VISUAL IMPACT ASSESSMENT

LEE VINING ROCKFALL PROJECT

Lee Vining, Mono County, California

U.S. 395
Post miles 52.3/53.7
EA 09-335000 (Project No. 0900020002)

June 2012

California Department of Transportation
Landscape Architecture
District 9

This page intentionally left blank

This technical support document prepared under the direction of:

R. STEVE MILLER – DISTRICT LANDSCAPE ARCHITECT

R Steve Miller 6/13/12

LICENSED LANDSCAPE ARCHITECT

In conjunction with:

ROBERT G. CARR

Robert G. Carr 6/13/12

LICENSED LANDSCAPE ARCHITECT

TABLE OF CONTENTS

Visual Impact Assessment

Contents

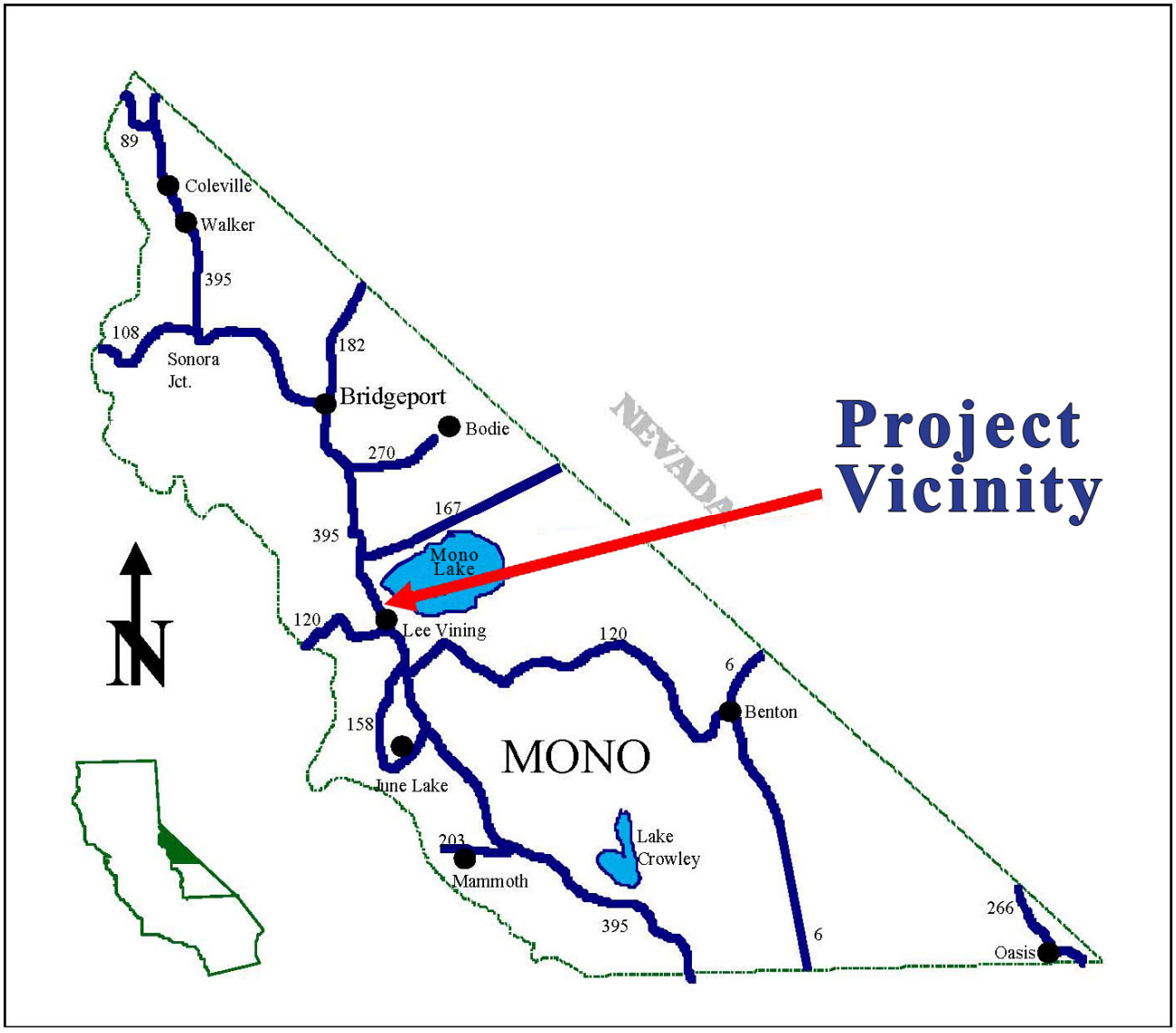
LIST OF TABLES AND FIGURES

Visual Impact Assessment

Tables

Figures

Figure 1 – Project Vicinity Map



VISUAL IMPACT ASSESSMENT
of the proposed
LEE VINING ROCKFALL PROJECT

U.S. 395 Mono County

Post Miles 52.3 to 53.7 - EA 09-33500 (Project No. 09 0002 0002)

1.1 EXECUTIVE SUMMARY

The high visual quality of the Mono Lake region is due largely to the panoramic views of Mono Lake and its shoreline, the surrounding hills and mountains, natural open space, varied topography and native vegetation. Within the project limits, the existing disturbed and scarred slopes reduce this otherwise high visual quality. The existing disturbed slopes are most noticeable from viewpoints along U.S. 395, where the roadway runs immediately adjacent to the hillside and affected slopes. From these close viewpoints, the eroded slopes tend to dominate views to the west, and at some locations their proximity precludes views to the rest of the mountain. The slopes can also be seen from greater distances, mostly due to the contrasting color of the disturbed earth and the surrounding vegetated slopes. From greater viewing distances, however, the project slopes occupy a smaller percentage of the overall scenery, and they become subordinate to the larger high-quality landscape vista.

In addition to the generally high visual quality of the region, the expected viewer sensitivity or response is also high, based on the area's numerous visual resources, as well the importance of the scenic environment as identified in local, state and national planning documents and designations.

Each of the project options would affect the quality and character of views to some extent along a section of U.S. 395 and from portions of the surrounding area.

The visual analysis shows that, from all viewpoints, the hybrid and drapery systems would result in the greatest amount of long-term visual impact compared to the excavate-and-revegetate methods and the anchored-mesh methods. Although the initial slope disturbance would be less with the hybrid and drapery systems, the potential for slope revegetation would also be less. This could result in exposed cut slopes that would never successfully revegetate.

The visual impact ratings show that successful revegetation of the slopes would be the single most-effective means of visually blending the project with its natural setting. As seen from all viewpoints, slopes that included successful revegetation would contrast less with the surrounding native context. The revegetated slopes would appear generally consistent with the adjacent non-disturbed areas,

would draw less of the viewers' attention from close range, and would be less noticeable when seen from a distance.

Option 1 would result in moderately beneficial visual impacts at four of the six project slopes due to the ability to successfully revegetate the slopes and visually blend with the natural setting. However, Option 1 would also cause moderately adverse visual impacts at Slopes 4 and 5, the largest slopes of the project.

Option 2 would cause moderately beneficial visual impacts at each of the six project slopes due to the ability to successfully revegetate the slopes and visually blend with the natural setting.

Proposed project features such as revegetation, slope-rounding, and coloring of mesh, netting, posts and other elements would substantially benefit the project's blending with the natural setting. Additional measures recommended by this report such as preservation of existing vegetation, natural-appearing grading, and the coloring of the maximum amount of human-made elements as possible would further help the project appear consistent with the high-quality visual environment.

1.2 INTRODUCTION

The National Environmental Policy Act of 1969 as amended (NEPA) establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 U.S. Code 4331[b][2]). To further emphasize this point, the Federal Highway Administration in its implementation of the National Environmental Policy Act (23 U.S. Code 109[h]) directs that final decisions on projects are to be made in the best overall public interest taking into account adverse environmental impacts, including among others, the destruction or disruption of aesthetic values. This Visual Impact Assessment was prepared using a process developed by the Federal Highway Administration in conjunction with the American Society of Landscape Architects. This process for assessing visual impacts satisfies the requirements of the National Environmental Policy Act.

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of aesthetic, natural, scenic and historic environmental qualities" (CA Public Resources Code Section 21001[b]). This report analyzes and discloses potential project effects consistent with the California Environmental Quality Act definitions and guidelines.

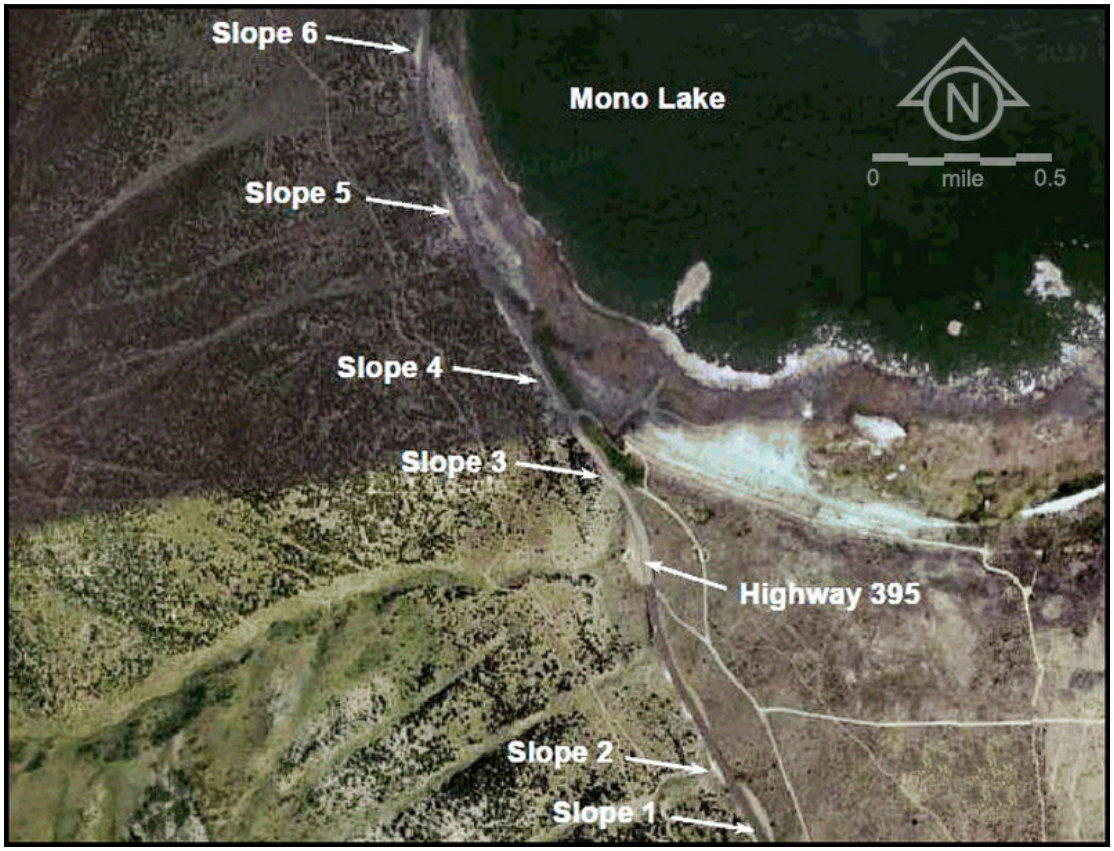
The intent of this visual impact assessment is to substantiate findings presented in the environmental document by acting as a technical support document. This assessment defines the visual environment of the project area, quantifies the visual resources of the project area, and identifies viewer response to those resources. The study assesses the resource change that would be introduced by the project and the corresponding viewer response to that change. This perceived change, along with the project's consistency with national, state and local visual resource policy, is used to determine the degree of potential impacts.

