

Sonoran Desert Conservation Plan Newsletter

“To ensure the long-term survival of the full spectrum of plants and animals that are indigenous to Pima County through maintaining or improving the ecosystem structures and functions necessary for their survival.”

August 2010

Phase II Monitoring Plan Complete

The Pima County Ecological Monitoring Program (PCEMP) passed an important milestone through the completion of the Section 6 planning grant from the U.S. Fish and Wildlife Service. The grant providing funding that has culminated in a Phase II monitoring plan, which outlines the suite of parameters that will be proposed for inclusion into the PCEMP, which will be an important part of the County’s Section 10 permit. The planning process involved many collaborators, most importantly Dr. Bob Steidl and Sherry Mann (University of Arizona), and Dr. Andrea Litt (Texas A&M University at Kingsville). The bulk of the planning effort involved the development of a *process* for choosing what to monitor. This process can be applied to other large-scale Habitat Conservation Plans and similar conservation planning efforts. Copies of the Phase II summary and associated documents can be obtained from Brian Powell: brian.powell@pima.gov. Thanks to everybody who was involved in this project for making it a success!

Measuring Riparian Habitat Success Indicators at the Big Wash Restoration Project

The Big Wash Restoration Project (Project), more formally known as the Rancho Vistoso Xeroriparian Restoration Project, was the result of a development agreement between Pima County and the developer, Vistoso Partners, LLC (Vestar). The agreement required conveyance of approximately 148 acres of the Big Wash open space to Pima County and subsequent restoration of 77 acres of retired agricultural fields (photo 1) and degraded grassland-mesquite woodland to xeroriparian habitat (photo 2) within the Big Wash floodplain. The Project was completed in conjunction with the Oro Valley Marketplace commercial development. The Town of Oro Valley and Pima County Regional Flood Control District

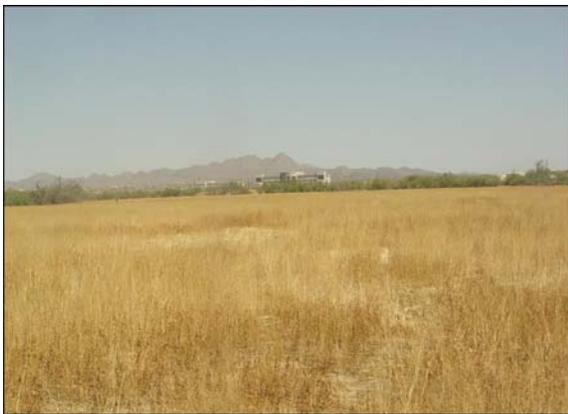


Photo 1: The site before restoration (2007).



Photo 2: The site after grading, land contouring, and planting (2010).



(District) worked cooperatively with Vestar to develop the Restoration Plan (Plan), with Vestar responsible for all costs associated with the restoration project, including five years of maintenance and monitoring, with the District responsible for overseeing long-term success of the Project.

The goal of the Project was to establish a self-sustaining widened riparian corridor with similar hydrology, topography, vegetation and functions as found in the undeveloped Big Wash floodplain. Plant species used in the restoration were selected based on surveys of adjacent reference sites, and the site was contoured to form stream channels, channel overbanks, and upland areas. Water is harvested from the adjacent Oro Valley Marketplace to assist in plant establishment and long-term survivability of the plant community.

The Plan established several success criteria based on vegetation attributes, such as percent cover, plant density, percent exotics and plant diversity, to be monitored on an annual basis. Additionally, channel and floodplain geometry at the restoration site is monitored annually to document channel formation over time. While the Project outlined monitoring requirements for physical and vegetative characteristics, it did not establish quantitative monitoring requirements for wildlife species. That's where Tucson Bird Count (TBC) comes into the picture. In the summer of 2009, the District approached Rachel McCaffrey with TBC about establishing the Project as a site in their Park Monitoring Program, whereby volunteers collect bird inventory data four times a year. To date, TBC volunteer John Schering has completed a total of four visits to the Project site and recorded 32 bird species. On his last visit, in summer 2010, John observed 38 Rufous-winged Sparrows (*Aimophila carpalis*), considered a Priority Vulnerable Species under the SDCP. The presence of Rufous-winged Sparrows is seen as a key success indicator in the establishment of xeroriparian habitat and supports Pima County's efforts to protect and restore riparian habitat for Priority Vulnerable Species. Future surveys will reveal if the project site continues to provide suitable habitat for a number of bird species, including Rufous-winged Sparrows, in addition to providing useful data in the design and development of future restoration projects. To view survey results visit TBC's website at: <http://www.tucsonbirds.org> and search for Park no. 544, Big Wash/OVMP. To find out more information about the Project, visit the District's website at: <http://rfcd.pima.gov/wrd/restoration.cfm>

Office of Conservation Science Summer Interns

The Office of Conservation Science welcomed intern Raquel Haro. Ms. Haro, a Tucsonan enrolled in Coes College, Iowa, spent part of her summer working with Iris Rodden at Pima County Natural Resources, Parks and Recreation, helping with a wide variety of tasks ranging from GIS to range conservation to wildlife field biology. She also reviewed conservation literature for Julia Fonseca. She was great to have around and is welcome back anytime.

Yancy Lucas, a graduate student at the University of Arizona, began an internship with the Office of Conservation Science in June and has been working on a environmental ranch history of Rancho Seco. He has conducted extensive research and has begun interviews of people who have played an important role in the recent history of the ranch. John Sullivan, of NRPR, was once ranch manager of Rancho Seco and he has been working with Yancy on the project. The primary focus of Yancy's work is to document historical land management actions that will help Pima County better manage the ranch in the future, as well as preserve the colorful human-interest stories of yesteryear. Yancy will continue his research and interviews through 2011.



Land Donations

The Pima County Regional Flood Control District received a Flood Prone Land Acquisition donation of 65 acres in the Pantano River system. Located near Irvington and Houghton, the Civano parcel is categorized primarily as Important Riparian Area under the Conservation Lands System, with a small stretch of Multiple Use Area on the river overbank. The county owns several nearby and adjacent parcels along the Pantano River.

The County accepted another donation near the Sweetwater Preserve. The 3.3 acre parcel is directly adjacent to the University of Arizona's Desert Research Station, and is classified as Multiple Use Area under the Conservation Lands System.

The SDCP Featured in "Safe Passages" Book

Island Press released a handbook titled, *Safe Passages: Highways, Wildlife, and Habitat Connectivity*, a publication bringing together the latest information on the science of road ecology as it relates to mitigation interactions between roads and wildlife. Coalition for Sonoran Desert Protection's Carolyn Campbell and Kathleen Kennedy contributed a chapter entitled "The Sonoran Desert Conservation Plan and Regional Transportation Authority: Citizen Support for Habitat Connectivity and Highway Mitigation," describing the benefit of citizen support for the Sonoran Desert Conservation Plan and Regional Transportation Authority Plan. The chapter describes how the two plans have benefited Pima County wildlife linkages, and lessons learned that can be applied to other communities attempting similar planning efforts.

