Environmental Results Through Tribal/EPA Partnerships

Fiscal Year 2010 Accomplishments

Region 9/The Pacific Southwest

EPA 909-R-10-004

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EPA Region 9 works to protect public health and the environment in the southwestern United States with the 147 federally recognized tribes and the states of Arizona, California, Nevada and Hawaii.

Cover photos: *Top left down: Big Valley Band of Pomo Indians of the Big Valley Rancheria, Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Owens Valley Indian Water Commission, Cortina Indian Rancheria of Wintun Indian of California*
Basket Design: *Yurok Tribe of the Yurok Reservation*

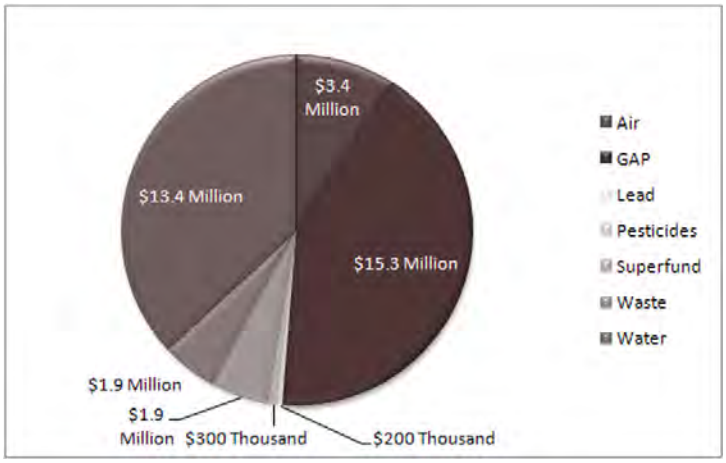
Building Tribal Capacity to Achieve Results

In 2010 we have seen increased EPA support of tribal programs, with greater resources available for tribes to address environmental issues in Indian country. Soon after taking office in 2009, EPA Administrator Lisa Jackson announced "Building Strong State and Tribal Partnerships" as one of her top priorities**. In January, 2010, she directed Agency staff on this important partnership:**

> States and tribal nations bear important responsibilities for the day-to-day mission of environmental protection, but declining tax revenues and fiscal challenges are pressuring state agencies and tribal governments to do more with fewer resources. Strong partnerships and accountability are more important than ever. EPA must do its part to support state and tribal capacity and, through strengthened oversight, ensure that programs are consistently delivered nationwide. Where appropriate, we will use our own expertise and capacity to bolster state and tribal efforts.

This support has brought increased funding to tribal programs. The Fiscal Year (FY) 2010 budget increased Indian Environmental General Assistance Program (GAP) funding by 3.4% nationally. Funds available through EPA's tribal set-asides for water infrastructure projects reached an all-time high in FY 2010, thanks to a 33% increase in tribal set-aside funds and a doubling of State Revolving Funds (which went from $1.5 billion in 2009 to $3.5 billion in 2010). In the Pacific Southwest Region, tribal water infrastructure funds tripled, from $7.4 million available in FY 2009 to $22.9 million in FY2010.

Tribal Funding for FY2010, by Program (millions)



Capacity Building in Action

The **Kaibab Paiute Tribe** began its environmental program 13 years ago. The tribe used EPA funding to improve administration, management and decision-making regarding reservation resources; to increase coordination with tribal, federal, state and local governments; to implement a solid waste management program, and build capacity to assume responsibilities for managing its environment. The tribe credits EPA grants with helping build a viable Tribal Environmental Program that is recognized by environmental organizations throughout the Southwestern U.S. for its ability to collect scientifically defensible data.

This year the **Kaibab Paiute Tribe** collaborated with the **Paiute Indian Tribes of Utah, Moapa Band of Paiute Indians,** Bureau of Land Management, and National Park Service to fund and organize the first-ever Southern Paiute Youth Camp in Grand Canyon-Parashant National Monument. The focus of the camp was to teach tribal youth about the connections between environmental science and the Southern Paiute way of living. The event gave both youth and tribal elders an opportunity to visit areas of Southern Paiute territory they seldom see, to share knowledge, and to encourage young people to experience the ties between their Southern Paiute traditions and culture alongside environmental preservation.

Efforts to protect the health and environment of more than 315,000 residents in Indian country in the Pacific Southwest, consisting of over 27 million acres, have improved significantly through the collaboration between tribal environmental programs and EPA. However, there are still significant environmental and human health issues that need to be addressed in Indian country. We are continuing to put our resources to work addressing these challenges. Nineteen percent of homes lack complete plumbing, more than 1,300 open dumps can still be found on tribal lands in the region, and more than one-third of tribal lands in the region are in areas that do not meet federal air quality standards.

Clean Air

Tribes and EPA share the goal of cleaner, healthier air quality. As tribal air programs mature, tribes are using their knowledge to monitor air quality on reservations, deploy technology that harnesses wind and solar energy, educate their communities, and participate in regional air quality groups.

Tribal Air Funding for FY10

To improve air quality in Indian Country, EPA provides funding for tribes to assess and address air pollution problems. In 2010, EPA awarded 31 tribal air grants for a total of more than $3 million.

Tribal Collaboration

EPA continues to encourage collaboration between tribes, and many are sharing air quality information and consultants. The **Bishop Paiute Tribe** sponsored a specialized training for Owens Valley tribal air programs conducting audits of air quality and meteorological instruments. Participating tribes included the **Bishop Paiute Tribe, the Big Pine Paiute Tribe, the Fort Independence Reservation,** and the **Lone Pine Paiute Shoshone Tribe.** Each tribe received individual training on the instruments at their site, as well as an audit report for each tribe.

Justin Raglin from Lone Pine conducting audit.

Tribal Air Monitoring

With EPA funding, 26 tribes are currently monitoring for either particulate matter, ozone, or air toxics. Tribes are also working to enter their monitoring data into EPA's national Air Quality System database. Twenty tribes are now successfully submitting data – two more than in 2009. Because these tribes are submitting data, EPA has a better understanding of air quality in Indian Country. EPA uses this data in setting national air standards, and to determine whether areas are meeting those standards.

Sylvia Nez and Karmen Billey, Navajo Nation, at the Nazlini monitoring site.

Tribal Diesel Emission Reduction Act (DERA) Grants

2010 was the first year EPA awarded Clean Diesel grants to tribes under DERA. Two of the selected tribal grantees are in the Pacific Southwest Region – both in Southern California. The **Morongo Band of Mission Indians** received $250,000 to replace two diesel school buses with compressed natural gas buses, and to retrofit five buses and two pieces of construction equipment with diesel particulate filters. These retrofits and replacements will reduce particulate matter emissions from these vehicles by 85-95%. The **Soboba Band of Luiseño Indians** received $78,000 to retrofit six diesel school buses with diesel particulate filters or low nitrogen oxide filters. These retrofits will reduce particulate matter emissions from the tribal school bus fleet by 85 percent.