1.3 PROJECT DESCRIPTION

1.3.1 Project Proposal

The purpose of this project is to reduce rockfall resulting from existing cut slopes on the west side of U.S. 395 along the southwest side of Mono Lake just north of the community of Lee Vining. Caltrans is proposing to construct a tailored solution that would reduce rockfall along the highway. The project would improve safety for the traveling public and highway maintenance crews by reducing the quantity of rockfall that is expected to reach the roadway.

Figure 2 – Project Slope Location Map



The project site consists of six existing cut slopes within a 1.4-mile section of U.S. 395. The work locations, all on the hillside rising up immediately west of the roadway, are referred to as Slopes 1, 2, 3, 4, 5 and 6. The locations and approximate dimensions of the existing cut slopes are shown in the table below:

Table 1 – Locations and Dimensions of Existing Cut Slopes

Slope #	Post Miles	Length (approx.)	Maximum Height (approx.)	Area (approx.)
1	52.34 to 52.43	210 ft.	37 ft.	7,400 sq. ft.
2	52.50 to 52.54	210 ft.	39 ft.	7,400 sq. ft.
3	52.91 to 52.97	260 ft.	40 ft.	6,530 sq. ft.
4	53.03 to 53.23	950 ft.	85 ft.	42,300 sq. ft.
5	53.28 to 53.44	1,000 ft.	117 ft.	41,000 sq. ft.
6	53.51 to 53.62	370 ft.	58 ft.	15,300 sq. ft.

1.3.2 Project Alternatives and Options

The project proposes one build alternative and one no-build alternative. The build alternative includes two design options. Each design option includes one or more of the following rockfall mitigation strategies:

Rock Scaling: Scaling removes intermittent and marginally loose rock from the slope and is considered a form of stabilization. Scaling is usually considered a short-term stabilization treatment. To be considered a long-term stabilization method, recurring scaling activities would have to be implemented. Scaling activities often require lane closures and result in potential impacts to traffic.

Excavation (Cut) Slopes: Cutting back a slope to a less steep angle can prevent or reduce the amount of rockfall. Laying back a slope to a naturally stable slope is not always feasible due to any one or a combination of the following: very tall slopes, right-of-way issues, environmental impacts, or the logistics of disposing of the potentially large volumes of excavated material produced in laying back the slope. An important benefit gained from cutting back a slope to a more naturally stable slope is the increased probability of revegetating the slope. Revegetation strategies can be more successfully used to minimize future erosion potential and aid in providing long-term slope stability.

Wire/Cable Mesh Drapery: Draped mesh consists of wire mesh or cable netting that is anchored only at the top of the installation and draped over the face of the slope. The bottom edge of the drapery is unattached to the slope and usually ends 3 to 5 feet above the ground. This allows material to deposit at the toe of slope without loading the drapery and anchors above. It also allows for maintenance crews to remove the debris without hitting the drapery. Drapery by design allows controlled movement of rock to continue beneath the drapery. The more contact the drapery can make with the slope, the less visible it will be and the more effective it will be at controlling the rockfall. Closer contact also increases the ability to prevent erosion and allow a greater chance that vegetation will grow. However, since drapery allows for the movement of the slope surface, a revegetative treatment generally is not applied to the slope beneath the drapery. Light rock scaling is recommended before most draped mesh installations, but major grading or slope smoothing is not necessary. Draped mesh may be strategically placed to allow some of the larger existing vegetation such as trees to remain. Draped mesh can be PVC-dipped or powder-coated to match the color/tone of the surrounding environment.

Hybrid Wire/Cable Mesh Draped System: A hybrid wire/cable mesh system, referred to as a hybrid system, is composed of the upper edge of the drapery raised above the slope and suspended vertically between steel posts (attenuators). Raising the drapery above the slope guides up-slope rockfall under the drapery and allows the rock to be funneled below the drapery. A major advantage of the hybrid system is the minimized area of disturbance to the slope as compared to a draped or

anchored solution. Because the hybrid system can "catch" rock from above, the system can be installed down lower on the slope, which creates potentially less environmental disturbance.

Anchored Mesh: An anchored mesh system is similar to the draped mesh system, but actively retains rock and debris on the slope to minimize movement. This is accomplished by fastening the mesh/net to the slope with boundary and interior anchoring. The efficacy of this system is predicated in part upon the slope being graded or contoured to a more uniform plane, free of numerous and abrupt topographic irregularities. Anchored mesh/nets are more effective at preventing erosion than draped mesh systems, but the necessary grading/contouring can affect the existing natural topography more than draped mesh. Vegetation can be planted under anchored mesh and can be an effective method of slope revegetation coverage, though large-trunked trees could eventually protrude and damage the mesh. Anchored mesh/net elements can be PVC-dipped or powder-coated to match the color/tone of the surrounding environment.

Based on the potential strategies listed above, the following project alternatives and project options are proposed:

Alternative 1 – Design Option 1

Slopes 1 and 2 would be laid back to a less steep angle of 1.5:1(h:v). A new dike would be added to the toe of slope to replace the existing dike, which would be removed, to maintain the flow line and prevent undermining the toe. Existing topsoil and duff would be collected before any grading operations and stockpiled for placement on the finished slope. Slope rounding would be done at the perimeter of the new slope to reduce erosion of the hinge point. Hydroseeding and a rolled erosion-control product, such as a straw and coconut fiber erosion control blanket, would be applied immediately to the finished slopes. This erosion control procedure would act as both a short-term storm water best management solution and a long-term storm water design solution. The hydroseed treatment would contain additives and a native seed mix approved by a landscape architect.

Slope 3 would receive a vegetated solution applied to the existing slope. Under this alternative, the existing slope would not be laid back to a lesser angle as proposed for Slopes 1 and 2, but would require rounding the top of the slope and rock scaling of the slope itself. Existing topsoil and duff would be collected before any grading or rock scaling operations and be stockpiled for placement on the finished slope. Hydroseeding and a rolled erosion-control product, such as straw and coconut fiber erosion control blanket, would then be applied to the slope. The hydroseed treatment would contain additives and a native seed mix approved by a landscape architect. A new dike would replace the existing deficient dike to prevent undercutting of the slope and maintain the flow line.

For ***Slope 4,*** the southern half would receive a hybrid system composed of double-twisted wire mesh, while the northern half would receive double-twisted wire mesh drapery. Erosion control

such as hydroseeding may be applied to the surface to promote revegetation and act as a storm water best management practice. The hydroseed treatment would contain a native seed mix approved by a landscape architect.

Slope 5 would receive a hybrid system composed of cable mesh with double-twisted wire mesh. As an option, double-twisted wire mesh could be placed over the cable mesh instead of beneath it to provide a uniform look with other double-twisted mesh drapery installed on Slope 4. Erosion control such as hydroseeding may be applied to the surface to promote revegetation and act as a storm water best management practice. The hydroseed treatment would contain a native seed mix approved by a landscape architect.

For ***Slope 6,*** because of the limited sight distance for southbound travelers, compounded by the limited containment area below the slope for rockfall debris, a hybrid or drapery system is deemed inappropriate here; instead, this slope would receive an anchored cable mesh system with double-twisted wire mesh. As an option, double-twisted wire mesh could be placed over the cable mesh instead of beneath it to provide a uniform look with other double-twisted mesh drapery installed on Slope 4. Hydroseeding and a rolled erosion control product, such as a straw and coconut fiber erosion control blanket, would then be applied to the slope to promote revegetation and act as a storm-water Best Management Practice. The hydroseed treatment would contain additives and a native seed mix approved by a landscape architecture representative.

For ***Slopes 4 to 6,*** existing topsoil and duff would be removed and stockpiled before grading where feasible. Rock scaling and slope rounding would precede any placement of drapery or anchored mesh to remove any unstable surface rock from the slope. In addition to the rock scaling, localized grading within the eroding portion of the slope may be required to remove any surface irregularities to promote improved contact between the slope surface and the mesh. For drapery installations, large keystone rocks on the slope may be left in place and either pinned or lashed down instead of excavated. For anchored mesh, large keystone rocks must be left in place undisturbed below grade, but the portion above grade would be trimmed to within the tolerances specified in the standard specifications for earthwork. The existing available dirt shoulder would be uniformly graded to a back slope and angled toward the toe of slope of about 5 percent. This would be done to contain any loose rock that makes its way down the slope; the existing catchment area would not be widened. A dike could be added to the toe of slope to prevent undercutting the slope. Slope rounding would be performed where the actively eroding slope and the uphill non-eroding slope meet and at the top of any existing cuts that are not rounded. This would reduce surface erosion and prevent erosion of the hinge point.

Alternative 1 – Design Option 2

Slopes 1, 2, and 3 would receive the same treatments proposed under Design Option 1 above.

Slope 4 would receive an anchored double-twisted wire mesh system. Hydroseeding and a rolled erosion-control product, such as a straw and coconut fiber erosion-control blanket, would then be applied to the slope to promote revegetation and act as a storm-water best management practice. The hydroseed treatment would contain additives and a native seed mix approved by a landscape architecture representative.

Slopes 5 and 6 would receive an anchored cable mesh system with double-twisted wire mesh. As an option, double-twisted wire mesh could be placed over the cable mesh instead of beneath it to provide a uniform look with other double-twisted wire mesh drapery installed on Slope 4. Hydroseeding and a rolled erosion-control product, such as a straw and coconut fiber erosion-control blanket, would then be applied to the slope to promote revegetation and act as a storm water best management practice. The hydroseed treatment would contain additives and a native seed mix approved by a landscape architect. Because of a deep narrow gulley on Slope 5, additional grading beyond rock scaling may be required to place the cable mesh system.

For ***Slopes 4 to 6,*** existing topsoil and duff would be removed and stockpiled before grading where feasible. Rock scaling and slope rounding would precede any placement of drapery or anchored mesh to remove any unstable surface rock from the slope. In addition to the rock scaling, localized grading within the eroding portion of the slope may be required to remove any surface irregularities to promote improved contact between the slope surface and the mesh. For anchored mesh, large keystone rocks must be left in place undisturbed below grade, but the portion above grade would be trimmed to within the tolerances specified in the standard specifications for earthwork. The existing available dirt shoulder would be uniformly graded to a back slope and angled toward the toe of slope of about 5 percent. This would be done to contain any loose rock that makes its way down the slope without widening the existing catchment area. A dike could be added to the toe of the slope to prevent undercutting the slope. Slope rounding would be performed where the actively eroding slope and the uphill non-eroding slope meet and at the top of any existing cuts that are not rounded. This would reduce surface erosion and prevent concentrated surface flows.

Alternative 2 – No Build

The no-build alternative would leave the slopes intact and unimproved. This alternative would not address the project purpose and need.

1.3.3 Vegetative and Aesthetic Features Proposed as Part of the Project

The following features are proposed to minimize the potential visual effects of the project:

- Slope revegetation will include a mix of native seeds approved by a Caltrans Landscape Architect.

- Local topsoil and duff will be collected and saved during construction to be applied to the finished slopes before installing native seed.
- The top and sides of slopes will be rounded to blend with adjacent landforms.
- All visible rockfall protection system elements such as double-twisted wire mesh, cable mesh, metal posts for the hybrid system, and other elements will be colored to visually recede and match the adjacent natural setting. The color of the system elements will be approved by a Caltrans Landscape Architect.

