

ARIZONA WATER PROTECTION FUND



PROTECTING ARIZONA'S
RIVER & RIPARIAN
RESOURCES

ANNUAL REPORT
Fiscal Year 2017

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Executive Summary

The Arizona Legislature established the Arizona Water Protection Fund (AWPF) in 1994 (A.R.S. 45-2101 et seq.) In passing the legislation the Legislature declared that the policy of the state is to provide for a coordinated effort between state funding and locally led solutions for the restoration and conservation of the water resources of the state. The purpose of the AWPF is to provide monies through a competitive public grant process for implementation of measures to protect water of sufficient quality and quantity to maintain, enhance, and restore rivers and streams and associated riparian resources consistent with existing water law and water rights.

The Arizona Water Protection Fund Commission (Commission), which oversees the AWPF, is comprised of 9 appointed citizen based voting members, 2 non-voting state agency ex-officio members, and 2 non-voting advisory members from the State Legislature. Commissioners represent a variety of land, water use and riparian perspectives.

The AWPF was intended to be a proactive response to possible federal intervention in Arizona's river and riparian resource issues. The program was partially created to promote the use of incentives emphasizing local implementation rather than regulation to address resource concerns. As such, the Commission's philosophy has been to utilize a grass roots approach to improving river and riparian resources statewide. The program is operated through a competitive grant process that asks the public to propose local solutions rather than having the State dictate specific measures, priorities or areas of concern.

Arizona's water resources and associated riparian areas are important resources to the people of Arizona for a multiple of uses to include agriculture, recreation, wildlife habitat, residential and industrial uses. Proper land and watershed management strategies can make a profound difference in water quality and quantity, as well as, the economic and environmental values of our rivers and riparian ecosystems.

From 1994 to 2017, the Commission has invested in over 190 projects and contributed over \$37 million toward the restoration, protection and enhancement of river and riparian resources in Arizona. As a result, Arizona citizens have realized many benefits from these investments through improvements in water quality, in-stream flows/water supplies, biodiversity, fish and wildlife habitat, recreation, flood control and overall watershed functionality and sustainability. In addition, important socioeconomic benefits such as jobs and revenue streams are realized by many local communities through the implementation of AWPF projects.

Arizona Water Protection Fund Creation and Purpose

The 1994 Arizona Legislature established the Arizona Water Protection Fund (AWPF) and the Arizona Water Protection Fund Commission (Commission) to administer the AWPF (A.R.S. § 45-2101 et seq.). In passing the enabling legislation, the Legislature declared that their policy was to provide for a coordinated effort for the restoration and conservation

of the water resources of the state. The policy was designed to allow the people of Arizona to prosper while providing financial resources for the conservation and restoration of this State's rivers, streams and associated riparian habitats, including dependent fish and wildlife resources. The law mandates that financial resources be available through grants to appropriate public and private entities to assist in water resource management activities that are consistent with that policy (A.R.S. § 45-2101 (A)).

The primary purpose of the AWPf by statute is to provide an annual source of funds for the development and implementation of measures to protect water of sufficient quality and quantity to maintain, enhance and restore rivers, streams and associated riparian resources, including fish and wildlife resources that are dependent on these important habitats, consistent with existing water law and water rights, and measures to increase water availability. The Commission may also provide funding to develop and protect riparian habitats in conjunction with a man-made water resource project, if the man-made water resource project directly or indirectly benefits a river or stream and includes or creates a riparian habitat.

Program Organization

Arizona Water Protection Fund Commission

The Commission is the main policy making body for the AWPf. The Commission is comprised of 9 voting members who must be Arizona residents and are appointed by various officials who, by statute, represent a variety of land, water use and socioeconomic perspectives. In addition, several of the appointed positions require technical expertise in water, natural resources and riparian ecology. There are also two non-voting ex officio members – the Director of the Arizona Department of Water Resources and the Commissioner of the Arizona State Land Department and two non-voting advisory members from the Arizona State House of Representatives (1) and Arizona State Senate (1). A list of current Commissioners and vacancies is provided in Table 1. Legislation was introduced during FY 2013 to change the number of Commission members from 15 to 9 as well as a change to the representative categories.

