

Appendix E: Additional project needs in the Inyo-Mono IRWM planning region

The following projects are not being submitted for Round 1 Implementation funding but may be considered by the Group in future implementation funding rounds. These projects have not gone through the project review process by the RWMG, and many projects are still in the conceptual stages. The RWMG felt it was important, however, to include this list as an indication of additional priority needs in the planning region.

1. Refurbish Drinking Water Supply Backup Well

Project Proponent: Big Pine Paiute Tribe of the Owens Valley

In 2002, the Tribe installed a new primary water supply well and relegated the previous main well to backup supply. This backup well has now fallen into disrepair, rendering it unsafe to operate. Examination indicated the well casing needs repair and older parts should be replaced.

Estimated project cost: \$30,000

2. Water Line Replacement

Project Proponent: Big Pine Paiute Tribe of the Owens Valley

In 2003, a fire flow study was conducted which determined that the existing water distribution system was not capable of providing the recommended 1,000 gpm for fire protection due to 4" piping along sections of the water distribution system. This project will increase the pipe size to 8" along the inadequate fire flow sections to maintain at least 1,000 gpm for fire flow.

Estimated project cost: \$800,000

3. Hydrant Replacement

Project Proponent: Big Pine Paiute Tribe of the Owens Valley

An analysis of the Tribe's water distribution system revealed that there are 62 hydrants throughout the system and the average hydrant is 30 years old. Hydrants have a life expectancy of 40-60 years. 27 of the 62 hydrants are in need of replacement because they have reached the end of their useful life or parts are no longer available. This project will replace hydrants for the protection of the community and surrounding environment.

Estimated project cost: \$180,000

4. Irrigation Mainline Replacement

Project Proponent: Big Pine Paiute Tribe of the Owens Valley

LADWP annually delivers irrigation water to the Big Pine Indian Reservation. Unfortunately, the irrigation mainline, located on LADWP property, has numerous leaks resulting in abundant water losses which are credited to the Tribe's uses but which the Tribe never actually receives. This project will replace the mainline to make the irrigation system more efficient.

Estimated project cost: \$650,000

5. Wellfield Radius of Influence Study

Project Proponent: Big Pine Paiute Tribe of the Owens Valley

The Big Pine Indian Reservation is located in LADWP's Big Pine Wellfield, and, annually, approximately one-third of LADWP's groundwater pumping is from Big Pine. The Taboose-Thibault Wellfield is adjacent to the Big Pine wellfield and is annually pumped an almost equal amount. The Tribe would like to develop a model depicting a radius of influence of each DWP well in the Big Pine and Taboose-Aberdeen wellfields to better understand the impacts of pumping on the region. This study will assist in the management of groundwater resources in the Big Pine and Taboose-Aberdeen wellfields.

Estimated project cost: \$100,000

6. Test for copper content in water

Project Proponent: Birchim Community Services District

Test all homes in Birchim Community Services District for copper content in water. Copper is not in the water, but it can leach copper from piping going into the house. This can vary radically from house to house. California standards require that the District delivers water that falls below the state standard for copper content to each house. Presently we test only 10 houses, and we need to test every house to determine which houses have water above the copper standard.

Estimated project cost: \$8,500

7. Infrastructure assessment and repair

Project Proponent: Birchim Community Services District

The District's water delivery piping is very old. We need an engineering study to determine: a) what pipes are leaking, b) what pipes are asbestos and need replacing, c) what pipes are 4" in diameter and need to be replaced with 6" piping, d) what connections need to be made in order to make a complete looped system, d) what additional shut-offs are needed. With this study, the District can begin to replace that portion of piping as necessary.

Estimated project cost: \$25,000

8. Bishop Creek Flood Mapping Project

Project Proponent: Bishop Paiute Tribe

Using the remote sensing technique of LIDAR, create a detailed topographic strip map of the lower perennial Bishop Creek in order to define topographic geometry of main and overflow channels in a section from SCE Hydro plan 6 through residential areas of West Bishop, Bishop Paiute Reservation and City of Bishop. Funded project could leverage US Army Corps of Engineers hydrology and hydraulic services through Section 22 Water Resources Development Act of 1974 - Planning Assistance to States and Tribes to update flow routing models and increase accuracy of the extent of flooding in lower reaches and to predict the magnitude and reoccurrence of naturally occurring flows from headwaters.

Estimate project cost: \$300,000

9. Irrigation Replacement Project

Project Proponent: Bishop Paiute Tribe

Purpose: A subsurface irrigation system was constructed in the 1940s by the BIA for the Bishop Paiute Reservation. The system (approx. 63,000 total lineal feet (12 miles)) is in moderate and in some places, poor condition. Much of the original concrete piping has outlived its useful life. Approximately 28,000 feet (5 miles) has been upgraded to PVC pipe (44% of total). There remains approximately 35,000 (56% of total) lineal feet (7 miles) to be rehabilitated. Several segments of lines are dead and many valves are frozen or poorly functioning.

Project Description: We propose to replace the remainder 35,000 feet (56% of total) of these aged irrigation lines with high pressure plastic irrigation piping (PIP) and new valves. This is a replacement/ efficiency improvement project that will increase the ability to control the water and use in an efficient manner. Aged large diameter mainlines and valving will be the priority for replacement followed by laterals. Completion of this Project will employ local labor to ensure that irrigation water will flow to tribal assignments for years to come, enhancing agriculture, the environment, and the economy.

Proposed project cost: \$1,050,000

10. Wastewater Facilities Improvement Project

Project Proponent: Bishop Paiute Tribe

The Bishop Paiute Tribe desires to expand the treatment and wastewater disposal capacity of from 0.85 to 1.2 MGD (million gallons per day) by increasing efficiency of contract treatment operations or by constructing an interconnection to adjacent treatment facilities. It is proposed to increase the treatment capacity to provide for current and future needs of the Reservation for a total tribal capacity of 600,000 gallons per day. The estimated cost of the project is \$1,400,000. Almost one half of this amount will be contributed by the Environmental Protection Agency Clean Water Act fund. The Tribe is currently seeking matching funds on the order of \$750,000.

Since 1996, the Bishop Paiute Tribe has periodically exceeded their purchased total flow capacity. The tribal growth rate of the last 50 years is 2.4% for population and 1.7% for sewer connections. Based on these rates, it is projected that the Bishop Tribe will need approximately 315,000gpd of additional capacity in the next 20 years. The current contract provider of treatment has no additional capacity to sell the Tribe because the treatment plant is presently at maximum capacity. All numbers are based on several feasibility studies that have been completed by the Bishop Paiute Tribe and Indian Health Service (IHS).

Estimated project cost: \$750,000

11. 400,000 Gallon Reservoir

Project Proponent: Indian Wells Valley Water District

A new 400,000 gallon welded steel storage tank will be constructed in Ridgecrest, CA to increase storage in the District's "D" pressure zone.

Estimated project cost: \$1,500,000

12. Main Line Replacement

Project Proponent: Indian Wells Valley Water District

Main line replacement enables the District to replace old or undersized main line to improve operating efficiency, improve water quality and improve fire flow.

Estimated project cost: \$1,000,000

13. Well Plant for New Well

Project Proponent: Indian Wells Valley Water District

Construction of permanent pumping plant facilities for new Well 34. This project includes a masonry building and underground piping.

Estimated project cost: \$630,000

14. Brackish Water Treatment Plant

Project Proponent: Indian Wells Valley Water District

Construction of a brackish water treatment facility in the Indian Wells Valley to utilize what is currently nonpotable water to increase the valley's water supply.

Estimated project cost: \$24,000,000

15. Water Quality Treatment Plant

Project Proponent: Indian Wells Valley Water District

The project is to build one water treatment facility in the Indian Wells Valley for the District and U.S. Navy to handle any future water quality issues.

Estimated project cost: \$80,000,000

16. Aquifer Testing Program

Project Proponent: Indian Wells Valley Water District

This project would set up a series of aquifer tests in the areas where the groundwater flow model is lacking in real aquifer data. These areas include the Southwest, Central (Intermediate Area), Eastern (eastern edge of the deep aquifer), and along the northwestern canyon mouths. Most of the aquifer data used to model the groundwater conditions in the groundwater flow model were projected using geologic logs and drillers reports. Actual aquifer tests will add certainty to the model and refine its use as a groundwater management tool.

Estimated project cost: \$120,000

17. Storm Infiltration System

Project Proponent: Indian Wells Valley Water District

Study to predict the feasibility of capturing surface water during rain events and percolating that water into the aquifer system instead of losing the water to the playa lakes where the majority evaporates. Groundwater depths in the "recharge" areas of the Valley are fairly deep and percolation ponds may not be feasible due to vertical migration rates, evaporation rates, etc. However, some water could possibly be captured and percolated in the eastern areas of the Valley where groundwater levels are fairly shallow but of lower quality. The effort could shed some light on the endless possibilities of water capture, retention, detention, infiltration, re-injection, treatment, and re-use of surface water flowing through the Valley and not be utilized.

No estimated project cost

18. Water Collection Galleries

Project Proponent: Indian Wells Valley Water District

Study to provide the feasibility of installing water collection systems along the Sierra Nevada Front. Study could provide insight to the potential of recharging water migrating from the canyons to aquifer system(s) along the Sierra Nevada. The possibility of installing water-collection systems at some of these key locations could supplement the existing supply that might otherwise be lost to evaporation or migration into the Sierra Nevada fault, etc. Key locations include Indian Wells Canyon, Grapevine Canyon, Sand Canyon, NoName Canyon, and Nine-Mile Canyon.