1.4 EXISTING VISUAL ENVIRONMENT

1.4.1 Project Setting

The regional landscape consists of the Mono Lake Basin, located near the base of the eastern Sierra Nevada. Mono Lake is a roughly 65-square-mile body of water surrounded on all sides by mountains and hills. Because of the unique high desert setting and natural beauty, Mono Lake and its surroundings are designated as a National Forest Scenic Area, the first of its kind in the United States. Mono Lake is the saltiest inland lake in the Eastern Sierra and is a nesting area for many migratory birds, including the California gull, Wilson's phalarope, and eared grebe.

Plant communities in the project area consist of pinyon pine, upland sage scrub, riparian associations, and native grasses. Visually, these are revealed as pinyon pine on the upper slopes, with scrub brush in the foreground and riparian areas in the middle distance along the lakeshore and in drainages. 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 this area.

The project sits about half a mile north of the town of Lee Vining, immediately adjacent to U.S. 395, the main north-south transportation corridor in Mono County. The six existing eroded cut slopes that make up the project are situated along the western uphill slopes along the southbound lanes of the highway. U.S. 395 is somewhat constrained through the project limits, with the shores of Mono Lake immediately to the east and the base slopes of the Warren Bench and Sierra Nevada range immediately to the west. U.S. 395 is somewhat elevated above Mono Lake, which allows generally sweeping vistas of the area from the roadway. U.S. 395 through this portion of Mono County is classified as an officially designated State Scenic Highway.

Landscape Assessment Units

To provide a framework for understanding and disclosing the potential visual effects of highway project alternatives, the Federal Highway Administration visual methodology recommends the regional landscape be divided into analysis sub-units. Landscape Assessment Units are not based on jurisdictional boundaries such as city or county limits, but rather are based on distinct areas or

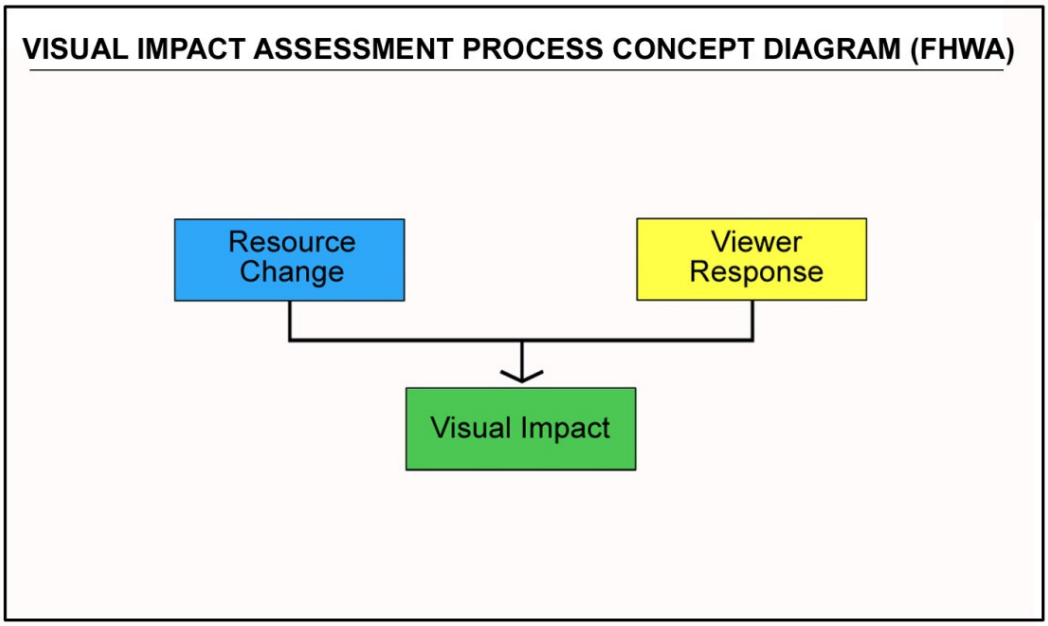
zones that have certain common visual characteristics. Landscape Assessment Units, or "Units," divide the project into manageable segments that may share visual attributes, potential project effects and, if necessary, impact reduction strategies. The visual resources of Landscape Assessment Units can be assessed, compared, and assigned priorities for planning, siting, and design decisions.

The general landform and vegetative cover throughout the project limits are visually consistent, and no atypical visual features are present. Although this project is composed of six separate construction locations over a distance of 1.4 miles, the work locations are relatively close to one another. It is expected that most casual observers would perceive the project limits as being somewhat the same throughout its length. As a result, this report analyzes the project setting as a single landscape unit.

1.5 ANALYSIS METHODOLOGY

This study used an analysis model developed by the Federal Highway Administration in conjunction with the American Society of Landscape Architects. The major components of this process include establishing the visual environment of the project, assessing the visual resources of the project area, and identifying viewer response to those resources. Those components define the existing or baseline conditions. Resource change introduced by the project and the associated viewer response is then assessed, providing a basis for determination of potential visual impacts. Visual impact is a function of assessing the extent of physical change (resource change) and comparing that with the degree of viewer sensitivity (viewer response). A generalized visual impact assessment process is shown in the following diagram.

Figure 3 – Visual Impact Assessment Process Concept Diagram



1.5.1 Visual Resource Change

Physical changes caused by the project manifest themselves mainly in terms of form, line, color and texture, as well as the associated relational aspects of scale, dominance, diversity and continuity. These inherent physical attributes are visually experienced as an integrated whole, defining the perceived visual character of the landscape. How these attributes relate to one another and their setting is assessed in part by analyzing what is defined in the Federal Highway Administration methodology guidance as the view's *vividness, intactness and unity*. These three visual rating criteria are described as follows:

- Vividness is the visual power or memorability of the landscape components as they combine in striking and distinctive visual patterns.
- Intactness is the visual integrity of the landscape and its freedom from non-typical encroaching elements. If all of the various elements of a landscape seem to "belong" together, there will be a high level of intactness.
- Unity is the visual harmony of the landscape considered as a whole. Unity represents the degree to which potentially diverse visual elements maintain a coherent visual pattern.

To assess the degree of resource change caused by the project, the Federal Highway Administration method recommends a numerical rating process that compares the visual quality in terms of

vividness, intactness and unity (described above), of both the existing and proposed conditions for each project alternative and option under consideration.

Resource Change (RC) evaluations were done for each of the eight representative Observer Viewpoints. A numerical rating from 1 to 7 was assigned for the visual quality of existing conditions from each viewpoint, with 1 having the lowest value and 7 the highest. Photo simulations were then prepared showing the likely appearance of each view after project construction. After a combination of field reviews and photo simulation study, numerical ratings were then assigned to each of these "proposed" views. The numerical difference, if any, between the existing and proposed conditions quantifies the degree of resource change that could occur as a result of the project. Table 2 below shows the range of visual resource change ratings and their corresponding narrative descriptions:

Table 2 – Visual Resource Change (RC) Ratings and Corresponding Narrative Descriptions

	Negative Visual Resource Change						**Positive Visual Resource Change**				
Visual Resource Change (RC) Rating	-5.0	-4.0	-3.0	-2.0	-1.0	0	1.0	2.0	3.0	4.0	5.0
Equivalent Narrative Rating	High	Moderately High	Moderate	Moderately Low	Low	No Change	Low	Moderately Low	Moderate	Moderately High	High

The Resource Change (RC) evaluation determines which specific criteria contribute most to the existing quality of each view and whether change would occur to those criteria as a result of the project. If a numerical change in visual criteria was identified, this change was analyzed for its potential effect on the existing visual quality.

Ultimately, the degree of resource change (as determined by the Resource Change evaluation) must be combined with the anticipated viewer response to understand and determine potential levels of visual impact.

1.5.2 Viewer Response

To understand and predict viewer response to the appearance of a highway project, we must know something about the viewers who may see the project and the aspects of the visual environmental to which they are likely to respond. We can differentiate major viewer groups by physical factors that

change perception. For highway projects, we begin with the basic distinction of the views from the road, the views of the road, the physical location of each viewer group, the number of people in each group, and the duration of their view. How different viewer groups receive or perceive the visual environment is not the same. This variable receptivity is defined as *viewer sensitivity* and is strongly related to visual preference. It affects visual experience directly by means of viewer activity and awareness, and indirectly by means of values, opinions, and preconceptions.

Viewer response assumptions include consideration of viewing proximity, duration of views, activity while viewing, and overall viewing context. Local values based on visual preferences, historical associations, and community aspirations and goals are also important factors in predicting viewer sensitivity and response to change.

Based on the project's proximity to high-quality visual resources, as well the importance of the visual environment, highway and community aesthetics as identified in local, state and national planning documents, this analysis assumes an overall high level of viewer sensitivity throughout the project's length and in the surrounding area. At any given viewpoint, this generally high level of viewer sensitivity is affected by the previously mentioned factors (viewing distance, location and availability, and so on). The overall number of viewers and duration of views can also increase or descrease the high degree of visual sensitivity generally assumed for a certain viewpoint.

Viewer Response (VR) ratings were determined for each of the eight representative Observer Viewpoints. A numerical rating from 0 to 7 was assigned for the expected viewer sensitivity and response from each viewpoint, with 0 having the lowest value and 7 the highest. Table 3 below shows the viewer response ratings and their corresponding narrative descriptions:

Table 3 – Viewer Response (VR) Ratings and Corresponding Narrative Descriptions

Viewer Response (VR) Numerical Rating	0	1	2	3	4	5	6	7
Viewer Response Narrative Rating	Low	Low	Moderate Low	Moderate	Moderate	Moderate -High	High	High

1.5.3 Viewer Sensitivity - Local Policy Indicators

U.S. 395 through Mono County has long been recognized for its scenic qualities. Planning policy emphasizes the protection of visual resources along U.S. 395 and underscores the concern and sensitivity to aesthetic issues along this route.

Public opinion and policy concerning the established visual character of the regional landscape are important factors in assessing the baseline values given to the setting. The following national and state designations and community-based goals serve as an essential tool for predicting the likely reaction that changes resulting from the proposed project would evoke from the viewing public.

Mono Basin National Forest Scenic Area – U.S. Forest Service

The Mono Basin National Forest Scenic Area was designated by Congress in 1984 to protect the natural, cultural and scenic resources of the Mono Basin. The Scenic Area encompasses 116,000 acres and includes the Mono Basin Visitor Center in Lee Vining. The Mono Basin Scenic Area was the first of its kind in the National Forest System. California State Parks and the U.S. Forest Service work cooperatively to manage public lands around Mono Lake.

State Scenic Highway Designation

U.S. 395 through the project limits is classified as an officially designated State Scenic Highway. The State Scenic Highway Program designates routes based on high-quality views of the natural landscape along the route and on the local governing body's implementation of a Corridor Protection Plan. The Corridor Protection Plan includes policies and ordinances addressing land use, design review, billboards, earthwork and landscaping, and utility structures.

The State Scenic Highway designation recognizes the route's visual quality, which indicates a higher level of interest in the aesthetic character of the highway corridor. The State Scenic Highway Program does not preclude development and makes the following statements about the effect of designation on highway construction, emergency repairs and maintenance activities:

- "Highway construction and emergency repairs proposed on Designated State Scenic Highways are evaluated for visual impacts to scenic views as part of the environmental process. If impacts occur, then appropriate mitigation measures are necessary. Generally, the designation of a route as an official scenic highway does not substantially alter the type of project proposed but it may limit the use of statutory or categorical exemption from the California Environmental Quality Act."

