

**Initial Study and  
Mitigated Negative Declaration  
Lee Vining Streets Rehabilitation**

**November 2010**

**PREPARED BY:**

**Mono County Community Development Department  
Post Office Box 347  
Mammoth Lakes, CA 93546  
(760) 924-1807**

# INITIAL STUDY

## I. INTRODUCTION

The California Environmental Quality Act (CEQA) requires public agencies to consider the effects that development projects will have on the environment. The Mono County Community Development Department has prepared an Initial Study to identify potential environmental impacts related to this project. The following environmental impacts and proposed mitigation measures have been developed by staff and reviewed with the applicant to mitigate potential project impacts. Significant environmental effects are not anticipated, if the project is carried out in accordance with the mitigation measures proposed for the project.

## II. PROJECT INFORMATION

**1. Project Title:**

Lee Vining Streets Rehabilitation

**2. Lead Agency Name and Address**

Mono County Community Development Department  
Planning Division  
P.O. Box 347  
Mammoth Lakes, CA 93546  
(760) 924-1800  
Contact Person: Scott Burns

**3. Project Sponsor's Name and Address:**

Mono County Public Works  
P.O. Box 457  
Bridgeport, CA 93517  
(760) 932-5444  
Contact Person: Mary Ellen Halpin

**4. General Plan Land Use Designation:**

Varies throughout the community of Lee Vining, includes:  
Single-Family Residential (SFR)  
Commercial (C)  
Industrial (I)  
Public/Quasi-Public Facilities (PF)  
Open Space (OS)  
Resource Management/Inyo National Forest (RM/INF)

## 5. Description of Project:

Mono County, with funding from the State Transportation Improvement Program (STIP), proposes to rehabilitate 1.7 miles of county-owned streets in Lee Vining. The project area encompasses the majority of the community's streets (see Figure 1). A Project Study Report (PSR) prepared in 2007 noted that:

Pavement is badly deteriorated (most pavements have not been rehabilitated since initial construction in 1955), pavement structure is inadequate, roads have poor surface and base drainage. The vast majority of pavements have reached the end of their useful life and present problems in ride quality, potential damage to vehicles, and appearance in an area which is heavily dependent on the tourist economy.

The PSR was amended in August 2010 to reflect changes to the proposed sidewalks per community input and to upgrade the road rehabilitation plan with the associated cost savings; it may be necessary to amend the PSR in the future as design progresses. The proposed work is intended to extend the surface life of the pavement for at least 10 years and improve drainage. The following street segments are included in the project:

Mattly Avenue -- Visitor Center Road to US 395;  
First Street -- Mono Lake Ave. to Mattly Ave.;  
Paoha Drive – the entire length;  
Yosemite Drive – Paoha Drive to Mono Lake Ave.;  
Lee Vining Avenue – Second Street to US 395;  
Mono Lake Avenue – First Street to D Street;  
Second Street – Mono Lake Ave. to US 395.;  
Third Street – Mono Lake Ave. to US 395;  
Fourth Street – Lee Vining Ave. to US 395; and  
D Street – Mono Lake Ave. to Lee Vining Ave.

Rehabilitation proposed for all street segments within the project area includes pulverizing the old surface and applying a 3 inch thick overlay. The County intends to utilize the existing pulverized surface, or grindings, as road base for the proposed 3-inch overlay. It may be necessary to remove pulverized material at certain locations within the project area to enable the proposed roadway elevations to match elevations of existing driveways and parking lots. It will also be necessary to design roadway elevations in conjunction with proposed sidewalks, curb and gutter. If grindings are removed from the project area, the County proposes to recycle this material as aggregate base and patch material on other County road projects. If it is necessary to remove grindings to the landfill, this material can be used as cover instead of being disposed of as waste.

Rehabilitation activities will occur within the parameters of existing road widths. The majority of the existing roads are approximately 30 feet in width; the project will maintain a minimum travel way of 24 feet with the potential for a three-foot valley gutter on either side of the travel lane. Roads of lesser width (D Street and Mattly to the north of the Community Center) will maintain their existing width.

The location of sidewalks and the drainage/stormwater components of the project were developed with input from the community and the Mono Basin Regional Planning Advisory Committee (RPAC). The community felt sidewalks would be incongruent with the rural nature of the community and would negatively impact parking and road widths. As a result, sidewalk locations were limited to those shown in Figure 1. Sidewalks will be 5 feet wide, with a rolled curb, which minimizes impacts to parking. The rolled curb is anticipated to be 18 to 24 inches wide, with a 4 inch curb height. Curb and gutter will be incorporated into existing roadway widths.

Proposed sidewalks will be located along portions of Mattly Avenue, and along East First Street and Fourth Street. The ability to install sidewalks along East First Street and Fourth Street may be limited by available right-of-way (ROW); actual locations will be determined during the final design of the project. Approximately 1,200 linear feet (LF) of sidewalk will be placed along Mattly from East First Street to the Lee Vining Community Center. All of that sidewalk will be located outside of the existing impervious surfaces of Mattly Avenue. Three hundred LF of sidewalk is planned on the north side of Fourth Street; that sidewalk will be located entirely within the existing hardscape. The proposed 300 LF of sidewalk associated with East First Street will be located within the current Caltrans yard; the addition of impervious surfaces will be limited to an unpaved strip of land between the paved right-of-way and the Caltrans yard pavement, which is estimated at a five foot width. The installation of sidewalks on East First Street will be predicated on the ability to obtain ROW from Caltrans. There is approximately 262,000 square feet (SF) of paved surfaces within the project area, and improvements proposed by the project will increase these surfaces by 7,275 SF.

The project includes the installation of drainage improvements and stormwater infiltration/treatment facilities, including valley gutters wherever feasible. Valley gutters will direct drainage with minimal impacts to parking and will help delineate and protect the edge of asphalt paving. The valley gutters may be constructed of concrete, although the final material will be decided during the design phase of the project. It is anticipated that the valley gutters will be placed within the existing paved area and road widths will not expand. The project proponent estimates that 36-inch valley gutters will be installed, but that will also be decided during the design phase and will depend on available space and the need for drainage.

To reduce potential pollutants from outfall to Lee Vining Creek, the County is proposing to add storm drain treatment facilities to the system. Precise locations will be determined during the design phase of the project, which will analyze flows to determine the size and placement of interceptors. Based on photographic evidence, it appears that interceptors would be warranted just prior to the outfalls. Potential treatment locations are shown in Figure 1; the locations proposed in Figure 1 are hypothetical at this time, and may change as design progresses.

Existing drainage facilities, as seen in Figures 2 and 3, are part of the state highway

system; improving or altering those facilities will require the cooperation of Caltrans. Additionally, the existing Caltrans outlets are located on publicly-owned lands. Modification of the outfalls, including the addition of treatment and/or infiltration basins, will require the approval of the jurisdictional agencies.