No estimated project cost

19. Southwest Area Hydrogeologic Study

Project Proponent: Indian Wells Valley Water District

This project would follow-on to the most recent AB303 Project where we drilled eight new monitoring wells and sampled over 75 sites in the Valley. The eight wells drilled in the AB303 Project generally showed fairly good water quality characteristics, pluvial/fluvial and lacustrine depositional environments and could be a potential water production area for the Valley. Additional data are needed in the area which include additional wells to the south and west of the existing monitoring wells, additional water sampling efforts, future aquifer tests (two are scheduled to be performed by the Navy in 2011) using the AB303 Project wells, and possibly some shallow geophysical surveys.

No estimated project cost

20. Irrigation Replacement

Project Proponent: Lone Pine Paiute-Shoshone Tribe

The irrigation system was installed in the 1940s by the Bureau of Indian Affairs as part of the 1934 Land Exchange. The system, well over 25 years old, is in serious need of rehabilitation and/or replacement. Pipe failures and cracking has been seen and affects the operation of the system. The overall project goal is system replacement. Currently, LPPSR's irrigation mainline runs approximately 5,200 feet from east to west and consists of many different pipe sizes. A replacement of the system would allow it to flow properly and provide the necessary amounts of water for assigned and tribal lands. The main objective is to replace the old system with newer parts to guarantee effective operation for meeting future demands.

Estimated project cost: \$167,400

21. Main Line Replacement

Project Proponent: Lone Pine Paiute-Shoshone Tribe

The original distribution system was put in by the Bureau of Indian Affairs in the 1940s and consisted of various pipe widths: 5", 4", 3", 2" and ½" pipes, which ultimately failed after certain periods of time. In 1990, approximately 5 miles of the mainline were replaced with 4", 6" and 8" pipes to replace failing sections and to expand the system. According to a 1999 investigation, many of the main lines were reaching the end of their service life and were recommended for replacement. Today, it is very evident that the mainline needs to be replaced to not only adequately supply water to homes and tribal operations, but to also ensure the system does not fail if and when fire hydrants are used to suppress fires. Project goal is to repair or replace damaged mainlines to ensure their continued use and operation of the system to maintain its capacity to supply homes and tribal operations. Overall project objective is to meet the demands of a growing population and to allow access for new home construction and future economic development.

Estimated project cost: \$308,000

22. Storage Tank

Project Proponent: Lone Pine Paiute-Shoshone Tribe

Initial construction of water storage tanks for LPPSR took place at various stages. There are currently three (3) storage tanks that supply water for domestic use. These storage tanks are located within reservation boundaries and operate on a gravity flow and pressurized system. The pressurized system mainly feeds the western half of the reservation, which has resulted in expensive utility bills to keep the system operational. The main goal of the project is to move the water storage tanks 3000 feet west of their current location to the base of the Alabama Hills to

enable the whole system to completely operate by gravity flow, thus reducing the costs to operate. An end result of relocating the water storage tanks is to ensure that LPPSR will/can meet the needs/demand of a growing population and allow for easier access when new homes are built.

Estimated project cost: \$849,000

23. Well Rehabilitation

Project Proponent: Lone Pine Paiute-Shoshone Tribe

The construction of domestic wells took place more than 25 years ago. In 1999, an inventory and inspection of the wells was conducted and noted that all wells are either in need of being updated and/or replaced. Despite the repairs that have occurred throughout the years, they continue to be problematic. During the initial inspection of the wells in 1999, it was noted that no rehabilitation work or diagnostic testing has ever been done. The goal of the project is to improve the function and operation of the wells to improve water quality conditions. An overall objective of the project is to sustain an adequate supply of water that can meet the capacity of future demands and reduce the costs needed for untimely repairs.

Estimated project cost: \$391,200

24. MCWD Water Main Replacement

Project Proponent: Mammoth Community Water District

The Mammoth Community Water District (MCWD) water distribution system includes several thousand feet of aging water distribution mains that are subject to increasing leakage and repairs. Unaccounted for water loss volumes within the MCWD water distribution system are estimated at about 15%, exceeding the industry standard of 5%-10%.

The California Urban Water Conservation Council has identified leakage location and repair as a Best Management Practice that results in significant water conservation and more efficient use of available water supply.

MCWD proposes to remove and replace 12,000 lineal feet of aging water distribution mains with new Ductile Iron Pipe and appurtenances per current AWWA standards. The pipeline replacement will result in decreased water losses and increased operational efficiency.

Estimated project cost: \$1,900,000

25. Mammoth Basin groundwater and spring monitoring at UC Reserve

Project Proponent: Mammoth Community Water District

Increase the understanding of the Mammoth Creek groundwater basin and spring flow in the UC Valentine Reserve. Project will involve collaboration between UC Reserve Manager and the District to develop a groundwater and spring flow monitoring program by installing piezometers and spring flow gauges. Data will be used to examine whether there are links between District water diversions and groundwater pumping and groundwater levels and spring flow on the Reserve property.

Estimated project cost is unknown

26. Mammoth Creek flow measurement improvements

Project Proponent: Mammoth Community Water District

Increase public understanding of the Mammoth Creek Watershed, assist with maintaining healthy fish flows, and improve Mammoth Creek flow data acquisition at the Hwy 395 bridge by installing a live link with SCADA (Supervisory Control and Data Acquisition). It is intended to partner with LADWP on this project.

Estimated project cost is unknown

27. Master plan to expand distribution of recycled water

Project Proponent: Mammoth Community Water District

The District's recycled water program included plans to deliver water to the two golf courses and Shady Rest Park in Mammoth. The District would like to develop a plan to optimize the distribution of recycled water resources in the greater MCWD service area. A plan will include consideration of the economic and supply aspects of expanding distribution. This plan will inform planning efforts to meet future water supply demands.

Estimated project cost is unknown

28. MCWD Expansion of Recycled Water Distribution Pipe Project

Project Proponent: Mammoth Community Water District

The Mammoth Community Water District's ability to serve the community with a reliable water supply is currently challenged during multiple drought years. In May 2007, the Town of Mammoth Lakes completed a comprehensive update to their General Plan, reporting that land development under the approved General Plan would result in significant water supply

deficiencies in a dry year.

To help ensure that future water needs can be met in a reliable and sustainable manner--particularly during drought periods--the District has developed a recycled water program to provide treated wastewater for landscape irrigation which would otherwise create a demand on potable water supplies during the summer.

The Mammoth Community Water District (MCWD) proposes to install six-inch diameter ductile iron pipe and associated appurtenances to expand the distribution of recycled water. Included in the project are installation of pumps, pipelines, meters and monitoring devices in compliance with the approved MCWD Recycled Water Project EIR and the requirements of Title 22.

This project would significantly conserve potable water resources in the Mammoth Creek watershed through beneficial re-use of treated wastewater.

Estimated project cost: \$2,000,000

29. MCWD Meridian Boulevard Sewer Main Replacement Project

Project Proponent: Mammoth Community Water District

The Mammoth Community Water District (MCWD) proposes to remove and replace approximately 1,900 feet of aging sewer main pipeline and install 6,600 feet of new sewer main pipeline along portions of Meridian Boulevard in the Town of Mammoth Lakes. The pipeline replacement targets existing asbestos cement pipe threatened by structural failure due to hydrogen sulfide corrosion exasperated by low slopes and high flows. At least one such failure has already occurred along the targeted pipeline. The proposed new pipeline alignment and installation would extend the existing sewer main along Meridian Boulevard and circumnavigate flows around old asbestos pipe currently in use.

Estimated project cost: \$2,400,000

30. MCWD Treatment Plant Arsenic Removal Project

Project Proponent: Mammoth Community Water District

The Mammoth Community Water District (MCWD) Groundwater Treatment Plants #1 and #2 are experiencing treatment failures resulting in arsenic levels as high as 13 ppb. The California Department of Public Health (CDPH) requires arsenic maximum contaminant levels (MCL) to be below 10 ppb at all times. Per CDPH requirements, MCWD has announced Tier II public notification of the exceedence of the arsenic MCL.

Additionally, MCWD customers have seen a continued exceedence of the Safe Drinking Water Act (SDWA) Lead and Copper Rule. CDPH has mandated that MCWD implement the results

and recommendations of a recent Corrosion Control Study to achieve SDWA compliance for the Lead and Copper Rule. MCWD has already given Tier II public notification to District customers regarding non-compliance with the Lead and Copper Rule.

To achieve compliance with the Lead and Copper MCL rule, MCWD proposes to add aeration systems to adjust the pH of the plant effluents. The Department of Public Health has initially approved this treatment alternative.

To achieve compliance with the arsenic MCL rule, MCWD has retained the services of HDR engineering to evaluate the best available treatment option for arsenic removal.

To achieve the most cost-effective and timely implementation, MCWD will incorporate both the pH control and the arsenic removal improvements into a single design and construction contract.

Estimated project cost: \$5,600,000

31. Improve Mammoth Creek low flow measurement at Twin Lakes

Project Proponent: Mammoth Community Water District

Improve the ability to measure surface water in the Mammoth Lakes Basin. The current measurement weir between Twin Lakes and Mammoth Creek does not provide reliable low flow measurements. Replacing the weir will improve data reliability for managing surface water resources. This project would likely involve a partnership between MCWD, USFS and CalTrout.

No estimated project cost available

32. MCWD Well Rehabilitation (Phase 1 & 2)

Project Proponent: Mammoth Community Water District

Due to aging infrastructure, Mammoth Community Water District (MCWD) water supply wells are exhibiting a declining efficiency and loss of production capacity impacting the ability of MCWD to meet current water supply demands. If Phase 1 provides reasonable implementation measures for well improvements, the District will implement these measures. In addition, the District will expand Phase 1 to profile and conduct feasibility studies for the remaining production wells. Groundwater wells supply approx. 50% of MCWD's water demand. Loss of well production could cause severe short term water supply shortage and result in non-compliance with Department of Health requirements to maintain reserve capacities.

