

Water Conservation Education A Pathway to a Sustainable Future



Bonita Creek

Understanding Our Water Resources

In 2008, the water resources in our community had become a frequent topic of conversation among Gila Watershed Partnership members. Was there going to be enough water for the farming and ranching that was the heritage of both Graham and Greenlee Counties? Was there going to be enough for our expanding population? What about the new and expanding industries in our area?

Graham County and Greenlee Counties were both experiencing rapid growth. Dozens of new subdivisions were planned in Graham County, and ten new hotels. The community college was talking about expanding into a four-year college. The Freeport MacMoRan mining company was planning expansions of the mines in both counties, which would add hundreds if not thousands of people to the populations of both counties.

A new concern was the Arizona Water Settlement Act, which mandates delivery of a required amount of water downstream to the

Gila River Indian Community. It might have a significant impact on the water our community would be able to take from the Gila River. The City of Safford, who is the largest water provider in Graham County, takes the majority of its water from Bonita Creek or from wells located within the flood plain of the Gila River. It is the same in Greenlee County. Their well fields are within the flood plain of the San Francisco River. Would the settlement allow us to take enough water – both today and for the future?

In addition, a number of threatened and endangered species are also located in the area, including the Southwest Willow Flycatcher, Razor Back Sucker, and the Gila Chub. Would they also impact our critical water resources?

And lastly, the continuing drought is adding even more stress to the already stressed water resources of the area.

How Can We Help?

We knew that the daily per capita consumption of water for our area was higher than many communities in Arizona, but efforts in the past hadn't reduced our home, business, or municipal water use. We simply had to do something that would have more impact.

The Partnership, in cooperation with the City of Safford, researched successful water conservation campaigns across the country, and together, we decided to embark on a comprehensive effort to reduce our water consumption.

Our Water Conservation Program Begins



In 2009, the Gila Watershed Partnership was awarded a grant from the Arizona Water Protection Fund (AWPF) for a water conservation education program for Graham and Greenlee counties. The AWPF grant was matched by a

\$10,000 from Freeport MacMoRan.

The grant program contained four parts: A targeted media campaign that included newspaper and radio ads, and an insert in the customers' utility bill. A school education program, implemented by the Graham County Cooperative Extension office to teach water conservation classes to elementary school students in Safford, Thatcher, Pima, Bylas, and Duncan. A "Rolling River" water education trailer and a "Leaky House" that illustrated water loss from household leaks would be used at dozens of community events. And maybe most important, we would perform home, business, and municipal water audits. The team hired to perform the evaluations would check faucets, toilets, showers, pipes, appliances, sprinkler systems, and landscaping, and give the customer tips and recommendations for saving water.



Initially, we relied on the media campaign and the



events to reach customers, but later, the highest water users were targeted directly. The City of Safford sent the high water users a postcard telling them about the program, and explaining that a water evaluation could save them water

and save them money on their utility bills. The returned postcards were forwarded to our project manager, who would send a water evaluation team out.

The water evaluations continue today. To supplement the funding from the Arizona Water Protection Fund, we applied for and were granted additional funding from the Graham County United Way to continue the program.

How will we know if it Has Worked?

In order to evaluate the effectiveness of the program, we will compare the gallons-per-capita-per-day (GPCD)

water use for each customer we evaluate, as well as the overall GPCD for our community. We will share the final results of the program in the summer of 2013. This program has benefitted our citizens by saving them money as well as saving our community's most precious resource – water. It will take our community another step toward a sustainable water resource and our ultimate goal of a healthy watershed.



Project and Program Status Report

AWPF and USFW Partners Eagle Creek Riparian Restoration at Filleman Crossing Project – Souder, Miller & Associates submitted the required documents and construction drawings for the 404 permit to the Army Corps of Engineers on November 21. We should be on schedule for construction.

ADEQ Education Master Watershed Steward Program, Phase II - The Fall semester course through Eastern Arizona College, "Ecology of the Gila River," wrapped up in November, but the volunteer effort to discover sediment control structures throughout the watershed continues.