- "Caltrans works with appropriate agencies to ensure the protection of scenic corridors to the maximum extent feasible. It identifies impacts to scenic corridors such as degradation and

obstruction of views as an integral part of its project planning, project development and maintenance operations."

Mono Lake Tufa State Natural Reserve – California State Parks

The Mono Lake Tufa State Natural Reserve consists of those state-owned lakebed lands below the elevation of 6,417 feet above sea level. The reserve was established in 1982 to preserve the spectacular tufa formations and other natural features of Mono Lake. California State Parks and the U.S. Forest Service work cooperatively to manage the public lands around Mono Lake.

Mono County General Plan Conservation/Open Space Element

The Visual Resources *Issues/Opportunities/Constraints* section of the Mono County General Plan Conservation/Open Space Element states: "Outstanding scenery is one of Mono County's significant attributes. The county's scenic beauty and dramatic vistas, relatively untouched by civilization, attract tourists and recreationists, and are valued by residents." It further states that "Mono County's landscape is highly sensitive to man-made changes. Major issues to be addressed in protecting and enhancing visual resources in Mono County are protecting views from major travel routes and recreation destinations; improving the opportunity for visitors to view spectacular scenery (e.g., by providing additional turnouts and scenic vista points); designing community and manmade structures to blend in and be compatible with the surrounding environment; and coordinating scenic policies of local and federal agencies so that they complement each other."

The Mono County General Plan also includes visual resource goals and policies, such as:

Goal – Protect and enhance the visual resources and landscapes of Mono County.

Objective A - Maintain and enhance visual resources in the county

Policy 5 – Restore visually degraded areas where possible.

Objective B - Maintain a countywide system of state and county designated scenic highways

Objective C - Ensure that development is visually compatible with the surrounding community, adjacent cultural resources, and/or natural environment.

1.5.4 Observer Viewpoints

Consistent with the Federal HighwayAdministration guidance, representative viewing locations, called Observer Viewpoints (OV), were selected to best disclose the typical visual character of the project, show unique project components or affected resources, and represent affected viewer groups. Viewpoints include U.S. Forest Service Scenic Basin Sensitivity Level One visual resource

views introduced by the U.S. Forest Service Mono Basin Environmental Impact Study done for the Mono Basin National Scenic Area Comprehensive Management Plan.

Observer Viewpoints consist of viewing locations both from the highway and from the surrounding area. A total of 16 viewing locations were identified to better understand the potential overall visibility of the project. Of the 16 viewpoints, eight were selected to best reveal the project features and any potential visual character change. Observer Viewpoints 1 through 8 were selected for photo-simulation locations and given further analysis. Observer Viewpoints 9 through 16 are included to show the potential extent and limits of project visibility from the broader region. However, because of distance and/or intervening landform, noticeability of the project from viewpoints 9 through 16 would be substantially reduced, and potential visual impacts would be very minor or non-existent.

The Observer Viewpoint locations are shown in Table 4 and Figure 4.

Table 4 – Observer Viewpoint (OV) Locations

OV Number	Observer Viewpoint Location
1*	Slope 1 - From U.S. 395 near Slope 1 looking northbound
2*	Slope 2 - From U.S. 395 near Slope 2 looking northbound
3*	Slope 3 - From near U.S. 395 near Slope 3 looking northbound
4*	Slope 4 - From U.S. 395 near Slope 4 at the Marina entrance
5*	Slope 5 - From U.S. 395 near Slope 5 at the northbound turnout
6*	Slope 6 - From U.S. 395 near Slope 6 looking southbound
7*	From the U.S. Forest Service Visitor's Center
8*	From the Old Marina
9	From U.S. 395 about 500 feet north of the project looking south
10	From U.S. 395 at Lundy Canyon Road
11	From U.S. 395 at Cemetery Road
12	From the South Tufa Area
13	From the rim of Panum Crater
14	From Navy Beach
15	From County Park
16	From near Black Point

** Photo-simulation locations*

Figure 4 – Observer Viewpoint Location Map

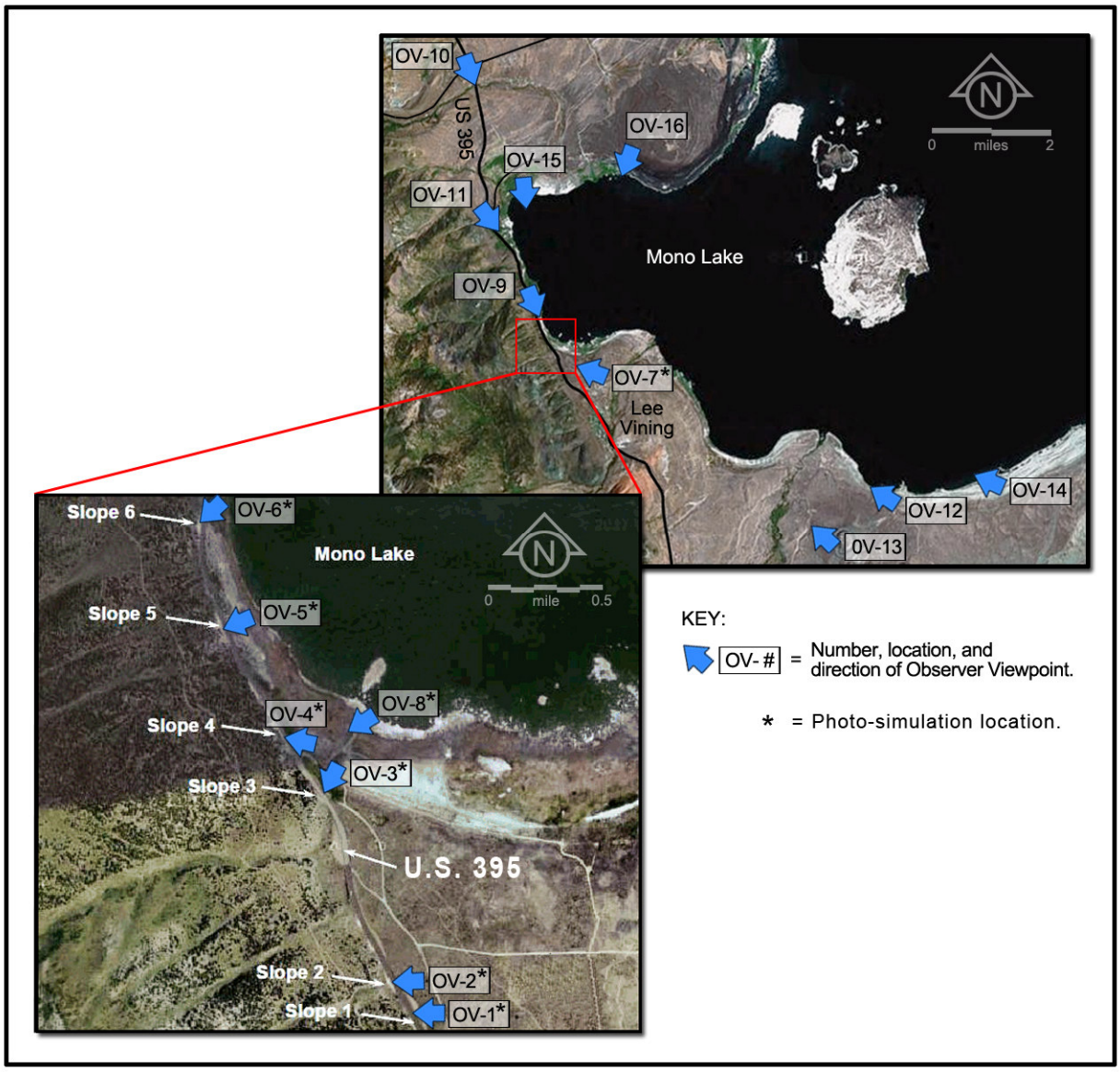


Photo-Simulations and Project Representations

Photo-simulations show the visual character from each of the Observer Viewpoints and provide an overview of the visual setting of the project area. In each case, the "existing" image shows how the view looked at the time of this study, and the "proposed" simulation shows how that location might appear with the particular project option in place. The known dimensions of existing onsite elements were used as visual scale references to increase accuracy of the photo-simulations. For the purpose of this study, new vegetative growth in the photo-simulations shows plant growth at approximately 3 to 5 years after project construction.

1.6 VISUAL IMPACT ASSESSMENT

The following section contains the numerical ratings assigned to the existing and proposed views as seen from each Observer Viewpoint (OV), along with a brief explanation of the rating numbers. Photographs of the existing conditions along with photo-simulations of the project are included to provide a basis for understanding the visual changes proposed by the project.

Consistent with the process shown in Figure 1, the following section analyzes the project in terms of the numerical difference in physical change (Visual Quality Evaluation rating) combined with the expected sensitivities and responses of potential viewer groups (Viewer Response rating). The Visual Quality Evaluation rating is combined with the Viewer Response rating, with the results providing the basis for understanding and determining the type and extent of potential visual impacts.

OBSERVER VIEWPOINT 1 – SLOPE 1 - From U.S. 395 looking northbound

OV-1 Existing Condition

Observer Viewpoint 1 is considered to be of relatively high baseline visual quality, but the eroded and scarred earth of Slope 1 appears unnatural and inconsistent with the undisturbed surrounding landform and land cover. As a result of this visual scarring, all three rating criteria are reduced to a somewhat moderate level.

Viewer Response

Based on the project's proximity to high-quality visual resources—as well the importance of the visual environment, highway and community aesthetics as identified in local, state and national planning documents—this analysis assumes an overall high level of viewer sensitivity throughout the project's length and in the surrounding area. This high level of viewer sensitivity is supported at Observer Viewpoint 1 because of the close viewing proximity to the project along the highway and because of the number of travelers along this route.

OV-1 Proposed Condition – Options 1 and 2

For Slope 1, both project options would do the same treatment: laying the slope back and applying revegetation. With implementation of the project, the added native vegetation would blend with the surrounding area. Removal of eroded surfaces would reduce the contrast with the adjacent slopes and would contribute to a more natural visual harmony, increasing both the visual intactness and unity ratings.

Resource Change (RC) Evaluation				**OV-1 – OPTIONS 1 & 2**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	3.5	3.0	3.0	3.2
Proposed Opt. 1 & 2	3.5	4.2	4.2	4.0
Visual Quality Difference =				**+0.8**

Viewer Response (VR) Rating	**OV-1 – OPTIONS 1 & 2**
Viewer Response (VR)	**6.0**

Visual Impact Rating				**OV-1 – OPTIONS 1 & 2**
Resource Change (RC)				0.8
Viewer Response (VR)				6.0
Visual Impact = (see note below) *[(Absolute value of RC) + VR]/2, with plus or minus sign applied to the resulting numeral depending on whether the resource change (RC) was positive or negative.*				**3.4**

OBSERVER VIEWPOINT 2 – SLOPE 2 - From U.S. 395 looking northbound

OV-2 Existing Condition

Similar to Slope 1, Observer Viewpoint 2 is considered to be of relatively high baseline visual quality. The eroded and scarred earth of Slope 2, however, appears unnatural and contrasts with the surrounding native landform and land cover. As a result of this visual scarring, all three rating criteria are reduced to a somewhat moderate level.

Viewer Response

A high level of viewer sensitivity is expected at Observer Viewpoint 2 because of the scenic designations, close viewing proximity to the project along the highway and the number of travelers along this route.