This project would improve the production and reliability of the MCWD supply wells by improving the wells and pumping efficiencies.

Estimated project cost: \$300,000

33. Storm drain improvements

Project proponent: Town of Mammoth Lakes

Provide drainage improvements as shown in the stormwater master plan. Replacing existing corrugated metal pipes that require replacement due to corrosion. This would be performed over a 20-year period.

Provide improvements to stormwater discharges and implement best management practices in strategic locations in Town. This includes preparation of updated design standards, stormwater master plan updates, development of water quality standards, as well as construction of improvements to improve stormwater quality and reduce erosion problems.

Estimated project cost: \$41,700,350

34. Treatment and Reuse of Fish Hatchery Effluent

Project Proponent: Inyo County

Phase I. Fish Hatcheries in Inyo and Mono Counties use large quantities of water and produce effluent of low quality. This study would determine the feasibility of treating hatchery effluent, thereby reducing water use by the hatcheries and improving water quality. The study would evaluate the water quality of hatchery discharges, investigate applicable technologies for treating hatchery effluent to a standard such that it could be reused by the hatcheries, and assess the costs and feasibility of implementing such technology at Inyo/Mono hatcheries.

Phase II. Implementation and operation of technologies identified as feasible in Phase I.

Estimated project cost is unknown

35. Lower Owens River Monitoring Wells

Project Proponent: Inyo County

The Lower Owens River project is a joint Inyo County/LADWP project that introduced flow into sixty miles of river channel to establish a healthy riverine-riparian ecosystem. This project would construct eighteen shallow monitoring wells along three transects across the Owens River to monitor the water table in the Lower Owens River floodplain to assess effect of LORP baseflows and seasonal habitat flows on the water table in areas that are targeted for recruitment of woody riparian species. This would assist in the management of flows for maximum development of a willow/cottonwood riparian corridor.

Estimated project cost: \$500,000

36. Lower Owens River Tule Control

Project Proponent: Inyo County

The Lower Owens River project is a joint Inyo County/LADWP project that introduced flow into sixty miles of river channel to establish a health riverine-riparian ecosystem. Flow was introduced in the river in December, 2006, and as the project has since evolved, it has become apparent that there has been excessive tule encroachment on the channel. This project will investigate tule control methods and implement the most cost effective means. The project will be phased as 1) investigation of methods, 2) testing of viable methods identified in 1), and 3) operational implementation.

Estimated project cost: Phase 1: \$300,000; Phases 2&3: unknown

37. Use of precipitation and groundwater by native phreatophytes

Project Proponent: Inyo County

Water management on LADWP land in the Owens Valley is conducted to maintain certain vegetation standards. In order to manage groundwater pumping so that these standards are met, it is necessary to know the relative use of precipitation versus groundwater by phreatophytic plant communities that may be affected by groundwater pumping. This study would sample isotopes of oxygen and hydrogen to determine the ratio of precipitation to groundwater in plant tissue. The isotope measurements would be combined with micrometeorological measurements of overall evapotranspiration to determine the amount of groundwater used by plants.

Estimated project cost is unknown

38. Saltcedar Control on Lower Owens River

Project Proponent: Inyo County

Inyo County and LADWP have an ongoing effort to control saltcedar on the Lower Owens River and other LADWP lands to facilitate development of willow and cottonwood in the riverine/riparian corridor of the Owens River. This project would fund the program for three years. Inyo County is currently funding this work through a three-year \$600,000 grant from the Wildlife Conservation Board that expires in 2010. The proposed grant would continue the program for an additional three years.

Estimated project cost: \$600,000

39. Remote Sensing of Owens Valley Vegetation

Project Proponent: Inyo County

Inyo County and Los Angeles have entered into a long-term water management agreement. One of the provisions of this agreement is to manage groundwater pumping to prevent declines in phreatophytic vegetation cover, and to prevent grass-dominated communities from converting to shrub-dominated communities. In order to determine whether these goals are being met, it is necessary to conduct ongoing vegetation measurements in the Owens Valley. The Inyo/Los Angeles Technical Group has conducted annual vegetation surveys using ground based methods; however, these methods are time-consuming and expensive to implement in such a large management area. Remote sensing has the capability to provide spatially extensive measures of vegetation abundance and, if possible, species composition, would provide a more efficient, spatially extensive, and reproducible method of measuring vegetation. This project would be conducted by RFP/RFQ, so the estimated project cost is rough.

Estimated project cost: \$500,000

40. Mono City Water Supply Improvements for Fire Suppression

Project Proponent: Lundy Mutual Water Company

There is only one electric supply power line to Mono City. This single line is susceptible to winter storms, ice storms, summer thunderstorms, and damage from fire. Loss of power during firefighting efforts jeopardizes the ability of fire trucks to refill when the electrical pump that runs the well and distribution stops working. In addition, Mono City has only one water storage tank. In the event of a major fire, the single water tank currently present does not meet the need for increased storage capacity.

Power outages occur three to four times a year on average during wind, weather, and fire events. Power loss results in the water system losing pressure as the pump no longer functions to refill the water and pressurize the system. As a result, power loss at the fire station compromises an effective emergency response. This project will provide an emergency generator for the fire station operations and water pump during electrical failure to Mono City Volunteer Fire Department and add a second water storage tank to assure adequate fire suppression supply.

The emergency generator system will provide the power needed to continue water supply operations in emergency events and power needed by emergency response operations including the initial siren and support operations that need electric power. There would also be an external outlet that an Operations for Emergency Services (OES) could plug into for communications and other necessary support services.

This project will install a 40KW emergency standby generator for the Fire Station and a 50KW emergency generator for the Fire Water Pump. Two generators are needed as the water pump has a non-standard configuration. A second generator is needed at the Fire Station to power the siren and to provide an energy source for emergency operations including a plug-in for support of computers, phones, and emergency operations. Installation will include all equipment, materials, electrical wiring, transfer switch gear, and enclosure to provide protection during inclement weather.

A back up power source will be installed which will prevent loss of water for emergency operations and needs, and provide power to the fire station for emergency response. In addition, a secondary water tank will provide additional water supply storage for fire suppression.

Beneficiaries include Mono City residents, visitors, and property owners. Mono City is a residential community of nearly 100 homes and residents. The small community relies on local volunteers to respond to structural fire incidents and other emergency events, sometimes without support from neighboring communities with more modern equipment and professionals with advanced skills. Providing this needed equipment to the Mono City Community will reduce risk of injury and loss of property.

Estimated project cost: \$99,225

41. Mono City Water Distribution System Assessment and Replacement

Project Proponent: Lundy Mutual Water Company

The water main distribution pipes under the street in Mono City are over 60 years old and subject to persistent leaks, line ruptures, and pressure problems. These problems could be solved by investigating the current condition of the water main distribution pipes, evaluating which sections are responsible, and replacing the damaged sections.

The potable water distribution system in Mono City is antiquated and in disrepair. Persistent leaks from pipes over sixty years old are costly to ratepayers and contribute to an inefficient use of scarce water resources. In addition, water line ruptures endanger the entire distribution system with high pressure variability.

The project will make improvements to the pipe distribution system that will prevent leaks and pipe ruptures and help solve continuing pressure problems.

Estimated project cost is unknown

42. Lee Vining Stormwater Management

Project Proponent: Undetermined. Possible proponents include Caltrans, Mono County, US Forest Service, and the Lee Vining Public Utilities District

Stormwater running off Lee Vining streets, sidewalks, parking lots, and other impervious surfaces is presently directed into several drain areas, some of which erode the hillside below town, wash out the Lee Vining Creek Trail, and reach Lee Vining Creek. This project will mitigate the erosion and sedimentation and pollution caused by these point sources.

Location 1 at wall: When Caltrans widened the highway and built the wall at the south end of Lee Vining, it resulted in a new hillside and trail erosion problem. It mitigated the problem somewhat by installing a perforated pipe below the wall that infiltrates the first flush of stormwater into the soil, and after reaching capacity spills into a pipe that emits stormwater into a side channel of Lee Vining Creek at the bottom of the hill. On more than one occasion during rain events, foam has been observed being discharged from this drain into the creek side channel, which could discharge pollutants into the active channel.

Location 2 at Shell Station: Currently the stormwater exiting the pipe at the bottom of the fill slope adjacent to the Shell Gas Station is discharged onto a flat terrace which absorbs most if not all of the flow. The drainage area below this pipe should be evaluated for capacity and potential problems.

Location 3 at First Street: Caltrans installed a clarifier in the Caltrans Yard, which removes trash, oil, and sediment from stormwater running off the highway near First Street. This “clarified” water is joined by untreated stormwater from the drain at the corner of First St. and Mattly Ave, and the combined flow exits a pipe below the large turnout at the end of First St. This water flows through a small pipe under a dirt road on this terrace, which washes out frequently. It then runs down an actively-eroding gully, and exits the gully in a large alluvial fan which crosses the Lee Vining Creek Trail, at times washing it out, and discharges to Lee Vining Creek. The amount of trash reaching the trail and the creek has been reduced since Caltrans installed the clarifier, but the erosion, sedimentation, and pollution is still a problem.

Location 4 at Community Center: When the Lee Vining Community Center was built, the drainage was directed over the side of the hill, and within a year or two a gully formed along with a fan of sediment on the terrace below adjacent to the sewer ponds. The drainage from the parking area has been directed elsewhere, however the drainage from behind the building still is directed down this gully, causing erosion and sedimentation.

