

Successful Applicants from the Fiscal Year 2013 Request for Proposals from Indian Tribes & Intertribal Consortia for Nonpoint Source Management Grants Under Clean Water Act (CWA) Section 319

Tribe: Bishop Paiute Tribe

Region: 9

Federal Request: \$150,000

Award: \$150,000

The Bishop Paiute Reservation spans approximately 892 acres the eastern Sierra Nevada Mountains, and is relatively flat, gently sloping from west to east. Bishop Creek splits into two tributaries (North Fork and South Fork) before it enters the reservation on the western boundary. It is a clean and relatively unimpaired waterbody, and the Bishop Paiute Tribe's project is primarily aimed at minimizing potential threats to Bishop Creek caused by increasing population density on the reservation, upstream hydroelectric plants, and unrestricted livestock grazing and access to Bishop Creek.

The goals and components of the project are to: address livestock inputs to Bishop Creek, build management capacity to address nonpoint source pollution threats to Bishop Creek; continue education and outreach; expand enforcement control measures and develop guidelines to address pollution based on monitoring and assessment; review and update the draft watershed-based plan; implement erosion and sediment controls in and around stream and riparian areas; assess the Bishop Creek watershed water resources vulnerability to climate change; and evaluate performance under the grant. Collectively, these activities are expected to minimize nonpoint source pollution threats to Bishop Creek.

Tribe: Cahto Tribe of Laytonville Rancheria

Region: 9

Federal Request: \$150,000

Award: \$150,000

The Cahto Tribe proposes to address two impaired sites located on the Laytonville Rancheria: the Meadow Spring (and its wet meadow), and a fire suppression road crossing and an adjacent off-road area. Meadow Spring and its wet meadow are impaired due to silviculture (logging road maintenance) and habitat modification due to the removal of riparian vegetation and drainage of wetlands. A fire suppression road crossing and an adjacent off-road area that are located on the Laytonville Rancheria are degraded due to streambank modification and destabilization, erosion and sedimentation. The goals of the project are to implement an on-the-ground watershed project to protect a natural spring by relocating a side road, and fencing the spring source and its wet meadow. Also to reduce or eliminate sediment loading by removing an off-road area, and installing a culvert for a stream crossings of a fire-suppression road along Cahto Creek, a salmon and steelhead fishery. To meet these goals, the tribe proposes fencing the spring source and adjacent wet meadow area with a wildlife friendly wood fence; removing a 200-foot side road (to an old logging road) that cuts through a spring and its wet meadow;

determining culvert dimensions of the ephemeral stream crossing for the fire suppression road, removing the 125 foot off-road area and revegetating of the 0.25 acre off-road area; placing large woody debris in the Cahto Creek channel for 100 feet downstream of the crossing; conducting education and outreach; and conducting project monitoring.

Projects in Meadow Spring and its wet meadow wetland are expected to provide water quality benefits and increase habitat and protection of the spring source. The proposed project at the fire suppression road crossing and the adjacent off-road area is expected to reduce sediment in Cahto Creek in support of the anadromous fisheries. Water quality benefits in Cahto Creek and the downstream confluence with Ten Mile Creek and the South Fork of the Eel River are expected to be significant through reduced sedimentation and enhanced fishery habitat.

Tribe: Confederated Tribes of the Colville Reservation

Region: 10

Federal Request: \$150,000

Award: \$150,000

The Confederated Tribes of the Colville Reservation (CTCR) proposes to address nonpoint source water pollution in the Buffalo Lake watershed by improving Buffalo Creek water quality and controlling runoff to Buffalo Lake. Waters are impaired due to rangeland management, roads, and timber harvesting. Fecal coliform, pH and dissolved oxygen measurements from the creek do not meet water quality standards identified in the CTCR Tribal Code. The goal of this project is to improve nonpoint source impaired water quality in the Buffalo Lake watershed to levels that support beneficial uses designated by tribal water quality standards in order to advance the protection and improvement of water quality on a watershed basis. The components of this project include a cultural and archaeological resources survey, road decommissioning, stream crossing stabilization, cross drain installation, rangeland fence construction, bank stabilization and NPS control regulation and analysis. The proposed NPS control projects are expected to decrease sediment and pathogen delivery in the Buffalo Lake watershed and reduce turbidity and fecal coliform levels in Buffalo Creek. Fecal coliform levels are expected to improve with prohibiting horses and cattle from accessing shorelines, and dissolved oxygen levels are expected to improve after reducing animal waste load into the Creek.