**6. Surrounding Land Uses and Setting:**

The project is located in Lee Vining, a small community in the central portion of Mono County. Existing land use in Lee Vining is a combination of residential uses, small commercial uses, limited industrial uses, and small public facilities. US 395 provides regional access and serves as the main street for the community. The streets within the project are located on either side of US 395.

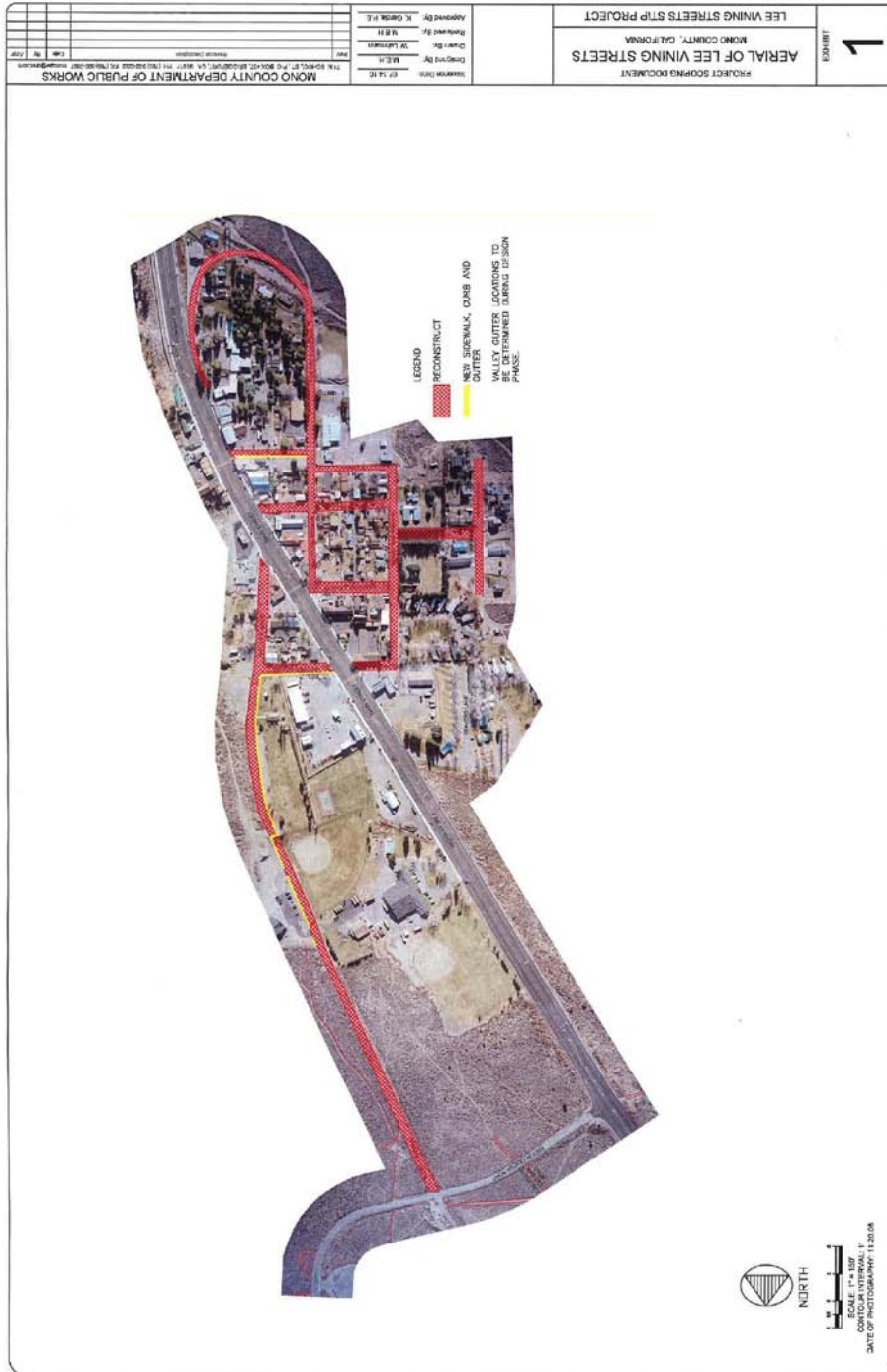
Lee Vining is located on a mesa at the western edge of the Mono Basin. Lee Vining Creek runs to the east of the community and drains into Mono Lake, located approximately 1 mile north.

Lee Vining is a small area of privately owned land surrounded by public lands and by land owned by the Los Angeles Department of Water and Power, which is managed for public purposes. Surrounding public lands managed by the Inyo National Forest are managed primarily for recreational purposes. The Mono Basin National Forest Scenic Area and the Mono Lake Tufa State Natural Reserve are located at Mono Lake, to the east of Lee Vining.

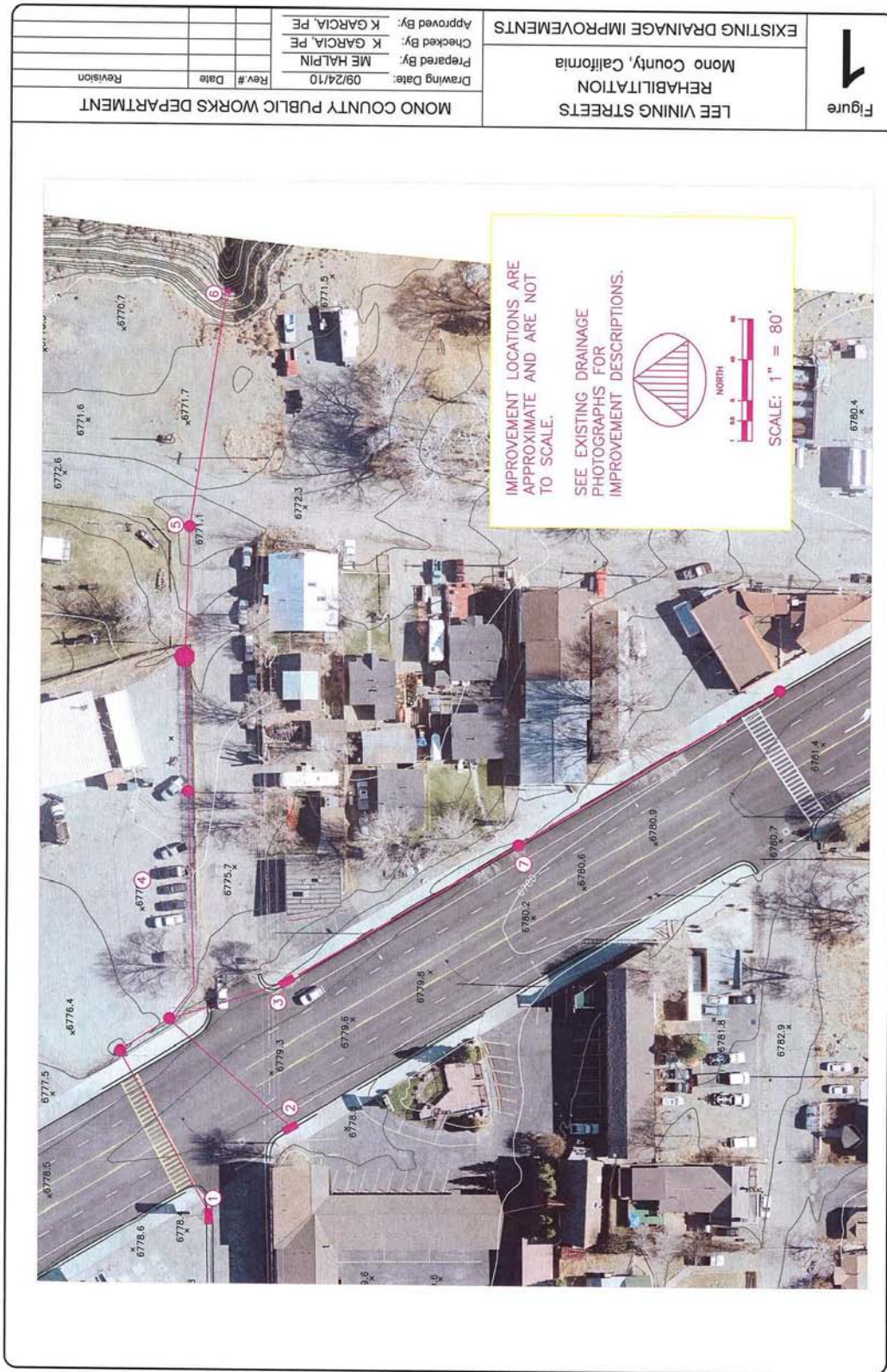
**7. Other Public Agencies Whose Approval May Be Required:**

