ground surfaces with native plant types and seeds.

3.12.2.2 Pinyon-Juniper Habitat

Table 3.5 shows the impacts to pinyon-juniper habitat within the project limits. Only Segments 4 and 6 of the project limits contain a temporary, short-term impact to pinyon-juniper habitat. The short-term impact is identical for both proposed alternatives. No permanent, long-term impacts are expected. Construction of Alternative 1 would result in a temporary visual impact of 0.55 hectare (1.36 acres). Construction of Alternative 2 would result in a temporary impact of 0.54 hectare (1.33 acres). Standard Caltrans construction practices and mitigation measures proposed in Section 3.15.3 of this document would offset short-term impacts to this habitat type and prevent any long-term impacts. Revegetation efforts proposed as mitigation for visual impacts would involve replacing vegetation lost during construction.

Implementation of these and other proposed visual mitigation measures should result in the enhancement of existing onsite and offsite habitat conditions and offset project impacts to this plant community.

3.12.2.3 Riparian Habitat

Table 3.5 depicts project impacts to riparian habitat within the project limits. Alternative 1 would temporarily affect 0.73 hectare (1.79 acres) of riparian habitat. Approximately .71 hectare (1.76 acres) of this would be permanently lost.

Alternative 2 would temporarily affect 0.62 hectare (1.53 acres) of riparian habitat. Approximately 0.13 hectare (0.32 acre) of this would be permanently lost.

Project impacts are identical for both alternatives in Segments 1, 5, 6, 7, 9, and 10 of the project limits. Differences in riparian impact occur within Segments 2, 3, 4 and 8. A difference in total permanent habitat loss of 0.58 hectare (1.44 acres) would occur between Alternatives 1 and 2. This is because Alternative 2 lacks the intersection improvement, retaining walls, and amount of shoulder expansion proposed for Alternative 1.

Table 3.5: Summary of Habitat Impacts by Alternative

Segment	Hectares (Acres) Sagebrush Scrub Habitat Perm/Temp Alternative 1 Alternative 2	Hectares (Acres) Wetland Habitat Perm/Temp Alternative 1 Alternative 2	Created Wetland	Hectares (Acres) Pinyon-Juniper Habitat Perm/Temp Alternative 1 Alternative 2	Hectares (Acres) Riparian Habitat Perm/Temp Alternative 1 Alternative 2	Hectares (Acres) Lake Terrace Barrens Perm/Temp Alternative 1 Alternative 2
Segment 1	.15 (.38) /.08 (.2) 0	0 0	0 0	0 0	0 0	0 0
Segment 2	.03 (.08) / 0 0	0 0	0 0	0 0	.35 (.87) / .08 (.2) 0	0 / .28 (.69) 0 / .14 (.36)
Segment 3	0 0	0 0	0 0	0 0	.04 (.1) / 0 0	0 / 1.23 (3.04) 0 / 1.13 (2.8)
Segment 4	.04 (0.1) / .11 (.28) 0	0 0	0 0	0 / .33 (.83) 0 / .32 (.8)	.19 (.47) / 0 0	0 0
Segment 5	.02 (.07) / .40 (.99) .02 (.07) / .10 (.25)	0 0	0 0	0 0	0 / .45 (1.11) 0 / .45 (1.11)	0 0
Segment 6	.01 (.02) / .20 (.45) .01 (.02) / .20 (.45)	0 0	0 0	0 / .21 (.53) 0 / .21 (.53)	0 / .14 (.34) 0 / .14 (.34)	0 0
Segment 7	0 / 1.0 (2.01) 0 / 1.0 (2.01)	0 0	0 0	0 0	.02 (.05) / 0 .02 (.05) / 0	0 0
Segment 8	.17 (.43) / 0 .17 (.43) / 0	.02 (.05) / 0 .02 (.05) / 0	0.06 (0.16) 0.06 (0.16)	0 0	.04 (.09) / .06 (.14) .04 (.09) / .03 (.08)	0 0
Segment 9	0 / .46 (1.13) 0 / .46 (1.13)	.004 (.01) / 0 .004 (.01) / 0	0.01 (0.02) 0.01 (0.02)	0 0	.07 (.18) / 0 .07 (.18) / 0	0 0
Segment 10	.40 (.94) / .56 (1.38) .40 (.94) / .56 (1.38)	0 0	0 0	0 0	0 0	0 0
Totals	.82 (2.03) / 2.6 (6.44) .60 (1.46) / 2.11 (5.22)	0.02 (0.06) / 0 0.02 (0.06) / 0	0.07 (0.18) 0.07 (0.18)	0 / .55 (1.36) 0 / .54 (1.33)	.71 (1.76) / .73 (1.79) .13 (.32) / .62 (1.53)	0 / 1.51 (3.73) 0 / 1.28 (3.16)

Sagebrush Scrub Habitat = Characterized by widely spaced shrubs and scattered herbs growing on pumice and volcanic ash, glacial rubble, and granitic alluvial deposit soils. Occupies dry slopes and flats from about 1,600 to 10,500 feet in elevation (CDFG)

Wetland Habitat = Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Pinyon-Juniper Habitat = In the Sierra Nevada, occurs between 6,000 and 9,000 feet in elevation. Open forest where trees are scattered among shrubs and grasses. Pinyons grow on exposed slopes, where water runoff and wind have carried away most of the topsoil, leaving soil that is shallow and well drained.

Riparian Habitat = Riparian connects open water, such as streams and lakes, with upland vegetation. It is the ecological link between water-based environments and land-based environments.

Lake Terrace Barrens = Unvegetated areas on the fringe of Mono Lake.

Habitat Improvement = Existing dirt access roads that will be revegetated with native plant species and eliminated from use.

Mitigation measures are proposed to replace and restore any riparian vegetation lost due to project construction. The proposed project would not substantially affect this vegetation community. Mitigation measures would offset project-induced impacts.

3.12.2.4 Lake Terrace Barrens Habitat

Table 3.5 depicts project impacts to Lake Terrace Barrens habitat within the project limits. Alternative 1 would temporarily affect 1.51 hectares (3.73 acres) of lake terrace barrens habitat. Alternative 2 would temporarily affect approximately 1.28 hectares (3.16 acres) of this habitat. Proposed visual mitigation would offset any short-term construction-related impacts.

No project-related impacts would affect this habitat except within Segments 2 and 3 of the project limits. Differences in impact occur within Segments 2 and 3. A difference in temporary habitat loss of 0.24 hectare (0.59 acre) would occur between Alternatives 1 and 2. This is because Alternative 2 lacks the intersection improvement, retaining walls, fill embankment and amount of shoulder expansion proposed for Alternative 1.

In conjunction with visual impact mitigation, measures are proposed to replace and restore any vegetation lost due to project construction. Because of the lack of vegetation cover associated with this habitat type, no long-term impacts are expected. The proposed project would not result in a substantial impact to this vegetation community.

3.12.3 Mitigation

Mitigation measures are proposed to restore lost riparian vegetation. Onsite measures would be implemented upon project completion to establish riparian vegetation in a variety of ways. For example, natural duff (existing topsoil) would be collected and stockpiled during excavation and would be scattered over areas slated for revegetation. Willows and other native trees/shrubs would be replanted in all temporarily disturbed areas next to the newly widened highway crossings at Post Office Creek (located at Tioga Lodge), as well as in other affected riparian areas in the project limits.

Areas unavoidably disturbed by construction would be re-seeded/replanted with plant species native to the Mono Basin. Through consultation with the Department of Parks and Recreation and the U.S. Forest Service, the landscape architect would be responsible for the preparation of a re-vegetation plan consistent with native plant

policies currently in effect by state and federal resource agencies. Much of this effort would be combined with the visual mitigation measures proposed in Section 3.15.3 of this document. The project biologist would assist in determining appropriate native plant species selection. Where feasible, nursery stock can be taken as cuttings from plants slated for removal as one method of maintaining the genetic integrity of the plant communities present in the Mono Basin.

The project is subject to Executive Order 13112 because of the mitigation proposed on the project. The order directs Federal agencies to promote public education and awareness on invasive species, as well as actions to minimize their impacts. Caltrans requires material sites to be inspected and certified free of noxious weeds before materials can be moved onto a project. Earthmoving equipment would be cleaned before being moved onto the project site. Only native seed certified free of weeds will be used for erosion control and Caltrans has in place procedures for certifying and identifying weed-free straw for temporary erosion control. These measures along with the planting of native vegetation species would ensure that the provisions of Executive Order 13112 are maintained on this project.

