# Water Quality Improvement Grant Projects
# 2007-2008 Grant Cycle 10

**Graham County**
*Noland Ranch*
*The Gila River Box Conservation Area Livestock Deterrent Fence* **$136,900.00**

The Gila River Box Conservation Area Livestock Deterrent Fence calls for the re-construction of the fence line on the entire south western border of Turtle Mountain Allotment. This fence separates three BLM Allotments and serves as the most effective deterrent for livestock entering the Bonita and Gila River Box National Conservation Areas. Due to the age of the fence the current condition is very poor and is non-effective in deterring of livestock. This project will affect the entire Bonita Creek & Gila River Box Conservation Area by restricting the entrance of livestock. Limiting the access of livestock into the river bottoms will benefit water quality for those living downstream.

**Greenlee County**
*Coronado Resource and Conservation Development Area*
*Eagle Creek Watershed Restoration-Double Circles Ranch Phase III* **$92,294.00**

The Eagle Creek Watershed in northern Greenlee County is 161,172 acres of grazing land primarily leased from the US Forest Service. The ranchers in the area have been working together for the past several years to implement practices on a landscape scale that will improve water quality in Upper and Lower Eagle Creek. This project will install fencing to exclude cattle from Eagle Creek and Sheep's Spring. Implementation of this grant supports a rest-rotation grazing system to distribute grazing across the watershed, reduce damage from trespass cattle and support habitat for critical species.

**Gila County**
*Tonto Rim Christian Camp*
*Tonto Rim Christian Camp Water Quality Improvement Grant* **$260,000.00**

To protect and preserve the ground water quality in Tonto Creek by replacing existing failing septic system drain fields installed at the camp between 1972-1993 with nitrogen reducing advanced treatment system and utilizing a drip irrigation disposal. The Arizona Department of Environmental Quality completed a Total Maximum Daily Load (TMDL) study on the upper Tonto Creek and Christopher Creek area in June of 2004.The study noted human sewage as one of the major contributors to the non-point source pollution of these affected waters. The project will improve water quality by reducing the pollutants entering the stream.

**Maricopa County**
*City of Phoenix Human Services Department*

*Sustainable Design for the Southwest Family Services Center – Pervious Concrete Demonstration Project to Mitigate Storm Water Pollution.* **$260,000.00**

This Southwest Family Services Center "Green-Build" project hopes to demonstrate a pervious concrete parking lot can mitigate storm water runoff pollution endemic to the area. The project site lies in a rapidly changing urbanized area of Phoenix, up gradient of the Salt River, Tres Rios Constructed Wetlands, and ultimately the Gila River confluence. At the same time the parking lot mitigates storm water borne pollution, the site will also demonstrate reduced micro-climate urban heat island effects and airborne dust pollution.

**Mohave County**
*Hualapai Tribe*
*Sediment Reduction into Diamond Creek and the Colorado River, Grand Canyon* **$35,000.00**

Sediment erosion occurs when vehicles cross and drive down Diamond Creek to get to the Colorado River to take out or drop off for rafting trips. It is estimated that over 2,400 vehicles used this road in the year 2007, with increasing numbers excepted for the years to come. This grant will be used to channel and divert the creek from the road and construct check dams where appropriate to alleviate the erosion of sediment into Diamond Creek and the Colorado River. Water quality and macroinvertebrate communities will be monitored and education efforts will be directed to drivers and visitors of to the river.

**Navajo County**
*White Mountain Apache Tribe*
*White Mountain Apache Tribe's Water Quality Improvement Grant* **$260,000.00**

The main goal of this project is to rehabilitate and restore the water quality that has been degraded by frequent flooding and land erosion from the 2002 Rodeo-Chediski Fire. The Rodeo-Chediski considered the most severe wildfire in Southwest history, occurred on the federally-recognized Fort Apache Indian Reservation in east-central Arizona. Several watersheds on the northwestern side of the homeland of the White Mountain Apache Tribe were severely burned including Canyon, Willow, Salt, and Cibecue Creeks. The impacts of the burn area are still affecting the west-end reservation community of Cibecue in the form of flooding in Cibecue Creek that flows through the central valley area of the community with an approximate population of 2,000 out of the total tribal population of 15,000. This grant will mitigate the damage to the land and water and address the importance of water quality and its beneficial uses for the reservation communities.