Arizona Water Protection Fund Administration

The Arizona Department of Water Resources (ADWR) provides the primary technical, legal and administrative staff to the Commission. The AWPf is managed by its Executive Director under the direction of the Commission. Staffing for the program during FY 2017 included an Executive Director, one Legal Counsel, one Finance Administrator and one Administrative Assistant.

Commission Member Name	Statutory Category Represented – Affiliation	Appointing Authority
Paradzick, Charles *	(1)Agricultural Improvement District -SRP	Governor
Jacobs, Pat **	(1) Multi-County Water Conservation District – Central Arizona Project (CAP)	District Governing Board (CAWCD)
Brick, Harold Paul	(4) Natural Resource Conservation Districts – San Pedro Natural Resource Conservation District	Speaker of the House of Rep.
Macauley, Michael	(4) Natural Resource Conservation Districts – Coconino Natural Resource Conservation District	Senate President
Pierpoint, Roy	(4) Natural Resource Conservation Districts – Gila Bend, Natural Resource Conservation District	Senate President
Schock, William	(1) Representative, AZ Natural Resource Conservation Districts State Association	Governor
VACANT	(4) Natural Resource Conservation Districts –	Speaker of the House of Rep.
VACANT	(1) Indian Tribe	Intertribal Council of Arizona
Holmes, Mark	(1) Member of the Public – B.S. Hydrology- City Service by CAP	Governor
Buschatzke, Tom	Non-Voting Ex Officio Member	Director, Department of Water Resources
Atkins, Lisa	Non-Voting Ex Officio Member	State Land Commissioner
Griffin, Gail	Non-voting advisory member (1)AZ State Senate	Senate President
Brophy-McGee, Kate	Non-voting advisory member (1)AZ House of Representatives	Speaker of the House of Rep.
*Commission Chair **Commission Vice-Chair		

Accomplishments FY 2017

In FY 2017, a grant cycle was held beginning with the release of the application packet in August 2016 and grant awards being made in January 2017. There was a total of 8 applicants requesting \$1,605,415.00 in grant funding. Of these applicants, 5 projects were awarded a total of \$897,405.00 in funding.

In 2017, Arizona Water Protection Fund staff managed 8 active grant projects and provided technical assistance to grantees. Of these projects, 5 contracts were closed out after project completion (see project descriptions below). To date, the Commission has invested in over 190 projects and contributed over \$37 million toward the restoration, protection and enhancement of river and riparian resources in Arizona. A wide range of projects have been funded including but not limited to channel restoration, riparian revegetation, wetland creation/restoration, fencing and other grazing management improvements, upland restoration, erosion control, conservation education and applied ecological research. Arizona citizens have realized many benefits from these investments through improvements in water quality, in-stream flows/water supplies, biodiversity, fish and wildlife habitat, recreation, flood control and overall watershed health. Not only do communities rely on these watersheds and riparian areas for a general water source, but also for recreation, eco-tourism, fishing/hunting, birdwatching, and agricultural operations. Important socioeconomic benefits such as employment opportunities and increased revenue streams are realized by many local communities through the implementation of AWPf projects. Several of the projects completed and ongoing include the control of invasive species such as Tamarisk which is a fire hazard, effects soil nutrients, and consumes large amounts of water. A complete list of projects and a location map are included in Appendix A.

FY 2017 Active Grant Projects

07-141WPF: Picture Canyon Rio de Flag Meander Restoration Project

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
150	City of Flagstaff	Coconino	\$582,279.00	Completed

Project Description: Phase I of this project has restored the fluvial processes of the Rio de Flag and enhanced the riparian corridor for habitat, recreation, and aesthetics in the Picture Canyon area. Specific objectives included restoring channel meander and floodplain function, eliminating noxious weeds, restoring native riparian and wetland plant communities, increasing plant species diversity, creating additional wetland habitats, improving water quality, increasing wildlife habitat, and providing recreational benefits. Phase II of this project will complete similar work in the upstream reach.