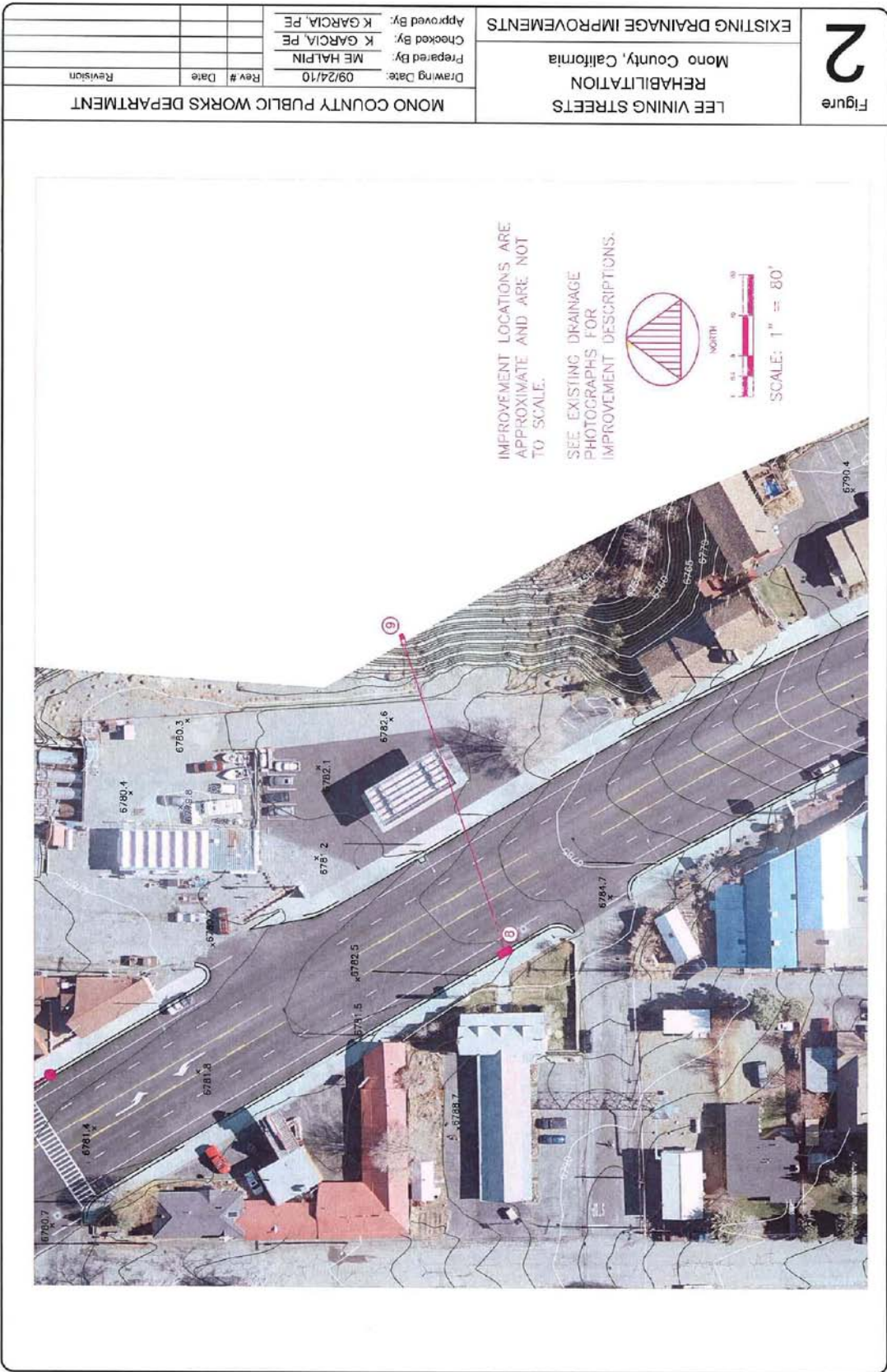
California Department of Transportation, District 9  
Lahontan Regional Water Quality Control Board  
Los Angeles Department of Water and Power (LADWP)

