



Water Quality Improvement Grant Program
Grant Agreement EV16-0002 (18-004)

Project Title: Sheet Erosion and E.Coli Mitigation on Sands Ranch, San Pedro River Uplands

Expiration Date: May 31, 2018

Dollars Matched: \$87,000.00

Dollars Awarded: \$130,500.00

Between
Arizona Department of Environmental Quality
and
Borderlands Restoration

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 attachments listed below. Incorporated by reference, this Grant Agreement also includes the ADEQ Water Quality Improvement Grant Program Request for Grant Applications (EV16-0002).

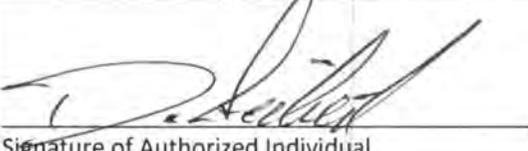
Attachment 1: Grant Applications

Attachment 2: Water Quality Improvement Grant Agreement Terms and Conditions

Special Conditions

- Attachment 1 includes the approved project scope of work and budget. Any adjustments shall be pre-approved by ADEQ.
- Grantee shall provide proof of adequate insurance prior to any grant activities being initiated. Minimum insurance requirements are located in Attachment 2: Water Quality Improvement Grant Agreement Terms and Conditions
- Grantee shall work with ADEQ staff to develop a complete and approved monitoring plan prior to on-the-ground activities that reflects grantee and ADEQ responsibilities.
- Grantee agrees to coordinate with ADEQ for water quality sampling and best management practice effectiveness monitoring.
- Grantee shall provide the required information to ADEQ to obtain SHPO clearance for projects and update Work Plan Steps and Milestones to reflect activities and time needed to obtain SHPO clearance. No on-the-ground work shall be initiated on a project of concern until SHPO clearance has been secured for the specific project.
- Grantee shall work with the ADEQ Project Manager to update the Work Plan Steps & Milestones to be approved by the ADEQ Project Manager.
- Grantee shall work with the ADEQ Grant & Watershed Coordinator to develop a measurable component for outreach success
- Grantee will allow access to project area before and after implementation to complete BMP assessment monitoring
- Grantee will adjust the timeline for the project to a minimum of 18 months.

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

Arizona Department of Environmental Quality	Borderlands Restoration
Trevor Baggio, ADEQ Water Quality Division Director	David Seibert, Authorizing Agent
	
Signature of Authorized Individual	Signature of Authorized Individual
Date: 5/19/14	Date: 6-13-16



Reset Form

Final Application

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

Additional instructions for this application can be found in the ADEQ WQIG Request for Grant Applications (RFGA) located on the ADEQ website at: www.azdeq.gov/environ/water/watershed/improvement.html. Please read the RFGA in its entirety before completing your application.

Project Title	Sheet Erosion and E.Coli Mitigation on Sands Ranch, San Pedro River Uplands
Project Description	<p>The Sands Ranch adjacent to the San Pedro River has a long historic and continuing presence of cattle on the rangeland, providing a continuous source of e.coli bacteria. Using sediment transport as a surrogate for e.coli presence and transport across degraded landscapes, this project will survey, plan and mitigate severely eroding rangelands on the Sands Ranch west of the San Pedro River. Small rock erosion control structures will be installed strategically to arrest sediment and e.coli movement toward the river, and to improve habitat conditions for native grasses to establish and continue the restorative process. Based on site visits and communication with ADEQ officials and ranch manager Ian Tomlinson, priority areas for erosion mitigation work include 1) extensive areas east of Hwy 90 previously sprayed with herbicide that have not recovered vegetatively; and 2) an area west of Hwy 90 that will benefit from the arrested movement of e.coli into the riparian corridor. This site will also serve as a public demonstration and youth education work site due to ease of access and high project visibility along a heavily used Forest Service road (FR 4011). Here the site will function as a training ground for use in our highly successful Borderlands Earth Care Youth Institute program, a community-based effort that includes Patagonia High School's new Ag Science Program students. As part of a larger effort to expand the Institute to schools in Sierra Vista, this effort will take advantage of an existing Borderlands grant with AZ State Forestry and the University of Arizona Cooperative Extension's Water Wise program, in order to utilize the sites as platforms for ongoing environmental education. Beneficial effects on both sites also include increased moisture levels and native seed banking effects afforded by structure installation in small and mid-sized rills and arroyos. The combined effects of the work will secure and nudge the uplands into a more resilient ecological condition, wherein native plants can gain a foothold and continue to hold soils and e.coli in place, while increasing native plant density and diversity.</p> <p>In addition, a draft Restoration Methods Plan will be developed to complement existing WIP work, in order to standardize methods and make them more acceptable to local landowners and managers. This piece will be informed by our previous and continuing work with USGS [Norman, Callegary], Bureau of Reclamation [Tosline], USFWS [Randall, Kaplan], Sky Island Alliance [Holder, Campbell], and USFS [Girard, retired; Upchurch; K. Baldwin; Waconda]. We anticipate using this draft effort to set up a future ADEQ proposal for developing a more detailed action plan with BLM, supported in part by Walton Family Foundation and Fort Huachuca, that tethers planning to on-ground activities and restoration work that can be supported across the watershed over many years.</p>