Gila River Tribal Implementation Plan

As tribal air programs mature, some tribes are working on regulatory development. In October 2009, EPA approved the **Gila River Indian Community's** treatment as a state eligibility for many parts of the Clean Air Act. This determination paved the way for EPA to act on the tribe's previously submitted Tribal Implementation Plan (TIP) which delegates parts of the Clean Air Act (CAA) to the tribe and makes the tribe's air quality regulations federally enforceable. EPA proposed to approve the TIP in July, 2010.

McDowell demonstration solar plant on roof of environmental office.

Fort McDowell Solar Project

In May 2010 the **Fort McDowell Yavapai Nation** completed installation of their 12-kilowatt photovoltaic power plant. It is composed of 54 solar panels on the roof of the building that houses the tribe's environmental program. Annually, the system is expected to generate more than 25 megawatt-hours of electricity, provide 15-20% of the building's power, and offset more than 60,000 pounds of carbon dioxide emissions. This project was funded with CAA Section 103 money and a rebate from the Salt River Project.

Salton Sea Air Quality Monitoring Network

The **Torres Martinez Desert Cahuilla Indians** Environmental Department has collaborated with several state agencies to build and maintain a monitoring network to measure airborne particulates resulting from a drying lake. They will collect baseline data from six stations on the tribe's land at the north end of the Salton Sea. The tribe is a large stakeholder in this project, since some of its reservation was submerged under the Salton Sea in the early 1900s.

Salt River Air Quality Outreach

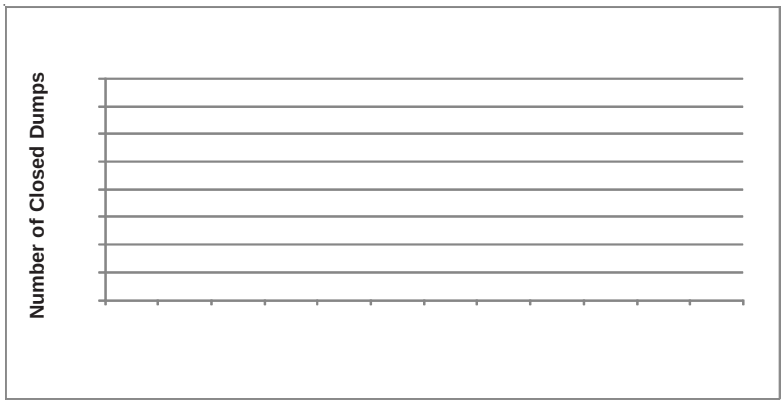
The **Salt River Pima Maricopa Indian Community** has installed flagpoles and signs that visually display the reservations air quality data on a daily basis. The flagpoles have been installed at a senior center, community center, government offices, and a school to ensure that sensitive groups in the community will know about current air quality conditions, and take precautions if necessary.

Rainbow over the lands of the La Jolla Band of Mission Indians.

Protecting Tribal Lands

POLLUTION PREVENTION AND SOLID WASTE

Improper disposal of both household trash and hazardous waste threaten tribal lands in the Pacific Southwest Region. In 2010, tribes tackled these hazards by developing household hazardous waste, composting, and recycling programs; improving solid waste infrastructure by building transfer stations; conducting outreach and community cleanup events; and developing green building strategies. Additionally, in 2010, tribes in the region had closed 91 open dumps, significantly improving the health and well-being of their communities.



Outreach flyer for used oil collection program. Courtesy of FPST EPD 2009.

Fallon Paiute-Shoshone Tribe Used Oil Recycling

Last year the **Fallon Paiute-Shoshone Tribe's** (FPST) Environmental Protection Department (EPD) started a Used Oil and Oil Filter Recycling program with funds from EPA's Hazardous Waste Management grant program. This recycling program was developed to accept used oil and oil filters from tribal "do-it-yourself" oil changers and to dispose of the used oil by burning it in a used oil furnace, which now provides heat for the tribal auto shop. This year EPD has worked to develop partnerships with neighboring tribes in Nevada to recycle their used oil. These partnerships could help reduce the cost of hazardous waste disposal for the other tribes, and further reduce heating costs for the Fallon Paiute-Shoshone Tribe.

Hualapai Tribe Collaborates with Federal Agencies on Remediation

In early 2007, staff from the **Hualapai Tribe's** Department of Natural Resources discovered an abandoned cistern containing a creosote-like substance near one of their drinking water wells. Given the cistern's proximity to a railway line, the tribe initially contacted the railway company to determine ownership of the cistern. Upon learning that the cistern did not belong to the railway, the tribe contacted U.S. EPA for assistance in determining responsibility and assessing clean up options. Over the next two years, through a series of investigations and collaborative efforts between the Hualapai Tribe, U.S. EPA, Indian Health Services, Bureau of Indian Affairs (BIA) and Burlington Northern Santa Fe Railroad, BIA agreedto assume responsibility for the abandoned cistern and clean up the site. In March 2010, with oversight by the tribe, BIA completed the cistern removal and site remediation. They removed more than 10 tons of contaminants and contaminated soil from the site.

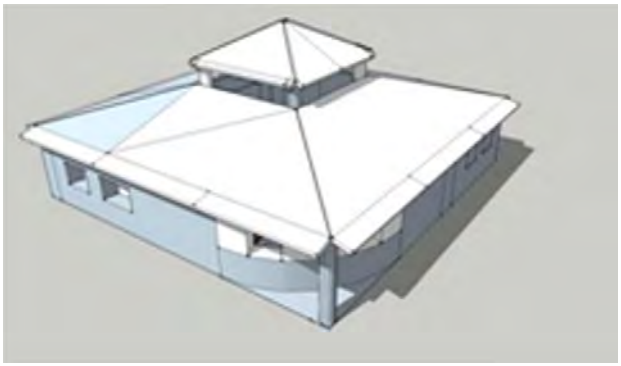
Cistern demolition. Photo Courtesy of Department of Natural Resources, Hualapai Tribe 2010.

Site today. Photo Courtesy of Department of Natural Resources, Hualapai Tribe 2010.

North Central Project Wins National Achievement Award

EPA's project team for the joint **Gila River Indian Community** and U.S. EPA Resource Conservation and Recovery Act (RCRA) groundwater investigation and cleanup project won a National Achievement Award for their highly innovative and flexible approach to Corrective Action on tribal lands. At Gila River Indian Community's request, EPA assisted in addressing groundwater contamination beneath a community-owned industrial park. EPA has facilitated source removal at two locations in the industrial park, including Romic Southwest. Romic is a closed hazardous waste Treatment, Storage, and Disposal Facility (TSDF). Starting from a firm commitment to tribal sovereignty and federal trust responsibility to the tribe, the team took a highly collaborative approach that maximizes tribal participation and decision-making in all areas of the project. EPA continues to work closely with the community, potentially responsible parties, and other stakeholders to better characterize the nature and extent of the contamination.