Location 5 at USFS Visitor Center: The drainage from the employee parking lot and access road is directed down a gully which ends in a fan adjacent to Lee Vining Creek. The Lee Vining Creek Trail crosses this gully on a bridge, and the flow rarely reaches the fan at the bottom, however currently there appears to be significant erosion of the hillside below the employee parking lot and access road caused by poorly-directed drainage from the gutters along the road.

This project will evaluate each location, develop alternatives for dealing with each problem, and construct the chosen alternatives.

- Analysis of each problem area and alternative solutions will be presented in a report for decision-makers to use in selecting the best alternatives.
- Each solution will be constructed in order to prevent erosion, sedimentation, and pollution.
- Each solution will be monitored for two years to determine its effectiveness and adaptive measures will be taken to improve the solutions during this time.
- A plan will be developed to mitigate or eliminate any new sources of stormwater from new construction or redevelopment in Lee Vining through detention basins and construction of permeable surfaces.

Estimated project cost is unknown

43. Lee Vining Sewage System Improvements

Project Proponent: Lee Vining Public Utilities District

The Lee Vining sewer system is a gravity-flow system that drains to a large septic tank. The septic tank is pumped out periodically and the effluent drains to several open ponds for infiltration/evaporation.

The sewer system experiences frequent plugs and failures that result in several sewage spills in Lee Vining each year. These spills negatively impact the town and have the potential to run down storm drains into Lee Vining Creek. In addition, the smell from the open effluent ponds negatively impacts users of the Lee Vining Community Center, Hess Park, the Lee Vining Creek Trail, and adjacent areas.

The project will make improvements to the sewer system that will prevent and capture sewage spills and mitigate the severe odor problem near the Community Center.

Estimated project cost is unknown

44. Lee Vining Water Main Replacement

Project Proponent: Lee Vining Public Utilities District

The Lee Vining water system is a gravity-flow system from springs in Lee Vining Canyon, to two water tanks near the Lee Vining Ranger Station, to the town of Lee Vining.

On March 6, 2005, the water main broke at the top of the hill above the SCE substation. Water running down the hill caused a mudflow to cross the highway and reach Lee Vining Creek,

closing the highway for a few hours and muddying the creek and disrupting water service. At other times water mains break in town, causing loss in water service and requiring emergency repairs. This threatens water quality, public safety due to disruptions in fire protection, and has negative effects on soil and water conservation along the route of the water main.

The project objective is to replace all the aging and deteriorating water mains in the Lee Vining water system.

Estimated project cost is unknown

45. Lee Vining Water Meter Installation

Project Proponent: Lee Vining Public Utilities District

Lee Vining does not have water meters. It currently has two water tanks along Lee Vining Creek near the Ranger Station.

Due to lack of water meters, water users in Lee Vining have no incentive to conserve water. High water use during the summer resulted in the water level in the water tank becoming low at times, and caused the district to install a new water tank adjacent to the existing one along Lee Vining Creek, resulting in a loss of riparian habitat. New development proposals would increase peak demand and stress the existing water system.

Install water meters for each water user. The district could then implement water conservation pricing and discourage excessive water use, resulting in a more reliable water supply without having to add new storage.

Estimated project cost is unknown

46. Rush Creek Floodway Improvements

Project Proponent: Undetermined. Possible proponents include the Los Angeles Department of Water and Power or the State Water Resources Control Board

During Rush Creek flood events, Silver Lake can back up and flood Hwy 158 (and occasionally back up Reversed Creek as far as the Double Eagle Resort, such as the 1000 cfs 1967 flood, a 150-year event). Above a flow of roughly 500 cfs (downstream of Silver Lake), a 10-year flood, the culverts above Silver Lake under the highway are full. Higher flows to 750 cfs (a 7-year flood without SCE's control) would be beneficial for riparian habitat restoration downstream.

SCE manages its reservoirs in order to minimize uncontrolled spills, which has the result of minimizing flows above 500 cfs. Higher flows do occur rarely, such as in 1967, and flood property and roads. Structural improvements to increase the capacity of the floodway at Silver

Lake would allow SCE to release higher flows from its upstream reservoirs, which would benefit riparian habitat restoration downstream.

Increase the capacity of the Rush Creek floodway at Silver Lake in order to minimize flooding and maximize peak flow events up to 750 cfs that benefit the riparian ecosystem.

Estimated project cost is unknown

47. Mono Lake Evaporation Study

Project Proponent: Undetermined. Possible proponents include the Los Angeles Department of Water and Power (LADWP), the State Water Resources Control Board (SWRCB), the Great Basin Unified Air Pollution Control District (GBUAPCD), and the Mono Lake Committee (MLC)

There is a need for an updated evaporation estimate for Mono Lake. Climate change has increased lake temperatures and presumably evaporation and a new estimate is needed for use in the Mono Lake water balance models.

Mono Lake is currently rising to a stabilization level of 6392 feet above sea level. This level, ordered by the SWRCB and implemented by LADWP, is expected to bring air quality into compliance with federal standards. The GBUAPCD is required to bring air quality into compliance. Recent lake levels indicate a slow trend in lake level rise, however preliminary analysis suggests this is not out of the range of variation predicted by the models. A cooperative effort is underway to update the models and a new evaporation estimate is needed, since evaporation is not measured and it is the largest single component of the water balance.

Update the evaporation estimates for Mono Lake for use in updated models that will provide updated lake level forecasts.

Estimated project cost is unknown

48. CSA-2 Sewer System Evaluation

Project Proponent: Inyo County Department of Public Works

The CSA-2 sewer collection system is in dire need of renovation because of continued seepage, reoccurring blockages and infiltration inflow. These conditions have created a situation where costs for system maintenance and effluent treatment are high and also create a potential for significant environmental impacts. The collection system has not been evaluated since the late 1970s and no accurate plans for the system exist. The proposed system evaluation would map and measure the entire system as well as camera the existing main lines to document the existing condition and problem areas in the sewer mains. Following the map and measure portion of the evaluation, plan and profile drawings would be created and these drawings would be used to develop recommendation for rehabilitation of the sewer system. The preliminary

engineering report prepared as part of the proposed evaluation is often required for application for State and Federal Grant and Loan Programs. The system is a community-owned and County-operated sewer collection system and is located in Aspendell east of Bishop, CA.

Estimated project cost: \$70,000

49. Laws, Independence, and Lone Pine Water Systems Master Plan

Project Proponent: Inyo County Department of Public Works

Laws, Independence, and Lone Pine are disadvantaged communities. The Laws, Independence, and Lone Pine Town water systems are in need of a Master Plan / Needs Assessment which could answer basic questions about how to operate the systems effectively and economically but yet set aside enough reserves to meet both anticipated and unforeseen needs. The assessment would include a hydraulic analysis of the systems addressing fire flow needs and maximum day demand needs. The assessment may also include a staffing plan identifying the number of office and field staff necessary to carry out operations of the system and identify specific tasks to each staff member. The assessment should also identify all current and anticipated future regulatory requirements a water purveyor must meet. These regulations encompass California Occupational Safety and Health Administration requirements to Certified Unified Program Agency regulations to Air Quality regulations and Public Health Department regulations. Capital improvements could be identified over a five, ten and twenty year horizon. The estimated cost for the project is based upon cost estimates received for a hydraulic analysis and water rate study and the estimated costs of County personnel providing requested data to the successful contractor.

Estimated project cost: \$200,000

50. Laws, Independence, and Lone Pine ultra-low flush toilet replacement project

Project Proponent: Inyo County Department of Public Works

Laws, Independence, and Lone Pine are disadvantaged communities. The Laws, Independence, and Lone Pine ultra-low flush toilet replacement project shall provide a rebate to customers who purchase and install Ultra-Low Flush toilets in their homes as a water conservation measure. The program may be administered as follows: the customer would purchase a toilet from a pre-defined list of appliances with a rebate amount determined by the particular model chosen. After an inspection of installation by the County, a rebate would be applied to their water bill and carried forward until the rebate amount was exhausted. The estimated number of toilets replaced would be 1.25 toilets per service with a maximum rebate of \$100 per replaced toilet applied to their water bill. Some residents may replace all their toilets while others may not replace any toilets. The estimated cost for the project could be \$119,000 for 1.25 toilets for every 952 services and approximately \$30,000 for project administration for a

total project estimate of \$149,000. Alternatively, rather than applying the rebate to the water bill, a rebate card valued at \$100 may be issued.

Estimated project cost: \$149,000 – 170,000

51. Laws, Independence, and Lone Pine Condition Assessment and Leak Detection Survey

Project Proponent: Inyo County Department of Public Works

Laws, Independence, and Lone Pine are disadvantaged communities. The Laws, Independence, and Lone Pine Condition Assessment and Leak Detection Survey shall provide a condition assessment of pipeline integrity and leak detection of all mains in the three town water systems. The project shall also provide funds to excavate and repair leaks and unmetered services discovered by this Project. The project may help to conserve water lost by leaks and un-metered services while the condition assessment may help to prioritize capital improvements. The estimated cost for the Condition Assessment and Leak Detection Survey may be \$200,000 over the total of approximately 20 miles of mains in all three water systems. An additional \$50,000 could be included to remedy the defects discovered. Administration of the project may cost approximately \$50,000.

Estimated project cost: \$300,000

52. Laws, Independence, and Lone Pine Rate Study

Project Proponent: Inyo County Department of Public Works

Laws, Independence, and Lone Pine are disadvantaged communities. The Laws, Independence, and Lone Pine Rate Study shall build upon the Water Master Plan / Needs Assessment Project and the Condition Assessment Project by preparing a Water Rate Study to investigate identified funding needs by the previous Projects and how to fund them. The estimated costs for this project, keeping in mind the previously completed studies, may be about \$50,000 which also includes Administration costs. The Water Master Plan, Conditions Assessment, and Rate Study Projects may be completed within one round of funding.