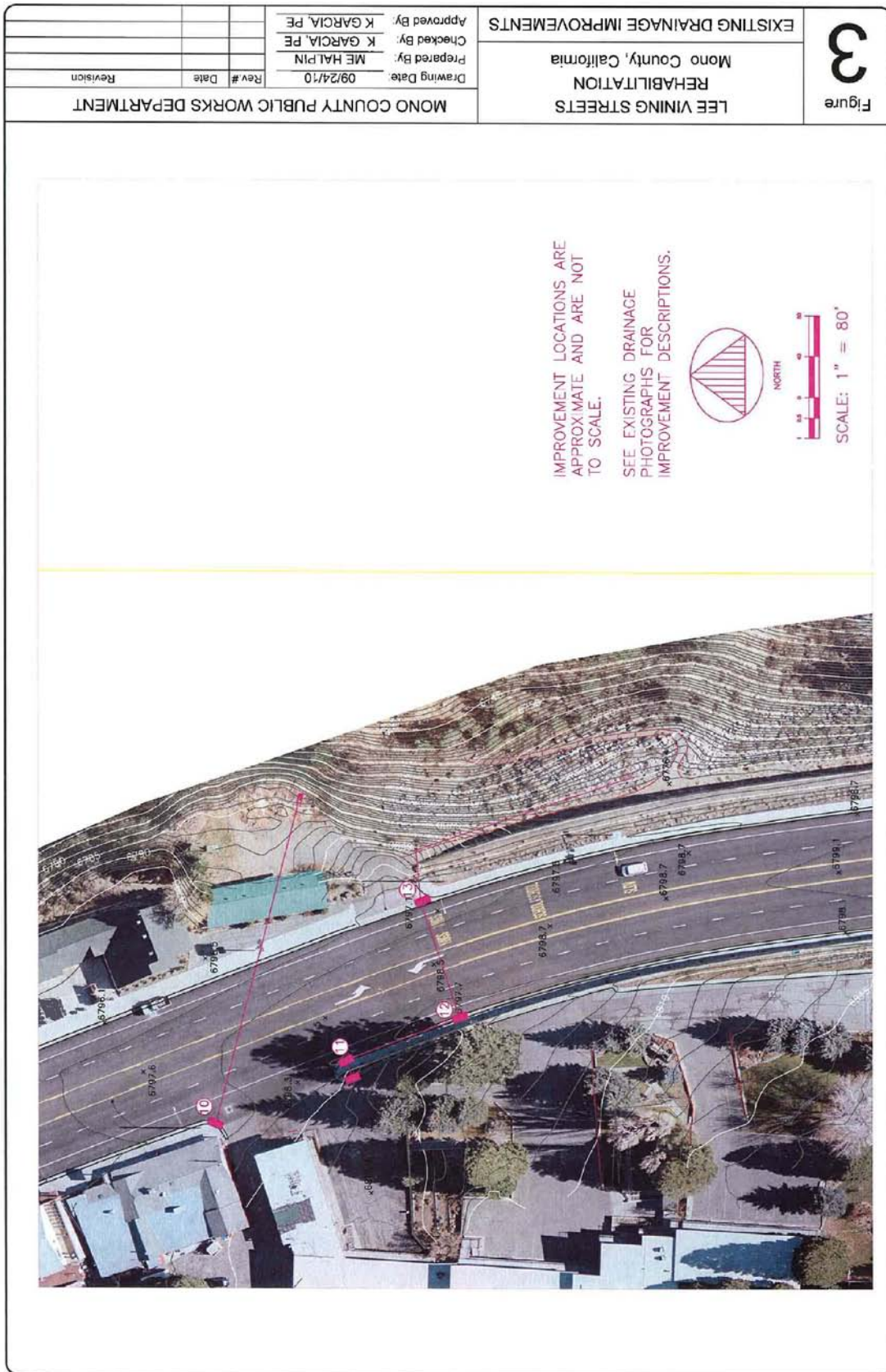
**Figure 1: Proposed Project**



**Figure 2: Existing Drainage Plan**







### Figure 3: Existing Drainage Photos

#### Lee Vining Streets Rehabilitation – Existing Drainage Photographs



#1 - Stormdrain



#2 - Stormdrain



#3 – Stormdrain with slotted drain in foreground



#4 – Caltrans yard drainage improvements



#4 – Caltrans yard drainage improvements.  
Sand trap located in background.

#5 – Stormdrain downgradient of Caltrans  
yard improvements.





#6 – Drainage outlet downgradient of Caltrans yard improvements.



#6 – Outlet



#7 – Slotted drain

#8 – Stormdrain in front of Latte Da



#9 – Stormdrain outlet can be seen near rocks on slope in foreground of picture.



#10 – Stormdrain near Mono Market. To be closed in future.



#11 – Stormdrains near Lakeview Lodge



#12 – Stormdrain near Lakeview Lodge



#13 – Stormdrain near Rush Creek. Exits to underground infiltration via perforated pipe.

### III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the discussion on the following pages.

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Aesthetics                         | <input type="checkbox"/> Agriculture Resources     | <input type="checkbox"/> Air Quality                        |
| <input checked="" type="checkbox"/> Biological Resources    | <input type="checkbox"/> Cultural Resources        | <input checked="" type="checkbox"/> Geology/Soils           |
| <input type="checkbox"/> Hazards & Hazardous Materials      |  | <input checked="" type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning                  | <input type="checkbox"/> Mineral Resources         | <input type="checkbox"/> Noise                              |
| <input type="checkbox"/> Population/Housing                 | <input type="checkbox"/> Public Services           | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Transportation/Traffic             | <input type="checkbox"/> Utilities/Service Systems |   |
| <input type="checkbox"/> Mandatory Findings of Significance |  |   |

### IV. DETERMINATION:

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

*I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.*

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: \_\_\_\_\_ Name: Scott Burns Date: \_\_\_\_\_

## V. DISCUSSION OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### I. AESTHETICS. Would the project:

- a) Have a substantial adverse effect on a scenic vista?

**No Impact.** The project is the rehabilitation of roads in Lee Vining, the installation of sidewalks in some areas, and the installation of stormwater facilities. The proposed project will have no impacts on scenic vistas in the area. The community is visible from surrounding public lands utilized for dispersed recreational activities. From those viewpoints, the proposed project will appear the same as it does now, as a developed community area surrounded by open space. Scenic vistas from Lee Vining are of Mono Lake to the east. Those vistas will not be affected by the proposed project.

- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

**No Impact.** US 395 within the project area in the community of Lee Vining has no scenic highway designations ([www.dot.ca.gov](http://www.dot.ca.gov)). In addition, the project will not affect any scenic resources in the area.

- c) Substantially degrade the existing visual character or quality of the site and its surroundings?

**No Impact.** See responses Ia and Ib above.

- d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

**No Impact.** The project does not include lights or materials that would create glare.

#### Aesthetics Mitigation Measures

No mitigation measures are proposed.

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

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

**No Impact.** The project is confined to the community of Lee Vining. There are no agricultural lands, or any lands with an agricultural designation, within Lee Vining (Mono County Land Use Element, Land Use Map 61, Lee Vining Community).

- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

**No Impact.** . The project is confined to the community of Lee Vining. There are no agricultural lands, or any lands with an agricultural designation, within Lee Vining (Mono County Land Use Element, Land Use Map 61, Lee Vining Community).

- c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

**No Impact.** . The project is confined to the community of Lee Vining. There are no agricultural lands, or any lands with an agricultural designation, within Lee Vining (Mono County Land Use Element, Land Use Map 61, Lee Vining Community).

#### Agriculture Resources Mitigation Measures

No mitigation measures are proposed.