Near the project, several locations have been identified where biological mitigation could be implemented: areas in need of enhancement, restoration, or creation of habitat. Implementation of the proposed mitigation measures would restore vegetation loss due to construction and help produce sustainable vegetation communities. Habitat type, quality and abundance would be restored in the years following the project.

3.12.3.1 Cumulative Impacts

Regionally, wetland and riparian communities are recognized as important habitats in the Mono Basin and the Intermountain West. It has been estimated that a total of 1,619 hectares (4,000 acres) of similar habitat is found surrounding Mono Lake. Because of this large regional base of currently existing habitat surrounding Mono Lake, cumulative impacts to these communities from the project would be considered minimal. For the remaining communities (sagebrush scrub, pinyon-juniper, lake terrace barrens), cumulative impacts would also be considered to be minor because of the many acres of existing habitats that exist on adjacent federal and state lands in the Mono Basin near the project area. Short-term, project-related impacts would be offset by standard construction practices and proposed visual mitigation. Long-term impacts are minor and would not be distinguishable by motorists traveling through Mono Basin.

3.13 Historic and Archaeological Resources

3.13.1 Affected Environment

The nature of the proposed project and the involvement of a federal agency (the Federal Highway Administration) require compliance with Section 106 of the National Historic Preservation Act, as codified at 36 CFR § 800. Section 106 mandates federal agencies to consider the effects of their projects on historic properties (resources eligible or potentially eligible for the National Register of Historic Places). Historic properties are defined as buildings, structures, objects, sites or districts that are significant in the course of American history, prehistory, architecture, engineering, archaeology, or culture at a local, state, or national level, and retain integrity of location, design, setting, materials, workmanship, feeling, and association.

To find historic resources in the project area, a record search was conducted at the California Historical Resources Information System's Eastern Information Center at the University of California, Riverside. The following records were examined: the Information Center's site records, maps, and manuscripts; the National Register of Historic Places Index; the Office of Historic Preservation's Archaeological Determinations of Eligibility; the Office of Historic Preservation's Directory of Properties in the Historic Properties Data File; and historic topographic maps. Caltrans archaeology files for Mono County were then consulted to locate the most recent Caltrans projects in or adjacent to the study area. In addition, the Kuzedika Paiute Tribe was contacted by letter in July 1999 regarding its knowledge of Native American resources in the project area.

On May 26 and 27, 1999, Caltrans conducted a historical study of the buildings and other historic-period cultural resources in the project vicinity. That was followed by an initial archaeological field survey in June 1999. The survey resulted in the discovery of two bedrock milling features (CA-MNO-3261 and CA-MNO-3262) and one historic-period trash scatter (CA-MNO-3263H). In January 2000, Extended Phase I excavations were conducted at CA-MNO-3261 and CA-MNO-3262. The historic-period trash scatter was also evaluated.

Modifications to the project during the summer of 2000 necessitated an additional archaeological field survey, which was conducted in July and August 2000. This survey resulted in the identification of a second historic archaeological site, CA-MNO-3402H. Caltrans evaluated the site in October 2000 and January 2001.

3.13.2 Impacts

Within the Area of Potential Effects for the proposed project, cultural resource studies identified 10 resources: four archaeological sites, one historic linear feature and five architectural resources. None of these resources has been previously found eligible for the National Register of Historic Places. Four of the architectural resources were treated under the Memorandum of Understanding regarding buildings less than 50 years old. Of the remaining resources, the Federal Highway Administration determined that five were "not eligible" for the National Register of Historic Places; and one site, CA-MNO-3402H, had 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 under Criterion D, which applies to properties that have yielded or are likely to yield information important to prehistory or history.

Although historic site CA-MNO-3402H was determined eligible for the National Register of Historic Places and lies partially within the Area of Potential Effects of the proposed project, the project would not affect the qualities for which the site is recommended eligible. The probable privy feature and other areas of high archaeological sensitivity in the immediate vicinity of the feature, which are the basis for the recommended eligibility of the site, are located in a relatively small and discrete area behind a house. The Area of Potential Effects includes large areas to the west of (behind) the house, but only for the purpose of accommodating possible improvements to a dirt road that skirts the backyard to access a driveway area to the north/northwest of the house. While these improvements have the potential to affect non-contributing portions of the larger site area, they would not affect the portions of the site that contribute to its eligibility for the National Register of Historic Places.

The State Historic Preservation Officer concurred with the Federal Highway Administration determination, on September 3, 2002, that site CA-MNO-3402H is eligible for inclusion in the National Register of Historic Places. The State Historic Preservation Officer also concurred that the remaining three archaeological sites, one historic linear feature and five architectural resources were not eligible for the National Register of Historic Places. The Federal Highway Administration determined that the project would not adversely affect historic properties, and the State Office of Historic Preservation concurred with the determination.

3.13.3 Mitigation

An Environmental Sensitive Area would be established to protect portions of historic archaeological site CA-MNO-3402H from potential disturbances during project construction. Caltrans would install orange fencing along the northern and western boundaries of the Environmental Sensitive Area to exclude all construction activities from that area. Additionally, Caltrans cultural resources staff would monitor the Environmental Sensitive Area during construction to ensure the integrity of the fenced boundary and the absence of any construction activities within the Environmental Sensitive Area, which would encompass all landscaped areas. The Environmental Sensitive Area would be incorporated into project planning and would be included in the project's plans, specifications, and estimates.

3.14 Hazardous Waste Sites

3.14.1 Affected Environment

Caltrans performed an Initial Site Assessment for this project. Old Caltrans "as-built" (engineering) project plans were reviewed, and contact with the responsible Underground Storage Tank agency was made. An onsite field review was also done within the project limits.

A potential hazardous waste site, known as the Tioga Lodge and Service Station, was found at kilometer post 87.1 (post mile 54.1) within project limits. The service station was abandoned years ago. The storage tanks were located just 4.5 meters (15 feet) east of the existing pavement.

Caltrans located a second site: an abandoned service station at the Mono Inn, with the underground storage tanks just 9.1 meters (30 feet) east of kilometer post 89.6 (post mile 55.6).

3.14.2 Impacts

Caltrans contacted the Environmental Health Department in Bridgeport, which is the responsible regulatory agency for abandoned underground storage tanks in Mono County. The department's records revealed two abandoned tanks had been removed from the Tioga Lodge site. Follow-up soil tests indicated all associated contaminated soil had been removed. A "letter of closure" was issued for the site in April 1996.

At the Mono Inn site, the Mono County Environmental Health Department stated that two small tanks had been removed and the site "closed" in September 1996, per the department regulations. No other sites exist or are known to have existed within project limits.

No further site investigation activities are expected within the project limits. If additional information is disclosed to the contrary, further actions can be taken. It is concluded that there are no known hazardous waste locations within the project limits

3.15 Visual

A Visual Impact Assessment was prepared for the proposed project in accordance with the U.S. Department of Transportation's 1988 Federal Highway Administration guidelines. The assessment studied how the project's visual resources look now (before any construction) and how they would look after project construction.

Public and local jurisdictional agencies were contacted to identify major issues of concern. The process allowed these stakeholders to learn about the proposed improvements and to identify important issues and concerns to be analyzed during preparation of this environmental document. The following issues were identified:

- Determining the visual impact of new cut and fill slopes
- Using retaining walls to minimize cut and fill slopes
- Avoiding other visual intrusions
- Preserving wildlife and biological resources

The project development team considered these factors in developing the project.

The Visual Impact Assessment looked at the highway users and their sensitivity to the views in the project area. Of all the highway user groups, tourists and recreational motorists would have the highest sensitivity to views because they travel at slower speeds and have more time to scrutinize their view than other users would. Local residents would also have a high degree of sensitivity to the project views because of their familiarity with the area. Commuters who make repeat trips through the project may have a sense of connection with this project and should be considered to have a moderate sensitivity to changes in their views. Commercial drivers who spend many hours a day on the highway would have a lower sensitivity to views from the highway.

Specific locations in the Mono Basin Scenic Area were chosen to assess visual impacts created by this project. For this project, two visual perspectives were established: a primary view and a secondary view. The primary view consisted of those views experienced by motorists on the highway, looking to the Sierra Nevada slopes to the west or to Mono Basin to the east. The primary views originated within the project limits and were focused away from the project to distant landscape features. The secondary views consisted of those views experienced by individuals looking toward the project. The secondary views originated from many locations outside the project limits and were focused toward U.S. Highway 395. Any view within the Mono Basin looking toward U.S. Highway 395 was considered a secondary view.

Early coordination between Caltrans, regional agencies and community groups established that secondary views would experience most of the visual impacts associated with the project. Primary view impacts were considered minor because the project would not change distant features of the Mono Basin. The visual assessment therefore focused on views originating from points outside the project limits looking back toward U.S. Highway 395 and the proposed shoulder-widening project.