Completion Summary and Lessons Learned:

Picture Canyon Rio de Flag Meander Restoration project was designed to restore a highly degraded reach of the Rio de Flag surrounding Picture Canyon, a basalt canyon full of petroglyphs and other Sinagua artifacts. The project is located on the east side of Flagstaff just downstream of the outfall from Wildcat Hills Waste Water Treatment Plant. The Rio de Flag, a primarily ephemeral channel, is the main watercourse winding through Flagstaff. However, the reach through Picture Canyon is perennial due to the high-quality effluent discharged from the water reclamation facility just upstream of the canyon. The project area is highly valued for recreation because of its significant cultural and archaeological

resources, its natural and geologic beauty, its location on the Arizona and Flagstaff Urban trails, and the presence of a rare northern Arizona riparian ecosystem within city limits.

Construction was complete on Phase 1 in October 2010. Upstream of the canyon a deepwater wetland pond was created at the outfall of the reclamation plant and a shallow meandering channel was created from the pond outlet to the Rio de Flag. Below the canyon the historic meanders were reconnected to the channel, spoil piles were removed, and the majority of the effluent ditch was filled in leaving some as backwater wetland habitat. The pond, channel and floodplain were revegetated with native willows, sedges, grasses, trees and shrubs.

In Phase 2 construction was completed in October 2014. Debris and fill were removed from the site, the channel bottom and banks were reshaped to form a functioning floodplain, and a berm was created to screen wildlife habitat and a pedestrian trail from adjacent industrial activities. Native grass and forb seed was spread over all disturbed areas, sedge plugs were planted in the wetlands and the berm was planted with native trees and shrubs.

Since construction was completed, no changes in channel geometry have been observed at any of the monitoring cross sections in Phase 1 and the channel has remained stable. The water control structures are functioning as designed. In Phase 2 the channel and wetlands are stable and functioning as designed.

There have been thirteen separate weed treatments over the last eight years that have been conducted by professional crews. In addition, there have been numerous volunteer efforts aimed at weed removal. Overall, there has been an enormous effort to manage the invasive species at the restoration site and it has been highly successful. Native vegetation is flourishing on site and invasive species have been severely curtailed. However, weed seeds remain in the soil seedbank and many seeds are brought onto the site through wind and floodwaters every year. The intensive weed management has allowed the vegetation at Picture Canyon to shift to a system now dominated by native vegetation but despite all the effort a large number of invasive species continue to germinate every year.

09-165WPF: Alpine Ranger District Riparian Improvement

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
174	National Wild Turkey Federation	Apache	\$372,579.00	Completed

Project Description: This project is now being implemented and is intended to improve water quality, riparian vegetation, wild turkey nesting and brood habitat, and threatened, endangered and sensitive species habitats on eight riparian sites on the Apache-Sitgreaves National Forests. This project includes forest thinning, constructing fence exclosures, spring box restoration, and creek crossing modifications working in coordination with the U.S.D.A. Forest Service's Alpine Ranger District.



Completion Summary and Lessons Learned:

Over the course of this project, with the delays, the Wallow Fire, and permit issues, there were good results at all 8 project sites. Conifer thinning at the Campbell Blue site resulted in less canopy cover resulting in additional sunlight reaching the forest floor. This additional sunlight resulted in an increase of herbaceous vegetation, but the

site has also been subjected to large scale floods which scoured the drainage bottom and resulted in the movement of large amounts of rock and boulders, along with significant amounts of sediment being deposited in the floodplain. Along with impacts of the Wallow Fire, the thinning project resulted in positive effects on this site.

Modifications made to spring boxes at the Three Forks project site are fully expected to provide long-term protections for the Endangered Three Forks Springsnail. Experimental protective measures to exclude invasive crawfish are expected to provide suitable habitat for springsnails but not allow crawfish to successfully sustain themselves. The Arizona Game and Fish Department continues to conduct annual surveys of the Three Forks springsnail population and results will be measured through these efforts. Related work along Boneyard Creek also focused on Three Forks Springsnail conservation using different techniques. Small enclosure fencing was placed to protect off-channel spring runs and willow sprouts. These enclosures are an attempt to protect these fragile sites from physical damage such as might be caused by elk wallows. AZGFD will also survey these sites annually for springsnail abundance. Also along Boneyard Creek, at the Clabblar City site, debris left over from former human activity was removed and hauled off.