Estimated project cost: \$50,000

53. Lone Pine Transmission Main Project

Project Proponent: Inyo County Department of Public Works

Lone Pine is a disadvantaged community. This Project would install about 4,300 lineal feet of 16 inch ductile iron pipe. Approximately 800 lineal feet of the current transmission main are above ground paralleling the creek within 2 feet of the creek, cross under the creek bed or are

adjacent to tributaries to Lone Pine Creek. The existing main has a joint in the pipe where it crosses a gully and the joint in the pipe is sagging in mid air. The pipe is also very thin, probably about 5 gage or about 3/16" thick. The new main would primarily be within public rights-of-way and far away from the creek while the existing main is entirely on Public Lands or LADWP land. The new main would also cross the LADWP Aqueduct.

Estimated project cost: \$3,000,000

54. Independence Transmission Main Project – 1

Project Proponent: Inyo County Department of Public Works

Independence is a disadvantaged community. This Project would replace the Independence Water Transmission Main from the tanks to the old Chlorination Vault, a distance of about 2,600 lineal feet. The current main has 2,135 feet of old steel main that was used material when it was installed in 1928. A leak in the main in 1991 started as a pin-hole diameter sized leak which grew eventually to 200 lineal feet replaced as none of the adjacent pipe was of sufficient integrity to permit attachment without causing more leaks. This project would also add a 12" meter providing more fire flow to the town to the existing 8" Town Demand Meter. The current Transmission main is of 10" and 12" construction. This project would replace all pipe with a 16" main of ductile iron.

Estimated project cost: \$1,500,000

55. Independence Transmission Main Project – 2

Project Proponent: Inyo County Department of Public Works

Independence is a disadvantaged community. If the Independence Transmission Main Replacement Project is not approved for Round 2, this Project would survey the existing Independence transmission main for elevation and at the discovered high points and points of inflection on the main install double 2" air release valves. There is one known and several suspected high points trapping air within the transmission main. It also would remove an existing in-line meter in the transmission main that does not turn which impacts flows. These defects impede the delivery of large volumes of water during times of high demand such as a fire. There is suspected air in the distribution system potentially causing an air lock affecting a portion of the upper end of the distribution system. This project also adds a 12" meter to the existing 8" Town Demand Meter. This project may remedy the above referenced defects and provide more fire flow to the town.

Estimated project cost: \$110,000

56. Independence Well 384 Transmission Main Project

Project Proponent: Inyo County Department of Public Works

Independence is a disadvantaged community. This project will install about 2,000 lineal feet of 12" ductile iron main from Well 384 to the end of the existing 12" main on Pavillion Street. The existing main is 6" and 8" and would be supplemented with the 12" main. This may increase flows to the upper corner of the distribution system enhancing fire flows and providing added reliability.

Estimated project cost: \$750,000

57. Independence Bypass Line Project

Project Proponent: Inyo County Department of Public Works

Independence is a disadvantaged community. This project will install about 300 lineal feet of 8" PVC main from the existing transmission main to the retention basin providing an orderly controlled means of discharging un-consumed water from the town into the concrete lined retention basin for evaporation when both water tanks need to be taken off-line. It protects the adjacent stream.

Estimated project cost: \$20,000

58. Laws, Independence, and Lone Pine Pressure and Air Relief Improvements Project

Project Proponent: Inyo County Department of Public Works

Laws, Independence, and Lone Pine are disadvantaged communities. This project shall install a 4" pressure relief valve in both Independence and Lone Pine town water systems, install at least two air relief valves in all three Town distribution systems each, and the community of Laws may receive an additional fire hydrant and a 2" blow off. These improvements shall increase reliability in all three Town water systems as their currently are no air release valves in any of the systems while both the Independence and Lone Pine systems may see pressures in excess of a customary pressure during emergencies.

Estimated project cost: \$60,000

59. Alternative Lone Pine Transmission Main Project

Project Proponent: Inyo County Department of Public Works

Lone Pine is a disadvantaged community. If the 4,300 lineal foot Lone Pine Transmission Main Project is not approved, this Project may install about 2,000 lineal feet of 16" ductile iron pipe

bypassing the tributaries to Lone Pine Creek, pass along public rights-of-way and pass into LADWP land and reconnect with the existing transmission main west of the aqueduct preventing the need for a new aqueduct crossing. Approximately 800 lineal feet of the current transmission main are above ground paralleling the creek within 2 feet of the creek, cross under the creek bed or are adjacent to tributaries to Lone Pine Creek. The existing main has a joint in the pipe where it crosses a gully and the joint in the pipe is sagging in mid air. The pipe is also very thin, probably about 5 gage or about 3/16" thick and of unknown age. This alternative project would remedy the above defects but it would still require LADWP approval and possibly federal approval.

Estimated project cost: \$1,500,000

60. Lone Pine Distribution System Fairbanks Roy Rogers Loop Project

Project Proponent: Inyo County Department of Public Works

Lone Pine is a disadvantaged community. This project installs about 3,000 lineal feet of 12" ductile iron pipe from West Bush Street around Fairbanks Avenue to south Brewery St via Roy Rogers Road, completing a loop of the main supply main into the distribution system. By installing this main, the system has a second means of providing the Town with water should an existing 1,500 lineal foot section of 16 inch main become unusable for any reason. This project improves the reliability of the Lone Pine water system and provides flexibility in operation.

Estimated project cost: \$1,500,000

61. Lone Pine East Locust Street Water Main Project

Project Proponent: Inyo County Department of Public Works

Lone Pine is a disadvantaged community. This project installs about 900 lineal feet of 8" ductile iron pipe along East Locust Street from the ally east of Main St passing two public schools to Lone Pine Avenue. It also reconnects the Southern Inyo Hospital domestic and fire services from the old 6" main in Locust Street to the new 8 inch main installed in 2002. Public school domestic services are also reconnected to the new main. By completing this project, the reliability of the system both in the northern part of Lone Pine and along East Locust Street to Southern Inyo Hospital will be improved as will the domestic services to the public schools and domestic and fire suppression services to the hospital. This project improves the reliability of the Lone Pine water system and directly benefits two public schools, the local hospital and provides flexibility in operation.

Estimated project cost: \$110,000

62. Laws, Independence, and Lone Pine Backflow Prevention Survey

Project Proponent: Inyo County Department of Public Works

Laws, Independence, and Lone Pine are disadvantaged communities. This project will survey all services in the three towns and check for the presence of proper backflow devices or the necessity of backflow devices on premises served by the water systems. A similar survey was conducted in 2001 and several changes to commercial services have occurred in that time. This project directly impacts the health and well being of the public in all three towns.

Estimated project cost: \$140,000

63. Inyo County Buildings and Grounds Backflow Device Repair or Replacement Project

Project Proponent: Inyo County Department of Public Works

Inyo County maintains public buildings and grounds in several Owens Valley towns, primarily in Independence, which have backflow devices. Many of these devices are non-operative. This project builds on the Backflow Device Survey project and repairs or replaces the defective backflow devices serving County buildings and grounds. This project directly benefits the employees and public who conduct business in county facilities as well as the public, both residents and visitors, who use county grounds.

Estimated project cost: \$50,000

64. Independence Crockett Street Loop Project

Project Proponent: Inyo County Department of Public Works

Independence is a disadvantaged community. This project installs about 750 lineal feet of 6" PVC pipe and a fire hydrant to loop the distribution system from East Wall Street south on Crockett around to North Clay Street. This project will remove a dead end in the system by creating a loop improving water quality and add a fire hydrant that will improve fire hydrant coverage. It also will reconnect two services to the new 6" main. It will abandon a 1 ½" copper service line that served two residences providing marginal flow.

Estimated project cost: \$50,000

65. Laws Auxiliary Well Chlorination Building Project

Project Proponent: Inyo County Department of Public Works

The community of Laws is a disadvantaged community. This project installs a chlorination building at the auxiliary well site. Currently there are no chlorination facilities at the site. The

well will be used during periods of high demand and when the domestic well is off-line for repairs, etc.

Estimated project cost: \$30,000

66. Laws, Independence, and Lone Pine Swing Check Valve Replacement Project

Project Proponent: Inyo County Department of Public Works

The communities of Laws, Independence, and Lone Pine are disadvantaged communities. This project replaces deteriorated swing check valves at the well sites for all three systems. Currently the existing swing check valves at the well sites are old, and mounting nuts and bolts have disintegrated and occasionally leak chlorinated water back into the well. This impacts LADWP's groundwater monitoring program. The disintegrated nuts and bolts pose a safety hazard to the communities.

Estimated project cost: \$40,000

67. Laws, Independence, and Lone Pine Geographical Information Systems Project

Project Proponent: Inyo County Department of Public Works

The communities of Laws, Independence, and Lone Pine are disadvantaged communities. This project creates a Geographical Information System for all three Town water systems. Currently, most water systems data is on paper. Some CAD drawings exist. This project benefits the three town water systems by maintaining all the pertinent information electronically and assists in efficiently operating the system providing a one-stop spot for quickly accessing all information needed during events such as emergencies, repairs, upgrades etc.

Estimated project cost: \$100,000

68. Independence and Lone Pine Chlorination Tank Replacement Project

Project Proponent: Inyo County Department of Public Works

The communities of Independence and Lone Pine are disadvantaged communities. This project replaces 40 year old steel chlorination tanks buried underground. As these tanks age, the potential for leaks increase, especially as there are no sacrificial anodes in place to mitigate corrosion. The leaking tanks also pose a health and safety risk to the communities they serve.