A viewer's response to the construction project could be measured by different factors. Measurable factors include distance, duration, sensitivity, and acuity. Distance is a key factor to the viewer's sensitivity to changes of the visual resources. The farther the change is from the viewer, the less the impact to the viewer's visual acuity. Duration of the view will heighten the viewers' sensitivity to the impacts of change; a motorist's speed of movement through the project area would affect how long the motorist would view the area.

3.15.1 Affected Environment

The visual resources of before- and post-construction conditions were studied from observer points throughout Mono Basin using computer simulations based on field surveys and engineering data. Eleven observer points were selected for visual analysis (see Figure 3.8).

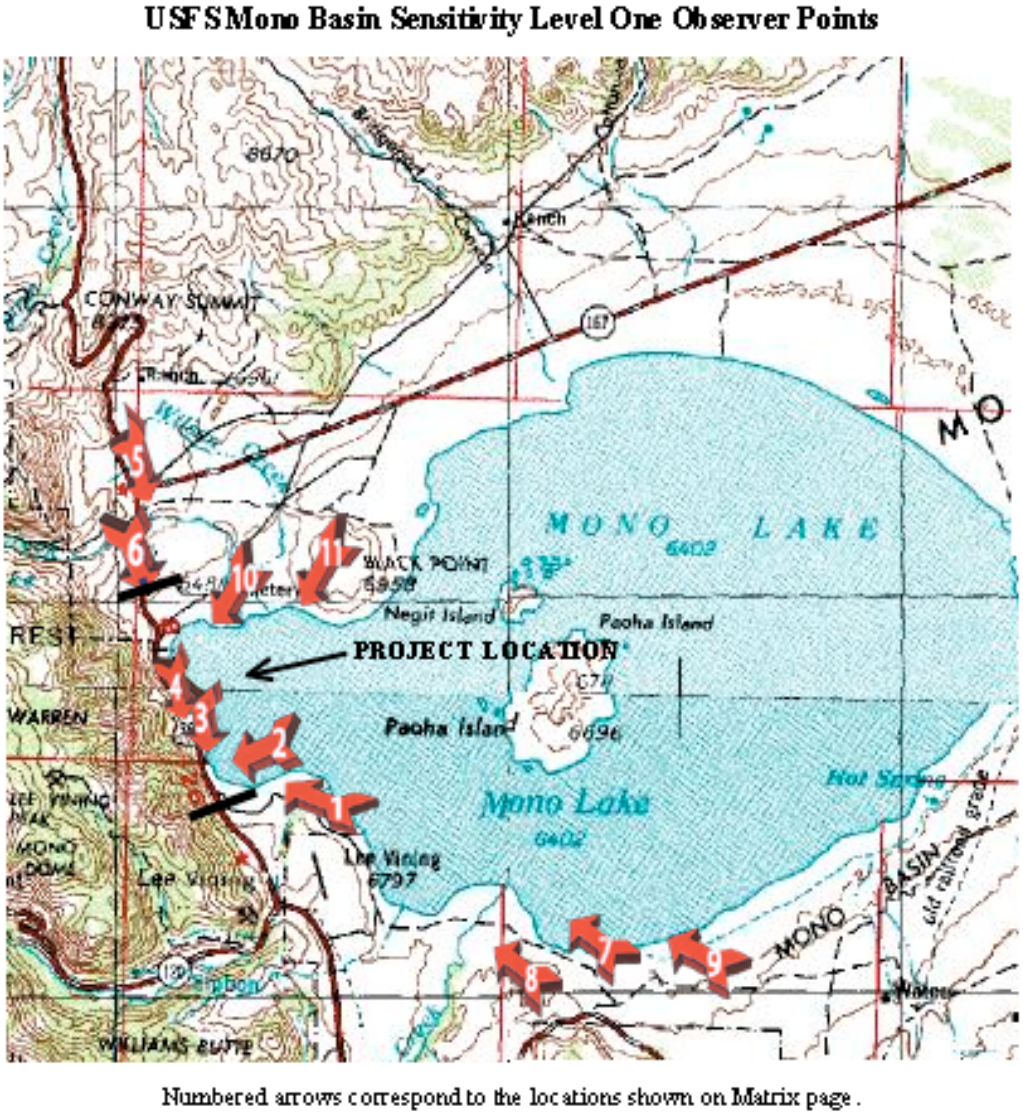

Figure 3.8: Mono Lake Observer Points

Using a variety of observer point locations enhanced the scope of the visual study and included all of the major Sensitivity Level 1 views identified by the *USFS Mono Basin National Scenic Area Comprehensive Management Plan.* All of the observer points offer spectacular views of the Scenic Area, but not of the widening project. For the study, the evaluation concentrated on the small portion of the observer's view directed specifically toward the area of the widening project. A stationary observer would have a long duration of this particular view (if visible) and, therefore, a high sensitivity to visual impacts of the project.

The proposed project's regional landscape consists of the Mono Lake Basin, with a large body of water completely surrounded by mountains and hills. The project area encompasses two distinct landscape units by the highway corridor: the mountainside to the west and the lake to the east. The open view is directed out over the lake and to the distant hills. The colors and textures of the distant features are slightly muted by haze, blowing dust and water vapor from the lake surface due to the down-slope winds common to the area.

The 11 observer points were chosen as references for assessing the visual quality (refer to Figure 3.8) because they contain typical visual resources of the project along this section of the U.S. Highway 395 corridor. Each observer point was assessed for its visual quality as it would be seen before project construction and as it would be seen after project construction.

Figure 3.9: Observer Point 1 Before Construction

Observer Point 1 (Visitor's Center)

The first observer point is the U.S. Forest Service Visitor's Center. The views from the center are dominated by Mono Lake and the surrounding mountains and craters. The roadway is minor when taken in total context of the view. To the north, the widening project is visible (Segments 1-5) from this observer point. Unvegetated cuts and fills from the original roadway construction can be seen. This view represents a small portion of the total panoramic view of the lake, which is the major focal point (see Figure 3.9).

Observer Point 2 (Old Marina)

The second observer point is below the roadway. Mono Lake dominates the view from this observer point. The observer has his or her back to the improvement project when looking toward the Scenic Area's major focal point, Mono Lake. As the observer approaches the lake level and turns and looks back (see Figure 3.10), the southern end of the widening project (Segments 1-4) is highly visible from this location. Existing vegetation in and around the area screens part of the existing roadway, even in winter when the photo in Figure 3.10 was taken. Old, unvegetated cuts from the original road construction are visible in the background.

Figure 3.10: Observer Point 2 Before Construction

Observer Point 3 (#1 Southbound View on U.S. Highway 395)

The third observer point is to the south along the east edge of the existing roadway. Segments 1 and 2 are visible in the distance. This view is dominated by the lake, with the lower slopes of Mt. Warren in the background and the roadway and sage scrub vegetation in the foreground. The location of the widening project (Segments 1-4) is seen in the distance, and Segment 5 is seen in the foreground (see Figure 3.11).

Figure 3.11: Observer Point 3 Before Construction

Observer Point 4 (#2 Southbound View on U.S. Highway 395)

Similar to observer point three, the fourth observer point is another view from the existing roadway. The view is dominated by the lake to the east, with the lower slopes of Mt. Warren in the background and sage scrub vegetation and an old unvegetated "rock fall" area in the foreground (see Figure 3.12, lake not pictured within frame).

Figure 3.12: Observer Point 4 Before Construction

Observer Point 5 (Lundy Canyon Road)

The fifth observer point at the intersection of Lundy Canyon Road and U.S. Highway 395 would have no visual impacts. The widening project is not visible from this spot (see Figure 3.13).