OV-2 Proposed Condition – Options 1 and 2

For Slope 2, both project options would do the same treatment: laying the slope back and applying revegetation. With Options 1 and 2, the planting of native vegetation would blend with the surrounding area. Removal of eroded surfaces would reduce the contrast with the adjacent slopes and contribute to a more natural visual harmony, increasing both the visual intactness and unity ratings.

Resource Change (RC) Evaluation				**OV-2 – OPTIONS 1 & 2**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	3.5	3.0	3.0	3.2
Proposed Opts 1 & 2	3.5	4.2	4.2	4.0
Visual Quality Difference =				**+0.8**

Viewer Response (VR) Rating	**OV-2 – OPTIONS 1 & 2**
Viewer Response (VR)	**6.0**

Visual Impact Rating				**OV-2 – OPTIONS 1 & 2**
Resource Change (RC)				+0.8
Viewer Response (VR)				6.0
Visual Impact = (see note below) *(Absolute value of RC) + VR]/2, with plus or minus sign applied to the resulting numeral depending on whether the resource change (RC) was positive or negative.*				**3.4**

OBSERVER VIEWPOINT 3 – SLOPE 3 - From near U.S. 395 looking northbound

OV-3 Existing Condition

Observer Viewpoint 3 is considered to be generally of relatively high visual quality. The visual quality is moderated, however, because of the eroded and scarred earth of Slope 3. This visual scarring appears unnatural and inconsistent with the surrounding native landform and land cover, resulting in a lowering of all three rating criteria.

Viewer Response

A high level of viewer sensitivity is expected at Observer Viewpoint 2 because of the scenic designations, close viewing proximity to the project along the highway and the number of travelers along this route.

OV-3 Proposed Condition – Options 1 and 2

At this viewpoint of Slope 3, both project options would do the same treatment: applying revegetation. With implementation of the project, adding native vegetation would help the slope visually blend with the surrounding area. Removal of eroded surfaces would reduce the contrast with the adjacent slopes and contribute to a more natural visual harmony, increasing both the visual intactness and unity ratings.

Resource Change (RC) Evaluation				**OV-3 – OPTIONS 1 & 2**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	3.5	3.0	3.0	3.2
Proposed Opts. 1 & 2	3.5	4.2	4.2	4.0
Visual Quality Difference **=**				**+0.8**

Viewer Response (VR) Rating	**OV-3 – OPTIONS 1 & 2**
Viewer Response (VR)	**6.0**

Visual Impact Rating				OV-3 – OPTIONS 1 & 2
Resource Change (RC)				+0.8
Viewer Response (VR)				6.0
Visual Impact = (see note below) *[(Absolute value of RC) + VR]/2, with plus or minus sign applied to the resulting numeral depending on whether the resource change (RC) was positive or negative.*				**3.4**

OBSERVER VIEWPOINT 4 – SLOPE 4 - From U.S. 395 at the Marina entrance

OV-4 Existing Condition

As seen from Observer Viewpoint 4, the existing memorability or vividness of the view is somewhat high because of the remnant rock outcropping on Slope 4. The disturbance of the rest of the existing slope appears unnatural and visually inconsistent with the surrounding native landform and vegetative cover. As a result, the intactness and unity ratings are reduced.

Viewer Response

From Observer Viewpoint 4, viewer response is expected be somewhat increased because of the scenic designations and the the proximity of Slope 4 to the entrance to the Old Marina recreation area. Potential viewers would be oriented toward the slope while leaving the Marina.

OV-4 Proposed Condition – Option 1

As seen from this viewpoint, Option 1 would place a hybrid system of wire mesh suspended at the top by metal attenuator posts. This method would minimize the footprint of affected area (relative to Option 2) that is necessary to contain the rockfall, but the posts, attenuator system and wire mesh drapery would introduce new visual elements into the view. The drapery and attenuator structures would be colored to minimize their contrast with the existing terrain.

Most of the existing rock outcropping, loose rocks and a few remnant pine trees would be removed to accommodate the mesh drapery placement. Although some native vegetation would be expected to establish under the mesh drapery, the periodically moving slope surface would not support a great amount of vegetation.

At the northern end of Slope 4, the project would use anchored wire mesh, which would allow a greater amount of plant growth. Because of the introduction of the new human-made elements and limited revegetation establishment, Option 1 would result in a reduction of vividness and intactness as seen from this viewpoint. The visual unity would remain the same because the mesh, though unnatural, would provide a minor uniformity to the slope.

Resource Change (RC) Evaluation				**OV-4 – OPTION 1**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	5.0	2.5	2.5	3.3
Proposed Option 1	3.0	2.0	2.5	2.5
Visual Quality Difference =				**-0.8**

Viewer Response (VR) Rating	**OV-4 – OPTION 1**
Viewer Response (VR)	**6.2**

Visual Impact Rating				**OV-4 – OPTION 1**
Resource Change (RC)				-0.8
Viewer Response (VR)				6.2
Visual Impact = (see note below) *[(Absolute value of RC) + VR /2, with plus or minus sign applied to the resulting numeral depending on whether the resource change(RC) was positive or negative.*				**-3.5**

OV-4 Proposed Condition – Option 2

As seen from this viewpoint, Option 2 would attach anchored wire mesh to the slope. This method would require a larger initial project footprint (relative to Option 1) for the cable mesh attachment. The anchored wire mesh would introduce a new visual element into the view, but the mesh would be colored to minimize its contrast with the existing terrain.

With Option 2, a portion of the existing rock outcropping, loose rocks and a few pine trees would be removed. The anchored wire mesh would allow a greater amount of slope replanting to occur, compared to Option 1. Over a period of 3 to 5 years, the slope vegetation would be expected to hide much of the human-made mesh system. Because of removal of most of the distinct rock outcropping, the vividness rating would be reduced. Despite the larger project footprint of Option 2, the eventual revegetation of the slope would increase both the visual unity and intactness ratings as seen from Observer Viewpoint 4.

Resource Change (RC) Evaluation				**OV-4 – OPTION 2**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	5.0	2.5	2.5	3.3
Proposed Option 2	3.2	3.7	3.7	3.5
Visual Quality Difference **=**				**+0.2**

Viewer Response (VR) Rating	**OV-4 – OPTION 2**
Viewer Response (VR)	**6.2**

Visual Impact Rating				**OV-4 – OPTION 2**
Resource Change (RC)				+0.2
Viewer Response (VR)				6.2
Visual Impact = (see note below) *[(Absolute value of RC) + VR]/2, with plus or minus sign applied to the resulting numeral depending on whether the resource change (RC) was positive or negative.*				**+3.2**

OBSERVER VIEWPOINT 5 – SLOPE 5 - From U.S. 395 at the northbound turnout

OV-5 Existing Condition

Slope 5 is the tallest cut slope of the six project locations. The existing slope face is highly disturbed and very noticeable as seen from the highway and surrounding viewpoints. The eroded slope contrasts substantially with the existing adjacent pine-covered slope. As a result of the scale, extent of disturbance, and visual contrast, the existing view of Slope 5 receives a reduced rating for all three visual criteria.

Viewer Response

From Observer Viewpoint 5, viewer response is expected be somewhat increased because of the scenic designations and the proximity of Slope 5 to the paved northbound turnout on the highway and potentially increased viewer exposure.

OV-5 Proposed Condition – Option 1

Option 1 would use a hybrid system of cable mesh suspended at the top of the slope by metal attenuator posts. This method would minimize the footprint of affected area (relative to Option 2) that is necessary to contain the rockfall. However, the posts, attenuator system and cable drapery would introduce new visual elements into the view. The drapery and attenuator structures would be

colored to minimize their contrast with the existing terrain. Boulders, loose rocks and a few pine trees and scrub would be removed to accommodate the mesh drapery. Although some native vegetation would be expected to grow under the mesh drapery, the periodically moving slope surface would not support a great amount of vegetation. Because of the introduction of the new human-made elements and limited revegetation establishment, Option 1 would result in a reduction of vividness, intactness and unity as seen from this viewpoint.

Resource Change (RC) Evaluation				**OV-5 – OPTION 1**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	3.0	2.3	2.3	2.5
Proposed Option. 1	3.0	2.2	2.2	2.4
Visual Quality Difference **=**				**-0.1**

Viewer Response (VR) Rating	**OV-5 – OPTION 1**
Viewer Response (VR)	**6.1**

Visual Impact Rating				**OV-5 – OPTION 1**
Resource Change (RC)				-0.1
Viewer Response (VR)				6.1
Visual Impact = (see note below) *[(Absolute value of RC) + VR]/2, with plus or minus sign applied to the resulting numeral depending on whether the resource change (RC) was positive or negative.*				**-3.1**

OV-5 Proposed Condition – Option 2

Option 2 would attach anchored cable mesh to the slope. This method would require a larger initial project footprint (relative to Option 1) for the cable mesh attachment. The anchored cable mesh would introduce a new visual element into the view, but the mesh would be colored to minimize its contrast with the existing terrain. With Option 2, boulders, loose rocks and a few pine trees and scrub on the slope and the perimeter would be removed. The anchored cable/wire mesh would allow for a greater amount of slope revegetation to occur, compared to Option 1. Over a period of 3 to 5 years, the slope vegetation would be expected to hide much of the human-made cable mesh system. The overall memorability of the slope would remain about the same, though noticeability would be based on the mesh rather than scarring and disturbance. Despite the larger project footprint of Option 2, the eventual revegetation of the slope would increase both the visual unity and intactness ratings as seen from Observer Viewpoint 5.

Resource Change (RC) Evaluation				**OV-5 – OPTION 2**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	3.0	2.3	2.3	2.5
Proposed Option 2	3.3	3.7	3.7	3.6
Visual Quality Difference =				**+1.1**

Viewer Response (VR) Rating	**OV-5 – OPTION 2**
Viewer Response (VR)	**6.1**

Visual Impact Rating				**OV-5 – OPTION 2**
Resource Change (RC)				+1.1
Viewer Response (VR)				6.1
Visual Impact = (see note below) *[(Absolute value of RC) + VR]/2, with plus or minus sign applied to the resulting numeral depending on whether the resource change (RC) was positive or negative.*				**+3.6**

OBSERVER VIEWPOINT 6 – SLOPE 6 - From U.S. 395 looking southbound

OV-6 Existing Condition

Observer Viewpoint 3 is considered to be of relatively high visual quality. The visual quality is moderated, however, because of the eroded and scarred earth of Slope 6. This visual scarring appears unnatural and inconsistent with the surrounding native landform and land cover, resulting in a lowering of all three rating criteria.

Viewer Response

A high level of viewer sensitivity is expected at Observer Viewpoint 5 because of the scenic designations, close viewing proximity to the project along the highway and the number of travelers along this route.

OV-6 Proposed Condition – Options 1 and 2

For Slope 6, both project options would do the same treatment: anchored cable mesh. The anchored cable/wire mesh would add a new visual element into the view, but the mesh would be colored to minimize the contrast with the existing terrain. The project would remove much of the existing remnant trees, scrub, boulders and rock from the slope. The anchored cable mesh would allow for a substantial amount of slope revegetation to occur. Over a period of 3 to 5 years, the slope vegetation would be expected to hide much of the human-made cable/mesh system. Because of the reduced visibility of slope disturbance and scarring due to revegetation, the visual unity, intactness and vividness ratings would increase as seen from Observer Viewpoint 6.