Tribe: Confederated Tribes of the Goshute Reservation

Region: 9

Federal Request: \$150,000

Award: \$150,000

Confederated Tribes of the Goshute Reservation proposes to address nonpoint source water pollution at four degraded wetland habitat and water quality impaired stream sites within the Goshute Reservation and the Deep Creek watershed. The Deep Creek Watershed is the greatest contributor to stream flows on the Goshute Reservation and contains streams that support the endangered Bonneville Cutthroat Trout. Waters are impaired due to hydromodification (specifically, streambank modification and

destabilization). The goal of this project is to implement watershed projects involving the stabilization of three stream crossings, and restoring and stabilizing a stream channel and streambank at a fourth stream site to increase habitat quality and reduce sedimentation in perennial cold-water trout streams. These nonpoint source watershed projects are designed to control or eliminate nonpoint sources of sediment and habitat degradation resulting from an unstable streambank that is contributing excessive sediment into the stream channel along a high-use unpaved road and three stream crossings. The project entails: before and after monitoring of water quality; habitat surveys; photographs at three sites; installation of silt fencing at all four project sites; rock placement and grading; retrograding of three roads into and out of the stream crossing; reseeding disturbed areas; reconstruction of the stream channel/streambank in order to contain high stream flows during spring runoff; project tracking and monitoring; and conducting site visits with new tribal Business Council members and community residents.

Sediment is expected to be reduced, and fish habitat is expected to increase as a result of the implementation of the proposed NPS watershed projects. The water quality and riverine/riparian wetlands habitat are anticipated to improve considerably at the stabilized streambank site, and after the three stream crossings are re-graded to a gentle slope and stabilized with vegetation and the stream substrate is stabilized with rock. Because the endangered Bonneville Cutthroat Trout are dependent on these streams, their abundance is anticipated to increase as a result of the proposed projects. The water quality and riparian wetlands habitat are also anticipated to improve considerably after the streambank is stabilized.

Tribe: Confederated Salish and Kootenai Tribes

Region: 8

Federal Request: \$130,149

Award: \$130,149

Located in Montana, the Flathead Indian Reservation is the native homeland of the Confederated Salish and Kootenai Tribes. The Tribes of the Flathead Reservation are comprised of Kootenai, the Salish, and the Pend D' Oreille peoples. Water resources on the Flathead Indian Reservation are extensive and varied. All or parts of three river drainages (Flathead, Jocko, Little Bitterroot) flow through the Reservation. There are approximately 76,155 acres of major waterbodies. This project focuses on Mission Creek, located in the Mission Creek watershed on the Flathead Reservation, which once supported a population of fluvial bull trout. However, due to water quality issues such as temperature, habitat alteration, *E.coli* bacteria loading, and Total Suspended and Dissolved Solids (TSS/TDS) concentrations, native salmonids are currently rare within the stream. These nonpoint source pollution problems are caused by: agricultural practices that lead to pollutant loading, significant alteration of natural channels and hydrology from irrigation withdrawals and return flows; historic and ongoing impacts to wetlands and riparian areas that affect the quality of these aquatic ecosystems; current and legacy forestry impact; storm water and construction runoff; and abandoned mines.