Pressure washing distillation column area. Photo courtesy of Romic Southwest March 2009.



Model of prototype home. Graphic courtesy Pinoleville Pomo Nation, 2009.

Green Building Partnership

In early 2008, the **Pinoleville Pomo Nation** developed a partnership with the University of California at Berkeley (UCB) to create culturally-inspired and environmentally-sustainable designs for their tribal housing. Through this partnership the tribe guided the housing design process to plan for construction of sustainable buildings on their lands. This partnership also laid the foundation to establish the new Native American Community Assessment of Renewable Energy and Sustainability Center, or NAtive CARES, at UCB in 2010. This center focuses on many aspects of sustainability that tribes in the Pacific Southwest Region are pursuing: green building, renewable power generation, indoor air quality, water conservation, and economic business models.

EPA and Tribes Partner with BioCycle

EPA assisted in developing a Tribal and Rural Communities track for the 25th Annual BioCycle West Coast Conference held in April 2010. Tribal and rural communities often have an intense interest in adopting smaller scale sustainable waste management practices, but are limited in their access to financial resources, end markets, and information on how to start. The new track focused on food scrap and yard waste composting and included seven tribal presentations, including one by Brian Adkins of the **Bishop Paiute Tribe** on their innovative food waste composting project.

The goal of the Bishop Paiute Tribe's project was to demonstrate a simple way to transport food waste from the tribe's commercial and institutional kitchens (casino, daycare, education center, and elders' center) by bicycle trailer to the tribal gardening projects and then use composting and vermicomposting to convert the food waste into soil-building compost. This project provides after-school employment to the community's high school students. By using bicycles this program is sustainable, non-polluting, low cost, and promotes a heart-healthy lifestyle. To see presentations by other tribal speakers at the Biocycle Conference, go to: http://www.jgpress.com/bcwc25/index.html.

Bishop Paiute high school student with bicycle trailer preparing to pick up food waste at the tribal venues. Photo courtesy of the Environmental Management Office, Bishop Paiute Tribe 2010.

Bishop Paiute high school student preparing compost bins for food waste at the tribal gardens. Photo courtesy of the Environmental Management Office, Bishop Paiute Tribe 2010.

Underground Storage Tanks Program Office (USTPO)

EPA's Underground Storage Tank program had a very successful year, raising the bar for compliance levels at operating UST facilities. EPA and the tribes conducted 55 joint compliance and leak detection inspections in 2010; the two **Navajo Nation** UST EPA-Credentialed Inspectors conducted 40 additional inspections. These inspections resulted in a total of 10 field citations issued to non-compliant facilities. UST field citations are issued on the spot at the end of the inspection – like a traffic ticket. The owner or operator obtains immediate feedback on the violations, and the actions needed to correct the problems. The typical field citation ranges from $600 to $1,000 per site. EPA also had a very successful year closing a total of 38 disused or abandoned UST facilities, using federal funding for some of them, and in other cases overseeing cleanup actions funded by private parties.

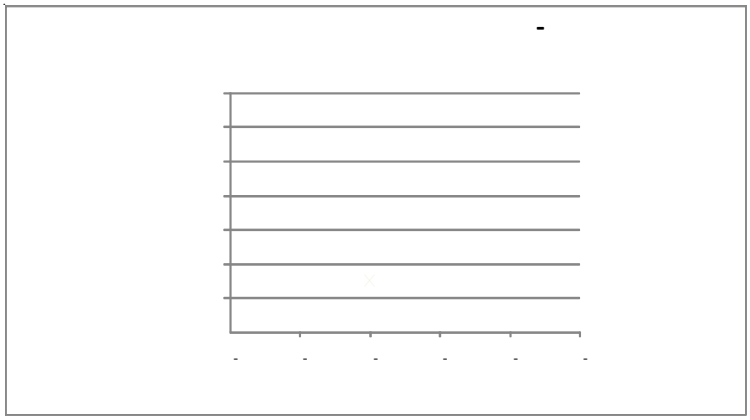
Tribal LUST Cleanup in Pacific Southwest Received $3.1 Million in "Stimulus" Funding

In 2010, EPA's Pacific Southwest Region received $3.1 million in American Recovery and Reinvestment Act (ARRA) funding through EPA's Indian lands cleanup contract to address eligible Leaking Underground Storage Tank (LUST) sites. In June, EPA initiated work at 25 LUST sites on tribal lands. Project tasks using ARRA funding are required by law to be completed in September 2011. EPA is responsible for managing each project assigned to the National contract, and works in cooperation and partnership with the tribes on all project tasks. With the addition of ARRA funding, EPA greatly expanded its efforts to address more sites and speed up remediation efforts at some of the most contaminated sites.

EPA-funded tribal environmental contractors working at a tank site on Hopi tribal land. Photo provided by Bristol Environmental, EPA's prime contractor – June 2010.

EPA Funding Eligible Cleanups on Tribal Lands for Leaking Underground Storage Tanks

In Fiscal Year 2010, EPA completed two federal-funded LUST site cleanups and oversaw cleanups at 13 additional sites. Since 2005, EPA's Pacific Southwest Regional Office has provided direct federal funding to over 60 LUST sites on tribal lands and has completed cleanup work at 20 of these sites. Others are still underway. The chart (right) highlights the various phases of each project currently receiving direct federal funding for site assessment and cleanup.



Award Winning Navajo Nation UST Inspection Team

Henry Haven, Jr. inspecting the underground tanks at the Navajo Nation Fleet Management vehicle yard in Window Rock, Arizona.

In 2010, three EPA employees and two inspectors from the **Navajo Nation** were awarded a National Notable Achievement Award from EPA's Office of Solid Waste and Emergency Response. Warren J. Roan and Henry Haven, Jr. of the Navajo Nation were recognized for their successful implementation of the Navajo Nation Field Citation Pilot Program. This program was a precedent-setting effort that resulted in the first issuance of EPA UST field citations by federally-credentialed tribal inspectors in the U.S. Over the past two years, the Navajo Nation UST inspection team has conducted 82 inspections and written 16 field citations. Federal UST credentials have greatly enhanced the credibility and effectiveness of the Navajo Nation's UST compliance program.