Estimated project cost: \$1,300,000

69. Laws, Independence, and Lone Pine Sample Site Project

Project Proponent: Inyo County Department of Public Works

The communities of Laws, Independence, and Lone Pine are disadvantaged communities. This project installs dedicated sampling stations within the three Town water distribution systems which helps to comply with the Federal Groundwater Rule and the California Title 22 Water Quality regulations requiring dedicated sample sites within distribution systems. This project installs 25 stations in Independence and Lone Pine and 5 stations in Laws for a total of 55 stations.

Estimated project cost: \$40,000

70. Big Slough Agricultural Diversion Dam

Project Proponent: Mono County RCD

Just north of the center of Walker is a diversion dam which is the windpipe through which 10,000 of the 14,000 Antelope Valley irrigated agriculture acres breathe. It is going on nearly a century in age and even its patches are decades old. Were it to fail, the basis of the local economy would be lost, perhaps for a full growing season. Restoration of this dam will be an economic safeguard and an ecological blessing in enhancing the vital fishery on the West Walker River.

Estimated project cost: \$700,000

71. Wastewater Pond Reclamation & Conveyance

Project Proponent: Mammoth Mountain Ski Area

MMSA currently operates its Main Lodge area waste facility through the system of wastewater settling ponds. Both the State Water Quality Division of Lahontan and the USFS agree that this is not the best and proper way of managing solid waste water and that conveyance to the municipal system is best. However, it is very costly to install the conveyance lines, pay the connection fees, and to reclaim the land. Therefore, Mammoth continues to meet all of the State standards for the management of settling ponds until a viable option or financial assistance is put in place.

Estimated project cost: \$7,000,000

72. MMSA, Town of Mammoth Erosion and Flood Improvements

Project Proponent: Mammoth Mountain Ski Area

MMSA is topographically above the Town of Mammoth Lakes. The elevation change and topography create severe erosion and channeling on impermeable streets that then flood into lower lying areas of the Town. The Town has done initial studies to identify areas of improvement and the Mountain is willing to partner in improvements but the cost is prohibitive given the fact that these extreme events occur infrequently or in major flood events. However, they are still causing erosion and sediment issues when they occur and can be prevented given financial assistance to fund the infrastructure improvements.

Estimated project cost: \$1,500,000

73. June Beetle Tree Kill Erosion prevention

Project Proponent: Mammoth Mountain Ski Area

Mammoth Mountain owns and operates June Mountain. June Mountain is currently battling a severe beetle infestation which is killing thousands of trees. In order to operate the ski area all dead hazardous trees adjacent to the runs must be removed. This season, more than 450 trees have already been removed. The removal of trees creates water quality issues due to sediment and erosion. JMSA is currently pursuing grant funding options with the USFS to try to combat this infestation and consequential problems.

Estimated project cost: \$1,500,000

74. Keeler Arsenic Treatment Facility

Project Proponent: Keeler CSD

The Keeler Community Service District is located on the Eastern shore of the Owens Dry Lake on Highway 136, 17 miles south of Lone Pine California. The community of Keeler is a Disadvantaged Community with a community population of 67 and approximately 58 day workers from LADWP in our commercial district. Keeler CSD system exercises appropriate rights to extract groundwater by virtue of land ownership within an adjudicated basin, under the regulation of the State Department of Health Services. The CSD system has repeatedly been in violation for Arsenic. No treatment facility exists to remove Arsenic other than POU in most homes. Coli-form has been in violation in recent summers.

Arsenic - Installation of an Arsenic treatment facility with transmission pipeline to tank. Consolidation with other systems not feasible; Keeler CSD is only Community system in at least fifteen miles.

Coli-form – Retention time in tank could be reduced if transmission pipeline were extended directly to tank in lieu of dividing flow from well to consumers and storage tank.

- Types of water sources and current treatment: System receives water through its only well but is high in arsenic. Keeler is currently using POU treatment.
- Physical address of the water system (include a map if necessary):
Vicinity of Fire House 85 Old State Hwy, Keeler, CA 93530
- Number of persons served (Part C.3 of SRF Planning Funds Application):
System serves approximately 125 people
- Number of service connections (Part C.4 of SRF Planning Funds Application):
System has 85 connections (66 active).
- Permit status, including the permit number, issue date, and a list of any amendments
Permit # 9303601 for Keeler CSD was issued 7/1/93 and has no amendments.

Keeler is a DAC with very limited resources and a volunteer five member board of directors. We would like to be considered for possible funding to perform a feasibility study for an arsenic treatment facility to provide the much needed relief from possible arsenic poisoning. At this time Keeler relies on POU systems that require continual filter replacement at each home. A centralized treatment facility would provide fresh potable water to all the Keeler residents and the larger community that relies on us.

Estimated project cost: \$173,000

75. CASGEM Groundwater Monitoring

Project Proponent: Inyo County Water Department

The California Statewide Groundwater Elevation Monitoring Program (CASGEM) was created by as part of the 2009 Comprehensive Water Package (SBX7-6, Groundwater Monitoring). By passing SBX7-6, the Legislature established a statewide program to collect groundwater elevations and make them publically available. SBX7-6 legislation provides that groundwater elevations in all 515 groundwater basins identified in California Department of Water Resources Bulletin 118 will be monitored in a manner sufficient to determine seasonal and long-term trends in groundwater elevation. All or parts of 38 groundwater basins lie within Inyo County. CASGEM provides that certain local entities may assume responsibility for monitoring and reporting groundwater elevations. Eligible monitoring entities include counties. To be considered for designation as a monitoring entity, eligible monitoring entities must notify DWR prior to January 1, 2011. If no prospective monitoring entity comes forward to assume responsibility for a monitoring area, DWR will assume responsibility and eligible monitoring entities with jurisdiction in the monitoring area may lose eligibility for state water grants and

loans. Inyo County intends to volunteer as monitoring entity for a number of groundwater basins in the County. This project will assist the County in fulfilling state groundwater monitoring mandates by developing groundwater monitoring plans for basins for which DWR designates Inyo County as the monitoring entity.

Estimated project cost: \$45,000

76. Alabama Hills Fire Suppression Evaluation

Project Proponent: Lone Pine Fire Protection District

The Alabama Hill subdivision is a relatively small rural subdivision containing approximately 200 homes on 1/2 to approximately 10 acre parcels. The area was developed and subdivided starting in the 1960s without any fire suppression system (hydrants and mains) requirements enforceable by the County during the initial development of this area. County Code currently requires individual new homes to install a 3,500 gallon tanks with a fire department connection. But, most of the older homes have no fire water storage and many of the newer tanks have been installed in areas that are inaccessible to fire apparatus. The ISO rating (an insurance company rating for fire insurance) for the area is Public Protection Classification 9, on a scale of 1 to 10. This high ISO rating has made fire insurance difficult and expensive to obtain and leaves the area vulnerable to wildland fire because there is not much water available for fire suppression. The area is classified as a "Moderate" Fire Hazard Severity Zone by Calfire.

The proposed project would include an evaluation and feasibility study of the area with the final goal of installing a system of mains and hydrants for fire suppression only. Individual water wells will continue to provide water for domestic use. A preliminary engineering report would also be prepared as part of the project. This report is usually required by lenders prior to funding a construction project.

The Lone Pine Fire Department has previously met with USDA Rural Development Water and Environmental Programs staff to discuss a Grant/Loan package. USDA has indicated that the proposed project will qualify for funding through their program. But, the fire department does not currently have budget for the preparation of the evaluation and the preliminary engineering report.

Estimated project cost: \$50,000

77. Mono County Safe Water Systems Project

Project Proponent: Mono County

There are numerous small water systems in Mono County that are currently in violation of state and federal water quality standards. This is a result of aging infrastructure, archaic system designs, as well as advancing water quality mandates. Most of these systems do not possess

the economy of scale to fund such projects, nor do they possess the resources to participate in the grant process afforded by the IRWMP.

Because many of these improvements are of relatively slight costs, ranging from \$10,000 to \$30,000, it makes the pursuit of grant opportunities very difficult to justify as substantial costs can be accrued in the process of writing of the grant, in some cases rivaling the total grant request. For this reason, Mono County feels it prudent to establish a fund from which eligible expenses can be reimbursed to these systems that correct existing water quality violations.

Eligible expenses will strictly abide Prop 84 Implementation PSP requirements. Only eligible expenses defined by the PSP will be reimbursed, and match requirements will be held at 50% as beneficiaries will be required to submit all eligible receipts for a 50% reimbursement.

The objectives of the project are simple: to trigger improvements to small water systems that may otherwise not occur due to financial reasons, and to offer the funds on a first-come, first-serve basis that would elicit a sense of urgency among eligible participants to address these water quality issues.

The project is designed as a vehicle to aid the systems listed below. These systems have been identified by Mono County Environmental Health as being in violation of water quality standards, or with infrastructure that does not meet current health and safety standards.

The beneficiaries of the project will be the users of the respective water systems, who will also be partners as they perform the contracting and delivery of work that will permit disbursements from the fund.

The following list contains examples of water systems have been identified as potential candidates for these funds:

Sierra East Mobile Home Park (MHP)

Problem: Arsenic. Well under influence of surface water. Not meeting Title 22 requirements.

Objectives: Solve water quality issues

Solution: Arsenic treatment plant RO system, drill new source

Deliverable: one of the above

Beneficiaries: residents of the park

Partners: MHP park, homeowners association

Project Status: Problem identified

Hot Creek Ranch

Problem: Bacteriological issues related to surface water intrusion.