The final site treated was Upper San Francisco River project site, the largest site of Bebb's willow protection. This large meadow has multiple stands of Bebb's willow, along with other willow species, alder and aspen. Based on remote digital camera monitoring at this site there is also a healthy elk population using the area. Sprouts were once again documented on the Bebb's willows in this meadow following the installation of the 8' tall fence. As with the previous 4 sites, Bebb's willow sprouts were abundant and individual trees exhibited vigorous growth during the 2014 and 2015 monitoring efforts. The greatest threat to this project is falling trees. The Wallow Fire burned along the south edge of the meadow damaging some trees. Trees are also found along the north side of the enclosure. As with any fence built in the forest, falling trees will impact it. Close monitoring over the next 20 years will help resolve this issue. Herbaceous vegetation in the meadow will be protected from impacts of grazing and browsing ungulates and should continue to exhibit conditions expected in a high elevation wet meadow.

In 2013 and 2014, a survey team surveyed Three Forks Springsnail abundance and presence at Three Forks, Boneyard Creek and Boneyard Bog. In 2013, these surveys took

place 12 – 14 August with 1,256 individual snails being documented at 11 of the 26 sites surveyed. Of the 26 sites surveyed, no snails were documented at 15 sites. At the 11 sites snails were documented at, the range of snails was 1 – 797 individuals, with a mean of 141.2 snails at each of those 11 sites. In 2015, from 23 -25 June, snail surveys were conducted at 27 sites, with snails documented at 12 sites, and zero snails documented at the remaining 15 sites. A total of 2,170 snails were documented at the 12 sites for a mean of 180.8 snails at each site and a range of 6 – 758. The modification of spring boxes to keep crayfish out appears to have been successful.

11-180WPF: Pakoon Wash and Pakoon Springs Restoration and Enhancement Project

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
186	USDI Bureau of Land Management	Mohave	\$306,353.00	Completed

Project Description: Pakoon Springs has been identified as one of the largest and most important spring complexes on the Arizona Strip. This project is a continuation of work that was implemented with AWPF funding under Grant Number 06-137WPF, which restored the Pakoon Springs and stream channel complex to natural conditions. The agricultural irrigation conveyances have been removed and the land has been recontoured and revegetated resulting in multiple restored natural spring features. Perennial flows were reestablished into Pakoon Wash after flows were redirected. As a result, the largest perennial stream in Grand Canyon-Parashant National Monument was recreated. That AWPF funded project was recently selected by the BLM as the most successful conservation partnership of the Conservation Lands System.

This project is to continue removal of non-native species, reestablish vegetated historic floodplain conditions, restore proper ecosystem function, enhance project monitoring, collaborate with other habitat and fish and wildlife management agencies, develop strategies for translocation of significant rare native species, and develop a unique field site for education and interpretation efforts in this important area. The channel will be recontoured to restore natural stream function. Bullfrog eradication will continue and translocation of two high priority native species includes the rare native relict leopard frog.



Completion Summary and Lessons Learned:

Over the life of the entire Pakoon Springs rehabilitation project, earthmoving activities have generally shifted the hardscape to a more natural-appearing landscape. Ponds now resemble spring mounds and seeps; flattened agricultural fields have dips and sways. During this grant, though not part of the funding request, the final pond was removed, making the entire site look much more like an unmodified desert spring complex. Also, the artificial berms at the southern end of the fenced ranch core were removed, reconnecting the area to the existing wash system to the west of the large dry wash on the eastern edge of the fenced area.

A lack of data at the time of project design, mainly aerial imagery, resulted in contouring which continues to erode and gabion placement which impeded flow. The damaged gabions were removed.