The goal of the project is to reduce sediment and nutrient loading in Mission Creek. To accomplish these goals, the tribe will complete an ongoing project designed to reduce *E.coli* bacteria, Total Nitrogen, and Total Suspended and Dissolved Solids (TSS/TDS). Two components of this larger project are the completion of water control structures that feed irrigation return water into a complex of wetlands, and restoration of the remaining portion of a 9,000 foot reach of Mission Creek. In addition, it is the goal of this project to partner with other Tribal programs and agencies who are currently working on environmental restoration projects in the Jocko Watershed. Collectively, this project is expected to improve water quality by reducing nonpoint source pollution loads through establishment of fenced riparian buffer zones and a stabilized stream system, decreasing temperature by increasing shade to the stream, and reducing suspended sediments, nitrogen and phosphorous loads from passage of irrigation return flows through 18 acres of remedial wetlands.

Tribe: Havasupai Tribe

Region: 9

Federal Request: \$150,000

Award: \$150,000

The Havasupai Reservation is located in north central Arizona on the South Rim of the Grand Canyon, and its major surface waters are Havasu Creek and its many waterfalls. Havasu Creek is spring-fed by Havasu Springs and flows for 6.4 miles through the reservation as the only Tribal perennial stream. A flood in October 2010 removed 8.55 acres of riparian vegetation along 7,408 feet of a streambank modification/destabilization area, which transports sediment into the otherwise clear waters of Havasu Creek and impacts travertine formation and aquatic life. A benthic macroinvertebrate survey in the reach of Havasu Creek from below New Navajo Falls to the top of Mooney Falls revealed that the aquatic life has changed since October 2010 from predominately supporting high-quality Stoneflies, Mayflies, and Caddisflies to predominantly supporting low-quality aquatic worms.

To address nonpoint source water pollution, the tribe proposes 7,408 feet of streambank stabilization along Havasu Creek and reestablishment of 8.55 acres of adjacent riparian zone through replanting with native vegetation. This is expected to result in a stable stream segment connected to a functioning riparian corridor. In order to re-vegetate the Havasu Creek riparian corridor, the tribe proposes to harvest and replant tree and shrub cuttings, harvest and replant emergent aquatic plant plugs, and increase the survival of replanted vegetation by replacing mortalities. As a result of the project, reduced sediment loading to Havasu Creek is expected to result in reduced sediment loading to the downstream confluence with the Colorado River.

Tribe: Hoopa Valley Indian Tribe

Region: 9

Federal Request: \$117,433

Award: *\$90,295 (partial funding due to exhaustion of funds)

The Hoopa Valley Indian Reservation is the largest Reservation in land area in California, encompassing 96,160 acres located in the Northeastern corner of Humboldt County. The Supply Creek watershed encompasses some 10,253 acres with 70 percent existing within the boundaries of the Reservation. It is a major tributary to the Trinity River in Hoopa and has supported annual spawning runs of Coho and Chinook salmon as well as Steelhead. As of winter 2006, a landslide began to develop on the south side of the watershed, and by April 2009 after a wet winter, a massive landslide finally gave way running down steep slopes and depositing hundreds of tons of fine sediment into Supply Creek below. The cause of the slide was an illegal marijuana growing operation. In the early spring of 2009, the growers diverted a small Class III stream into a manmade pond perched atop a steep slope where the slide gave way, causing the soil mass to become unnaturally saturated, turning the soil underneath the pond to mud, which in turn caused the soil mass to give way towards Supply Creek below. Turbidity readings from the mouth of Supply Creek ranged from 10 to 1600 NTU's and almost every spawning hole below the slide has been filled with mud.

The goal of the Supply Creek watershed project is to stabilize approximately 2.5 acres of the 7.5 acres of landslide and plant a diverse suite of native woody and herbaceous species on the landslide in order to stabilize the stream channel flowing through the slide as well as piles of soil mass that have accumulated along the slope in order to reduce sedimentation into Supply Creek. This will be accomplished by planting the landslide, and stabilizing and reconstructing one road crossing.