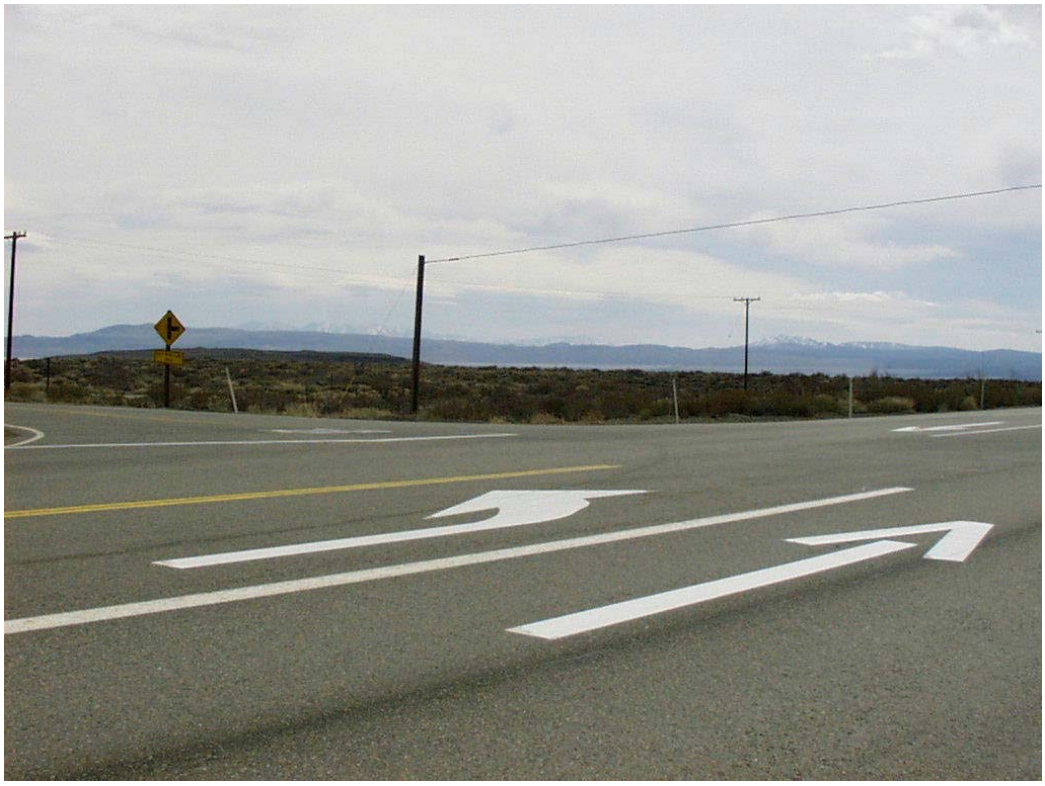

Figure 3.13: Observer Point 5 Before Construction

Observer Point 6 (Cemetery Road)

The sixth observer point is Cemetery Road at U.S. Highway 395 (Figure 3.14). Minor visual impacts would be expected at this location. Only a small portion of the northern end of the improvement project, Segment 10, is visible from this spot.

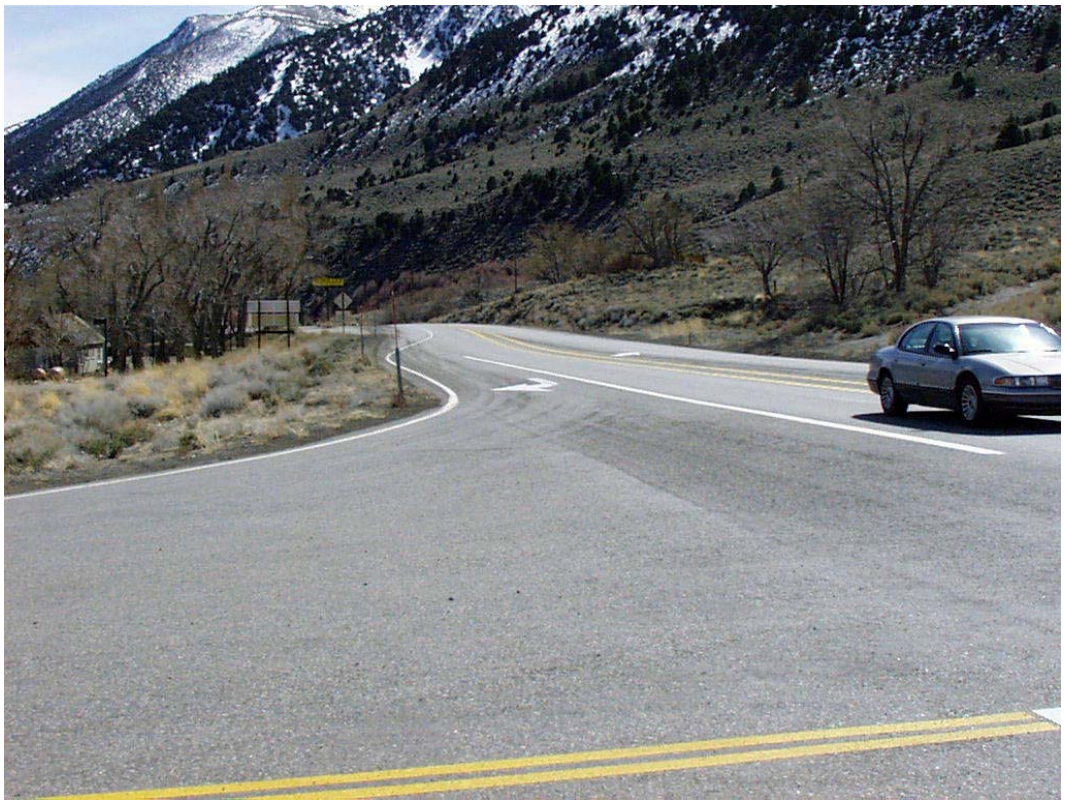

Figure 3.14: Observer Point 6 Before Construction

Observer Point 7 (South Tufa)

The seventh observer point is at the South Tufa area and would have no visual impact. The unique tufa towers dominate the foreground at this location. The widening project is not visible from this observer point because of the natural landforms of the basin (see Figure 3.15).

Figure 3.15: Observer Point 7 Before Construction

Observer Point 8 (Panum Crater)

The eighth observer point is at the rim of Panum Crater and would have no visual impacts. The Sierra Nevada Mountains, Bodie Hills, and Mono Lake dominate the view from this spot. The last few segments (7-10) of the widening project are barely visible. They are approximately 12.8 kilometers (eight miles) away from this observer point (see Figure 3.16).

Figure 3.16: Observer Point 8 Before Construction

Observer Point 9 (Navy Beach)

The ninth observer point is the area of Navy Beach. The lake and the reflection of the Sierra Mountains dominate the view from this spot. No visual impacts are expected. The project area is barely visible, with Segments 8-10 approximately 12.8 kilometers (eight miles) away from this spot (see Figure 3.17).

Figure 3.17: Observer Point 9 Before Construction

Observer Point 10 (County Park)

The tenth observer point is the County Park along Cemetery Road. Minor visual impacts are expected at this spot. The view of the roadway is muted, even in winter when this photo was taken, by the abundant vegetation in the park and the distance to the project location (see Figure 3.18). The area of the last few segments of the widening project, Segments 5-7, are visible from this location.

Figure 3.18: Observer Point 10 Before Construction

Observer Point 11 (Black Point)

The eleventh observer point is near Black Point. No visual impact is expected at this spot. The dominance of Mt. Warren in the background and the expanse of Mono Lake in the foreground overpower any visual details of the widening project (see Figure 3.19). The few segments of the widening project that are visible from this location are scattered and muted because of the distance, approximately 4.8+ kilometers (3+ miles).