**Santa Cruz County**
*USDA Forest Service*

*Mesquital Fence and Pipeline* **$13,000.00**

This project provides implementation of best management practices including improved grazing management, a 1 mile of riparian/pasture fence in the Santa Cruz-Rio Magdalena-Rio Sonoita Watershed in the borderlands area of southern Arizona. The focus is on the ephemeral Sycamore and Providencia Canyons which flow into the Santa Cruz River. This project is part of a much larger watershed based effort which seeks to enhance water quality through improved grazing management at a landscape-scale level covering nearly 35,000 acres on the west side of the Patagonia Mountains

**Yavapai County**
*Yavapai County Flood Control*
*The Pioneer Park Stormwater Quality Improvement Plan* **$369,271.00**

This water quality improvement demonstration project at Pioneer Park will protect the site's major unnamed watercourse which discharges into Granite Creek and ultimately into the Verde River in the Upper Verde Watershed, through implementation of numerous best management practices, public education, outreach, and partnership as well as performance monitoring. Pioneer Park, a regional multi-use recreational complex is comprised of 996.43 acres, is a major contributor of hydrocarbon pollutants and sediments due to urban runoff and habitat degradation. This project will not only remove pollutants from Pioneer Park watercourse, it will recharge the Prescott aquifer with clean water. The EPA has designated Yavapai County as a phase II, MS4 community due to population growth, density of population and the potential of being a major contributor to the degradation of our streams and rivers.

*Henry Dahlberg Foundation (Mingus Springs Outdoor Learning Center)*
*Ash Creek Watershed Improvement Project* **$32,289.00**

Mingus Springs Outdoor Learning Center is located near the headwaters of Ash Creek on the Upper Agua Fria watershed. Water quality is threatened by a planned timber sale, increased traffic on the roads (up to 100 logging trucks a week), illegal off-road use and increased prescribed burning. This project implements best management strategies to mitigate these threats to water quality.

# Water Quality Improvement Education Grants Recommended for Funding
# 2007-2008 Grant Cycle 10

**Coconino**

**Oak Creek Canyon Water Quality Improvement Program**
*Pender Engineering* **$53,490.00**

This project will initiate a Trailhead Ambassador program for high school students. Once trained, Trailhead Ambassadors will work weekends and holiday weekends, 35 weekends from March to October, to greet visitors in Oak Creek Canyon day-use and overnight-use areas, explaining to visitors the risks associated with fecal contamination, reminding visitors of the stream of the importance of proper disposal of trash and human and pet wastes, and directing visitors attention to locations of toilettes, trash receptacles, recycling receptacles and dog waste stations. This program will provide up to one high school credit towards graduation upon completion of 120 hours of volunteer service.

The grantee will also install and maintain eight Barco® Dog Waste Disposal Stations at trailheads to educate recreational users about the importance of preventing the pollution that results from human and pet wastes. This project is a collaboration with Oak Creek Canyon Task Force.

**Graham**

**Gila Valley Best Management Practices on Crop Land**
*Gila Valley NRCD* **$12,880.00**

Project will address sediment loading, nutrient and pesticide runoff, and potential spreading of state listed noxious/invasive weeds into the Gila River through the installation of vegetative filter strips across the bottoms of irrigated fields. Due to shallow soils in the Gila Valley and the required slopes they attribute, excess irrigation water is a common occurrence. Any water that is not taken into the soil is returned to the Gila River. The vegetative filter strips will act as a "brake" for the water, slowing it to allow sediment and plant parts and seeds to remain on the fields. The vegetative filter strip will also act as a sink, absorbing excess nutrients and pesticides. Producers and the public will be educated through various classroom and hands-on workshops, news articles, publications, and informative brochures, mailings, field visits to view practices being implemented. Technical support will be provided by the Natural Resource Conservation Service.

**The Dzil Nchaa Si'an /Mt. Graham Youth Practicum Education Grant Project**
*Gila Watershed Partnership* **$8,050.00**

The Dzil Nchaa Si'An Youth Practicum Education Project will educate Native American youth in environmental issues and water quality impairments in the Upper Gila Watershed. Funds will be used to develop a summer camp that would include

environmental and cultural activities. During the five-day practicum, tribal students will be encouraged to pursue professional natural resource careers, raise their ecological awareness, exemplify traditional connection to the earth, and enjoy the outdoors. The Dzil Nchaa Si'An Youth Practicum Education Project will build relationships between the Coronado Forest and Native American youth and provide for long-term collaboration to benefit the youth, their elders, their tribes, the land, and water quality.