Tribe: The La Jolla Band of Luiseño Indians

Region: 9

Federal Request: \$149,922

Award: \$149,922

The La Jolla Indian Reservation is located within the San Luis Rey River Watershed in northern San Diego County, California, at the southern base of Palomar Mountain State Park, and encompasses approximately 8,822 acres. Within the boundaries of the La Jolla Indian Reservation are 36 miles of perennial and intermittent rivers and streams. Large volumes of vehicular traffic are present on State Highway 76 and County Highway S2 which bisect the Reservation. Truck traffic supplies nearby rural communities and heavy recreational vehicle traffic passes through the Reservation to access the Anza Borrego State Park. These high traffic areas also contribute to typical roadside litter and polluted highway runoff enters the tributary streams, and eventually into the San Luis Rey River. Pollutants from these areas include, oil and grease runoff, heavy metal deposition, and other chemical contamination associated with vehicles.

The goals of the tribe's proposed projects are to enhance tribal capacity to reduce the impact and/or threat of nonpoint source pollution to the San Luis Rey River watershed, and to protect, restore, and/or maintain the La Jolla Band's natural resources, and the beneficial uses associated with the Band's

natural resources, through the implementation of on-the-ground management practices. In order to address nonpoint source water pollution problems on the reservation, the tribe proposed to implement on the ground activities such as controlling soil erosion on unpaved access roads, restoring Southern California Live Oak riparian forest, and implementing best management practices for septic systems, in addition to activities such as continued watershed planning, community education and outreach, and staff training and development.

Tribe: Navajo Nation

Region: 9

Federal Request: \$150,000

Award: \$150,000

The Navajo Nation occupies 27,000 square miles or approximately 17,000,000 acres in a region of northeast Arizona, northwest New Mexico, and southeast Utah known as the Colorado Plateau. The Navajo Nation has approximately 39,000 miles of streams most of which are ephemeral or intermittent. Approximately 200,000 people live within the Navajo Nation. Agriculture – irrigated and on dry land – is culturally significant and an important source of income for many Navajos. However, livestock management is lacking and is a major source for nonpoint source water quality problems. The overall water quality problem of concern is sediment, caused by livestock and roads, which adversely impacts the Torreon Wash within the Arroyo Chico watershed. The Navajo Nation's project focuses on on-the-ground work in the Arroyo Chico sub-basin. Upper Torreon Wash is headwaters within the Arroyo Chico watershed and runs through the Ojo Encino Chapter of the Navajo Nation.

The Project will target the reduction of nonpoint source sediment pollution, caused by livestock grazing and roads. The project's on-the-ground goal will be to reduce sediment pollution to Upper Torreon Wash and the Arroyo Chico watershed. This goal will be achieved by implementing existing grazing management plans that will allow rangeland rest, vegetative growth, landform stabilization, and wildlife habitat enhancement; installing and maintaining approximately 200 passive rock structures, as needed, in gullies and uplands to reduce sediment transport, spread runoff, recharge groundwater, and enhance vegetative growth; installing approximately 150 rolling dip structures in up to ten miles of dirt roads to control runoff, reduce sediment transport, facilitate water harvesting to enhance vegetative growth, recharge groundwater, and stabilize roadways; closing unneeded roads; and conducting education and outreach to the project participants, local citizens, and neighboring watershed stakeholders on watershed health/reclamation and techniques for achieving improved watershed health. The project is expected to enhance the water quality of the Navajo Nation, ensure that the designated uses (Secondary Human Contact, Ephemeral Warm Water Habitat, and Livestock and Wildlife Watering) are met within the project area, and improve water quality downstream through the stabilization of structures and enhancement of vegetation, and the creation or enhancement of wildlife habitat.

Tribe: Nez Perce

Region: 10

Federal Request: \$150,000

Award: \$150,000

The Nez Perce Reservation covers approximately 770,483 acres in north-central Idaho, just east of the City of Lewiston. The projects proposed by the tribe will take place in the Lapwai Creek watershed, which is approximately 171,000 acres in size and located almost entirely within the Nez Perce Reservation and in Nez Perce County, with portions of the headwaters located in Lewis County. Lapwai Creek flows 31 miles in a northwesterly direction to its confluence with the Clearwater River. The Tribe has been involved in the development of Total Maximum Daily Loads (TMDLs) since 2000. TMDLs were developed for the Upper Lapwai Creek watershed for phosphorus, sediment, bacteria and temperature.