III. **AIR QUALITY.** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- a) Conflict with or obstruct implementation of the applicable air quality plan?  
**No Impact.** The rehabilitation of existing roads and the installation of sidewalks and drainage facilities would not conflict with or obstruct implementation of the air quality plan.
- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?  
**Less Than Significant Impact.** Mono County is a state designated non-attainment area for ozone and PM<sub>10</sub> ([www.arb.ca.gov](http://www.arb.ca.gov)). Road rehabilitation activities could potentially contribute to PM<sub>10</sub> emissions in the short term, primarily through construction related dust. The Mono County General Plan (Conservation/Open Space Element, Public Health and Safety policies) and the Mono County Grading Ordinance (Mono County Code, Chapter 13.08) contain uniformly applied erosion control policies designed to prevent dust-related impacts from construction activities.
- c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?  
**Less Than Significant Impact.** See Response IIIb above. Dust could contribute to PM<sub>10</sub> emissions during the construction period but potential impacts from dust will be mitigated by existing uniformly applied development standards and regulations. The project is not anticipated to result in cumulatively considerable increases in either ozone or PM<sub>10</sub> emissions.
- d) Expose sensitive receptors to substantial pollutant concentrations?  
**No Impact.** The project is not expected to create substantial pollutant concentrations.
- e) Create objectionable odors affecting a substantial number of people?  
**No Impact.** The project is not anticipated to create objectionable odors.

#### Air Quality Mitigation Measures

No mitigation is proposed.

IV. **BIOLOGICAL RESOURCES.** Would the project:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?  
**No Impact.** The project is the rehabilitation of existing roads within an established community area. There are no identified special status species within the community of Lee Vining.
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?  
**Potentially Significant Unless Mitigation is Incorporated.** There is no riparian habitat or sensitive natural community within the community of Lee Vining. There is downstream riparian habitat adjacent to Lee Vining Creek to the east of the community. Currently, stormwater from the streets in Lee Vining flows through storm drains located primarily on US 395 to underground drainage pipes that terminate on the slopes below Lee Vining to the east (see Figures 2 and 3). Stormwater runoff conducted through these pipes flows downslope east of Lee Vining and eventually reaches Lee Vining Creek. Discharge from this drainage could be a potential source of pollution for Lee Vining Creek. Oils, grease, and fine sediments may be washed from US 395 and the streets in Lee Vining during and after storms or runoff from snowmelt. In addition, discharge flowing down the slope could erode the watercourse and sides of the surrounding gullies. Both the urban pollutants and the sediment eroded

could have a detrimental effect on water quality, riparian habitat, and aquatic organisms in Lee Vining Creek.

Current stormwater drainage treatment facilities are limited to a sand-interceptor located in the Caltrans yard. Existing drainage improvement plans show that flows from along US 395, from First Street to Third Street, flow through this interceptor.

The Mono County Department of Public Works provided the following information concerning existing runoff and estimated changes to runoff that will occur as a result of the project:

Use of the Rational Method indicates that flows currently generated from existing impervious surfaces in the project area are approximately 4.00 cubic feet per second (cfs). Flows resulting from the project and the slight increase in coverage are estimated at 4.11 cfs, a 2.75% increase in flows.

Conveyance of flows via valley gutters is anticipated to change runoff patterns by reducing standing water and infiltration. Given the topography in Lee Vining, in which slopes vary roughly between 2 and 5% and follow a west-to-east gradient across the community, there is currently conveyance of storm water both along the road shoulder and on the pavement surfaces throughout the community. Exhibit 2 contains photographs that show the existing drainage in Lee Vining during a significant storm event in October, 2010. Flows are uncontained and untreated, with runoff causing roadside erosion and ponding. Some portion of the run-off travels to the US Highway 395 ROW where there are drainage improvements in place. Standing pools of water are present at the intersections of US 395 with both Second and Third Streets. No inlets are currently in place at the upstream side of the intersections, causing ponding at the upstream return. There is no indication of the system being at capacity; however, as ponding is minimal at inlet locations, despite the presence of debris at the grates. Ponding at the two intersections is relieved by overflow and downstream conveyance. It is anticipated that the proposed conveyance may concentrate pollutants that currently may infiltrate along the roadsides.

To reduce potential pollutants from outfall to Lee Vining Creek and potentially reduce impacts associated with prior development, the County is proposing to add storm drain treatment facilities to the system. Precise locations will be determined during the design phase of the project, which will analyze flows to determine the size and placement of the interceptors. The Department of Public Works has determined that, based on photographic evidence, interceptors would potentially be warranted just prior to the outfalls. Potential treatment locations are shown in Figure 1; the locations proposed in Figure 1 are hypothetical at this time, and may potentially change as design progresses. The County may also choose to place infiltration facilities, including retention basins and/or infiltration trenches, where space is adequate, including on County-owned properties.

Mitigation measures will reduce potential impacts to biological resources to less than significant levels.

- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?  
**No Impact.** There are no federally protected wetlands within the project area or the surrounding area.
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?  
**No Impact.** The proposed road rehabilitation and installation of sidewalks will occur within the community of Lee Vining. There are no migration routes, wildlife corridors, nursery sites, or other wildlife use areas within the project boundaries (Mono County MEA, Maps 28, 32,33).
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

**No Impact.** Excluding the addition of sidewalks on East First Street and Mattly, and the potential for the location of drainage facilities outside of the existing footprint of development, the project will occur on existing roads within a developed community. Any proposed improvements located outside of the footprint will be immediately adjacent to the existing footprint and within an area of disturbance created by development. There are no local policies or ordinances that the project will conflict with.

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

**No Impact.** There are no habitat conservation plans of any type on private lands in the county.

#### Biological Resources Mitigation Measures

- The project shall include storm drainage facilities that 1) intercept and filter ninety-five (95) percent of pollutants in stormwater runoff, and 2) eliminate the high velocity of stormwater flows from the drainage outfalls, via infiltration, retention basins, or other methods, in order to reduce erosion of surrounding lands and subsequent sedimentation of watercourses.

The final design of the stormwater system, and the location of various components, may occur during the design phase of the project but the final design must meet the performance standards stated above.

The design phase of the project must include calculations and a discussion prepared by a qualified expert showing how the proposed design will meet the performance standards stated above.

- The applicant shall work with applicable agencies and landowners to develop a comprehensive approach to stormwater drainage improvements for Lee Vining.

#### **V. CULTURAL RESOURCES.** Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?  
**No Impact.** Historical resources are generally defined as those that qualify for listing on the California Register of Historic Resources or sites that the lead agency determines may qualify for inclusion on that listing. The project would occur on and adjacent to existing roads, on already disturbed land, within the community of Lee Vining. No historical resources have been identified on the road system in Lee Vining.
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?  
**No Impact.** The project would occur on and adjacent to existing roads, on already disturbed land, within the community of Lee Vining. No archaeological resources have been identified on the road system in Lee Vining.
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?  
**No Impact.** The project would occur on and adjacent to existing roads, on already disturbed land, within the community of Lee Vining. There are no unique paleontological resources or geologic features on the road system in Lee Vining.
- d) Disturb any human remains, including those interred outside of formal cemeteries?  
**No Impact.** The project would occur on and adjacent to existing roads, on already disturbed land, within the community of Lee Vining. There are no known human remains on the road system in Lee Vining.