Objectives: Address water quality issues

Solution: Isolate spring source, or install treatment system

Deliverable: Treatment system or isolation of source

Beneficiaries: Hot Creek Ranch residents and guests

Partners: Hot Creek Ranch

Project Status: Problem identified

Sierra Business Park (SBP)

Problem: Bacteriological issues related to bad well seal

Objectives: Address water quality issues

Solution: Drill new well or provide treatment

Deliverable: New well or treatment system

Beneficiaries: SBP owners and tenants

Partners: SBP property owners

Project Status: Problem identified, monitoring of bacteriological levels

Virginia Lakes Mutual Water Company

Problem: Bacteriological issues with spring source

Objectives: Address water quality

Solution: Spring retrofit

Deliverable: Spring retrofit

Beneficiaries: Users of system

Partners: Virginia Lakes Mutual Water Company

Project Status: Problem identified

Tioga Pass Resort (TPR)

Problem: Lacking infrastructure for surface water treatment

Objectives: Provide surface water treatment

Solution: System improvements

Deliverable: System improvements

Beneficiaries: Tioga Pass Resort residents and guests

Partners: TPR

Project Status: Problem identified

Viking Voorhis Camp

Problem: Removable well cap, unsecured well, line problems

Objectives: Address infrastructure problems
Solution: Well improvements, pipe replacement
Deliverable: Required improvements
Beneficiaries: Users of camp
Partners: Viking Voorhis Camp
Project Status: Problem identified

McGee Creek Inn

Problem: Potential cross-connection line, well and spring issues
Objectives: Achieve code compliance
Solution: Well cap, infrastructure and line renovation
Deliverable: Same
Beneficiaries: McGee Creek Inn residents/guests
Partners: Owners of McGee Creek Inn, manager
Project Status: Problem identified

Benton Hot Springs

Problem: Lacking storage capacity for use, hot water
Objectives: Solve hot water issues, provide for cooler domestic water
Solution: Increase storage capacity to reduce temps
Deliverable: Same
Beneficiaries: Benton Hot Springs residents and visitors
Partners: Benton Hot Springs
Project Status: Problem identified

Total project cost: \$250,000

78. Oak Creek Watershed Fire/Flood Restoration Phase I

Project Proponent: Fort Independence Indian Reservation

The Fort Independence Reservation encompasses 556.02 acres of land located approximately two miles north of Independence, California, in the shadow of the Sierra Nevada range.

In the summer of 2007, the Eastern Sierra sustained a naturally caused wildfire that denuded a large part of the Oak Creek watershed. The banks were bare throughout the winter and just as vegetation was beginning to come back a monsoonal rainstorm struck the crest of the Sierra.

On July 15, 2008, a massive mudflow originating in several forks of Oak Creek came through the reservation and filled in all existing channels on the southwest side of the reservation. It created new channels in the alluvial mud that ignored the previous channels and closed highway 395, due to mud and debris flows. All irrigation diversions were destroyed along with damaged or devastated campgrounds (now closed by NPS), local ranches, homes, and the Tribal RV Park. Spring of 2009 runoff brought more flooding and sediment loading of what was left of the creek and irrigation system. Spring 2010 was wrought with more flooding, creek bank failure and the removal of over 600,000 tons of sand and debris from sediment traps by Los Angeles Department of Water and Power (LADWP).

The tribe proposes to collaboratively restore, add flood protection and recovery, and establish a monitoring and sediment control program with its watershed partners. By meeting these objectives the Tribe will be able to protect the historical Tribal use and public safety.

This is a three-phase project design. Phase One is the study and engineering portion of the project which has begun with a Bureau of Reclamation grant to assess Watershed and Oak Creek irrigation system issues. The Tribe is requesting IRWMP funding to be used for the vast engineering of up to three flood diversions, two reservoirs, three miles of creek restoration, and up to 500 acres of irrigation system as a portion of Phase One.

The beneficiaries of this project will be the Tribe, Oak Creek Stakeholders (private citizens), Inyo National Forest, LADWP, and local flora and fauna.

Total project cost: \$355,760

79. LPPSR Hydrant Replacement on Zucco Road

Project Proponent: Lone Pine Paiute-Shoshone Reservation

The fire hydrants located throughout the reservation are in need of replacement. In a report created by SCS Engineers in June of 1999 titled *Water Resources Management Plan and Irrigation Analysis: Lone Pine Paiute-Shoshone Indian Reservation, Lone Pine, California*, it was noted that the majority of hydrants on LPPSR were nearing the end of their service life (based on a 40-60 year service life). Since 1999, none of the hydrants have been replaced; therefore, they are in need of replacement.

The main objective of this project is to replace the existing fire hydrants on Zucco Road with newer, properly functioning, efficient models. Other subsequent objectives are safer conditions on Zucco Road due to improved operational efficiency of hydrants, lower leak potential due to replaced hydrants, fire suppression, and employment of Tribal Members from the LPPSR for completion of the project.

The beneficiaries of this project are both Tribal and non-Tribal residents living on the reservation. The new hydrants on Zucco Road would create a safer area less prone to fire

damage, which helps protect homes in and around the surrounding community of Lone Pine. Since the hired help will come from LPPSR, the Tribal Members are given an opportunity for work that otherwise would not have existed.

Total project cost: \$42,596

80. Well 5 Project

Project Proponent: Mountain Meadows Mutual Water Company

Currently, the Mountain Meadows Mutual Water Company ("MMMWC") is under a compliance order from the County of Mono for noncompliance of the uranium maximum compliance level (mcl). In an effort to avoid treatment for uranium removal and the associated long term costs, the MMMWC has identified a potential water source that would allow the Company to comply with the order.

This water source, Well 5, is located on a recently purchased parcel owned by the MMMWC, near the intersection of South Landing and Highway 395 in Mono County. The well has been tested, with uranium levels proving to be undetectable. Testing will continue per State requirements.

Supporting infrastructure must be installed, including power, telemetry, a pump, and mains to connect it to the current water system. In addition, a relay pump must be installed to allow the pumping of water into another pressure zone, to the current storage tanks.

The Company has obtained all necessary governmental approvals for the construction and installation of the infrastructure.

The beneficiaries of the project will be the users of water within the boundaries of the Company, which includes approximately 100 single family residences, three multi-family condominium/ townhome projects, Mono County Road Department, the Crowley Lake Community Center and a church.

Total project cost: \$200,000

81. Ultra Low Flush Toilet and Fixtures Change Out Program

Project Proponent: Bishop Paiute Tribe

Sewer treatment capacity has limited the Tribe's ability to expand its housing base and economic base. Finding a way to maximize the existing treatment capacity until further capacity can be built or purchased has led the Tribe to find creative ways to maximize the existing capacity.

The objectives of this project are to focus on the reduction of domestic water usage and wastewater disposal involving the replacement and repair of leaking and low-efficiency residential and commercial indoor water fixtures. The result of these measures will be to save a minimum of 13,548 gallons per day (15 acre-ft/year) of domestic water - enough for an additional 20 new domestic water connections without increasing domestic water production, or provide an additional 11 acre feet/year to the Tribal Irrigation Program while reducing sewer flows (indoor use) by at least 12,181 gallons per day, (Bishop Paiute Reservation Water Audit and Drip Survey, 2006). This will reduce demands on the wastewater capacity and O&M on the Tribe's water supply system.

This is presently needed as the Tribe is presently periodically exceeding contract flow capacity with an off-reservation wastewater treatment district. The expected life of these improvements is estimated at approximately 20 years. These benefits will occur year-around but will be most useful in the summer months when domestic water use is highest. Estimates of water saved (direct benefits) were obtained by measuring water loss and by direct count of low-efficiency fixtures at 403 water connections via a water audit survey conducted in 2004 (updated in 2005).

The ultimate beneficiaries of this project are the Tribal members who will benefit from having more wastewater capacity to expand their Reservation and lower costs for water and sewer fees as the reduced groundwater pumping and wastewater disposal costs would be decreased for the Tribe. Secondary beneficiaries are the people of the greater Bishop area who will see benefits to groundwater levels from reduced groundwater pumping.

Total project cost: \$171,000

82. Drainage Design Manual and Flood Plain Ordinance Update

Project Proponent: Mono County

Mono County currently has no manual or policies for design of temporary or permanent storm drain facilities. While Mono County Flood Plain Regulations are based upon the minimum model ordinance requirement by the Federal Emergency Management Agency (FEMA), they do not take into account risks unique to the topography or soil conditions found in the Eastern Sierra. Nor do they take advantage of opportunities to reduce flood insurance costs through improved protection of insurable structures. It is anticipated that development pressures will continue in Mono County, particularly in areas where potential for growth is higher due to lower construction costs and/or proximity to employment centers. As development continues, it is necessary to provide consistent and thoughtful guidance and regulations related to storm drain infrastructure and development within flood plains.

The primary objective of the developing a Drainage Design Manual and updating the Mono County Flood Plain Regulations is to protect lands, structures, infrastructure and water bodies from degradation or contamination resulting from inadequate design of facilities. These documents are necessary to ensure that new development provides sufficient infrastructure and

mitigates the impact of said development. They will provide consistent policy and guidance for determination of required improvements, along with accurate data for selection and design of storm drainage improvements. Having these documents in place will provide opportunities for the use of best management practices for temporary and permanent control and treatment of storm runoff.