The most significant categories of nonpoint source water pollution within the watershed are agriculture, silviculture, and roads. Livestock grazing, particularly by cattle, has altered or eradicated native vegetation on much of the rangeland area previously grazed and browsed by wildlife, particularly within riparian areas. The majority of forest tracts in the Lapwai Creek watershed are found in the headwater reaches and mid-elevation canyon lands. Most of the forested areas are located in steep canyons that are unsuitable for residential development. Historically, intensive timber management in these areas reduced riparian integrity and channel stability, resulting in an increase in sediment, nutrient and temperature loading. Roads have the potential to contribute to slope failure and mass wasting events, surface erosion, altered channel morphology, changes to runoff characteristics and to act as migration barriers to salmonids. The goals of the proposed projects are to protect and restore watershed headwaters, monitor performance measurement trends, and perform education and outreach. These goals will be achieved by working cooperatively with other agencies and landowners, improving and protecting riparian areas in watershed headwaters, monitor prioritized reaches before, during, and after project implementation, holding meetings to disseminate information, and developing educational programs.

Tribe: Nooksack Indian Tribe

Region: 10

Federal Request: \$150,000

Award: \$90,295 (partial funding due to exhaustion of funds)

The proposed project will focus on the South Fork Nooksack River watershed, upstream of the Nooksack Indian Reservation, related to waters within and above the reservation. Forestry, specifically forest roads, has been identified as the primary cause of elevated sediment in the South Fork, which is included on the Clean Water Act section 303(d) list as Category 5 waters for both sediment and temperature. The tribe proposes to implement a forest road removal project to reduce the threats of landslides and subsequent sediment delivery to the South Fork in support of Nooksack River nonpoint source pollution reduction and salmon recovery. Sediment and temperature reduction will be achieved through decreasing sediment delivery to 1.7 miles of fish-bearing tributary channels from road-related

failures; decreasing stream heating in 1.7 miles of fish-bearing tributary channels related to road-related debris flows; protecting thermal refuge areas at four tributary-mainstem South Fork confluences from debris flow impacts; and addressing watershed impacts that degrade water quality in the South Fork Nooksack Watershed, which is listed as impaired on the 303(d) list for temperature and sediment. By reducing the risk of future mass wasting from forest roads, the primary threats to water quality in the South Fork Watershed are expected to be addressed.

Tribe: Penobscot Indian Nation

Region: 1

Federal Request: \$149,402

Award: \$149,402

The Penobscot Indian Nation reservation and trust lands are located in Maine, and the tribe's projects will take place at two sites: Penobscot River and Little Mattamiscontis Lake. Maine Department of Environmental Protection's 2010 Integrated Water Quality Assessment Report lists 73 miles of Class B waters of the mainstem Penobscot River, including the segment around and downstream of this project area, as impaired due to nutrient enrichment, eutrophication, biological indicators, and low dissolved oxygen. Approximately 60 river miles are listed as high priority TMDL waters. While phosphorous from point sources may be a significant contribution to problems in much of the river, reducing phosphorous from all sources would improve water quality and help to bring waters into attainment. In addition, sediment from eroding soils threaten aquatic life habitat by altering substrates and smothering benthos.

The goal of the proposed project is to improve and protect water quality in the Penobscot River and Little Mattamiscontis Lake. In Penobscot River, the tribe's objective is to reduce sediment and nutrients from entering the river by: stabilizing and armoring approximately 540 feet of badly eroding river bank on Indian Island with rip-rap to prevent additional soil loss into the river, and reestablishing approximately 13,500 square feet of vegetation within and along the riparian shoreline including a vegetative buffer strip along the top of the river bank. In Little Mattamiscontis Lake, the tribe's objective is to ditch, gravel, and install flexible strip stormwater diverters on approximately 0.25 miles of badly eroding road to prevent sediment and nutrient loading of Little Mattamiscontis Lake. By preventing soils from entering the Penobscot River and Little Mattamiscontis Lake each year, these projects will reduce a significant threat to water quality and aquatic life habitat.