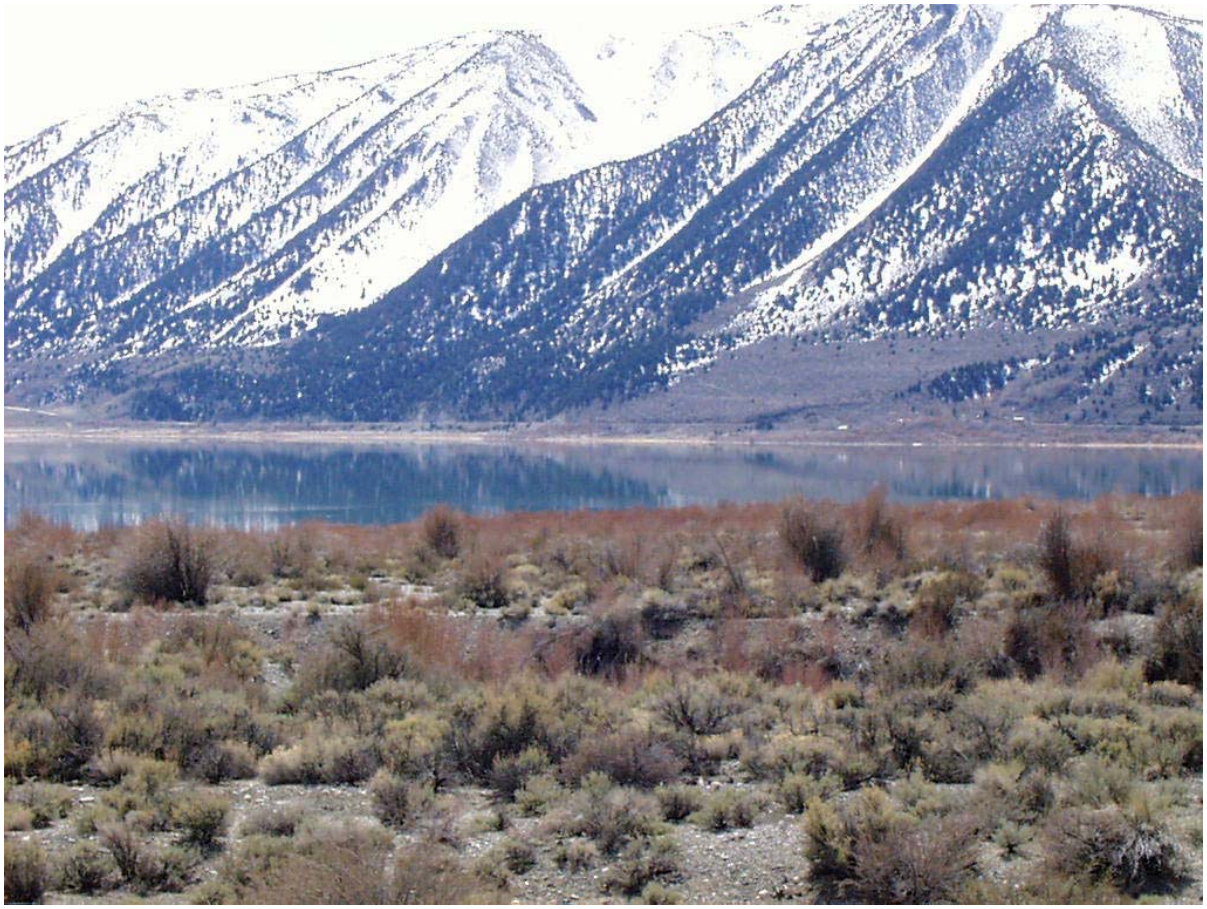

Figure 3.19: Observer Point 11 Before Construction

Pullout Views

Six locations were identified within the project limits that would be suitable for pullouts along U.S. Highway 395. Five of the locations are existing pullouts that would be improved; at the sixth location, a new vista site would be built. The six locations are shown on the alternative maps (see Appendix F).

Pullout Site 1 is located at the site of the old marina below the roadway and near the lakeshore. Located in Segment 2, this vantage point would provide the observer with a close view of the lake and the opportunity to experience the waters of Mono Lake firsthand with a view unobstructed by the widening project and most manmade improvements.

Pullout Site 2 is an existing "chain-up" area along the west edge of U.S. Highway 395 located in Segment 2 of the project limits. In winter weather, motorists pull over here to put chains on their vehicles in case of snow. The views from this spot are partially blocked by guardrail and would be further blocked after the widening project. The visual quality of this pullout is very low and would not be improved by the project. The primary goal for improving this location is to continue its use as a chain-up area during bad weather. This pullout is a motorist's last chance to install chains before ascending the highway grade into Lee Vining.

Pullout Site 3 is east of U.S. Highway 395 overlooking the old marina. This site provides a good view of Mono Lake to the east. A highly visible fill would be required to provide a safe area at this location.

Pullout Site 4 is west of U.S. Highway 395, straddling Segments 4 and 5 of the project limits. Directly south of Tioga Lodge, it is the only pullout location that can provide a convenient stopping opportunity for southbound drivers. It features an existing stone wall originally constructed as a part of the old original road alignment. The distant view is of Mono Lake, Black Point, and Mono Craters.

Pullout Site 5 is located on the east side of U.S. Highway 395, straddling the segment division line between Segment 5 and 6. This site provides a good view of Mono Lake, with the Bodie Hills and Black Point in the distance. This is the only pullout along this section of U.S. Highway 395.

Pullout Site 6 is the proposed new vista point. The site would be a safe distance off U.S. Highway 395, on the north side of Cemetery Road. This site, which provides a

closer view of Mono Lake, would complement the existing vista point located on Conway Summit to the north.

3.15.2 Impacts

Observer viewpoints and photo simulations of post-construction conditions were used to evaluate the impact of each alternative. Table 3.6 presents a summary of the visual changes and an evaluation of the post-construction conditions expected for each alternative one to two years after construction.

The visual quality for the existing highway project area is moderately high. The project area is well vegetated, but the area does not present a pristine and completely natural setting. Both vegetation and landforms show results of previous human activity, including residential homes, lodging facilities, the construction and maintenance of U.S. Highway 395, the presence of utilities and access to private property. Past highway construction has altered the landform next to the roadway. Cut scars are visible along the hillsides next to the roadway and fill embankments protrude below the highway.

Alternative 1

If Alternative 1 were constructed, project area visual quality would be reduced to a moderately low rating for the post-construction conditions during the first or second year after construction. Alternative 1 would expand the existing shoulder width and add extra rockfall retention area west of the existing roadway. The expanded shoulder and retention area, in many instances, requires an alignment shift to the east, adding fill and walls along the embankment east of the roadway. The improvement of the intersection within Segment 2 would also require the addition of fill and a retaining wall.

Observer points located outside the project area would notice these changes that have been considered a secondary view impact. Most of the project changes would be made east of the highway. Changes made would be minimally visible to U.S. Highway 395 motorists, resulting in a minimal impact to the primary viewers. Primarily, motorists would view the small cuts and walls proposed west of the roadway. These changes would be too small to be seen clearly from distant observer points. Observer points 1, 2, 3 and 4 (Figures 3.20, 3.21, 3.23, and 3.24) best predict the visual changes from the added cut slopes, fill embankments and pavement.

Alternative 1 would slightly alter the existing horizontal roadway alignment. Impacts from added fill slopes and retaining walls east of the roadway would present a visual change immediately following construction.

Impacts to existing vegetation would be concentrated east of the roadway. The area of affected vegetation would be approximately 5.38 hectares (13.3 acres).

Alternative 2

If Alternative 2 were constructed, project area visual quality would be reduced to a moderately low rating for the post-construction conditions during the first or second year after construction. Like Alternative 1, Alternative 2 would expand the existing shoulder width and add extra retention area west of the roadway. Alternative 2's impacts to the project area are very similar to those of Alternative 1. However, Alternative 2 proposes some project features that would decrease the construction impact. The visual impact of Alternative 2 would have the same visual effects as Alternative 1, except for the following:

1. Improvements of the intersection within Segment 2 would not take place, minimizing the visual impact from secondary view points.
2. Alternative 2 proposes to expand the entire southbound shoulder and only 87.8 % of the northbound shoulder. Segments 2, 3, 4, 8 and 9 would have portions of the northbound shoulder that would not be expanded to 2.4 meters (8 feet).
3. Certain locations east of the roadway within Segments 2, 3, 4, 8 and 9 would be left as they are with no short-term visual impact on existing vegetation.
4. Alternative 2 avoids the use of retaining walls east of the roadway, except in Segment 8 where they are necessary to avoid a wetland.

Similar to Alternative 1, these changes would be visible from locations outside the project area. This would be a secondary view impact. Changes made east of the roadway would not be visible to motorists. The primary view of motorists would be slightly modified, with small cuts and walls proposed west of the roadway. These changes would be too small to be seen clearly from distant observer points. Observer points 1, 2, 3 and 4 (Figures 3.20, 3.22, 3.23, and 3.24) best predict the visual change from the added cut slopes, fill embankments and pavement. Impacts from added fill slopes east of the roadway would be substantial and would present a noticeable visual change immediately after construction. Impacts to existing vegetation would be concentrated east of the roadway. The area of affected vegetation would be approximately 4.53 hectares (11.2 acres).

Table 3.6: Short-term Visual Impact Assessment Summary

Proposed Project Alternative	Existing Visual Quality	Predicted Visual Changes	Predicted Visual Quality Rating 1 to 2 Years after Construction
Alternative 1	Moderately High	• Increased shoulder width entire project limits-100% southbound-100% northbound • Added cut and fill slopes • Approximately 2,189 meters (7,182 feet) of new fill • Approximately 1,949 meters (6,394 feet) of new walls • New cut slopes. • New retaining walls • Loss of vegetation habitat 5.38 hectares (13.3 acres) • One new vista point • New guardrail • Rehab of existing cut scars	Moderate Low
Alternative 2	Moderately High	• Increased shoulder width- 100% southbound-87.8% northbound • Added cut and fill slopes • Approximately 2,145 meters (7,037 feet) of new fill • Approximately 1,023 meters (3,356 feet) of new walls • Loss of vegetation habitat 4.53 hectares (11.2 acres) • New cut slopes • New retaining walls • One new vista point • New guardrail • Rehab of existing cut scars	Moderate Low
Alternative 3: No-Build	Moderately High	None	Not Applicable

No-Build Alternative

If the No-Build Alternative were implemented, there would be no change to the existing visual quality of the project area.