As Pakoon Springs has recovered from the several earthmoving events, invasion by burros, and flooding during the rehabilitation process, the vegetative structure and species prevalence has changed dramatically. Although on a positive trajectory in 2012, the diversity of vegetation in certain areas has decreased. Vegetation overall is expected to continue to shift as the site responds to rehabilitation work and successional processes.

Surveys conducted over the span of this grant have found that Pakoon Springs is used by a diverse group of organisms and casual observations indicate species diversity has increased. Invasive animals continue to be a stumbling block for the future introduction of rare vertebrates to Pakoon Springs. Setbacks for this project were due to many factors: Incomplete data during the planning phase, Federal sequestration, security risks in the area, weather events, changing agency directives and personnel.

11-181WPF: Hidden Slough and Leopard Frog Marsh Restoration in Glen Canyon National Recreation Area, AZ

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
187	Grand Canyon Wildlands Council	Coconino	\$348,901.00	Completed

Project Description: This project is a 3 year effort initiated by the grantee to assist the National Park Service (NPS) by undertaking riparian restoration and monitoring in the Glen Canyon National Recreation Area downstream from Glen Canyon Dam at two sites. The sites are Hidden Slough, located at river mile 6.5Right, and Leopard Frog Marsh at River Mile 9Left. The grantee has implemented many successful projects in Glen and Grand Canyons including tamarisk control and revegetation of 6 acres at Hidden Slough from 2008 to 2010 and they have constructed a native plant nursery at Lee's Ferry. This project will quantitatively and qualitatively evaluate the recent tamarisk removal and revegetation at Hidden Slough, complete tamarisk control, complete the native

revegetation process, phase out the on-site irrigation infrastructure, and develop and test a monitoring program for the NPS. The results of these activities are to guide restoration at Leopard Frog Marsh, which will include habitat restoration planning, tamarisk control, native revegetation and reintroduction of the Northern leopard frog on approximately 1 to 1.5 acres.



Completion Summary and Lessons Learned:

All remaining Tamarix in the Hidden Slough site were cut using hand tools as low to the ground as was practical. The cuttings were piled along the shoreline to serve as bank erosion control. Tamarisk sprouts were cut annually with hand tools throughout the duration of the project. Structure was added on the

upper terrace to create different ecological conditions and shelter for insects, reptiles and small mammals. More than 168 native phreatophyte tree species were planted and irrigated, providing complex, productive cover for wildlife. A few logs, from Tamarix cuttings were transported to the upper terrace for additional cover. Additionally, some locally sourced rocks were moved onto the upper terrace from adjacent areas. The hydro-riparian/lower riparian zones of Hidden Slough were revegetated by planting and maintaining more than 150 native Goodding Willow and a few Fremont Cottonwood trees. In addition, annual seeding of the bar top with Fourwing Saltbush, Sporobolus dropseed, and pole planted Goodding's willow, seepwillow, and limited Fremont cottonwood in the lower riparian zone.

Vegetation mapping revealed that after two years the Hidden Slough site is beginning to recover from tamarisk stand removal and is becoming dominated by planted and naturally recruiting native wetland, phreatophyte, and upland plant species. Native ground and shrub cover increased to 60 and 10 %, respectively, during the two years following tamarisk removal.

Once the 2012 growing season was finished, and the decision by the Glen Canyon National Recreation Area (GLCA) was made to not support further irrigation for the following seasons, we removed all the water tanks, irrigation lines and equipment. The remaining useable equipment was placed in storage and the degraded piping was discarded. Photo-monitoring points were established for both restoration areas. No vegetation manipulation (tamarisk removal) for the Leopard Frog Marsh site was permitted by the cooperating agencies.

The information assembled from a literature review and from analysis of vegetation change on historic aerial photographs clearly demonstrated erratically increasing lower riparian zone vegetation cover over post-dam time. Hydrologic and physical changes over post-

dam time stabilized the lower riparian zone, fostering increased vegetation and on-going compositional changes, including long-term increase in cover but simplification of lower riparian zone vegetation composition; however, variation in flow regimes and the susceptibility of various colonizing species to prolonged flooding continue to influence assemblage colonization of the lower riparian zone. Such changes may warrant management attention, including rehabilitation of riparian sites, as proposed in this effort. Improved understanding of flow and rehabilitation management activities, coupled with integrated flow-sediment and vegetation monitoring and modeling, may help elucidate future management options.