Tribe: Quinault Indian Nation

Region: 10

Federal Request: \$149,798

Award: \$149,798

The Quinault Indian Reservation is located on the southwestern corner of Washington's Olympic Peninsula. The area has rain-drenched conifer forests, swift-flowing rivers, and 23 miles of Pacific

coastline, and comprises more than 208,000 acres. Four major rivers – the Moclips, Quinault, Raft and Queets – flow west from the Olympic Mountains across the reservation to the Pacific Ocean. The goal of this project is to improve water quality in the Queets River watershed, the northernmost watershed on the Quinault Indian Reservation, and expand invasive species prevention and coordination efforts throughout the encompassing state Water Resource Inventory Area. The project addresses invasive knotweeds (*Polygonum* spp.) in the Queets watershed, which once established on a river can populate an entire river system, affect water quality, and jeopardize critical salmon habitat. Previous work to reduce knotweed to simple maintenance levels in the upper reaches of the Queets watershed has allowed the tribe to now focus downstream.

Objectives of this project include: controlling knotweed in the Queets River watershed; working with landowners to create and establish strategies and best management practices to reduce the risk of spreading knotweed and other invasive plants onto and throughout the Reservation; noting occurrences of other invasive plants in the riparian zone to support expanded prevention activities and best management practices; coordinating activities and strategies with other agencies, organizations and landowners that have an interest in the watershed; and maintaining or improving water quality within the Queets River watershed. The components of the project are detection and treatment of knotweed, prevention of invasive plant introduction and spread, and coordination of project activities and partners. Collectively, these components are expected to reduce knotweed in the watershed, maintain adequate water quality (e.g., temperature and turbidity) throughout the watershed, increase knowledge of knotweed among those working in the watershed, reduce the spread of knotweed, decrease pesticide use, and reduce the economic impact of threatened natural resources.

Tribe: San Carlos Apache

Region: 9

Federal Request: \$150,000

Award: *\$90,295 (partial funding due to exhaustion of funds)

The San Carlos Apache Reservation consists of 1,854,396 acres in southeastern Arizona and includes the San Carlos River Watershed. The western border of the San Carlos Apache Reservation is situated approximately four miles east of Globe, Arizona, and the northern edge is bordered by the White Mountain Apache Indian Reservation. The tribe's restoration projects will focus on Hill Springs and its associated wetland area, located within the 20,603-acre Bear Gulch Creek watershed within the San Carlos River watershed. The Bear Gulch Creek watershed is a culturally and environmentally significant watershed since it contains Hill Springs. Hill Springs provides a source of untreated drinking water to Tribal members and is the largest spring source wetland area within the larger San Carlos River watershed. Nonpoint source pollution categories and subcategories of significance for the Hill Springs work plan area include agriculture (specifically rangeland and overgrazing) and habitat modification (specifically the removal of riparian vegetation and streambank modification and destabilization). The goal of the project is to protect Hill Springs as an environmentally and culturally-important tribal water resource through livestock exclusion fencing, and to restore the wetland vegetation lost through

livestock trampling within the spring wetland area and along the adjacent Bear Gulch riparian area through replanting with native vegetation to recreate healthy spring source and riparian functions.

In order to achieve this goal, the tribe's on the ground work will include fencing the perimeter of Hill Springs to exclude livestock from grazing the springs, working with tribal forestry and cultural advisors to restore Hill Springs' cultural plants, and restoring trees in the livestock-trampled Bear Gulch Creek streambank/riparian area. In addition to these on the ground activities, the tribe will conduct education and outreach in the community. Collectively, the project is expected to improve riparian habitat, reduce bacteria levels in the numerous spring discharges, improve and protect fish and wildlife habitat, and provide additional recreational opportunities.