#### Cultural Resource Mitigation Measures

No mitigation measures are proposed.

**VI. GEOLOGY AND SOILS.** Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

**Less Than Significant Impact.** The portion of the project site west of US 395 is located within a fault rupture hazard zone as shown on the Alquist-Priolo maps (MEA Figure 34C). However, the project is located in an existing developed community area, does not involve structures, and will not increase the existing exposure to fault hazards that already exists in this area.

ii) Strong seismic ground shaking?

**Less Than Significant Impact.** The entire county is subject to ground shaking. The county is designated seismic zone 4, the zone of greatest hazard as defined in the Uniform Building Code. All future buildings are required to meet these standards. The proposed project does not include structures, other than drainage facilities and will not, in itself, expose people or structures to ground shaking.

iii) Seismic-related ground failure, including liquefaction?

**No Impact.** The project site is not identified as an area at high risk for ground failure (MEA Figure 34C). The proposed project will not, in itself, expose people or structures to ground failure, including liquefaction.

iv) Landslides?

**No Impact.** The area designated for rehabilitation is flat; earthwork on-site would not result in a landslide. The MEA does not identify the area as being subject to rockfalls or landslides (MEA Figure 35A).

b) Result in substantial soil erosion or the loss of topsoil?

**Potentially Significant Unless Mitigation is Incorporated.** The project site is subject to wind erosion (MEA Figure 18C). The project is the rehabilitation of existing roads and the installation of sidewalks and drainage facilities, all of which will occur within existing roadways and hardscaped areas, except for the installation of sidewalks on First Street and Mattly Ave. Along First Street, sidewalk will be installed on a small strip (approximately 5 feet wide) of undeveloped land, located between the street and the paved Caltrans Road Yard. Sidewalk will also be installed along Mattly Ave, in an area which is currently undeveloped land. There is the potential for increased wind erosion in the short term if large areas are disturbed during the installation of those sidewalks. In the longterm, wind erosion will be reduced by installing sidewalks. Proposed mitigation measures for the project require that only the area proposed for the sidewalk is disturbed and that all heavy machinery remain in the roadway during construction.

Currently, stormwater from the streets in Lee Vining flows through storm drains located primarily on US 395 to underground drainage pipes that terminate on the slopes below Lee Vining to the east (see Figures 2 and 3). Stormwater runoff conducted through these pipes flows downslope east of Lee Vining and eventually reaches Lee Vining Creek. Potential soil erosion from stormwater discharge flowing down the slope could erode the watercourse and sides of the surrounding gullies. Mitigation measures require the Project Proponent/County to reduce the velocity of stormwater flows, via infiltration, retention basins, or other methods, in order to reduce erosion of surrounding lands and subsequent sedimentation of watercourses.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

**No Impact.** Subsidence has not been observed in Mono County due to fluid withdrawal, hydrocompaction, or water impoundment (MEA pg 283). The area designated for rehabilitation is flat; earthwork on-site would not result in a landslide.

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

**No Impact.** The project involves the rehabilitation of existing roads and the installation of sidewalks and drainage/stormwater facilities adjacent to those roads. The applicant will be required to submit a soils report or process a soils report waiver. Such report or waiver shall be reviewed and approved by the Director of Public Works, according to the provisions of Mono County Code (MCC) § 17.36.090.

- e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

**No Impact.** The project does not involve wastewater disposal.

#### Geology and Soils Mitigation Measures

- Along Mattly Ave, only the area proposed for the sidewalk shall be disturbed.
- All heavy machinery used to rehabilitate the roads and to construct sidewalks, curb and gutter, and drainage facilities shall be used and stored on impervious surfaces, not on adjacent undeveloped land.

#### **VII. HAZARDS AND HAZARDOUS MATERIALS.** Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

**No Impact.** The proposed project is not anticipated to utilize hazardous materials.

- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

**No Impact.** The proposed project is not anticipated to utilize hazardous materials.

- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

**No Impact.** The proposed project is not anticipated to utilize hazardous materials.

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

**No Impact.** The roads proposed for rehabilitation are not on any list of hazardous materials sites.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

**No Impact.** The project site is located within 2 miles of the Lee Vining Airport and is within the planning boundaries of the Airport Land Use Compatibility Plan for the Lee Vining Airport. The proposed road rehabilitation will not result in any safety hazards related to aircraft in the area.

- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

**No Impact.** There is no private airstrip in Lee Vining.

- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

**No Impact.** The proposed project is consistent with Mono County's Emergency Operations Plan (EOP).

- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?  
**No Impact.** The proposed road rehabilitation will not result in any increased exposure to wildland fires, since it will occur on already developed land within an established community.

#### Hazards and Hazardous Mitigation Measures

No mitigation measures are proposed.

### VIII. HYDROLOGY AND WATER QUALITY. Would the project:

- a) Violate any water quality standards or waste discharge requirements?  
**No Impact.** The project does not involve the use of water or wastewater facilities. The project will have to comply with the Lahontan Regional Water Quality Control Board (LRWQCB) Small Construction Projects Permit that regulates discharges from municipal drainage conveyances and stormwater facilities in the Mono Hydrologic Unit where the Lee Vining Streets Rehabilitation Project is located. To meet permit requirements, the County will submit a Notice of Intent (NOI) that includes descriptions of temporary and permanent Best Management Practices (BMPs) associated with the project. Any discharge monitoring requirements will be determined by the LRWQCB upon review of the NOI.
- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?  
**No Impact.** The project will not use groundwater or impact its use.
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?  
**Potentially Significant Unless Mitigation is Incorporated.** The Mono County Department of Public Works provided the following information concerning existing runoff and estimated changes to runoff that will occur as a result of the project:

Use of the Rational Method indicates that flows currently generated from existing impervious surfaces in the project area are approximately 4.00 cubic feet per second (cfs). Flows resulting from the project and the slight increase in coverage are estimated at 4.11 cfs, a 2.75% increase in flows.

Conveyance of flows via valley gutters is anticipated to change runoff patterns by reducing standing water and infiltration. Given the topography in Lee Vining, in which slopes vary roughly between 2 and 5% and follow a west-to-east gradient across the community, there is currently conveyance of storm water both along the road shoulder and on the pavement surfaces throughout the community. Exhibit 2 contains photographs that show the existing drainage in Lee Vining during a significant storm event in October, 2010. Flows are uncontained and untreated, with runoff causing roadside erosion and ponding. Some portion of the run-off travels to the US Highway 395 ROW where there are drainage improvements in place. Standing pools of water are present at the intersections of US 395 with both Second and Third Streets. No inlets are currently in place at the upstream side of the intersections, causing ponding at the upstream return. There is no indication of the system being at capacity; however, as ponding is minimal at inlet locations, despite the presence of debris at the grates. Ponding at the two intersections is relieved by overflow and downstream conveyance. It is anticipated that the proposed conveyance may concentrate pollutants that currently may infiltrate along the roadsides.