At the close of this project the AZ Game and Fish Dept. determined, in coordination with the U.S. Fish and Wildlife Service and National Park Service, that the agencies will assess the habitat monitoring results from Leopard Frog Marsh through 2016. Based upon this review, the agency partners will then determine if more information is needed or if a decision regarding the reintroduction of northern leopard frogs can be made.

14-182WPF: Arundo Eradication & Riparian Restoration of Sabino and Bear Creek, Tucson, AZ

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
188	University of Arizona	Pima	\$51,262.00	February 28, 2018

Project Description: This proposal builds upon a six year effort of *Arundo donax* removal that began in Sabino Canyon Recreation Area in 2007 and that has fully removed the *Arundo* infestation from the Recreation Area and 1.71 miles of mostly private riparian land downstream from the Forest Service boundary. *Arundo donax* or giant reed/cane is a non-native plant to the United States that has become invasive along well-watered riparian areas throughout many Western states. *Arundo* degrades the riparian zone by choking native sycamore and mesquite trees with its rapid rate of growth and vast consumption of water, nutrients, and sunlight. *Arundo* is a fire hazard and provides no food to riparian dwellers. Previous removal efforts have proven effective, but still 2.58 miles of channel remains to be cleared down to the confluence of the Pantano and Rillito Washes. The three main goals: 1. Remove invasive *Arundo donax* from Sabino and Bear Creeks; 2. Improve conditions for riparian vegetation and wildlife; 3. Improve transmissions of flood flows. The objectives are: 1. Clear Pima County parcels in Upper and Lower Bear Creek; 2. Clear Canyon Ranch Resort/DeBernardis property along Middle Sabino Creek; 3. Clear Tankersley Estates property along Middle Sabino Creek; 4. Clear infestations in Lower Sabino Creek to the confluence of the Rillito; 5. Monitor previously cleared reaches of Sabino and Bear Creeks.

14-185WPF: Horseshoe Draw Flood Control, Restoration and Erosion Mitigation Study and Design Project

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
191	Hereford Natural Resource Conservation District	Cochise	\$198,625.00	Completed

Project Description: The Horseshoe Draw Project will take place on the Ladd Ranch, located outside of Sierra Vista, Arizona. The project will benefit the San Pedro River, the watershed and aquifer recharge. Head-cutting at Horseshoe Draw has caused severe erosion and therefore masses of sediment to be transferred downstream into the San Pedro River.

The project will consist of three phases. Phase I requires an engineering company to perform a feasibility study to determine the best method to prevent further soil erosion, control flooding and runoff, and prevent soil loss on the watershed. A preliminary look at the area determined a berm structure would be most suitable; however, this study is required to determine the proper structure or structures needed, and which would be most suitable, as well as the most effective locations for the construction of the berm(s). A berm structure would control the flow of water runoff, which is especially important during intermittent and intense seasonal flooding. Phase II includes a final project design based on findings from Phase 1. Phase III would be construction, which is not being funded through this grant award.



Photo: Completed Structure following close out of WPF Feasibility Study

Completion Summary and Lessons Learned:

The feasibility study found:

The project will be subject to limited state, county, and federal review and regulations. The impoundment structure will be classified as a non-jurisdictional structure as it does not meet the AZ Dept. of Water Resources (ADWR) definition of a jurisdictional dam being less than 6 feet high from the downstream toe. Water retained by the basin will drain within 24-hours, exempting the impoundment structure from water rights issues with ADWR. A permitting and compliance report was also submitted as a stand-alone document. The study provided justification for the construction of an embankment and detention basin using the comparison of existing and proposed conditions with respect to hydrologic and hydraulic analyses which demonstrated resulting reduced flows for smaller storm events. The final design report details the selected design features of the embankment and detention basin.