Leaking Tank Prevention Grant to Washoe Tribe's Federal Credential Program

In September 2009, EPA issued a two-year grant for $170,000 to the **Washoe Tribe of Nevada and California**, funding two tribal staff and the formation of a tribal UST coalition program. Ultimately, these inspectors will be issued federal UST Inspector Credentials. The inspectors will provide more compliance assistance, education, and training to underground fuel tank owners and operators for 10 tribes. The federally-credentialed UST inspectors will greatly decrease EPA's carbon footprint by having the inspections done by tribal inspectors rather than by EPA inspectors traveling thousands of miles from the San Francisco office and back. In addition, tribal inspectors can provide more frequent compliance assistance to owners and operators. The Washoe Tribe's inspectors are scheduled to receive their federal UST Credentials in 2011.

William Berquist, Inspector with the Washoe Tribe of Nevada and California, conducting a field training session and checking for leaks under the fuel dispensers at a gas station.

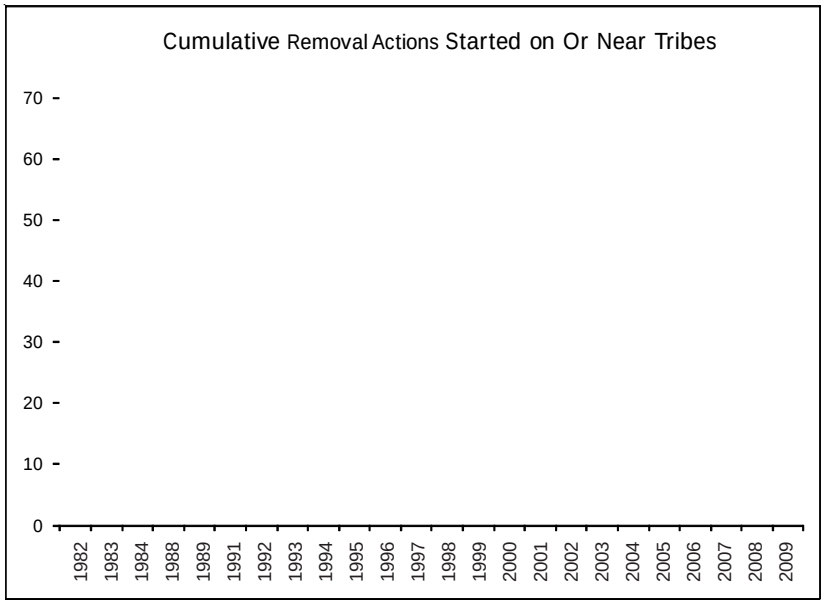
Superfund

Northeast Church Rock Site, New Mexico

The **Navajo Nation EPA** and U.S. EPA conducted oversight of a large, complex, and highly effective interim cleanup for the residential area of the mine site at the Northeast Church Rock Site (NECR). The action required effective coordination between Navajo Nation EPA and U.S. EPA, negotiations with General Electric, and attention to concerns of local residents. As a result, over 100,000 cubic yards of contaminated material were removed over several months at a cost of over $5 million, and complex issues related to cleanup levels, historic preservation, and legal jurisdiction were resolved. This action significantly reduced the health risk to residents and was a huge step forward in the long-term cleanup of the site.

Sulfur Bank Mercury Mine Site, California

U.S. EPA has spent $1 million in American Reinvestment and Recovery Act ("Stimulus") funds to initiate a removal action to address mercury, arsenic and antimony-contaminated mine wastes that were used in 1970 to construct Bureau of Indian Affairs (BIA) Road 120, the primary access road to the Elem Indian Colony in Lake County, California. EPA plans to spend an additional $4.5 million by January 2011 to complete the cleanup. The agency will cap the mine wastes with clean soil, rebuild the asphalt roadway, and install segments of the water and sewer utility pipelines in the clean soil cover to facilitate future maintenance.



Leaders of the **Elem Pomo Tribe** have been consulted throughout the planning and initiation of this important removal action. The tribe has had many concerns regarding the historical preservation of their land and has worked diligently with EPA to resolve those issues. The agency has signed a Memorandum of Agreement with the Elem Pomo Tribe and the State Historic Preservation Officer to assure the protection of Elem Pomo cultural resources.

Tuba City Open Dump, Arizona

In June 2009, the BIA provided approximately $1.7 million to EPA to investigate suspected dumping of uranium-rich waste that may be contaminating groundwater in the area of the Tuba City Open Dump (TCOD). EPA did not identify uranium in the waste materials, but did further define the extent of groundwater contamination. The Agency completed this work in December 2009.

EPA and BIA are now negotiating an Administrative Order on Consent for oversight of a Remedial Investigation and Feasibility Study (RI/FS) to develop a full range of cleanup options for the site. Under the order, BIA will perform the RI/FS with EPA oversight. BIA will start the RI/FS field work in late 2010. Following completion of the RI/FS, a final remedy will be selected for the site with input from the **Navajo Nation, Hopi Tribe,** and the public.

Leviathan Mine Superfund Site, California

The major cleanup effort to prevent acid drainage from Leviathan Mine Superfund Site has progressed to a stage involving critical coordination between EPA and the **Washoe Tribe of California and Nevada**. Temporary treatment systems capturing the metal-laden acidic drainage from the abandoned sulfur mine have substantially improved water quality, benefiting fish and wildlife along nine miles of streams in the Sierra Nevada. These creeks flow from the 7,000-foot-elevation mine in California, through the Toiyabe National Forest and Washoe Tribe lands, into the Carson River upstream of the tribe's office in Dresslerville, Nevada. Atlantic Richfield Company (ARCO) operated a biological treatment system throughout the winter on one portion of the mine. For a second consecutive year, they treated another major acid source before the end of the snow melt. This maintained good water quality from early spring, as biological activity increases, and through the entire summer. This state-of-the-science High Density Sludge treatment system is shut down in the autumn when heavy snowfall prevents safe access to the power supply at the remote site.

Leviathan Creek merging with a clean tributary three miles downstream of the mine at the start of full treatment in 2010.

As EPA develops detailed plans for the long-term cleanup, the Washoe Tribe has a major role in assessing risks faced by tribe members in their cultural uses of resources that may be contaminated by decades of acid mine drainage releases. EPA and the tribe are also arranging community meetings this year to report on the project and discuss the next steps.

Yerington Paiute Tribe Superfund Support Agency Cooperative Agreementa

Through a Superfund Support Agency Cooperative Agreement with EPA, the **Yerington Paiute Tribe** has been providing technical input on the investigation and cleanup of the former Anaconda Copper Mine in Yerington, Nevada.

This past year the tribe has been involved in commenting on groundwater issues and on a proposed interim cleanup action for the former evaporation ponds at the north end of the site.

The tribe has contracted with technical experts to review work plans for investigation and cleanup produced by the potentially responsible party (PRP), Atlantic Richfield Company (ARCO), a British Petroleum (BP) affiliated company.