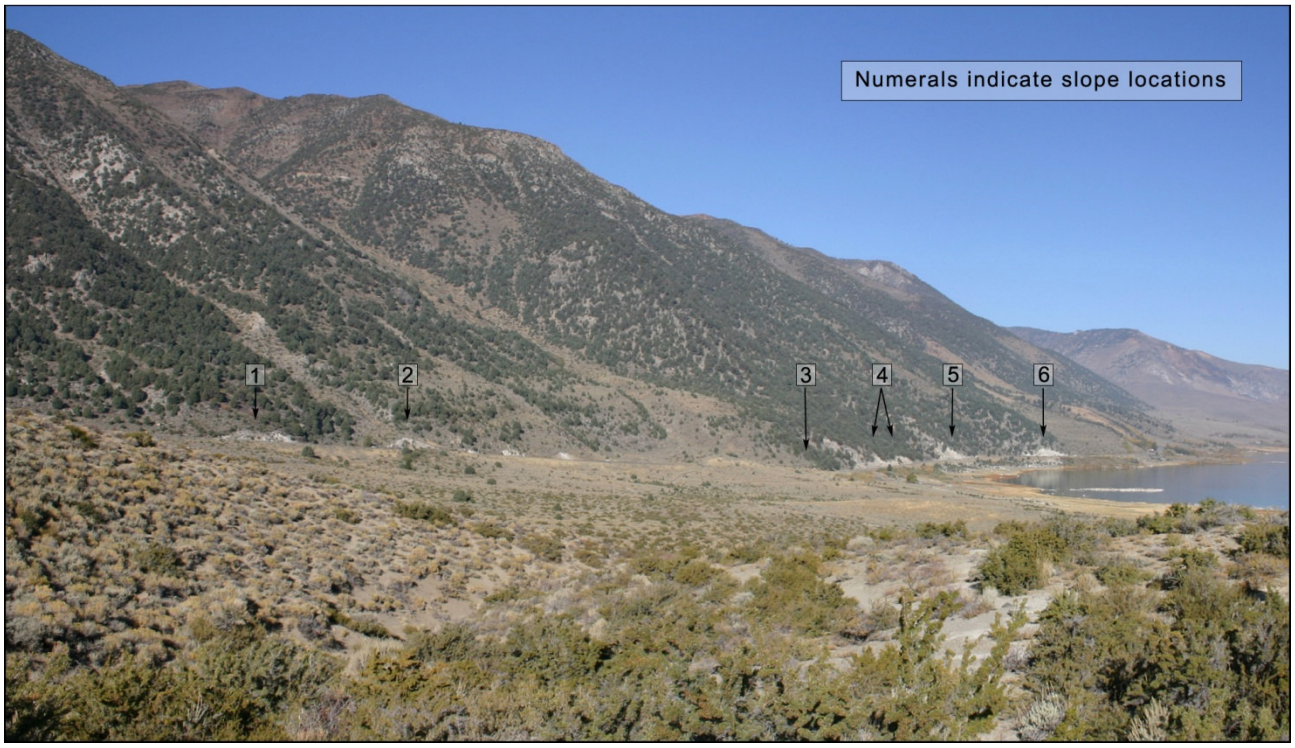
Resource Change (RC) Evaluation				**OV-6 – OPTIONS 1 & 2**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	3.1	2.8	2.8	2.9
Proposed Opts 1 & 2	3.4	3.7	3.7	3.6
Visual Quality Difference =				**+0.7**

Viewer Response (VR) Rating	**OV-6 – OPTIONS 1 & 2**
Viewer Response (VR)	**6.0**

Visual Impact Rating				**OV-6 – OPTIONS 1 & 2**
Resource Change (RC)				+0.7
Viewer Response (VR)				6.0
Visual Impact = (see note below) *[(Absolute value of RC) + VR]/2, with plus or minus sign applied to the resulting numeral depending on whether the resource change (RC) was positive or negative.*				**+3.4**

OBSERVER VIEWPOINT 7 - From the U.S. Forest Service Visitor's Center

OV-7 Existing Condition



The sweeping vista provided from Observer Viewpoint 7 is considered of high quality. The panoramic views of Mono Lake, the surrounding hills and mountains, and natural open space combine for high visual quality ratings for vividness, intactness and unity. The existing disturbed project slopes along U.S. 395 can be seen in the distance, resulting in a minor negative effect on the view. Generally, however, the project occupies a very small part of the overall view, and the project slopes are visually subordinate to the larger scenic vista.

Viewer Response

A high level of sensitivity is anticipated at Observer Viewpoint 7 because of viewer expectations associated with the Visitor's Center vantage point, related interpretive opportunities, and potential duration of viewer exposure. Although moderated by viewing distance, the project would be seen from this location.

OV-7 Proposed Condition – Option 1

The view toward the project from this viewpoint includes all six project slope locations. Option 1 would apply cut and revegetation strategies to Slopes 1 and 2, revegetation to Slope 3, a hybrid and drapery system to Slope 4, a hybrid system to Slope 5, and anchored mesh to Slope 6. As seen from this viewing distance, these strategies would reduce visibility of the slopes to some extent. Slopes 1, 2, 3 and 6 would substantially blend with the adjacent natural slopes due to the amount of proposed slope revegetation. Slopes 4 and 5 would remain the most visible due to the relative lack of slope revegetation, although as seen from this distance the drapery fabric itself would cause a minor

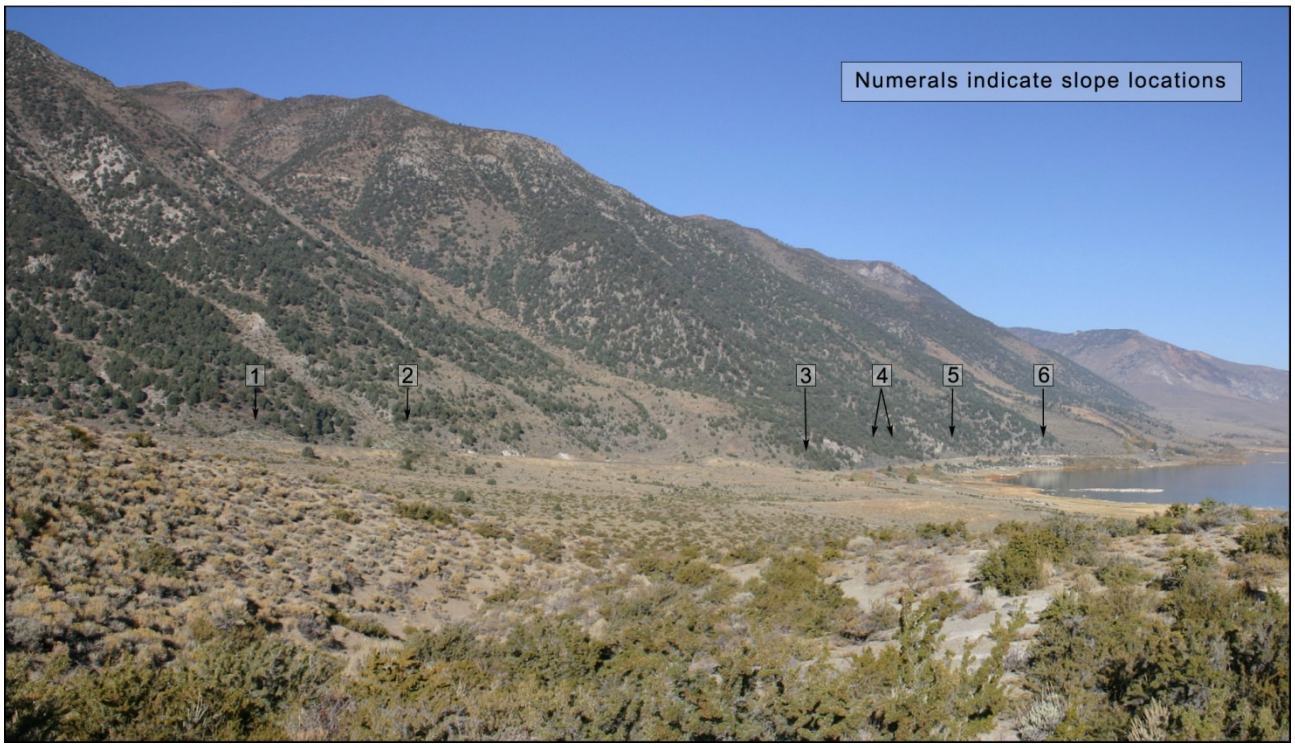
reduction in slope glare and noticeability. As a result, Option 1 would have no effect on the memorability or visibility of the view, and the intactness and unity ratings would slightly increase.

Resource Change (RC) Evaluation				**OV-7 – OPTION 1**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	6.0	5.8	5.9	5.8
Proposed Option 1	6.0	6.0	6.1	6.0
Visual Quality Difference =				**+0.2**

Viewer Response (VR) Rating	**OV-7 – OPTION 1**
Viewer Response (VR)	**6.5**

Visual Impact Rating				**OV-7 – OPTION 1**
Resource Change (RC)				+0.2
Viewer Response (VR)				6.5
Visual Impact = (see note below) *[(Absolute value of RC) + VR]/2, with plus or minus sign applied to the resulting numeral depending on whether the resource change (RC) was positive or negative.*				**+3.3**

OV-7 Proposed Condition – Option 2



Option 2 would apply cut and revegetation strategies to Slopes 1 and 2, revegetation to Slope 3, and anchored mesh to Slopes 4, 5 and 6. For Slopes 4, 5 and 6, the anchored cable/wire mesh would allow for a substantial amount of slope revegetation to occur. Over a period of 3 to 5 years, the slope vegetation would be expected to hide much of the existing slopes. Slopes 1, 2 and 3 would be the least visible due to the amount of proposed slope revegetation. Slopes 4, 5 and 6 would be slightly visible, but would be mostly unnoticeable from this distance. As a result, Option 2 would have no effect on the memorability or visibility of the view, and the intactness and unity ratings would slightly increase.

Resource Change (RC) Evaluation				**OV-7 – OPTION 2**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	6.0	5.8	5.9	5.8
Proposed Option 2	6.0	6.2	6.2	6.1
Visual Quality Difference =				**+0.3**

Viewer Response (VR) Rating	**OV-7 – OPTION 2**
Viewer Response (VR)	**6.5**

Visual Impact Rating				**OV-7 – OPTION 2**
Resource Change (RC)				+0.3
Viewer Response (VR)				6.5
Visual Impact = (see note below) *[(Absolute value of RC) + VR]/2, with plus or minus sign applied to the resulting numeral depending on whether the resource change (RC) was positive or negative.*				**+3.4**

OBSERVER VIEWPOINT 8 – From the Old Marina

OV-8 Existing Condition

The existing view from the Old Marina is considered of high quality. Although the area of greatest visual interest at this viewpoint is eastward to Mono Lake and beyond, the western view toward the adjacent mountains is also an important component of the visual context. From this viewpoint, the

project slopes can be seen as part of the larger hillsides, which allows the visual contrast of the eroded and scarred earth to be more evident. The existing disturbed project slopes along U.S. 395 can be clearly seen in the mid-ground, resulting in a negative effect on the view. As a result, the otherwise high ratings for vividness, intactness and unity are moderately reduced.

Viewer Response

A high degree of viewer sensitivity is expected at Observer Viewpoint 8 because of the scenic designations and the moderately close viewing distance to Slopes 3, 4 and 5. In addition, the generally passive recreation activities at the Old Marina increase the opportunities for longer-duration views of the project as seen from this location.