Pullouts

Improvement made to most of the existing pullouts would be indistinguishable from the visual impacts associated with the project alternatives. The only pullout that would produce a noticeable change in the visual character of the project area would be the new vista point proposed in Segment 10. The construction efforts necessary to improve the other proposed pullout locations would coincide with the visual impacts associated with the proposed shoulder expansion with Alternatives 1 and 2. The new vista point would remove approximately 0.38 hectare (0.94 acres) of sagebrush scrub habitat near Cemetery Road and U.S. Highway 395. This change in the landscape would be visible to both motorists and distance observer points.

Primary and Secondary Views

For both build alternatives, there is minimal impact to the primary view associated with the project area. As they drive along U.S. Highway 395, motorists focus their attention on Mono Lake, not the highway corridor. Physical changes made to U.S. Highway 395 would either be out of a motorist's sight or mimic the existing conditions. Viewers who take the secondary view might identify changes in the natural landscape more readily, but distance from the highway project dictates the viewer's response. Many secondary observation points were established from known locations within the Mono Basin in an attempt to rate and assess the project impact on these views.

A matrix (Table 3.7) was used to assign a rating of viewer interest to the Caltrans project from each of the 11 observation points. The rating system ranged from zero to 5, with zero being "not visible" and 5 being "visible with possible impacts." The scores were tallied and then averaged by the total number of segments (10) assigned to the project limits. Those views with an accumulative average rating of less than 1 were considered to have no visual impact from this widening project. Locations with an average rating of one and greater were considered to have possible visual impacts from the widening project.

Out of the 11 observation points identified by the Visual Impact Assessment, only four were found to be visually affected by the proposed project: observer points 1, 2, 3 and 4 as depicted in Table 3.7.

The following computer simulations graphically illustrate the views post-construction and before re-vegetation and mitigation measures, on observer points 1 through 4. Only those observer points visually affected by the widening project, having a rating of 1 or greater, are assessed in this section. The remaining observer points, 5-11, have been evaluated and documented within the Visual Impact Assessment. The proposed project would not have a visual impact on those locations.

Table 3.7: Observer Matrix

Seg-ments	Observer Location										
	1 Visitor Center	2 Old Marina	3 SB #1 on 395	4 SB #2 On 395	5 Lundy Cyn. Road	6 395 at Cem. Road	7 South Tufa	8 Panum Crater	9 Navy Beach	10 County Park	11 Black Point
1	0	5	3	0	0	0	0	0	0	1	1
2	3	5	3	5	0	0	0	0	0	0	1
3	3	5	0	5	0	0	0	0	0	0	1
4	3	4	0	0	0	0	0	0	0	1	0
5	2	0	5	0	0	0	0	0	0	2	1
6	0	0	0	0	0	0	0	0	0	2	1
7	0	0	0	0	0	0	0	1	0	2	1
8	0	0	0	0	0	0	0	1	1	0	1
9	1	0	0	0	0	0	0	1	1	1	1
10	1	0	0	0	0	4	0	1	1	0	1
Rating *	1.3	1.9	1.0	1.0	0	0.4	0	0.4	0.3	0.9	0.9

**Observer Point Rating = total points of each location evaluations/number of segments*

Observer Point 1

In this simulated view, the edge of the roadway has been moved east toward the lake, and a new fill section has been built to support the widened roadbed (see Figure

3.20). Existing sage scrub and a small section of riparian vegetation on and near the existing slope have been removed. The driveway access to the old marina has been widened, and a parking area has been graded. A low retaining wall above the roadway has been constructed to support a new cut area along the west edge of the road. Old barren cut areas are visible west of the roadway.

Figure 3.20: Observer Point #1 After Construction

Observer Point 2

This view below the roadway and close to the lake edge shows two options to accommodate the widening project (see Figures 3.21 and 3.22). The final solution may incorporate a combination of these two types of construction solutions. In the first simulation (Figure 3.21), a high retaining wall has been constructed to support the widened roadway. This solution preserves more existing sage scrub vegetation and strictly adheres to the concerns of other agencies regarding encroachment toward the lake. The second simulation (Figure 3.22) shows fill slopes supporting the

roadway widening. This solution removes additional existing sage scrub vegetation, but has the advantage of replanting the area, for reduced long-term visual impacts.

Figure 3.21: Observer Point 2—Retaining Wall Simulation After Construction

Figure 3.22: Observer Point 2—Fill Slope Simulation After Construction

Observer Point 3

The primary visual impact from this viewpoint is the alteration of landform: fill toward the lake, cut along the upslope side of roadway, and the loss of sage scrub vegetation (see Figure 3.23). The widening of the roadway will allow the observer a clearer view of the major focal point, Mono Lake. The improvement of standard shoulder widths would give motorists the opportunity to safely stop and enjoy the views of the Mono Basin.

Figure 3.23: Observer Point 3—Simulated Fill Slope and Retaining Wall After Construction

Observer Point 4

At the fourth observer point, changes to the view at this section of the road would be minor. The roadway would be wider, but the view from the road would largely be unchanged (see Figure 3.24). The widening would move the guardrail away from the roadway, giving the motorist a less obstructed view of Mono Lake. The old bare upper slopes have not been recut, but cleaned of the loose rocks. A retention area has been enlarged to catch falling rocks and boulders. New uniform width shoulders provide room for bicyclists and other users. The enlarged pullout provides motorists with an opportunity to safely stop and enjoy the views of the Mono Basin.

Figure 3.24: Observer Point 4—Simulated After Construction

3.15.3 Mitigation

The Visual Impact Analysis identified the critical viewpoints affected by the project. Because the project would be located in a National Scenic Area, this study has used computer simulations to show the likely visual impacts and proposed mitigation measures. The goal of mitigation recommendations is to minimize negative impacts or replace lost visual quality in the project setting. This project presents an

opportunity to have additional benefits for the Mono Basin Scenic Area by improving some of the old visual scars from the original road construction.

Based on the photo simulations of the proposed alternatives and the predicted visual changes for each build alternative, the following mitigation methods provide the greatest compensation for adverse visual effects. Mitigation would consist of a separate landscape project to design the replanting of native trees and shrubs and the seeding of native vegetation that would ultimately restore and improve visual conditions in the project area. The most effective mitigation measures include:

1. Replace affected trees and shrubs with native plant species strategically located to blend with and enhance the native plant communities.

Figure 3.25: Observer Point 3 Simulation—After Mitigation (5 to 20 years after construction)

2. Give preference to fills over the use of walls. Walls would have long-term impacts, while fill solutions would have short-term visual impacts because they can be vegetated. (Compare Figure 3.25 to Figures 3.11 and 3.23.)

3. If walls are used, minimize the height (not more than two meters (6.5 feet). Selection of retaining wall types, materials, colors, textures and forms should blend with the adjacent natural landscape components, soil, vegetation, and rock. Alternative wall configurations would be used to visually screen walls from distant locations (see Figures 3.26, 3.27 and 3.28).

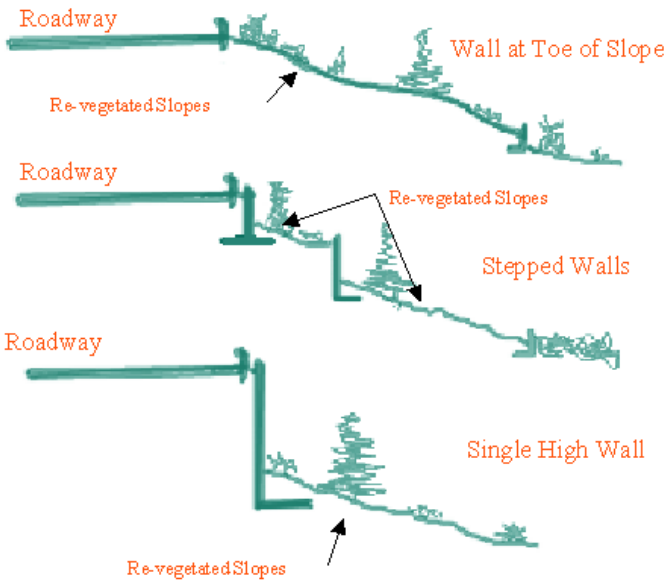

Figure 3.26: Alternative Retaining Wall Configurations

Figure 3.27: Observer Point 2 Simulation—After Mitigation (5 to 20 years after construction using stepped walls)

4. Contour-grade the cut and fill slopes to a non-uniform profile to blend with existing adjacent slopes. Slope grades would be constructed to facilitate planting, provide erosion control and make maintenance easier. Increased slope rounding at the top and bottom of cuts and fills, along with liberal slope variances, would create more visually natural connections to existing grades.