Cyprus Tohono Corp. Mine Alternative Superfund Site, Arizona

After cleanup operations that involved moving approximately one million cubic yards of mine waste into a new lined repository at a cost of $50 million were completed in 2008. **Tohono O'odham Nation** and EPA have turned their focus to groundwater. Earlier, they found that uranium-contaminated fluids had migrated to groundwater. The community of North Komelik is located approximately two miles down gradient from the groundwater flow from the mine. In 2002, the North Komelik drinking water supply wells were replaced by Cyprus Tohono Corp. (CTC) because sampling indicated uranium and sulfate contamination significantly above background groundwater levels.

EPA entered into an Administrative Order on Consent with CTC, now owned by Freeport McMoRan, on September 30, 2009 to investigate groundwater coming from the mine. CTC has been very cooperative, and in 2010 started the remedial investigation, as well as installing additional monitoring wells in the Plant Study Area.

Navajo Nation EPA and U.S. EPA Employees Receive OSWER Environmental Justice Team Award

U.S. EPA and Navajo Nation EPA staff led the development and implementation of the first coordinated plan to address uranium contamination on the **Navajo Nation**. This five-year plan was developed in conjunction with the U.S. House Committee on Government Oversight and Reform, the BIA, Indian Health Service, Centers for Disease Control, Department of Energy, Nuclear Regulatory Commission, and the Navajo Nation.

Northeast Church Rock Mine contaminated soil excavation.

A key element of the plan is to identify and clean up contaminated structures, including homes, hogans (traditional Navajo structures) and storage buildings made of materials from nearby uranium mines. Building material sources include rocks, gravel, and aggregate from mine spoils which were used in concrete mixing. Structures were also contaminated by the presence of radiological materials in outdoor soils and by dust brought into the homes on shoes and clothing.

The U.S. EPA-Navajo Nation EPA team worked closely with Navajo families, local Navajo Chapter officials, and the Navajo government to identify, demolish, and rebuild homes built during Cold-War-Era uranium mining. Since the project began in 2008, the team has screened nearly 200 structures for potential contamination, and completed demolition and excavation of 27 contaminated structures and 10 residential yards. The team completed the construction of 14 new homes, and provided compensation to families wishing to rebuild structures themselves.

Contaminated structure being taken down.


New home to replace a contaminated structure.

BROWNFIELDS

Salt River Pima-Maricopa Indian Community Assessment Completion, Arizona

Under a Brownfields Assessment Grant, the **Salt River Pima-Maricopa Indian Community** completed the investigation of a 160-acre former feedlot, and will begin cleanup this year using funds from a Brownfields Cleanup Grant. The site, which has been sitting dormant for more than 17 years, will eventually be redeveloped for housing, recreation and gardens.

Targeted Brownfield Assessment (TBA) at Hopland Band of Pomo Indians Reservation California


Top of well head encased in sludge precipitated from high TDS discharge.

EPA awarded the **Hopland Band of Pomo Indians** funds to conduct an assessment of a 460-foot deep drinking water well. Because of naturally occurring arsenic, other metals, and high Total Dissolved Solids levels, the water is not safe for drinking without treatment. Therefore, the tribe needed to know if the well could be salvaged or if there were other options for using the water. When the tribe found that they did not have sufficient funds under their existing Brownfields Assessment Grant to complete the work, they requested a TBA (performed by an EPA contractor) to supplement the initial assessment. Due to the corrosiveness of the water, the artesian flow of the well and the associated high treatment costs under any reuse scenario, the Targeted Brownfield Assessment Report recommended that the well be abandoned by plugging it. The well was safely abandoned by the tribe, using a Brownfields Cleanup Grant. This well is no longer needed for drinking water.

Targeted Brownfields Assessment at Gila River Indian Community, Arizona

The **Gila River Indian Community** requested an assessment at a former ordnance and munitions factory. The tribe is interested in siting a solar power array in that area and needed to know if the location was suitable. The assessment found that the site is suitable for renewable energy, including the proposed solar farm, without doing any cleanup work. The solar generating station could even be expanded if some old buildings and earthen mounds were removed. The assessment report also provided a comparative cost data analysis, to show the feasibility of developing this land as a renewable energy site.

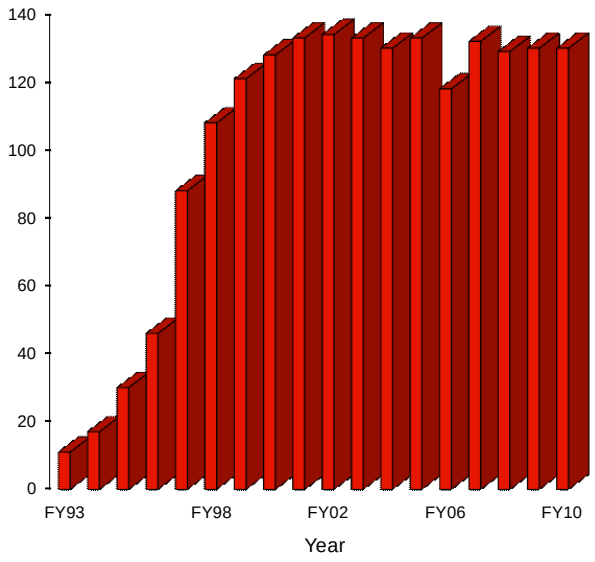

Former ordnance and munitions buildings.

Healthy Tribal Communities

INDIAN ENVIRONMENTAL GENERAL ASSISTANCE PROGRAM (GAP) FY2010 ACCOMPLISHMENTS

Congress provides funding through the Indian Environmental General Assistance Program (GAP) to support tribes as they increase capacity to plan, develop, and establish environmental programs. Tribes are creating innovative environmental education programs, developing environmental programs, working collaboratively with other tribes to solve problems that face multiple tribes nearby, and striving to improve the health of tribal members and Indian lands. In 2010, 126 of the 147 tribes in the Pacific Southwest, and four inter-tribal consortia in the region, received GAP funding.

Number of Tribes and Tribal Consortia Developing Environmental Programs with GAP Grants in the Pacific Southwest



Navajo Nation EPA Public Information Officer

From 1944 to 1986, nearly 4,000,000 tons of uranium ore was extracted from Navajo lands. Although these mines are currently closed, the legacy of uranium contamination from more than 500 abandoned mines remains. In 2008, EPA worked with the Navajo Nation and multiple federal agencies to develop an aggressive Five Year Plan to address the ongoing environmental and health impacts of uranium mining. Lillie Lane, a Public Information Officer with the Navajo Nation Environmental Protection Agency (NNEPA), has been a vital partner in carrying out this plan. Lillie meets with families at their homes, translates technical information to Navajo-speaking residents, and provides assistance to U.S. EPA's field teams. In order to reach affected residents, she drives to distant areas of the Navajo Nation, which encompasses three states and is roughly the size of West Virginia, to conduct door-to-door outreach in extremely remote, nearly inaccessible places to ensure that Navajo families are not drinking water contaminated with radionuclides. Lillie has built strong relationships based on trust with many Navajo Nation community members. This has been critical to minimizing health impacts associated with abandoned uranium mines and helping EPA meet the Five Year Plan's ambitious goals.