University of Arizona GIS specialist Denise Garcia has completed a Google Maps-related database containing all the structures known to U.S. Bureau of Land Management, U.S. Forest Service, U.S. Bureau of Reclamation, U.S. Department of Agriculture, Arizona Department of Water Resources, U.S. Geological Survey, and Graham and Greenlee Counties. There are about 8,000 such known structures, mainly dams and dikes that contain and/or direct the flow of surface water. The purpose of the ongoing research is to identify and investigate the many structures in the watershed that are not known to any of those agencies, and there are dozens if not hundreds of those.

Denise Garcia, Bill Brandau and Deborah Mendelsohn are now finalizing a PowerPoint training tool that will be tested with volunteers from Greenlee County in December and then distributed among volunteers in Graham and Greenlee Counties and beyond. Once all the Google Maps-based research is complete, field trips to structures suspecting of contributing significant sediments to the river will begin.

The AWPF Gila River Water Conservation Education Program – The water analysis team continues their work. Anyone, whether you are a business, residence, or municipality (even those on a well or partial well system) can request an analysis – and save water and money - by calling 928-228-8730.

AWPF Eagle Creek Riparian Protection Project - Implementation plans are being prepared.

The BOR Graham County Fairgrounds Project –This project included the replacement of inefficient toilets, sinks, and urinals, as well as updating the aging sprinkler system. Installation was delayed due to the necessity of installing a reverse osmosis system to improve the water quality.

The USFW Partners Syfert Wildlife Watering Facility The wetland has been completed, and the solar powered pump has been connected to the well. The wetland is filled with water, and deer have been seen in the area. The last step of the project will be adding a motion-activated camera, so that we can see the wildlife enjoy the water.

The Walton Family Foundation Upper Gila Watershed Riparian Restoration Project – This project will include riparian restoration on the Gila and San Francisco Rivers in anticipation of the decline of tamarisk from the tamarisk leaf beetle. The first phase, which will take 18 months, will include the development of a restoration plan, installation of a native plant nursery. The grant was awarded and we began work November 1st. We have hired a science team to prepare the restoration plan, a part-time project manager, Marguerite Rodriguez, and we will soon hire a full-time plant propagation manager.



Robert Porter, GWP newsletter editor, is an Engineer with Souder Miller and Associates, and is a past board chair.

EDITOR'S

NOTE: I have always been impressed with the manner in which the Gila Watershed Partnership finds a way to work with the government entities and private landowners to address important issues in our watershed.

Robert L. Porter, Editor



Coming together is a beginning. Keeping together is progress.
Working together is success.

- Henry Ford

Calendar of Events

Wednesday, January 9, 2013 at 7 p.m. – Aaron Lien and Kelly Mott Lacroix will be giving a presentation on progress of the BOR-funded Desert LCC grant project that will develop decision support tools for the Upper Gila Watershed.

Our partners include:

- Arizona Department of Agriculture
- Arizona Department of Environmental Quality
- Arizona Department of Transportation
- Arizona Department of Water Resources
- Arizona Game and Fish Department
- Arizona Geological Survey
- Arizona State Land Department
- Bureau of Land Management
- City of Safford
- Town of Thatcher
- Town of Pima
- Town of Clifton
- Town of Duncan
- Gila Valley NRCD
- Eastern Arizona College
- Farm Bureau
- Freeport McMoRan Copper and Gold Inc.
- Graham County
- Greenlee County
- Gila Valley Irrigation District
- Natural Resource Conservation Service
- University of Arizona Cooperative Extension
- University of Arizona NEMO Project
- U.S. Fish and Wildlife Service
- U.S. Forest Service – Apache Sitgreaves and Coronado Forests
- U.S. Bureau of Reclamation
- And many community members

Get involved in your watershed

For more information, contact Jan Holder at the Gila Watershed Partnership, 711 S. 14th Avenue, 85546, 520-419-0374, email-watershedholder@gmail.com