5. Stabilize and plant native vegetation on the old cut slopes west of the roadway to improve the existing visual quality of the Scenic Area by replacing native vegetation lost by previous highway construction activities (see Figure 3.28 and compare to Figures 3.12 and 3.24)

6. Grade slopes to leave the natural rock outcroppings in place. Treat newly exposed rock to make it look weathered and to blend in with adjacent outcroppings.

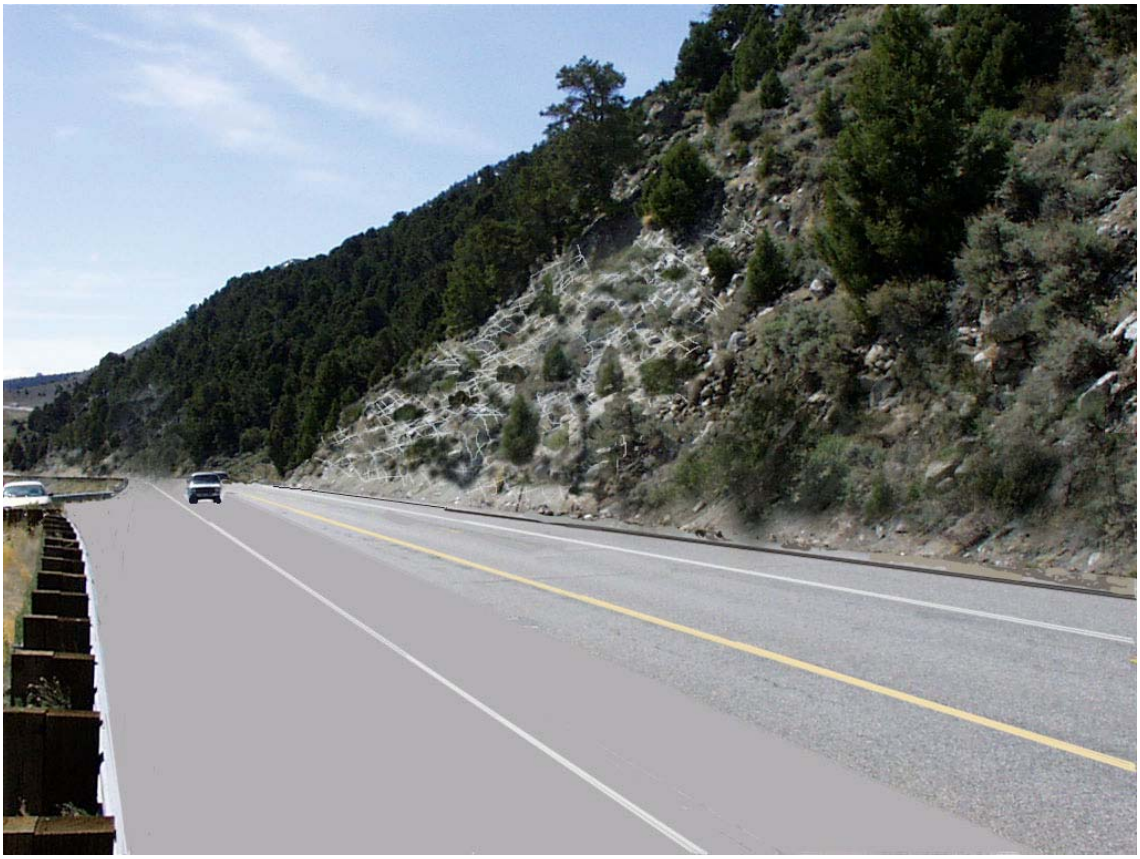

Figure 3.28: Observer Point 4 Simulation—After Mitigation (5 to 20 years after construction)

The simulated view from the Visitor Center (see Figure 3.29) shows the long-term visual benefit that is possible with this project. The roadway itself would not be removed, but the areas below the roadway have been reformed and planted to appear as natural slopes. These fill slopes have been shaped to match the surrounding hillsides and planted with native trees, shrubs and grasses. The old cut scars above the roadway have been stabilized and planted to restore the colors and textures near the lake edge. Over the next 20 years as the lake level rises, the road scars may all but disappear behind the trees and other vegetation, as simulated in Figure 3.29.

Figure 3.29: Observer Point 1 Simulation—After Mitigation (5 to 20 years after construction – Compare with Figure 3.9)

Table 3.8 summarizes the proposed mitigation for Alternatives 1 and 2.

Table 3.8: Summary of Proposed Mitigation

Proposed Project Alternative	Existing Visual Quality	Predicted Visual Changes	Quality Rating 1 to 2 years after construction	Suggested Mitigation	Visual Quality Rating 5 to 20 years after construction
Alternative 1	Moderately High	• Increased shoulder width entire project limits • Added cut and fill slopes • Approximately 2,189 meters (7,182 feet) of new fill • Approximately 1,949 meters (6,394 feet) of new walls • New cut slopes • New retaining walls • Loss of vegetation habitat 5.38 hectares (13.3 acres) • One new vista point • New guardrail • Rehab of existing cut scars	Moderately Low	• Replace affected trees and shrubs • Seed with native grass species • Plant native trees and shrubs on cut and fill slopes • Round tops and toes of cut and fill slopes to blend with adjacent landform • Select wall types to be constructed with minimal impact to vegetation and landform • Select wall color, texture, and form to blend with existing setting • Screen walls with native vegetation	Moderately High
Alternative 2	Moderately High	• Increased shoulder width 94% of project limits • Added cut and fill slopes • Approximately 2,145 meters (7,037 feet) of new fill • Approximately 1023 meters (3,356 feet) of new walls • Loss of vegetation habitat 4.53 hectares (11.2 acres) • New cut slopes • New retaining walls • One new vista point • New guardrail • Rehab of existing cut scars	Moderately Low	• Replace affected trees and shrubs • Seed with native grass species • Plant native trees and shrubs on cut and fill slopes • Round tops and toes of cut and fill slopes to blend with adjacent landform • Select wall types to be constructed with minimal impact to vegetation and landform • Select wall color, texture, and form to blend with existing setting • Screen walls with native vegetation	Moderately High
Alternative 3 (No-Build)	Moderately High	None	Not Applicable	None	Not Applicable

3.16 Construction

Construction activities for the project would cause temporary impacts with respect to visual quality, air quality, noise levels, erosion/water quality, and access/traffic circulation. These impacts would not be substantial. For air and noise, the number of sensitive receptors near the construction zone is small. The proposed project would interfere with local traffic causing delays and occasionally disrupting access. Current access to the marina area would be blocked during the improvement of the intersection of Marina Road and Highway 395. Continuing use would be maintained with the establishment of an alternate access point at Picnic Grounds Road. Movement of heavy construction equipment may temporarily block traffic completely, but for a very limited time. Constant coordination of activities would ensure traffic would continue to flow without substantial delays. Fire and safety service providers, and local businesses, would therefore not experience substantial impacts.

A detailed Traffic Management Plan would be prepared for Alternatives 1 and 2 because of the need to maintain traffic flow through the project site. All work would need to be performed without detours to minimize land disturbance. Access to road connections and resident driveways would need to be maintained during construction. The Traffic Management Plan would explain how activities would be coordinated with local residents and the community, how a community outreach plan would be established, and when and how lanes would be closed temporarily during construction. Details explaining the closure of Marina Road and use of Picnic Ground Road for access into the marina area would be included in the plan. It would also establish a construction window in which all work would take place, which is currently May 1 through September on current projects in Mono County.

The proposed project takes place on a narrow highway corridor. To minimize impacts and maintain the requirements of the Traffic Management Plan, construction would close off one lane, leaving the remaining lane to accommodate both directions of travel. Where traffic in both directions must, for a limited distance, use a single lane, provision would be made for alternate one-way movement through the constricted section. Some means of coordinating movements at each end would be used to avoid head-on conflicts and to minimize delays. Control points at each end would be chosen to permit easy passing of opposing lines of vehicles. Alternate one-way traffic control may be accomplished by traffic signals as portrayed in Figure 3.30.