OV-8 Proposed Condition – Option 1

As seen from the Old Marina recreation area, views looking west would include all six project slope locations. Of these, Slopes 3, 4 and 5 would be the most visible. Option 1would apply cut and revegetation strategies to Slopes 1 and 2, revegetation to Slope 3, a hybrid and drapery system to Slope 4, a hybrid system to Slope 5, and anchored mesh to Slope 6. These strategies would reduce visibility of the slopes to some extent. Slopes 1, 2, 3 and 6 would substantially blend with the adjacent natural slopes due to the amount of proposed slope revegetation. Slopes 4 and 5 would remain the most visible due to the relative lack of slope replanting and minor visibility of the hybrid attenuator posts, though the drapery fabric itself would cause a minor reduction in slope glare and noticeability. As a result, Option 1 would have no effect on the memorability or visibility of the view, and the intactness and unity ratings would slightly increase.

Resource Change (RC) Evaluation				**OV-8 – OPTION 1**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	5.0	4.0	4.2	4.4
Proposed Option. 1	5.0	4.2	4.4	4.5
Visual Quality Difference **=**				**+0.1**

Viewer Response (VR) Rating	**OV-8 – OPTION 1**
Viewer Response (VR)	**6.3**

Visual Impact Rating				**OV-8 – OPTION 1**
Resource Change (RC)				+0.1
Viewer Response (VR)				6.3
Visual Impact = (see note below) *[(Absolute value of RC) + VR]/2, with plus or minus sign applied to the resulting numeral depending on whether the resource change (RC) was positive or negative.*				**+3.2**

OV-8 Proposed Condition – Option 2

Option 2 would apply cut and revegetation strategies to Slopes 1, 2 and 3, and anchored mesh to Slopes 4, 5 and 6. Option 2 would initially require larger areas of disturbance on Slopes 4, 5, and 6, compared to Option 1. But, on these slopes, the anchored mesh would allow for a substantial amount of slope replanting to occur. Over a period of 3 to 5 years, the slope vegetation would be expected to hide much of the existing slopes. After replanting, these slopes would visually blend with the setting more than the hybrid/drapery systems proposed with Option 1. Slopes 1, 2 and 3 would be the least visible due to the amount of proposed slope replanting. Slopes 4, 5 and 6 would be somewhat visible, but their noticeability would be substantially reduced. As a result, Option 2 would have no effect on the memorability or visibility of the view, but the intactness and unity ratings would improve.

Resource Change (RC) Evaluation				**OV-8 – OPTION 2**
	Vividness (V)	Intactness (I)	Unity (U)	(=V+I+U/3)
Existing	5.0	4.0	4.2	4.4
Proposed Option 2	5.0	4.6	4.9	4.8
Visual Quality Difference =				**+0.4**

Viewer Response (VR) Rating	**OV-8– OPTION 2**
Viewer Response (VR)	**6.3**

Visual Impact Rating				**OV-8 – OPTION 2**
Resource Change (RC)				+0.4
Viewer Response (VR)				6.3
Visual Impact = (see note below) *[(Absolute value of RC) + VR]/2, with plus or minus sign applied to the resulting numeral depending on whether the resource change (RC) was positive or negative.*				**+3.4**

The following viewpoints—Observer Viewpoints 9 through 16—are included below to show the potential extent and limits of project visibility from the broader region. Because of the distance and/or intervening landform, noticeability of the project from Observer Viewpoints 9 through 16 would be greatly reduced and potential visual impacts would be very minor or nonexistent.

OBSERVER VIEWPOINT 9 – From U.S. 395 about 500 feet north of the project looking southbound

Existing View

This viewpoint is from U.S. 395 looking southbound, about 500 feet north of the project. Mono Lake and the lower slopes of Mt. Warren are seen in the background, and the roadway and sage scrub vegetation in the foreground dominate this view. Because of the road curvature, topography and distance, views of the project from this location would be minimal. Changes proposed by the project would have very low noticeability as seen from this location.

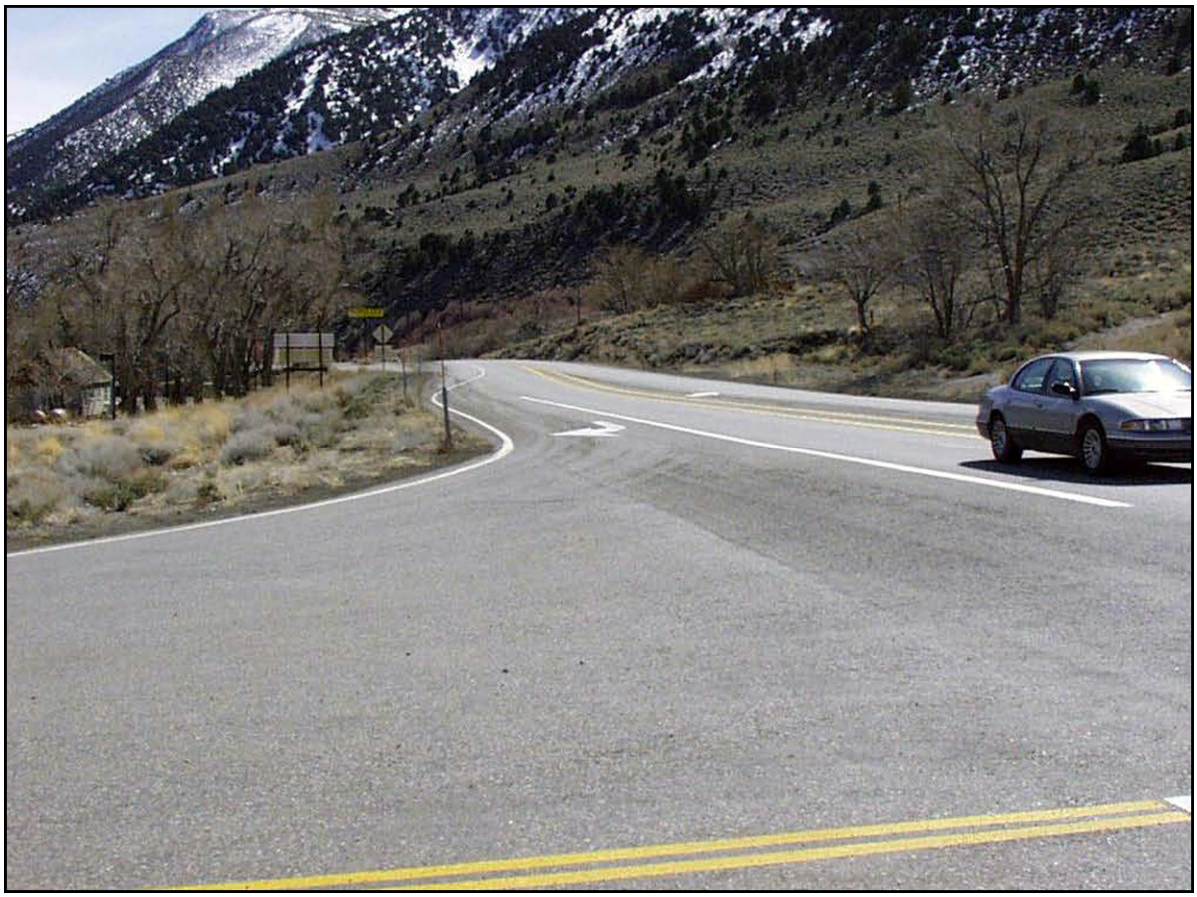
OBSERVER VIEWPOINT 10 – From U.S. 395 at Lundy Canyon Road

Existing View

The project would not be visible from this viewpoint at U.S. 395 near Lundy Canyon Road due to viewing distance and intervening landform.

OBSERVER VIEWPOINT 11 – From U.S. 395 at Cemetery Road

Existing View



Because of the viewing distance, road curvature, and intervening landform and vegetation, the project would not be visible from this viewpoint at Cemetery Road near U.S. 395.

OBSERVER VIEWPOINT 12 – From the South Tufa area

Existing View

As seen from this viewing location at the South Tufa area, the project would have no visual impact. The unique tufa towers dominate the foreground at this location. The project would not be visible from this observer viewpoint due to the viewing distance and the natural landforms of the basin.

OBSERVER VIEWPOINT 13 – From the rim of Panum Crater

Existing View

This viewpoint from the rim of Panum Crater is about 8 miles from the project. The Sierra Mountains, Bodie Hills, and Mono Lake dominate the view. Because of the viewing distance and intervening landform, the project would be barely visible from this viewpoint. Any project changes would be unnoticeable from this distance.

OBSERVER VIEWPOINT 14 – From Navy Beach

Existing View

This viewpoint is from the area of Navy Beach. The lake and the reflection of the Sierra Mountains dominate the view. No visual impacts would occur since the project would be barely visible from this observer viewpoint due to the viewing distance and intervening topography.

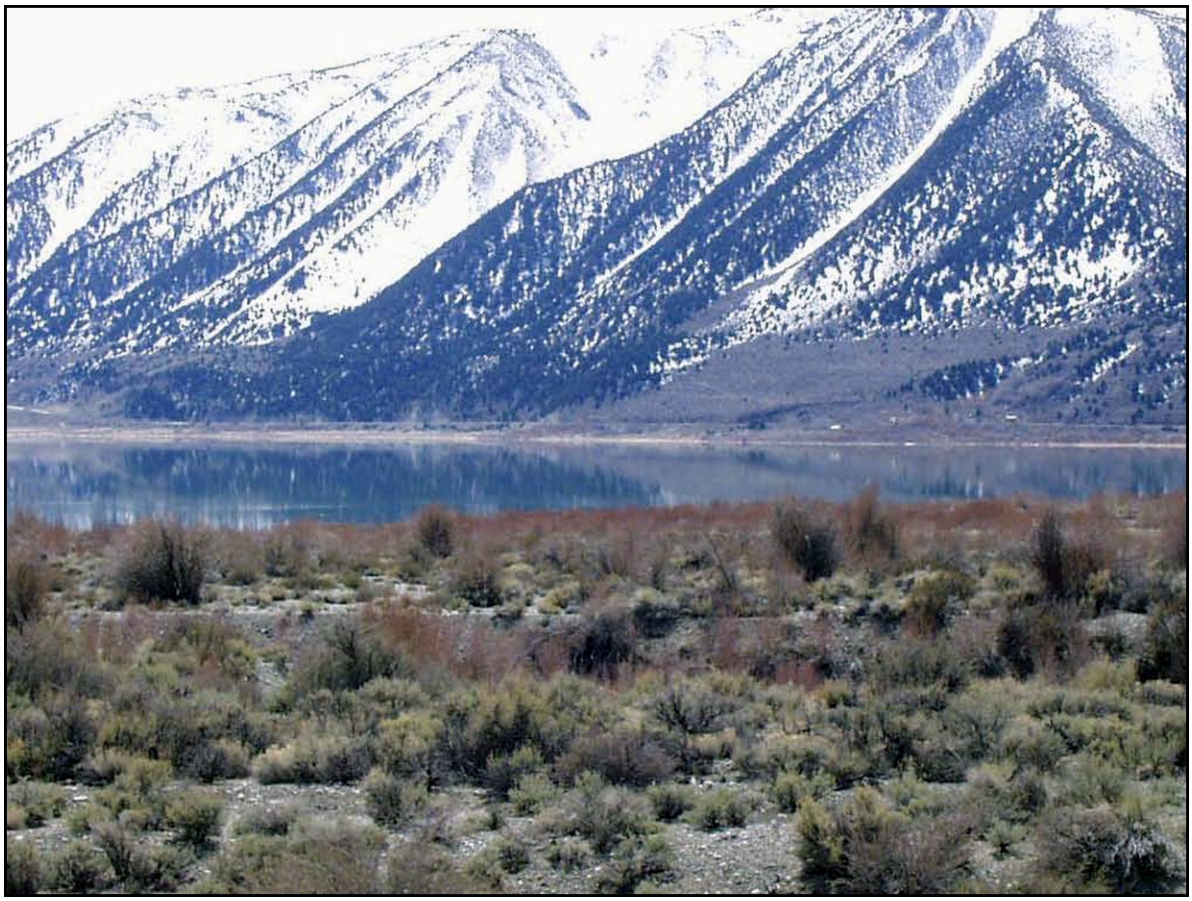
OBSERVER VIEWPOINT 15 – From County Park

Existing View

This viewpoint is from County Park along Cemetery Road. The abundant vegetation in the park and the distance to the highway would substantially reduce noticeability of the project. Because of the vegetation, topography and distance, views of the project from this location would be very limited. Any visible changes proposed by the project would be incidental and subordinate to the larger landscape view seen from this location.