Closing Open Dumps

In October 2009, the Yurok Tribe met the many challenges posed by a remote and inaccessible illegal dump site when the tribe closed the Johnsons Road dump. Due to its large size and position on an extremely steep slope, closing the dump was a major effort. Tribal staff joined forces with a contract crew and members of the California Department of Resources Recycling and Recovery (CalRecycle) to construct a rail track on the site. Excavators were cabled to winches and lowered down the slope to load waste into rail cars, which were winched up and down on the rails. Hand crews, sometimes roped and harnessed for safety, rappelled down the slope to collect debris that could not be reached by excavators. The project took more than six weeks to complete, but was finished under budget and removed approximately 138 tons of waste.

Joint Tribal-State-Federal dump cleanup on steep slope at Yurok Reservation

Using Digital Mapping as an Educational Tool

The environmental office of the **Federated Indians of Graton Rancheria** combined native plant identification and mapping to teach youth how to use GPS and identify native plants. Prior to holding an environmental youth camp, staff created a pamphlet of native plants found at the camp site. Tribal youth used the pamphlet to identify the plants and recorded data points with GPS units. Environmental staff created a map with the information the young tribal members had collected. On the last day of the event, each participant was given a copy of the map they helped to create. The students learned about six native coastal plant species, how to identify them in the field, and surveying techniques using maps and GPS technology.

Yomba Shoshone youth and Smokey Bear at Yomba Nature Days.

Environmental Education

During August 2009, the **Yomba Shoshone Tribe** Office of Environmental Protection hosted "Yomba Nature Days," a youth outdoor education campout. Participants camped in the Columbine Campground in the Toiyabe Range for three days. During the camp they learned the history of the Reese River Valley, wildfire safety, identification of birds and plants, plant and range health, explored the Reese River watershed's wetlands, water quality, and aquatic insects, and had a special visit from Smokey Bear. This hands-on approach increased the young people's knowledge of their surrounding environment and raised awareness regarding safety and hazards in the area.

Building Consortia – Maximizing Resources

Six tribes in Lake County, California formed the Hinthil Environmental Resources Consortium (HERC) in 2001. Environmental directors from **Big Valley Rancheria Band of Pomo Indians, Elem Indian Colony, Habematolel Pomo of Upper Lake, Scotts Valley Band of Pomo Indians, Middletown Rancheria,** and **Robinson Rancheria** meet monthly to discuss environmental issues and collaborate on projects. HERC is currently implementing a tribal water quality monitoring program for Clear Lake, which has been used by tribes for thousands of years and has been severely affected by pesticide runoff and contamination from the Sulphur Bank Mercury Mine (a Superfund site). HERC members collect monitoring data on a quarterly basis on Clear Lake and are using the data to develop a Tribal State of the Waters Report by 2011. This report will be used to provide data that can be evaluated and used for decision making by the HERC member tribes. HERC is a model for tribal collaboration on issues that affect tribes on a regional basis.

Inter-Tribal Efforts in the Clear Lake area.

Emergency Planning

In 2010, several Nevada Tribal Emergency Managers, along with the Tribal State Environmental Liaison, Indian Health Board of Nevada and Inter-Tribal Council of Nevada, formed the Nevada Inter-Tribal Emergency Response Commission (ITERC). The purpose of the ITERC is to perform duties specified in the Superfund Amendments and Reauthorization Act of 1986 (SARA), and to increase Tribal Emergency Management capacity through an all-hazards approach. ITERC's biggest accomplishment has been to provide a single avenue for State/Tribal collaboration, giving a unified voice for all Nevada Tribal Emergency Management programs. This has meant that all tribes are included in the planning, regardless of whether they have the funding to have a fully functioning emergency management program.

Energy Efficiency Outreach

The **Gila River Indian Community's** Department of Environmental Quality (DEQ) Waste Team developed a pamphlet with energy efficiency tips as part of a climate change outreach effort. The pamphlet has been distributed among tribal members. As part of the outreach effort, DEQ staff gave several presentations and conferences to low-income community residents on reducing the tribe's dependence on fossil fuels and lowering the community's carbon footprint.

Gila River Indian Community energy efficiency pamphlet.

U.S.-MEXICO BORDER 2012 PROGRAM

San Francisquito O'odham Community Celebrates Completion of Drinking Water Project

This EPA Border 2012-funded project includes a new solar-powered well pump, refurbished water storage tank, and distribution system to deliver safe drinking water to the San Franciscquito Community, on the south side of the U.S.-Mexico Border. The binational project was built in partnership with the **Tohono O'odham Nation**, the Border Environment Cooperation Commission, and Mexican Government agencies.

Gu Vo Regional Water System

The **Tohono O'odham Nation**, Tohono O'odham Utility Authority, EPA, and the Tucson Area IHS cooperated to complete the $1.1 million Gu Vo Regional Water System intertying two independent community water systems into one larger system serving 91 homes in the Tohono O'odham communities of Gu Vo and Pia Oik. The system also has sufficient capacity to support the neighboring Meneger Dam community.

EPA and the Tucson Area IHS jointly funded the project under the Border Infrastructure Tribal Set-aside Program. It upgraded seven miles of existing water main and was completed in January 2010. As a result, the communities have a safe water supply. Arsenic and fluoride levels comply with the Safe Drinking Water Act.

Tribal Feedback on Future Border Program

EPA, in collaboration with the Native American Environmental Protection Coalition (NAEPC), organized a meeting with Arizona and California border tribes to discuss the next generation of the Border 2012 Program. Suggestions included protecting aboriginal territory; conducting assessments in preparation for climate change adaptation and mitigation; engaging the Department of Interior in natural resources protection; Department of Homeland Security assistance with undocumented migrant waste issues; more focus on alternative energy and energy efficiency programs; addressing water quality and water quantity issues; and working with SEMARNAT (EPA's Mexican counterpart agency) to conduct a needs assessment of indigenous Mexican communities and coordination with stakeholders on cross-border public health issues.