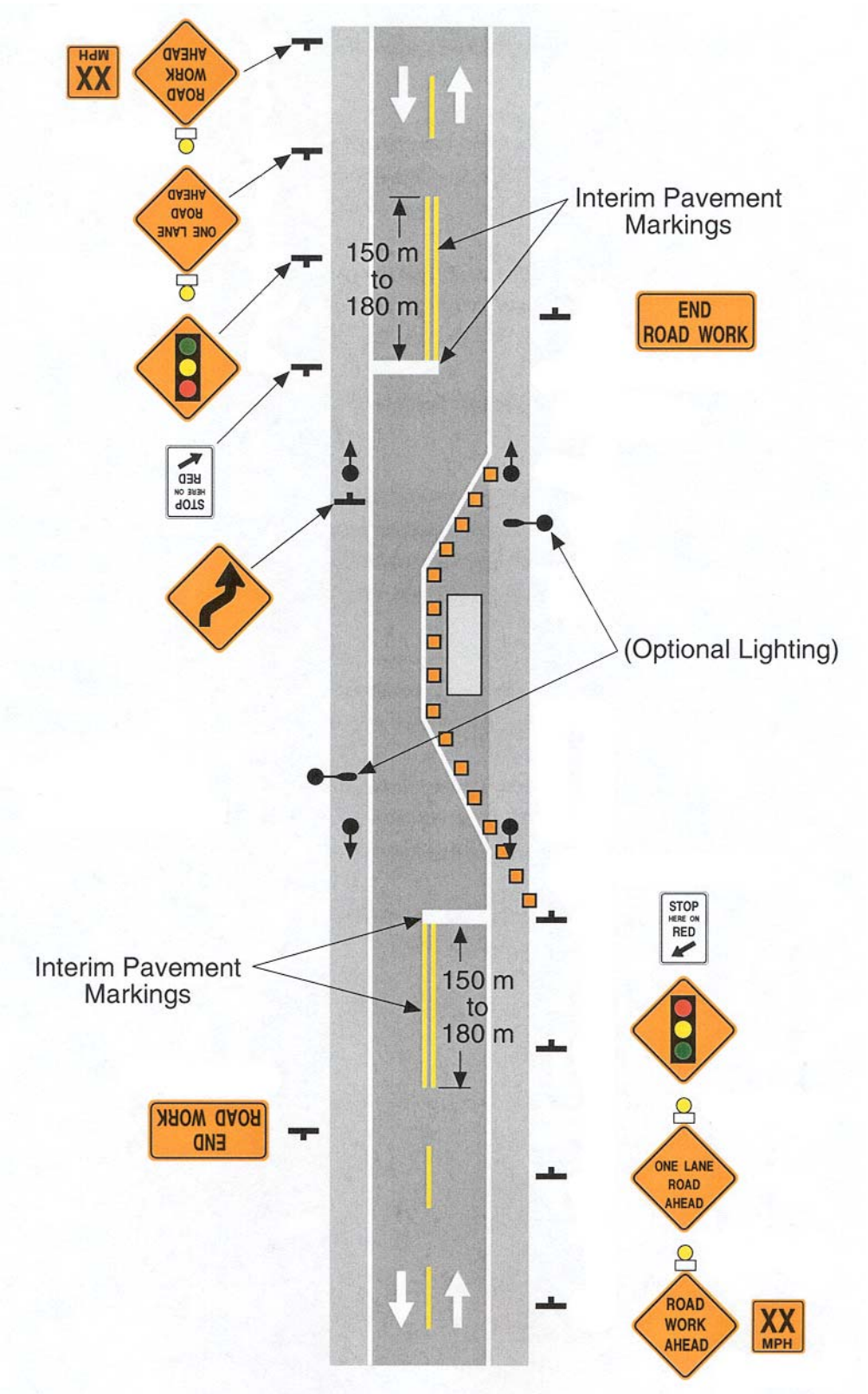

Figure 3.30: Lane Closure on Two-Lane Road Using Traffic Signals

Figure 3.30 is an example of a lane closure on a two-lane road using traffic signals. Temporary traffic signals are preferable to flaggers for long-term projects and other activities that would require flagging at night. The maximum length of activity area for one-way traffic signal control would be determined by the capacity required to handle the peak hour demand. Signals would be installed and operated in accordance with the requirements of Chapter 9 of the Caltrans Traffic Manual. Temporary traffic control signals would meet the physical display and operational requirements of conventional traffic signals.

The potential to encounter tufa during construction is high along Highway 395. The Department of Parks and Recreation provided Caltrans with guidance on how to approach the situation if it were to arise during construction. Ice age tufa occurs along both sides of Highway 395 within the project area. Many of the pieces of ice age tufa east of the road are loose, and appear to be from the original road construction. These loose pieces would be picked up and moved out of the work zone towards the lake. Ice age tufa would be buried in place rather than moved if it is impossible to design around. The major tufa towers just north of the skeet range would be protected and designed around. The ice age tufa west of Highway 395 may have to be dragged and draped for safety reasons, to prevent loose rock material from falling down on the highway. These are mainly broken chunks of tufa mixed in with other rocks. Large pieces of ice age tufa that are removed from the west would be relocated east of the highway out of the work zone.

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. The largest percentage of pollutants would be windblown dust generated during excavation, grading, hauling and various other activities. 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.

3.17 The Relationship Between Local Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity

Implementation of the proposed project would result in attainment of short-term and long-term transportation and economic objectives at the expense of some long-term visual and biological impacts. Transportation improvements are based on comprehensive state and local planning, which considers the need for present and future traffic requirements within the context of present and future land use development. The local short-term impacts and use of resources by the proposed project is consistent with the maintenance and enhancement of long-term productivity for the local area and the state as a whole.

The build alternatives would have similar short- and long-term effects. Short-term losses include construction impacts such as noise, dust, traffic, biological, and visual disturbances within the project limits. Short-term benefits include increased jobs and revenue generated during construction of the improved roadway.

The project would improve regional traffic flow because the road is used extensively for moving goods movement between Southern California and Nevada. This would have a long-term positive effect on the productivity of the region by improving the movement of goods and services. The construction of wider shoulders on both sides of the alignment would contribute to improved traffic flow and regional safety by increasing the available room for corrective maneuvers and the escape options available to motorists, bicyclists and wildlife along this stretch of U.S. Highway 395. Wider shoulders would give motorists extra space to pull over in an emergency. This would have the beneficial long-term effect of allowing traffic to travel continuously, free of obstructions, free of delays and free of compromising situations. The effect long-term would promote safe travel, resulting in a more efficient roadway network for both interregional and local traffic. Long-term losses associated with the build alternatives include the loss of a small amount of open space, changes in the visual character of the project area, and some biological resource disturbance.

The No-Build Alternative, which would leave the roadway as it is, would not offer any of the gains listed above, nor any of the losses.

3.18 Unavoidable Adverse Environmental Effects

Unavoidable adverse impacts are defined under CEQA as "where the environmental effect of the proposed project reaches the threshold of significance but no feasible mitigation is available to reduce the impact to a less than significant level." For the proposed project, unavoidable adverse impacts could potentially result to the visual quality of the project area in the short term (less than 5 years), as seen from a nearby visitors center and off-highway, lake to highway perspectives. Mitigation measures are incorporated into the project, which would mitigate impacts in the long term (5-20 years). Mitigation measures have been proposed within Section 3.15 of this document that will be implemented in accordance with performance goals set by the local community, resource agencies and Caltrans prior to construction.

3.19 Irreversible and Irretrievable Commitments of Resources

Implementation of the proposed project involves a commitment of resources. Construction of the proposed project under any of the build alternatives would result in the irreversible loss of up to approximately 3.67 hectares (9.07 acres) of land. A little under half of this property lies adjacent to land owned by the Inyo National Forest; the remainder of the right-of-way needs are split among 7 private property owners. Land used in the construction of the proposed improvements is considered an irreversible commitment during the time period that the land is used as a highway. If a greater need arises for use of the land or the highway is no longer needed, the land can be converted to another use. There is no reason to believe such a conversion would be desirable.

Considerable amounts of resources would be expended during construction, including: fossil fuels used for construction vehicles and equipment; labor; and highway construction materials, such as cement, aggregate, and bituminous material. These materials are generally not retrievable, however, they are not in short supply and their use would not have an adverse effect on continued availability of these resources. In addition to the cost of construction, there would be costs for roadway maintenance, roadside litter/sweeping, signs and markers, electrical and storm maintenance. Any construction would also require a substantial one-time expenditure of both state and federal funds, which are not retrievable.

The commitment of these resources is based on the concept that residents in the immediate area, state and region would benefit by the improved quality of the transportation system. These benefits would include improved accessibility and safety, improved emergency recovery area and greater availability of quality services, which are expected to outweigh the commitment of these resources.

The No-Build Alternative would not result in any irreversible or irretrievable commitment of resources, but it may foreclose funding. Other transportation projects that compete for available funds may reduce the funds that are currently available. The opportunity to implement the project might not exist in the future if the project is not built while the funding is available.