OBSERVER VIEWPOINT 16 – From near Black Point

Existing View



This viewpoint near Black Point is about 3 miles from the project. The Mt. Warren bench in the background and the expanse of Mono Lake in the foreground dominate views from this location. No visual impacts would occur from this viewpoint since the project would be barely visible due to the viewing distance. Any visible changes proposed by the project would be incidental and subordinate to the larger landscape vista seen from this location.

1.7 SUMMARY OF PROJECT IMPACTS

Table 5 – Visual Impact Ratings as Seen from Each Observer Viewpoint

Observer Viewpoint (OV)	Project Option	Resource Change	Viewer Response	Visual Impact Rating
1	Option 1	+0.8 (low)	6.0 (high)	+3.4 (moderate-positive)
	Option 2	+0.8 (low)	6.0 (high)	+3.4 (moderate-positive)
2	Option 1	+0.8 (low)	6.0 (high)	+3.4 (moderate-positive)
	Option 2	+0.8 (low)	6.0 (high)	+3.4 (moderate-positive)
3	Option 1	+0.8 (low)	6.0 (high)	+3.4 (moderate-positive)
	Option 2	+0.8 (low)	6.0 (high)	+3.4 (moderate-positive)
4	Option 1	-0.8 (low)	6.2 (high)	-3.5 (moderate-negative)
	Option 2	+0.2 (low)	6.2 (high)	+3.2 (moderate-positive)
5	Option 1	-0.1 (low)	6.1 (high)	-3.1 (moderate-negative)
	Option 2	+1.1 (low)	6.1 (high)	+3.6 (moderate-positive)
6	Option 1	+0.7 (low)	6.0 (high)	+3.4 (moderate-positive)
	Option 2	+0.7 (low)	6.0 (high)	+3.4 (moderate-positive)
7	Option 1	+0.2 (low)	6.5 (high)	+3.3 (moderate-positive)
	Option 2	+0.3 (low)	6.5 (high)	+3.4 (moderate-positive)
8	Option 1	+0.1 (low)	6.3 (high)	+3.2 (moderate-positive)
	Option 2	+0.4 (low)	6.3 (high)	+3.4 (moderate-positive)

The evaluations show that from six of the eight viewpoints the project would result in a moderately positive visual change. As seen from four of the eight viewpoints, both project options would result in the same visual effect. However, of the four viewpoints not having the same impact ratings, Option 1 resulted in the lowest visual quality ratings. From closer viewpoints (OV-4 and OV-5), Option 1 resulted in negative (adverse) impacts. From more distant viewpoints (OV-7 and OV-8), Option 1 resulted in less-positive ratings than Option 2. The evaluation results indicate that the lower ratings were largely associated with visibility of the proposed hybrid netting system and the inability to successfully establish vegetation on those project slopes. That situation would occur with Option 1, on Slopes 4 and 5.

Table 6 – Visual Impact Ratings for Each Slope as Seen from Viewpoints on U.S. 395

Slope Number	Option 1 Rating	Option 2 Rating
1	+3.4 (moderate-positive)	+3.4 (moderate-positive)
2	+3.4 (moderate-positive)	+3.4 (moderate-positive)
3	+3.4 (moderate-positive)	+3.4 (moderate-positive)
4	-3.5 (moderate-negative)	+3.4 (moderate-positive)
5	-3.1 (moderate-negative)	+3.6 (moderate-positive)
6	+3.4 (moderate-positive)	+3.4 (moderate-positive)

As seen from the observer viewpoints right next to the project slopes (OV-1 through OV-6), Option 1 would result in the greatest amount of visual impact at Slopes 4 and 5. The evaluation results indicate that the adverse impacts would be due mostly to the visibility of the hybrid mesh system and the related lack of slope replanting. Since both project options propose the same rockfall strategies for Slopes 1, 2, 3 and 6, those slopes earned the same visual impact ratings. In those cases, with successful revegetation, those slopes would result in a moderate increase of visual quality.

1.7.1 Summary Statement

The existing visual quality of the Mono Lake region is high. This view quality is due mainly to the panoramic views of Mono Lake, the surrounding hills and mountains, natural open space, varied topography and native vegetation.

Within the project limits, the existing disturbed and scarred slopes reduce the otherwise high visual quality. The existing disturbed slopes are most noticeable from viewpoints along U.S. 395, where the road runs right next to the slopes. From these close viewpoints, the slopes tend to dominate the

views to the west, and at some locations their proximity distracts viewers from seeing the rest of the mountain. The slopes can also be seen from greater distances, due mostly to the contrasting color of the disturbed earth and the surrounding vegetated slopes. From greater viewing distances, however, the project slopes occupy a smaller portion of the overall scenery, and they become subordinate to the larger high-quality landscape vista.

In addition to the generally high visual quality of the region, the expected viewer sensitivity or response is also high, based on the area's numerous visual resources, as well the importance of the scenic environment and highway and community aesthetics as identified in local, state and national planning documents and designations.

Each of the project options would affect the quality and character of views to some degree along a section of U.S. 395 and from portions of the surrounding area.

Option 1would apply excavation and revegetation strategies to Slopes 1 and 2, revegetation to Slope 3, a hybrid and drapery system to Slope 4, a hybrid system to Slope 5, and anchored mesh to Slope 6. Slopes 1, 2, 3 and 6 would substantially blend with the adjacent natural slopes due to the amount of proposed slope revegetation. Slopes 4 and 5 would remain the most visible due to the relative lack of slope revegetation and visibility of the hybrid attenuator posts.

Option 2 would apply cut and revegetation strategies to Slopes 1, 2 and 3, and anchored mesh to Slopes 4, 5 and 6. Option 2 would initially require larger areas of disturbance on Slopes 4, 5 and 6, compared to Option 1. However, on these slopes, the anchored mesh would allow for a greater amount of slope revegetation to occur. Over a period of 3 to 5 years, the slope vegetation would be expected to hide much of the existing slopes, including the mesh systems. After revegetation, these slopes would visually blend with the setting more than the hybrid/drapery systems proposed with Option 1. Slopes 1, 2 and 3 would be the least visible due to the amount of proposed slope revegetation. Slopes 4, 5 and 6 would be somewhat visible, but their noticeability would be greatly reduced due to the improvements from the project.

The visual quality ratings show that in all instances, the hybrid and drapery systems would result in the greatest amount of long-term visual impact compared to the cut-and-revegetate method and the anchored-mesh method. Though the initial slope disturbance would be less with the hybrid and drapery systems, the potential for slope revegetation would also be less. This could result in exposed cut slopes that would never successfully revegetate.

The ratings indicate that successful revegetation of the slopes would be the single most-effective means of visually blending the project with its natural setting. As seen from all viewpoints, slopes that included successful revegetation would contrast less with the surrounding native context. The revegetated slopes would appear generally consistent with the adjacent non-disturbed areas, would

draw less of the viewers' attention from close range, and would be less noticeable when seen from a distance.

Implementation of Option 1 would result in moderately beneficial visual impacts at four of the six project slopes due to the ability to successfully revegetate the slopes and visually blend them with the natural setting. Option 1 would also, however, cause moderately adverse visual impacts at Slopes 4 and 5, the largest of the project.

Option 2 would cause moderately beneficial visual impacts at each of the six project slopes due to the ability to successfully revegetate the slopes and visually blend with the natural setting.

Scenic Resource Statement

For the purposes of this study, scenic resources related to the project area mainly include Mono Lake and its shoreline, natural hillsides and mountains, open space and native vegetative patterns. The project would positively affect the hillsides next to U.S. 395, an officially designated State Scenic Highway. Option 1 would result in a moderately negative visual effect on Slopes 4 and 5 due to the continuing exposure of the scarred slopes and the addition of human-made elements such as attenuator posts and mesh. Option 2 would reduce noticeability of the project slopes over time, due to substantial revegetation of the existing disturbed areas.

Visual Impacts during Project Construction

Visual impacts would be related to construction vehicles and equipment and other elements located on and near the project site. Temporary storage of construction materials would also be visible in the area. In addition, required safety devices such as orange cones and delineators, fencing and signs would affect views. Workers would be present and visible throughout the construction phase. Views of stopped and slowed vehicles on the highway may also increase due to construction operations.

The overall duration of work would be relatively short. Additional vehicles, equipment, materials, safety devices and workers would not be unexpected visual elements seen at a construction site. As a result, the visual effects of construction activities would be minimal.

Cumulative Visual Impacts

In recent years, few highway projects have been built along U.S. 395 in the project vicinity. Routine maintenance work, which occurs periodically throughout the year, can be visually similar to construction projects in terms of work zone equipment and materials. Existing cut slopes are not uncommon visual elements along roadway corridors in the region. Once the areas were replanted, the project would mostly blend with the surroundings and would not contribute to a cumulatively adverse visual effect.

The No-Build Alternative

The no-build alternative would leave the cut slopes as they are. This would result in the continuing degradation of the hillsides, further loss of mature vegetation, and greater visual scarring as rock and debris fall down the slope. Over time, the existing project slopes would increase in size and become more noticeable from viewpoints along the highway as well as from the surrounding area. This increased visibility would result in a long-term reduction in visual quality.

1.8 RECOMMENDED MEASURES TO REDUCE VISUAL IMPACTS

The following measures would reduce the project's potential visual impact as seen from U.S. 395, the adjacent national forest and state park, and the surrounding area. The intent of the following measures would be to mitigate the effect of the project caused mainly by the noticeability of the disturbed areas and new human-made elements. These measures, combined with proposed project features listed in section 1.3.3 *Vegetative and Aesthetic Features Proposed as Part of the Project*, would help the project visually integrate with the adjacent natural setting:

- Preserve as much existing vegetation as possible. Use prescriptive clearing and grubbing and grading techniques, which save the most existing vegetation possible considering the function of the applicable rockfall prevention strategy.

- Preserve as much of the existing landform as possible. Where feasible, avoid the creation of completely flat slope-planes. Instead, as product installation allows, create graded slopes with undulations or facets to mimic natural topography.

- Limit the use of slope-rounding at specific locations where slope-rounding would result in the removal of mature trees and large vegetation.

- Color the cross-connectors within the cable mesh fabric to match the color of the cabling and the surrounding natural setting. The color of the system elements should be approved by a Caltrans Landscape Architect.

- Where revegetation strategies are applied, plant species selection should be based in part on the native land cover immediately adjacent to the slope planting area. As appropriate, include sufficient species diversity as possible, considering the function of the rockfall prevention strategy and the adjacent natural slopes.