**The Upper Gila Watershed Steward Program**
*Gila Watershed Partnership* **$35,550.00**

The Upper Gila Watershed Steward Program is an education project that will enhance the Master Watershed Steward program. This will lead to the development of targeted water quality improvement projects in the impaired waters in the Upper Gila Watershed, and ultimately to the removal of these waters from the 303(d) list.

**Maricopa**
**Stormwater Pollution Prevention in YOUR Neighborhood**
*City of Peoria* **$5,000.00**

An important element of a successful stormwater program is to enhance public awareness and understanding of stormwater pollution prevention issues which includes non-point source contamination. This is accomplished through a dedicated education plan. This grant project is to develop a stormwater pollution prevention education program for Peoria students in grades K -8. The education program will be titled "Stormwater Pollution Prevention in Your Neighborhood." The focus of the program is a hands-on, interactive stormwater model that allows the students to see the effects of non-point contaminants. The goal of the program is to educate the students on stormwater pollution prevention issues and identify positive behaviors that will enhance our environment on a long term basis.

**Water's Changing Journey**
*Audubon Arizona* **$168,442.00**

The objectives of *Water's Changing Journey* include informing participants of the NPS pollution problem, educating them so that they may make changes in their personal behaviors, as detailed below, that improve local water quality and motivating them to participate in community cleanup projects. Located at the Nina Mason Pulliam Rio Salado Audubon Center on the banks of the Salt River just a mile south of downtown Phoenix, the project will focus on providing environmental education to the communities of South and Central Phoenix. The *Water's Changing Journey* project will consist of three education approaches:

1) A walk through the Center's approximately two-acre wetland area – the Water Journey Path. The walk will be guided by interpretive signage and supplemental printed material.
2) The opportunity for visitors to check out a 'water quality backpack' to complete self-guided activities along the Water Journey Path.

3) A formal two-hour naturalist or trained volunteer led program that focuses on water quality, the NPS problem and water monitoring activities.

**Pima**

**Creating a Neighborhood Model to Address Urban Stormwater Pollution**
*Watershed Management Group* **$103,240.22**

This project will educate urban residents on nonpoint source pollutants and will train them in the implementation of BMPs to improve water quality in High School Wash in Tucson. The focus will be on BMPs designed to reduce stormwater runoff, erosion, and the transport of nonpoint source pollutants into the wash. A core group of five community leaders will be trained as educators in BMP design, monitoring, and maintenance. The project will also include wash clean-up efforts, outreach workshops to highlight project success, and the publication of a neighborhood guide for nonpoint source and stormwater BMPs specific to Arizona's environment.

**Master Watershed Steward Program**
*University of Arizona* **$148,336.00**

The goal of the proposed project is to expand the focus of the Arizona Cooperative Extension's Master Watershed Steward Program (MWSP) to promote on-site water quality improvements and enhance watershed education state-wide. The current MWSP concentrates on general adult education. This proposed project will enhance the current program and extend the reach of MWSP to work with watershed partners and facilitate the implementation of watershed improvement projects. The project will be a collaborative effort between the Arizona Department of Environmental Quality (ADEQ), MWSP, Arizona Nonpoint Education for Municipal Officials Program (AZNEMO), Arizona Cooperative Extension, and various watershed partners.

**Yavapai**

**From Education to Action in the Granite Creek Watershed**
*Prescott Creeks Preservation Association* **$67,875.50**

The purpose of this grant is to promote an awareness of water quality issues, promote behavioral changes, and to lead to pollutant load reductions to Granite Creek and Watson Lake - the impaired surface waters. This educational effort will strengthen other existing and future efforts to implement on-the-ground water quality improvement projects. Education will include: identification and assemblage of a watershed stakeholder group to participate in the Watershed Implementation Plan (WIP) process; volunteer training through workshops to actively care for water quality with hands-on, in-the-field training; design and construction of a trailer-mounted, mobile, interactive watershed model; development and distribution of a *Creek Care Guide*; and presentations to community and civic organization to discuss water quality issues and recruit potential volunteers for future on the ground projects.