PESTICIDE AND HAZARDOUS WASTE COLLECTION EVENTS

On May 5 and 6, 2010, the **Shoshone Paiute Tribes of the Duck Valley Reservation** held a pesticide and hazardous waste collection and disposal pilot project for residents, the local school, and tribal departments. The Duck Valley Tribal Environmental Protection Office worked with the Tribal Council to inform the community about the event and encourage participation through meetings and postings. EPA's Superfund Program took the lead on arranging for the collection and disposal of the waste. As a result of the project, 1,575 pounds of pesticides (including DDT and strychnine), and more than 31,000 pounds of hazardous and nonhazardous waste were removed from the reservation. This project was a collaborative effort that included Shoshone Paiute Tribes of the Duck Valley Reservation, the Inter Tribal Council of Nevada, and EPA's Superfund, Tribal, Solid Waste and Pesticide Programs.

Collection and Segregation of Pesticides and Hazardous Waste at Salt River Pima-Maricopa Indian Community

Strychnine Removed from the Duck Valley Indian Reservation

At the **Salt River Pima Maricopa Indian Community**, the Senior Environmental Specialist for Pesticides and Hazardous Substances organized a hazardous waste collection for tribal government departments. Approximately 400 pounds and 100 gallons of various pesticides, including four full canisters of deadly phosphine gas, were removed from the reservation.

The Pesticide Inspector at **Colorado River Indian Tribes** (CRIT) organized a pesticide container recycling event held on December 12, 2009. The effort removed a total of 7,125 pounds of pesticide containers from the reservation. Since the program started in 2007, about 35 tons of pesticide containers have been recycled.

Collaborative Effort Results in Federal Pesticide Enforcement

Based on investigations conducted by the **Fort Mojave Indian Tribe, the Navajo Nation,** U.S. EPA, and the states of Arizona and Idaho, EPA took a $99,600 penalty action against Wilbur-Ellis Corp. for 21 alleged violations of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). Evidence collected by tribal, state and federal pesticide inspectors indicated that applicators working for Wilbur-Ellis did not wear personal protective equipment required by pesticide labels, and that the company distributed a restricted use pesticide to a non-certified applicator, and distributed and sold a misbranded pesticide. Through the cooperation of tribal and state pesticide inspectors on this enforcement action, EPA was able to bring some serious problems to the attention of this large corporation.

The Navajo Nation Pesticide Program conducted an inspection that resulted in an EPA penalty action against Dollar Store, a California company, for sale and distribution of two unregistered pesticides.

Tribal Pesticide Enforcement Actions

Tribal pesticide programs continue to take enforcement actions against violators of tribal pesticides codes and ordinances. In FY10, **Gila River Indian Community, Colorado River Indian Tribes, Shoshone Paiute Tribes of the Duck Valley Reservation and Salt River Pima-Maricopa Indian Community** all issued enforcement actions, some of which included penalties, against violators of tribal pesticide ordinances.

Inspection of an Aircraft Used for Pesticide Applications.

Tribal Inspection of a Pesticide Storage Area

Worker Protection Standard Inspector Training at Colorado River Indian Tribes

Worker Safety

In February, 2010, the **Colorado River Indian Tribes** (CRIT) held a 3-day training on the federal Worker Protection Standards for tribal pesticide inspectors from the Rocky Mountain and South Central Regions. The agenda, developed by the CRIT pesticide inspector, included inspection planning, inspection procedures and report writing. As part of the training, EPA staff provided real-time feedback on draft inspection reports written by trainees.

The **Gila River Indian Community** developed an annual Worker Safety Newsletter in English and Spanish that covers pesticide safety and the dangers of heat stress to field workers. The tribe's pesticide program staff distributes the newsletter to agricultural workers and handlers in the field, growers, and the Community, creating a positive image for the tribe's pesticide program.

TRIBAL LEAD ACCOMPLISHMENTS

Tribes in the Pacific Southwest Region achieved significant progress in meeting the national strategic goal of eliminating childhood lead poisoning as a major health threat. Among the accomplishments:

Four tribes completed EPA-approved training to assess lead hazards at pre-1978 tribal housing and child-occupied buildings, enabling tribal staff to become EPA-certified to conduct lead hazard evaluations.

Three tribes assessed and remediated lead hazards at tribal housing and child-occupied facilities, including removal of lead-contaminated soil at tribal homes and remediating lead hazards at child-occupied facilities. Tribes conducted outreach to tribal members, building maintenance workers, school and nursing staff, and daycare workers on lead's health risks, and how to avoid exposure to lead hazards.

Tribes shared technical expertise on lead's hazards and applicable requirements with other tribes, and conducted lead hazard outreach with non-tribal neighbors at county health forums and local Earth Day events.

Lead-related work was conducted by **Big Valley Rancheria, Buena Vista Rancheria, Colorado River Indian Tribes, Fallon Paiute-Shoshone Tribe, Fort Bidwell Indian Community, Graton Rancheria, Hoopa Valley Tribe, Hopi Tribe, North Fork Rancheria, Soboba Band, South Fork Band, Torres Martinez Tribe,** and the **Inter-Tribal Council of Arizona.**

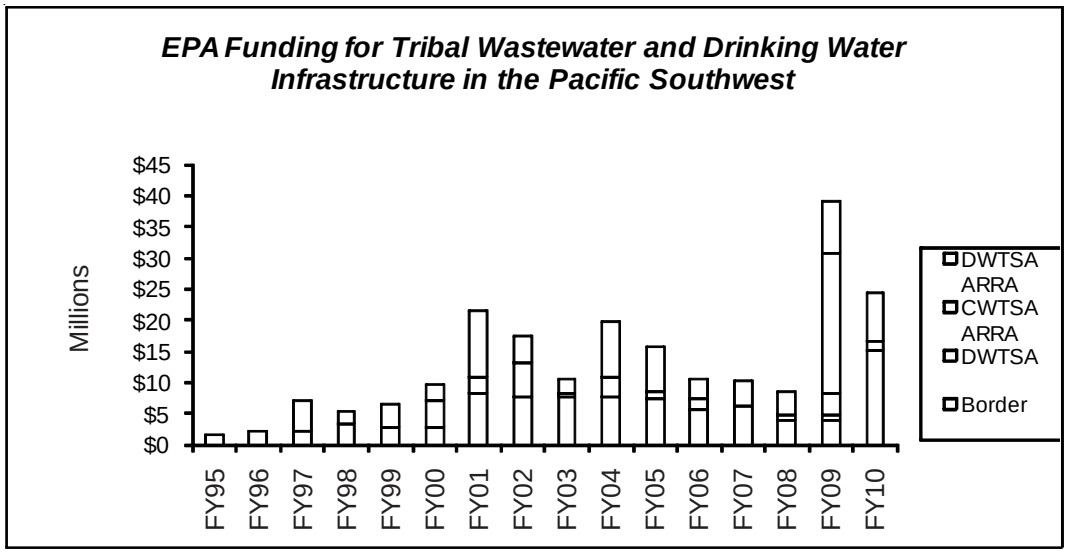
For more details: www.epa.gov/region9/toxic/lead/lead-child-indiancountry/index.html

Tribal staff taking dust wipe sample at homes to determine potential lead hazards. Samples are sent for lab analysis. In pre-1978 housing, abrasion generates lead-contaminated dust from painted walls, floors, and window frames.

