ADEQ WATER QUALITY IMPROVEMENT GRANT PROJECTS FY 08-09
CYCLE 11

APACHE COUNTY

11-004 AZ Game & Fish Dept *Wenima Wildlife Area Stream Restoration* $74,145

The Arizona Game and Fish Department has purchased a total of 357 acres since 1993 through its Heritage Fund. The land and resource values associated with the acquisition provide opportunities to meet objectives of Arizona's Heritage Fund for Threatened, Endangered and Sensitive species and habitats, as well as provide benefits for other wildlife species and recreational opportunities for the public. The Wenima Wildlife area contains approximately 2.5 miles of stream channel including 50 acres of existing riparian habitat along the Little Colorado River (LCR) and 121 acres of adjacent riparian and wetland floodplain that was managed as irrigated pasture land cropland, but holds tremendous potential for restoration of riparian wetland values. In 2002, the Arizona Department of Environmental Quality with the US Environmental Protection Agency reported on the Little Colorado River TMDL for Turbidity. Two sections of the LCR, totaling 16 miles, were listed as impaired due to violations of the turbidity standard for Aquatic and Wildlife coldwater streams. The first segment, Water Canyon Creek to Nutrioso Creek, is 4 miles long and is upstream of the Wenima Wildlife Area. The second segment, Nutrioso Creek to Carnero Creek is 12 miles long and includes the Wenima Wildlife Area. These reaches of the LCR were placed on the 303(d) List based on sampling taken from 1991 through 1996. Field observations indicated that the main causes of turbidity are due to historic stream channel manipulation and loss of vegetative cover due to historic and current grazing practices.

COCONINO COUNTY

11-005 City of Flagstaff *Water Quality Improvements for Francis Short Pond* $33,783

This project will address water quality concerns in the Francis Short Pond, the only permanent body of water in the City of Flagstaff, by reducing nutrient and fecal coliform loadings to the Pond and increasing the dissolved oxygen concentration. This will be accomplished through the installation of sedimentation and bio-retention cells at an upstream Dog Park, and the installation of an aerator at the Pond.

GREENLEE COUNTY

11-002 Gila Watershed Partnership *E.coli Reduction on the San Francisco River through Alternative Livestock Water on Kaler Ranch* $42,750

In order to remove the source of E.coli, we must provide the landowner sufficient alternative water sources. In addition, there is considerable pressure from the county to reduce the cattle in the riparian area. They understand that the ranchers need to water their cattle, but they are very concerned about the water quality issues involved. This grant is a match for an AZ Dept of Agriculture Livestock and Crop Conservation grant for a well on the Kaler Ranch. This grant will be used to develop livestock watering facilities (as recommended in the NEMO watershed based plan) as an alternative to watering the Kaler livestock in the San Francisco River.

GILA/YAVAPAI COUNTIES

11-006 U. S. Forest Service *Middle Fossil Creek Water Quality Improvement Project* $211,825

The Middle Fossil Creek Water Quality Improvement Project will address recreational impacts along the 4.6 mile Middle Reach of Fossil Creek where approximately 100 dispersed campsites are located in and immediately adjacent to the riparian zone. In conjunction with an Arizona Water Protection Fund grant and internal Forest Service funding, this project will address the issue of human waste impacts in this reach of Fossil Creek through the initiation of a short term (2 year) "pilot" program to address issues of efficiency and appropriate placement of temporary toilets along Middle Fossil Creek. Monitoring will be conducted to determine if toilets are used, their potential positive effects on water quality, and the potential for installation of permanent toilets in Middle Fossil Creek.

MOHAVE COUNTY

11-001 City of Lake Havasu City *Pima Wash Sediment Erosion & Chemical Transport Mitigation* $300,000

Septic tanks will be decommissioned and wastewater drain lines from residential properties will be connected to a centralized sewer collection system for treatment at an A+ wastewater treatment facility. The purpose of the project is to stop nitrates and other contaminants from entering the groundwater aquifer that is hydrologically connected to Lake Havasu.

YAVAPAI COUNTY

11-007 Cosanti Foundation *Sediment Reduction from Runoff using Best Management Practices* $37,453

The Cosanti Foundation, a non-profit, public, educational foundation for architectural and urban planning research, recognized by the US IRS under 501©3, owns 860 acres of land bisected by the Agua Fria River near Cordes Junction, Arizona in central Yavapai County. NEMO Watershed Based Plan for the Agua Fria Watershed classifies HUC 1507010202, Big Bug Creek- Agua Fria River, which includes this 2.5 miles of river, as High Risk for sediment. Many areas on the property have been identified that are subject to severe side channel scour and down cutting from runoff and/or main stream bank erosion that send sediment to the river and can impact ranch structures – buildings, fences, roads. The focus area of this project will include the Ranch area downstream towards the Arcosanti Site and the Mind Garden Drainage. Flagstaff based Natural Channel Design, Inc. will provide a Riparian Ecologist, Civil Engineer and Engineering Tech for Site Assessment, Sediment Control Structure Design and Construction Oversight for Phase 1 to deal with runoff issues using Best Management Practices and to create a Design Concept for Main Stream Bed Bank Stabilization to be implemented in Phase 2.