It is important to note for future feasibility studies that the grantee should not secure construction funding/grants until the feasibility study is complete. This caused some conflict during the project period and permitting process.

15-186: Phase II Gila River Corridor Invasive Weed Control

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
192	Coronado Resource Conservation and Development Area	Graham Greenlee	\$133,348.42	April, 30, 2019

Project Description:

This project is the second phase of invasive weed control along the Gila River corridor located in Graham and Greenlee counties. The Gila River corridor in Arizona includes several thousand acres of agricultural farmland and has been recognized as an important riparian and riverine habitat for many wildlife and fish species including the federally protected Southwestern willow flycatcher. The initial project (WPF 11-173) completed in 2015 identified and addressed barriers to treatment of invasive and noxious weeds in the area, as well as serving as an aid to the restoration of the native riparian vegetation within the corridor. Inventory of private land parcels for noxious weed presence was initiated in the spring of 2012 followed with treatment of targeted noxious weeds by participating landowners. Riparian tree cover class and composition transects were established adjacent to parcels where infestations were documented. This continued through 2014. The current project will continue to use a comprehensive, aggressive approach to address barriers to treatment and reach the project goal of restoring the native riparian area by controlling invasive weeds. The project area will be increased from ½ mile corridor to a 1 mile corridor. The goal of this project is to use an integrated Weed Management Program to

protect the integrity of the Gila River by controlling invasive weeds (Russian knapweed, White top, Malta and Yellow starthistle) from the 54 mile river corridor through Greenlee and Graham counties. The project includes an educational outreach component to make the community and landowners aware of the economic and biological impacts of invasive weeds and work with the county and community to look into long term sustainability of the program.

15-187: Upper Verde Habitat Improvement Project

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
193	Friends of Verde River Greenway	Yavapai	\$169,325.00	August 31, 2018

Project Description:

Invasive plants, such as Tamarisk, can impact ecosystem function significantly by altering wildlife habitat, soils, flow and fire regimes, vegetation structure, river geomorphology and biodiversity. This project focuses on the removal of invasives followed by monitoring and maintenance, and will contribute to a larger effort called the Verde River Cooperative Invasive Plant Management Plan (CIPMP). The CIPMP is a strategic approach to control prioritized invasive plants in the riparian areas of the Verde Watershed while increasing stakeholder collaboration. The tasks within this specific project further the larger goals of decreasing the impacts of non-native species to riparian areas; improve riparian wildlife/fish habitat; create local employment; and inform communities. The three main components of the project are: the removal of invasive plants (Tamarix spp. and Ailanthus altissima); monitor previously treated sites and maintain treated sites; provide the public with information about the project, the Water Protection Fund, the impacts of invasive plants and the function and value of riparian systems. Removal will occur on 390 acres/7.3 miles of the Upper Verde River on National Forest lands using a combination of manual, mechanical and chemical methods. Maintenance and monitoring will occur on 1406 acres of previously treated sites.

17-188: A&NC Focal Area Watershed Improvement Project

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
194	Arizona Association of Conservation Districts	Apache	\$303,975.00	July 31, 2019

Project Description:

The Brown Ranch consists of private, State and BLM lands which have been extensively invaded by juniper. Increased brush cover has reduced soil protection, increased flood runoff, increased

soil erosion and sediment production and impacted riparian vegetation. Brush control will improve the watershed condition and contribute to the goals of conserving resource productivity, enhancing wildlife, improving water quality and restoring riparian vegetation.

This is a “ground-ready” project intended to mechanically remove juniper on 2000 acres of upland in the Apache-Navajo County Focal Area of the Arizona Conservation Partnership.

17-189: Erosion Control to Stabilize Soils and Restore Historic Grasslands in the Upper Verde River Watershed

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
195	Town of Prescott Valley	Yavapai	\$138,183.00	April 30, 2019

Project Description:

Arizona has 13 million acres of woodland overgrown with juniper and chaparral species resulting in reduced herbaceous production. Per a feedstock study completed in 2016, Yavapai County has 962,101 acres of Pinyon Juniper woodlands in need of treatment.