Clean and Safe Water

EPA and tribes have worked together for more than two decades to achieve clean and safe water by building water infrastructure projects, protecting underground sources of drinking water, and implementing water quality monitoring and restoration projects.

Building Water Infrastructure



EPA Region 9 Tribal Wastewater and Drinking Water Infrastructure Funding History.

In 2009, the Clean Water Act Indian Set-Aside Program awarded $3.8 million and through the American Reinvestment and Recovery Act (ARRA), EPA awarded an additional $22.3 million for multiple wastewater projects that serve 19,741 homes. The Drinking Water Tribal Set-Aside program awarded $3.5 million and an additional $8.4 million was awarded through the ARRA for multiple drinking water infrastructure projects to address high priority public health needs for 8,490 homes. Several projects were successfully completed in 2010, including projects at the **Hopi Reservation** and **Tohono O'odham Nation**.

New water storage tank for the Village of Shungopavi on the Hopi Reservation.

The Hopi Water Resources Department and Village of Shungopavi on the **Hopi Reservation** received Drinking Water Tribal Set-Aside grants in 2000 and 2001 totaling $1.91 million to develop a new well water source, elevated water storage tank, and upgrades of water distribution facilities in the Village of Shungopavi. The cost of the water storage tank exceeded original estimates and an ARRA Drinking Water Tribal Set-Aside grant provided Hopi an additional $276,400 to complete the tank. The water storage tank went online in spring 2010 and provides additional water storage for 225 homes.

The **Tohono O'odham Nation** received Drinking Water Tribal Set-Aside grants in 2004 and 2005 for a project that serves 20 homes in Gunsight, a small community on the western edge of the Nation. The grants were to fund a new water storage tank and 4-inch water pipes to replace deteriorated and undersized pipelines. However, after further analysis, 6-inch water pipes were determined to be the preferred size to reduce friction losses. Due to this change as well as inflation and rapid increases in fuel costs,

Workers James Johnson and Gary Wilson, Jr. install a valve to connect the Gunsight community wells to the upgraded water distribution system.

funding was insufficient to complete the original project. In 2009, an ARRA Drinking Water Tribal Set-Aside grant provided **Tohono O'odham Nation** supplemental funds to upgrade the water main and connect the new tank to the community. The project was completed in summer 2010.

Assessing Water Quality

In 2010, 99 tribes were eligible to develop and carry out water quality monitoring programs under the Clean Water Act Section 106 Water Pollution Control Program. EPA provided more than $8.5 million in grant funding to tribes to monitor, conduct studies and assessments of surface and ground water quality conditions and track water quality trends. More than 50 tribes are implementing their water quality monitoring strategies and 40 tribes are providing water quality data to EPA electronically.

In 2010, the **Timbisha Shoshone Tribe** began monitoring and assessing their water quality for multiple parameters at six sites on the reservation following their EPA-approved Quality Assurance Program Plan (QAPP). The tribe submitted their water quality data to EPA and shared their findings with tribal members through outreach and education activities, including articles in the tribe's newsletter. They are also using the water quality data findings to assist with the development of their management plan to address polluted runoff.

Carmen Armitage, Water Quality Specialist at Timbisha Shoshone Tribe, conducting water quality monitoring at one of the tribe's monitoring sites.

Throughout 2010, tribes have been training other tribes on water quality monitoring and assessment activities on Indian reservations, providing real hands-on practice. In May, staff from the **Pyramid Lake Paiute Tribe** Water Quality Department held a training on biological monitoring with the **Pinoleville Pomo Nation** for tribes in the Clear Lake area of Northern California. The training was tailored to local conditions and allowed for hands-on learning in local waterways.

Biological monitoring training at Ackerman Creek at Pinoleville Pomo Nation. Shown are Robert James of Pinoleville Pomo Nation, Debbie McCubbin of Robinson Rancheria of Pomo Indians, Shi Martinez of Coyote Valley Pomo Indians, Dan Mosley of Pyramid Lake Paiute Tribe, and David Edmunds of Pinoleville Pomo Nation.

Improving Water Quality

Using results from water quality monitoring and assessments conducted over the years, tribes have addressed water quality issues of concern under the Clean Water Act Section 319 Nonpoint Source Pollution Control Program. Tribes use CWA Section 319 funds to develop and carry out polluted runoff control programs, addressing critical water quality concerns and achieving positive environmental results on the reservations and in the watersheds. In 2010, 81 tribes were eligible to carry out their nonpoint source programs.

In 2009, the **Bishop Paiute Tribe** Water Quality Control Program installed 1230 feet of fencing along the south fork of Bishop Creek in the Owens Valley to restrict livestock access to the creek, in an effort to stabilize the streambank, and improve downstream water quality. CWA Section 319 funds were used to purchase materials and install the fence. The project is expected to lessen sedimentation and turbidity downstream of the site, which will benefit aquatic invertebrates and fish by providing healthy streambed habitat and a clearer water column, making it easier for fish to see their food.

Before project implementation on South Fork of Bishop Creek at Bishop Paiute Indian Reservation.

Completed exclusion fencing project at same site.

In 2010, the **Quechan Indian Tribe** implemented a habitat conservation and riparian restoration project with a CWA Section 319 grant supplemented with funds from U.S. Bureau of Reclamation, Natural Resource Conservation Services, and U.S. Fish and Wildlife Service. A four-man crew cleared sixty acres which consisted mainly of invasive tamarisk (salt cedar) by hand at the Bee Wash area next to a trailer park. The crew restored the site with native species including cotton-wood, sandbar willow, and honey mesquite to provide a riparian habitat for endangered birds such as the Southwestern willow flycatcher and Yuma clapper rail.

Reggie Antone, Quechan Indian Tribe Environmental Department employee and tribal member, planting bundles of sandbar (coyote) willow poles for bank stabilization along the Colorado River.

Protecting Sources of Drinking Water on Tribal Lands

In 2008, the Tribal Source Water Assessment and Protection Program provided more than $300,000 to seven tribes for projects to be carried out through 2010. The funding is used to assess human health risks to drinking water supplies and develop methods to protect, prevent, or reduce contamination of drinking water sources.

EPA issued a Direct Implementation Tribal Cooperative Agreement (DITCA) grant to **Santa Rosa Rancheria** in Central California to carry out a four-step assessment of the tribe's drinking water supply. The project included mapping source water protection areas, a potential contaminant source inventory, a susceptibility analysis, and a public education campaign. Santa Rosa Rancheria also worked to educate tribal members about the importance of protecting water sources.

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http://www.epa.gov/region09/tribal/success/index.html