The work plan and document structure will be based upon existing drainage studies pertaining to Mono County, along with comparable documents utilized in communities and regions with similar topography, climate and population. This will allow Mono County to build upon the experiences and knowledge of other local governments in managing development. The final product from this project is a Drainage Design Manual that can be utilized during scoping, design and approvals for future developments, along with an update of the Flood Plain Ordinance aimed at reducing risks from flood losses. This project is also seen as an opportunity to educate the local development community and strengthen relationships between the County and developers.

Both the general public and future generations will benefit from this project. By mitigating potential impacts of future development, the environment will also benefit through improved water quality, adequate conveyance system capacity and reduction of erosion. Potentially, this project will provide an opportunity to reduce flood insurance rates through the institution of flood plain regulations that go beyond the minimum model ordinance in reducing risks from flood losses.

Total project costs: \$60,000

83. Customer Meter Replacement Program

Project Proponent: Mammoth Community Water District

The District currently meters all water service connections. Using electronic radio units on all meters, the entire service area's meters are read in a single day, once per month. However, there is not funding for periodic replacement of aging meters that are inaccurate or non-functioning. Non-functioning or poorly functioning meters increase effective system water losses and reduce revenues needed to fund operations and maintenance. In addition, non-functioning meters limit the ability of the District to gain important data for tracking water use by customer categories, implement tiered pricing to encourage conservation, and conduct water audits. The District is striving to meet State requirements and implement best management practices to reduce per capita use by 20 percent by the year 2020. This project will provide the initial funds to jump start a customer meter replacement program for the District. This initial program will inspect 200 customer meters and repair or replace as necessary. Determining per capita use, monitoring customer compliance over time, and implementation of water conservation best management practices requires properly functioning customer meters.

This project will:

- Encourage water conservation through tiered pricing incentives already in place
- Decrease water loss to the distribution system
- Assist in recognizing and alerting customers of potential leaks on their property.
- Allow for improved monitoring of landscape irrigation practices and code compliance.
- Improve monitoring and projections used in the District's Urban Water Management Plan (UWMP). The UWMP is used to integrate urban land planning with projected water supplies.
- Identify improperly sized meters that are not accurate under the actual customer use rate.
- Create a plan for an ongoing meter replacement program for the District that will inspect meters for replacement on a 20 year cycle (CUWCC best management practice).

The project will include field inspection of 200 meters for replacement or repair the first year and evaluate the efficacy of the program in terms of reduced water losses and increased billing revenue. The long-term objectives are to incorporate the program as an annual District program. A District rate study planned for 2011 will include the necessary adjustments to rates to support long-term funding for the customer meter inspection program. The District will provide a written report on the program that includes for each inspected meter whether it was repaired or replaced, the type of meter, the customer class served by the meter, the connection size, and whether unaccounted losses were occurring.

Water conservation practices implemented by the District benefit all users and ratepayers by increasing available water supplies during drought years, encouraging conservation through tiered pricing, reducing the need to develop new water supplies, and assisting in meeting the water supply demand for the Town of Mammoth Lakes at buildout. In addition, decreasing water demand reduces energy consumption and chemical use by the District to pump, treat and distribute water and wastewater.

Total project cost: \$100,000

84. Water Conservation Program

Project Proponent: Mammoth Community Water District

Water conservation is vitally important to the District because both surface water and groundwater supplies are limited, the Town's General Plan includes additional growth, and the State will require the District to document a 20 percent reduction by 2020. To create an effective program, the District has identified obstacles that must be overcome to reduce customer water demand. These obstacles include lack of incentive to replace old or poorly functioning fixtures in rental and second homes, inability to purchase and install new fixtures, and the presence of old and poorly designed and maintained irrigation systems. In addition, our remote and rural location makes access to workshops and classes on irrigation efficiency difficult to attend. This last obstacle has resulted in a lack of local irrigation auditors. These auditors are required by the State to audit water use for installation of new landscapes to minimize outdoor water demand.

The District would like to implement a three part water conservation program. Part 1 would incentivize replacement and installation of indoor and outdoor water conservation fixtures by offering rebates. Rebate offers would be provided for high efficiency toilets, clothes washers, irrigation materials and weather sensitive irrigation controllers. The District has sporadically offered rebate programs but does not have a dedicated funding source. The District would review past programs for successful elements to be incorporated in this program.

In Part 2, the District would provide irrigation auditing courses for contractors interested in pursuing certification and for property managers interested in reducing water demand. A water management course would also be offered for homeowners and landscapers. This course would focus on retrofitting existing irrigation systems and designing new water efficient landscapes and irrigation systems.

The District would also like to create a highly visible low-water use demonstration landscape as Part 3 of program. The installation of a high quality xeriscape in downtown Mammoth Lakes is timely because the Town is in the process of developing a Downtown Redevelopment Neighborhood Plan that includes new street-side and median landscaping. Design of an attractive low-water use landscape would help establish design criteria for the redevelopment plan. In addition, the landscape would serve as a model of appropriate landscapes for residents and visitors to the Mammoth Lakes area.

Part 1 will be run as an in-house rebate program with applications and pre- and postverification inspections. The District will issue rebate checks to customers that complete the application process. Part 2 would involve contracting with a vendor to teach courses meeting the description above. Courses would not be limited to local contractors or customers. Part 3 would involve a partnership with the Town to landscape a town parcel, select a landscape architect and set landscape design criteria.

Part 1 and 2 would result in long-term indoor and outdoor water demand reductions. Part 2 would also increase the number of available irrigation auditors. Part 3 will result in a model landscape that will inform the Town's development standards during completion of the downtown redevelopment plan and will showcase a landscape appropriate for water challenged residents in California. The District will provide a written report to the IRWMP staff on results of the program.

District customers will benefit from increased water availability and reliability now and as the Town meets buildout projections. In addition, conservation produces a relatively low cost and zero maintenance water supply in comparison with developing new production wells. Other water agencies can utilize our program successes to embark on similar programs and regional benefits can be gained from the knowledge received from the irrigation courses.

Total project cost: \$130,000

85. Groundwater and Surface Water Supply Forecasting and Optimization Model

Project Proponent: Mammoth Community Water District

The District uses both local surface water from the Lakes Basin and groundwater from the Mammoth Groundwater Basin. The relative mix of each source varies widely year-to-year based on variability in the watershed snowpack and runoff patterns, as well as the groundwater levels influenced by the snowpack and runoff recharge timing. MCWD has a newly developed MODFLOW groundwater model, which runs on a 90-day time step to simulate well operations and aquifer response. We also have a surface water model which simulates surface water runoff and reservoir (Lake Mary) operations on a daily timestep. The models were developed for separate purposes initially, and are not integrated to allow effective forecasting of supply and optimization of seasonal water supply mix. This reduces the District's ability to forecast and optimize the seasonal supply mix based on yield and operations costs, since groundwater has a unit cost approximate 10 times higher than surface water, due to the large energy demands for pumping.

The objective of the project is to modify and integrate the two models, and link to a third commercial simulation package (GoldSim or other), which can then be used to develop water year supply forecasts based on actual snowpack conditions and options for optimal source mix (maximum reliable supply and minimum operating costs) during the heaviest water demand period from early summer through fall.

The deliverables from this project will include the modified groundwater and surface water models, and the GoldSim software platform user interface. A technical report will be produced to document the models' development, calibration, and guidelines for use. An initial set of model runs, bracketing typical water year conditions from historic hydrology, will be used to validate the reasonableness and accuracy of the forecasts and supply mix optimization.

Total project cost: \$250,000

86. Mountain Gate Trailhead Parking and Restroom

Project Proponent: Mono County

Mono County has been developing the Mountain Gate Fishing Access and Mountain Gate River Parkway (Mtn. Gate) since the devastating 1997 Walker River flooding. Funding has primarily come from the County general fund and grants. In addition, this project has been strongly supported by the community of Walker, as evidenced by the work and commitment of the Mountain Gate Working Group, a subcommittee of the Antelope Valley Regional Planning Advisory Committee.

The County has acquired property at the intersection of Eastside Lane and U.S. 395 at the southern edge of the town of Walker. This property is intended to be a parking area and

trailhead for a path along the West Walker River providing access to the Mountain Gate Fishing Access, approximately 0.7 miles upstream. Ultimately, Mtn. Gate will include approximately 1.3 miles of river frontage within the majestic West Walker River Canyon. Parking and sanitary facilities are necessary to protect the nearby landscape from abuse and contamination by users of the facility.

The objective of the Mountain Gate Trailhead and Restroom project is provide parking and restroom facilities at the northern terminus of Mtn. Gate. The design will include a small parking area with opportunities for expansion as use of the site increases. Once parking is constructed, several dirt roads currently within the boundaries of Mtn. Gate can be closed and revegetated, eliminating a source of erosion and contamination into the river. Sanitary facilities will include a well, water system, onsite sewage disposal system and restroom structure. All facilities will be designed to meet requirements of the Americans with Disabilities Act and the California accessibility regulations.

This project will result in the design and construction of the Mtn. Gate trailhead parking and restroom facilities, providing a minimum of ten parking spaces and sanitary facilities for those utilizing the West Walker River. Deliverables will include the final design documents and infrastructure on the site.

The 1997 flood through the Walker River Canyon decimated the vegetation and infrastructure present in the canyon. Several segments of U.S. Highway 395 were washed away, along with the Mountain Gate Resort and adjacent homes. As a result, many portions of the West Walker River, particularly within the northern end of the canyon, were armored to protect the adjacent roadway. While serving to protect infrastructure, these actions made access to the river, particularly for the disabled and elderly, extremely difficult. The Mtn. Gate projects are designed to provide access to the river environment for all citizens. Construction of sanitary facilities benefit the environment by providing means for human waste disposal. Providing vehicular parking will enable the County to close several dirt roads in the area which are currently used for direct river access.

Total project cost: \$350,000

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