Tribe: Shoshone-Paiute Tribes of the Duck Valley Reservation

Region: 9

Federal Request: \$150,000

Award: \$150,000

The Duck Valley Indian Reservation straddles the Idaho-Nevada border in the remote Owyhee Desert and contains wetlands, farms, high sagebrush steppe and mountains. Perennial streams, springs, spring creeks, and more than 10,000 acres of wetlands make the area ecologically diverse. While livestock production and associated agricultural activities are the primary economic resource for tribal members, these activities are the largest source of nonpoint source water pollution on the reservation. Multiple pollutants and their sources were identified as contributing nonpoint source water pollution to waterbodies, including: nutrients (specifically, nitrate, nitrite, phosphorus); bacteria (specifically, *E. coli* and fecal coliform) from fecal and excrement matter generated by flood irrigation and the direct contact of livestock with water; sediment (turbidity and total suspended solids) from bank trampling and sediment disturbance from the direct contact of livestock with water; elevated temperature from the removal of vegetation for flood irrigation and the removal of shade plants to promote cattle access to water.

The tribe's nonpoint source reduction projects are aimed at reducing sediment, bacteria counts, and nutrient loading. The project spans four sites that, collectively, will include the implementation of off-site watering facilities, livestock shade, bank stabilization, and re-vegetation. Project implementation is expected to improve water quality by reducing bacteria levels, reducing sediment loading, decreasing nutrient levels and decreasing water temperatures due to the protection of reservation water sources from livestock and agricultural damage.

Tribe: Southern Ute Indian Tribe

Region: 8

Federal Request: \$150,000

Award: \$150,000

The Southern Ute Indian Tribe's territory is located in Colorado, and the tribe's project focuses on a segment of Beaver Creek, a tributary to the Los Pinos River, within the Animas and Los Pinos watersheds. The Los Pinos River watershed is dominated by irrigated agriculture and pasture land. Inefficient irrigation practices contribute high return flows that contain sediment, nutrients, fecal coliform, and increased water temperatures back into the Los Pinos River and its tributaries. Current and historic riparian grazing has resulted in a loss of protective riparian zones needed to mitigate upland sources of pollution as well as to stabilize streambanks from erosion. Accordingly, the primary pollutants affecting water quality are sediment, temperature, and nutrients.

The tribe's project will restore a segment of Beaver Creek, a tributary to the Los Pinos River, as well as offering cost-share agricultural best management practices (BMPs) in the Animas and Los Pinos Watersheds. Restoration activities will stabilize massive eroding banks and enhance the surrounding riparian habitat. The BMP opportunities available through the Agricultural Cost-Share Program include livestock exclusion fencing, off-stream watering sources, field filter strips, and efficient irrigation equipment such as gated pipe, underground delivery pipe, and inlet structures. Public education through demonstration projects, educational workshops, informational pamphlets and individual landowner consultation will be conducted to enhance public awareness of the importance of BMPs. These restoration activities are expected to improve water quality by reducing sediment, nutrient, and bacteria loadings, and decreasing water temperatures.

Tribe: Walker River Paiute Tribe

Region: 9

Federal Request: \$150,000

Award: \$150,000

The Walker River Paiute Tribe's reservation is located in rural Midwestern Nevada, spanning 323,466 acres that are used primarily for grazing and ranching. The reservation land encompasses a high desert within a river valley surrounded by mountains, and is part of the Walker River Basin Watershed. The watershed straddles California and Nevada, with the basin encompassing an area of approximately 2,591,990 acres. The Tribe and several Nevada & California entities have water rights in place making the complexity of the righted water challenging, particularly during drought years.

Nonpoint source water pollution on the reservation lands include agriculture (specifically irrigated crop production, pasture, rangelands, and feedlots), stream channel hydromodifications, flow regulation, streambank modifications, loss of riparian habitat, and resource extraction (upstream mine sites). The water quality parameters causing the most consistent impairment across the reservation are total suspended solids/sediment. In order to address these sources of nonpoint source pollution, the project will focus on the restoration of one critical streambank site along the Walker River including construction, design, engineering, and program administration. The benefits expected to result from this project are improved water quality in the Walker River due to reduced sedimentation, enhanced aquatic

life as a result of improved streambanks, and expanded community outreach and education on the value of water protection.