To reduce potential pollutants from outfall to Lee Vining Creek, the County is proposing to add storm drain treatment facilities to the system. Precise locations will be determined during the design phase of the project, which will analyze flows to determine the size and placement of the interceptors.

Mitigation measures require the design phase of the project to include storm drainage facilities that 1) intercept and filter pollutants in stormwater runoff, and 2) reduce the velocity of stormwater flows, via infiltration, retention basins, or other methods, in order to reduce erosion of surrounding lands and subsequent sedimentation of watercourses. Implementation of this mitigation measure will reduce erosion impacts to less than significant levels.

- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

**No Impact.** See Response VIIIc above.

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

**No Impact.** See Response VIIIc above.

- f) Otherwise substantially degrade water quality?

**No Impact.** No other impacts to water quality are anticipated.

- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

**No Impact.** The project does not involve housing.

- h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

**No Impact.** The project does not involve structures.

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

**No Impact.** The project will not expose people or structures to flooding.

- j) Inundation by seiche, tsunami, or mudflow?

**No Impact.** Development in Mono County is not subject to seiches or tsunamis. The project involves only minimal surface disturbance that would not contribute to mudflows.

#### Hydrology and Water Quality Mitigation Measures

No hydrology and water quality mitigation measures are proposed. Mitigation measures provided under Biological Resources address potential impacts to water quality resulting from the effects of stormwater drainage.

#### **IX. LAND USE AND PLANNING.** Would the project:

- a) Physically divide an established community?

**No Impact.** The proposed project is the rehabilitation of existing roads and the installation of sidewalks along some of those roads. The project will not divide an established community.

- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

**No Impact.** The project will not conflict with Mono County General Plan land use policies, which direct that development occur within and adjacent to community areas in order to protect and preserve surrounding open space (Mono County General Plan Land Use Element).

- c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

**No Impact.** There are no habitat conservation plan or natural community conservation plans on private lands in Mono County (Mono County General Plan Land Use Element).

### Land Use and Planning Mitigation Measures

No mitigation measures are proposed.

### X. MINERAL RESOURCES. Would the project:

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

**No Impact.** The project area has no known mineral resource deposits (Mono County Master Environmental Assessment, Figure 17F).

- b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

**No Impact.** The project area has no known mineral resource deposits (Mono County Master Environment Assessment, Figure 17F).

### Mineral Resource Mitigation Measures

No mitigation measures are proposed.

### XI. NOISE. Would the project result in:

- a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

**Less Than Significant Impact.** Short-term construction related noise impacts would be associated with excavation, grading, and construction activities on site during rehabilitation/construction activities. Construction related short-term noise levels would be higher than the existing ambient noise levels in the project area but would no longer occur once construction is completed. Compliance with all requirements of the Mono County Noise Regulations (Mono County Code §10.16) will reduce construction related impacts to less than significant levels.

- b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

**No Impact.** The rehabilitation of roads and construction of sidewalks will not result in groundborne vibration or noise.

- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

**No Impact.** Short-term increases in noise levels would result from construction activities but there would be no permanent increase in noise levels.

- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

**Less Than Significant Impact.** Short-term increases in noise levels would result from construction activities. Compliance with all requirements of the Mono County Noise Regulations (Mono County Code §10.16) would reduce those impacts to less than significant levels.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

**No Impact.** The project area is within 2 miles of the Lee Vining Airport and is within the planning boundaries of the Airport Land Use Compatibility Plan for the Lee Vining Airport. The proposed project would not expose people to excessive noise levels.

- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

**No Impact.** There is no private airstrip in Lee Vining.

#### Noise Mitigation Measures

No mitigation measures are proposed.

### **XII. POPULATION AND HOUSING.** Would the project:

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

**No Impact.** The rehabilitation of roads in Lee Vining and the installation of sidewalks along some of those roads will not induce population growth. Lee Vining is an island of private land surrounded by public lands; growth is limited to the existing area of development, much of which is already developed.

- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

**No Impact.** The rehabilitation of roads in Lee Vining and the installation of sidewalks along some of those roads will not displace existing housing.

- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

**No Impact.** The rehabilitation of roads in Lee Vining and the installation of sidewalks along some of those roads will not displace people.

#### Population and Housing Mitigation Measures

No mitigation measures are proposed.

### **XIII. PUBLIC SERVICES.**

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

- i) Fire protection?

**No Impact.** The proposed project is not anticipated to create any impacts to fire protection.

- ii) Police protection?

**No Impact.** The proposed project is not anticipated to create any impacts to police protection.

- iii) Schools?

**No Impact.** The proposed project is not anticipated to create any impacts to schools.

- iv) Parks?

**No Impact.** The proposed project is not anticipated to create any impacts to parks.

- v) Other public facilities?

**No Impact.** The proposed project is not anticipated to create any impacts to other public facilities or services.

#### Public Services Mitigation Measures

No mitigation measures are proposed.

#### XIV. RECREATION.

- a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

**No Impact.** The project could improve access to parks within Lee Vining. Use of those parks is limited, primarily, to residents of Lee Vining and is anticipated to remain so limited.

- b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

**No Impact.** The project does not include recreational facilities or the construction or expansion of recreational facilities.

#### Recreation Mitigation Measures

No mitigation measures are proposed.

#### XV. TRANSPORTATION/TRAFFIC. Would the project:

- a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

**No Impact.** The proposed project will rehabilitate roads in Lee Vining, and construct new sidewalks and curbs and gutters in some areas. The project will not affect traffic volumes in the area or the capacity of local roads. The project will provide improvements to the circulation system and to pedestrian facilities.

- b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

**No Impact.** See response to Item XVa above.

- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

**No Impact.** The project does not involve air traffic and will not impact air traffic patterns.

- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

**No Impact.** The design of the roads in Lee Vining is not being changed.

- e) Result in inadequate emergency access?

**No Impact.** The project will provide improvements to the circulation system and to pedestrian facilities, which may improve emergency access throughout the community.

- f) Result in inadequate parking capacity?

**No Impact.** The project will provide improvements to the circulation system and to pedestrian facilities; parking capacity will not be affected.

- g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

**No Impact.** The project will not affect alternative transportation facilities or routes. By improving pedestrian access in some areas of the community, the project may improve access to existing alternative transportation facilities located in the community.

#### Transportation/Traffic Mitigation Measures

No mitigation measures are proposed.

**XVI. UTILITIES AND SERVICE SYSTEMS.** Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?  
**No Impact.** The project does not involve domestic wastewater.
- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?  
**No Impact.** The project will not require water or wastewater facilities.
- c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

**Less Than Significant Impact.** . Currently, stormwater from the streets in Lee Vining flows through storm drains located primarily on US 395 to underground drainage pipes that terminate on the slopes below Lee Vining to the east (see Figures 2 and 3). Stormwater runoff conducted through these pipes flows downslope east of Lee Vining and eventually reaches Lee Vining Creek. Current stormwater drainage treatment facilities are limited to a sand-interceptor located in the Caltrans yard

The project includes valley gutters throughout the project area and sidewalks and curbs along East First Street, Fourth Street, and a portion of Mattly Ave. Mitigation measures for the project require the project to include storm drainage facilities that 1) intercept and filter pollutants in stormwater runoff, and 2) reduce the velocity of stormwater flows, via infiltration, retention basins, or other methods, in order to reduce erosion of surrounding lands and subsequent sedimentation of watercourses. The construction of these stormwater facilities is intended to reduce potential impacts to biological resources, soils, and water quality and will not result in significant environmental effects.

- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?  
**No Impact.** The project will not require water.
- e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the provider's existing commitments?  
**No Impact.** The project will require domestic wastewater treatment.
- f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?  
**No Impact.** Mono County landfill facilities will not be impacted by the proposed project. Benton Crossing Landfill and Pumice Valley Landfill have sufficient capacity to serve local communities for 10-12 years. The County utilizes grindings from pulverized road surfaces as aggregate base and patch material throughout the County, or as cover at the landfills. In addition, any green waste generated by County projects is turned into mulch at the landfill sites instead of being placed in the landfill.
- g) Comply with federal, state, and local statutes and regulations related to solid waste?  
**No Impact.** The Project Proponent/County and its contractors will be responsible for complying with all solid waste regulations by disposing of their refuse at county landfill sites or transfer stations.

**Utilities and Service Systems Mitigation Measures**

No mitigation measures are proposed.

## XVII. MANDATORY FINDINGS OF SIGNIFICANCE.

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

The only potential impacts from the proposed project would result from drainage impacts to biological resources, soils, water quality, and utilities/stormwater systems. The project has been designed to avoid stormwater drainage impacts by installing valley gutters and storm drainage facilities that both intercept and filter pollutants and slow the velocity of runoff in order to minimize impacts to the resources identified above.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The only potential impacts from the proposed project would result from drainage impacts to biological resources, soils, water quality, and utilities/stormwater systems. As noted previously, the project has been designed to avoid stormwater drainage impacts. There is no other development in the Lee Vining area that would result in drainage impacts. The community utilizes a community wastewater treatment facility, which retains wastewater on site although current and proposed storm drainage do not flow through the wastewater facility. Development of additional roads and housing is limited by the small amount of private land in the community and the fact that the majority of it is already developed. Mono County General Plan policies and land use regulations require new development to retain runoff onsite, through the use of retention basins or other methods.

Surrounding public lands are managed for recreational use and the development of roads and other facilities is extremely limited. The only other construction project in the area is the Lee Vining Airport reconstruction project, which is currently underway. The contractor for that project was required to implement BMPs to avoid or minimize sedimentation and drainage impacts to Lee Vining Creek. The project design was also modified to convey drainage away from soil stockpile areas. The site will be revegetated to mimic the surrounding vegetation with grasses on the runway shoulder. Potential drainage, erosion, and sedimentation impacts have been avoided or minimized as a result of these mitigation measures; there will be no cumulative impacts as a result of the proposed project.

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

The project will not cause substantial adverse effects on human beings.

## **VI. MITIGATION MONITORING PLAN**

### ***FORMAT:***

Mitigation Measure.....

- a. Schedule of Compliance.....
- b. Responsible Monitoring Agency or Department.....
- c. Implementing Party
- d. Type of Mitigation: Design, Ongoing, Cumulative

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### ***HYDROLOGY/WATER QUALITY & BIOLOGICAL RESOURCES***

1. The project shall include storm drainage facilities that 1) intercept and filter ninety-five (95) percent of pollutants in stormwater runoff, and 2) eliminate the high velocity of stormwater flows from the drainage outfalls, via infiltration, retention basins, or other methods, in order to reduce erosion of surrounding lands and subsequent sedimentation of watercourses.

The final design of the stormwater system, and the location of various components, may occur during the design phase of the project but the final design must meet the performance standards stated above.

The design phase of the project must include calculations and a discussion prepared by a qualified expert showing how the proposed design will meet the performance standards stated above.

- a. Final design of the storm drainage facilities shall not be approved until the required components are included.
  - b. Community Development Department
  - c. Public Works Department
  - d. Design
2. Work with applicable agencies and landowners to develop a comprehensive approach to stormwater drainage improvements for Lee Vining.
    - a. Throughout the design phase.
    - b. Community Development Department
    - c. Public Works Department
    - d. Design

### ***GEOLOGICAL RESOURCES***

3. Along Mattly Ave, only the area proposed for the sidewalk shall be disturbed.
  - a. Throughout the construction phase.
  - b. Community Development Department
  - c. Public Works/Contractor
  - d. Ongoing during construction
4. All heavy machinery used to rehabilitate the roads and to construct sidewalks, curb and gutter, and drainage facilities shall be used and stored on impervious surfaces, not on adjacent undeveloped land.
  - a. Throughout the construction phase.
  - b. Community Development Department
  - c. Public Works/Contractor
  - d. Ongoing during construction

## VII. REFERENCES

### *Documents*

- California Regional Water Quality Control Board  
**Water Quality Control Plan for the Lahontan Region (Basin Plan).** 1995.
- Mono County Airport Land Use Commission  
**Airport Land Use Compatibility Plan, Lee Vining Airport.** 2006.
- Mono County Code.  
**Chapter 10.16, Noise Ordinance.**  
**Chapter 13.08, Land Clearing, Earthwork, and Drainage.**  
**Mono County Land Development Regulations (Revised Land Use Element).**
- Mono County Office of Emergency Services  
**Mono County Emergency Operations Plan (EOP).** 2004.
- Mono County Local Transportation Commission  
**Regional Transportation Plan.** 2005.
- Mono County Planning Department.  
**Mono County General Plan and Updates.** 2001.  
**Mono County Master Environmental Assessment and Updates.** 2001.  
**Multi-jurisdictional Local Hazard Mitigation Plan for Mono County and Mammoth Lakes.** 2006.
- Mono County Public Works Department and SRK Consulting Engineers and Scientists  
**Report of Disposal Site Information. Joint Technical Document. Benton Crossing Landfill.** 2004.  
**Report of Disposal Site Information. Joint Technical Document. Pumice Valley Landfill.** 2004.
- U.S. Forest Service (USFS)  
**Inyo National Forest Land and Resource Management Plan.** 1988.

### *Websites*

- California Air Resources Board  
[www.arb.ca.gov](http://www.arb.ca.gov)  
Air emissions inventory data. Information on air quality and transportation planning.
- California Department of Fish and Game  
[www.dfg.ca.gov](http://www.dfg.ca.gov)  
Special status species, habitat information.

California Department of Transportation

[www.dot.ca.gov](http://www.dot.ca.gov)

Planning guidance, traffic counts, scenic highway designations.

***Correspondence***

Mono County Department of Public Works. Mary Ellen Halpin. Lee Vining Streets Rehabilitation Drainage Memo. October 25, 2010.