



**Water Quality Improvement Grant Program
Grant Agreement EV07-0034 (9-001)**

Project Title: Sediment Reduction in Whitewater Draw using Watershed Partnership Approach
Expiration Date: June 30, 2009
Dollars Matched: \$ 77,500.00
Dollars Awarded: \$114,950.00

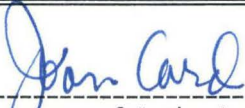
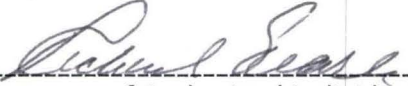
**Between
Arizona Department of Environmental Quality
And Coronado Resource Conservation & Development Area, Inc.**

This Grant Agreement is established between the State of Arizona Department of Environmental Quality, located at 1110 West Washington Street, Phoenix, Arizona 85007 ("ADEQ" or "Department") pursuant to Arizona Revised Statutes (A.R.S.) § 41-2701 et. seq. and A.R.S. § 49-104 and ("Grantee"). This Grant Agreement includes the following documents contained herein: Attachment 1 - Water Quality Improvement Grant Agreement Terms and Conditions, Attachment 2 - Clarifications & Grant Application, Attachment 3 - Milestones, Attachment 4 - Budget, and any amendments developed as part of this Grant Agreement.

Special Conditions:

1. Grantee must obtain ADEQ approval on all information pertaining to this project that is used as promotional or educational materials, including but not limited to, Web site information, brochures, signage, etc.
2. State Historic Preservation Office (SHPO) requires that the project area be surveyed to determine the presence or absence of historic properties by a qualified professional.
3. Grantee must submit an updated Milestone Report.
4. Grantee must notify ADEQ Project Manager six months prior to expiration date of project to schedule final site inspection.
5. Attachment 4 is the approved Project Budget and any adjustments must be pre-approved by ADEQ.

In witness whereof the parties hereto agree to carry out the terms of this Grant Agreement.

Arizona Department of Environmental Quality	Coronado Resource Conservation & Development Area, Inc.
Joan Card, ADEQ Water Quality Division Director	Richard Searle, Vice President
 ----- Signature of Authorized Individual	 ----- Signature of Authorized Individual
Date: 7-30-07	Date: 7-25-07

Grant Application

Part I - Grant Application Form and Signature Page

**Arizona Department of Environmental Quality
Water Quality Improvement Grant Program
Grant Application Form**

Project Title - *Please limit the length of the title to one line.*

Sediment Reduction in Whitewater Draw using a Watershed Partnership Approach

Project Description - *The project description should identify the type of project and the name of the waterbody and/or ground water basin that the project will improve.*

Four ranchers managing 61,500 acres of rangeland that drains into Whitewater Draw have formed a working partnership to address sediment entering Whitewater Draw and the National Wildlife Area below it by restoring the uplands of the Hay Mountain Watershed. The adjacent Walnut Gulch Experimental Watershed owned and operated by the US Department of Agriculture has demonstrative effective practices that will control erosion and sedimentation in the watershed and data from their research has been used to develop a watershed plan and set priorities for practice implementation. The USDA/Agricultural Research Service staff from Walnut Gulch along with NRCS, U of A Extension and Arizona Game & Fish and State Land Departments will be technical advisors on this project. The ranchers have been working with NRCS to develop conservation plans and implement practices to improve livestock management on their individual ranches. As a group, they have identified practices that will improve the health of the watershed, slow runoff, reduce sediment and improve water quality downstream. Reversing the erosion-sedimentation cycle on such a large area requires that practices be implemented in phases. Practices to be implemented in this phase will focus on healing gully erosion and slowing runoff from the upper watershed. Funding is requested in this proposal for the installation of check dams and water spreader dikes on 7,000 acres identified as a high priority. Future phases will include revetment of eroded livestock ponds, brush management, and stabilization of outlets. Outlet stabilization will be timed to coincide with Cochise County's Davis Road Improvement Project.

The Whitewater Draw National Wildlife Area is the collection point for runoff from the Hay Mountain Watershed that moves through Whitewater Draw. It is home to a variety of local, national and internationally significant species. Longevity of the Area is closely tied to maintaining a high standard of water quality. This project will reduce sediment entering Whitewater Draw by an estimated 22,000 tons per year after implementation. (RUSLE calculations for overland flow and direct volumetric calculations for streambank and channel erosion)

Section F - Key Personnel

Dennis Moroney , Owner/operator 47 Ranch

M.Ed., Master Teacher Program, BS Agriculture Education, BS Animal Science

Will serve as group chair, coordinator and site manager for the project. Will implement project tasks on the 47 Ranch. Is the President-Elect of the Arizona Society for Range Management, Vice President of Graham Cochise Cattle Growers Association.

Ruth E. Cowan, Co-owner/operator NI Ranch

BA University of Phoenix, Graduate of Arizona Project CENRTL, Fifth generation ranching family, has managed previous grant funded projects on the NI Ranch. Will be responsible for implementation of tasks on the NI Ranch and ongoing maintenance.

Fred Davis, Owner/operator Davis Ranch

Board member of the Whitewater Draw Natural Resource Conservation District, Cochise-Graham Cattlegrowers Association and other professional organizations. Will implement and maintain task activities on the Davis Ranch

Jack Telles, Owner/operator Double U Ranch

1991 nomination as Society for Range Management "Range Manager of the Year"

Has owned and operated the ranch since 1968 as a family owned corporation. Has worked with Arizona Game & Fish Department on several wildlife projects on the ranch including stock tank rehabilitation and brush management and will implement and maintain tasks on the Double U Ranch that are part of this project.

Kim Mc Reynolds, Area Extension Agent for Natural Resources, University of Arizona.

Will direct vegetation monitoring activities and participate in workshops and outreach activities related to this project and the Hay Mountain Watershed Group. Certified Professional in Rangeland Management by the American Society of Range Management.

Mary H. Nichols, Scientist, Research Hydraulic Engineer, USDA-ARS, Tucson, AZ Ph.D-Civil Engineering, MS Forestry, BS Forestry

Has worked with the Agricultural Research Service in Tucson since 1992, conducting watershed research related to sediment transport dynamics. Conceived, developed and implemented the first application of radio frequency identification tags for tracking course sediment particles. Conceived and is now implementing research to quantify and interpret sediment yield rates from rangeland watersheds. Mary will monitor sediment yield and transport across this watershed in relation to practices implemented and incorporate findings into her research.