The proposed project intends to demonstrate how landscape management can stabilize soils, increase opportunity for aquifer recharge, and restore historic grasslands through a combination of vegetation treatment and erosion control including 240 acres of pinion juniper (hand) thinning with byproducts used to engineer and build silt dams in eroded areas on private and leased state trust lands. The project area encompasses 1940 acres of the York-Kenson Ranch.

Historically, thinning projects have resulted in the cut pinion juniper material left in-situ to decompose or burned on site. The proposed unique approach utilizes thinned low-value woody biomass as the basis for erosion control structures to stabilize soils in gullies and upland areas.

17-190: River Restoration through Hazardous Fuels and Invasive Species Removal

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
196	Gila Watershed Partnership	Graham	\$94,903.00	February 28, 2019

Project Description:

Tamarisk (*Tamarix* spp.) has established a dense monotypic forest throughout the riparian corridor, out-competing native plant species, increasing wildfire frequency/intensity and altering terrestrial and aquatic wildlife habitat. As a response to this infestation, the tamarisk leaf beetle was released as a biocontrol agent to defoliate and limit tamarisk invasions. The vast stands of tamarisk, once

defoliated by the beetle, will then become more of a wildfire risk, and contribute to bank destabilization. The Gila Watershed Partnership (GWP) is working closely with a variety of public and private partners to secure the necessary funding to implement riparian restoration through the Gila River corridor. This proposed project is an important component of this effort.

This is a two-year project intended to provide for the restoration of 100 acres of riparian forest on the Upper Gila River. The project will promote functioning riparian areas, increase water availability by reducing demand from dense tamarisk forests, reduce risks to landowners relating to flooding and wildfire, protect, and enhance wildlife habitat and provide a replicable example for similar efforts around the state.

An ecohydrological assessment was completed to determine high and medium priority sites. Seven sites were chosen existing on federal and private lands. Control measures will include mechanical removal of tamarisk and herbicide treatments. Riparian restoration of these treated areas will include planting with native, less water intensive plant communities.

17-191: Verde River Habitat Improvement Project

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
197	Friends of the Verde River Greenway	Yavapai	\$246,448.00	October 31, 2018

Project Description:

The proposed project intends to decrease the impacts of non-native species (tamarisk, tree of heaven, Russian olive, giant reed) to the Verde River within the AZ State Parks: Verde River Greenway and Dead Horse Ranch. There are three elements to the project: 1) Monitor invasive plant regrowth from already treated areas; 2) Retreat re-growth; 3) Engage the local community through two volunteer stewardship events.

17-192: Lower Verde River Riparian Restoration Project

Map #	Grantee	County	AWPF Funding	Estimated Completion Date
198	Ft. McDowell Yavapai Nation	Maricopa	\$113,896.00	October 31, 2019

Project Description:

This project is located along the lower Verde River within the boundaries of the Fort McDowell Yavapai Nation and intends to continue restoration efforts through the control of invasive plant species which threaten the biodiversity and overall health of the riparian areas. Specifically: 1) Promote and establish native riparian habitat in preparation for the eventual arrival of the tamarisk beetle and the subsequent defoliation, loss of habitat and

increased wildfire risk; 2) Increase community and youth engagement with the Fort McDowell Yavapai Nation to encourage environmental stewardship.

The objectives of this project are: Continue to implement an invasive plant management plan to retreat giant reed and tree tobacco; Develop a restoration manual; Develop and implement a restoration plan at a 30-acre Pilot Project Site; Monitor invasive plant treatments and restoration efforts; Incorporate a youth and community outreach effort.

Conclusion

In the upcoming fiscal year, the Commission, staff and grantees will continue to make substantial progress toward the restoration, protection and enhancement of river and riparian resources throughout the State.

The Fund received an appropriation of \$250,000.00 from the Arizona General Fund in FY 2018. The Commission is committed to approving projects that are fiscally responsible and beneficial to the citizens of Arizona.

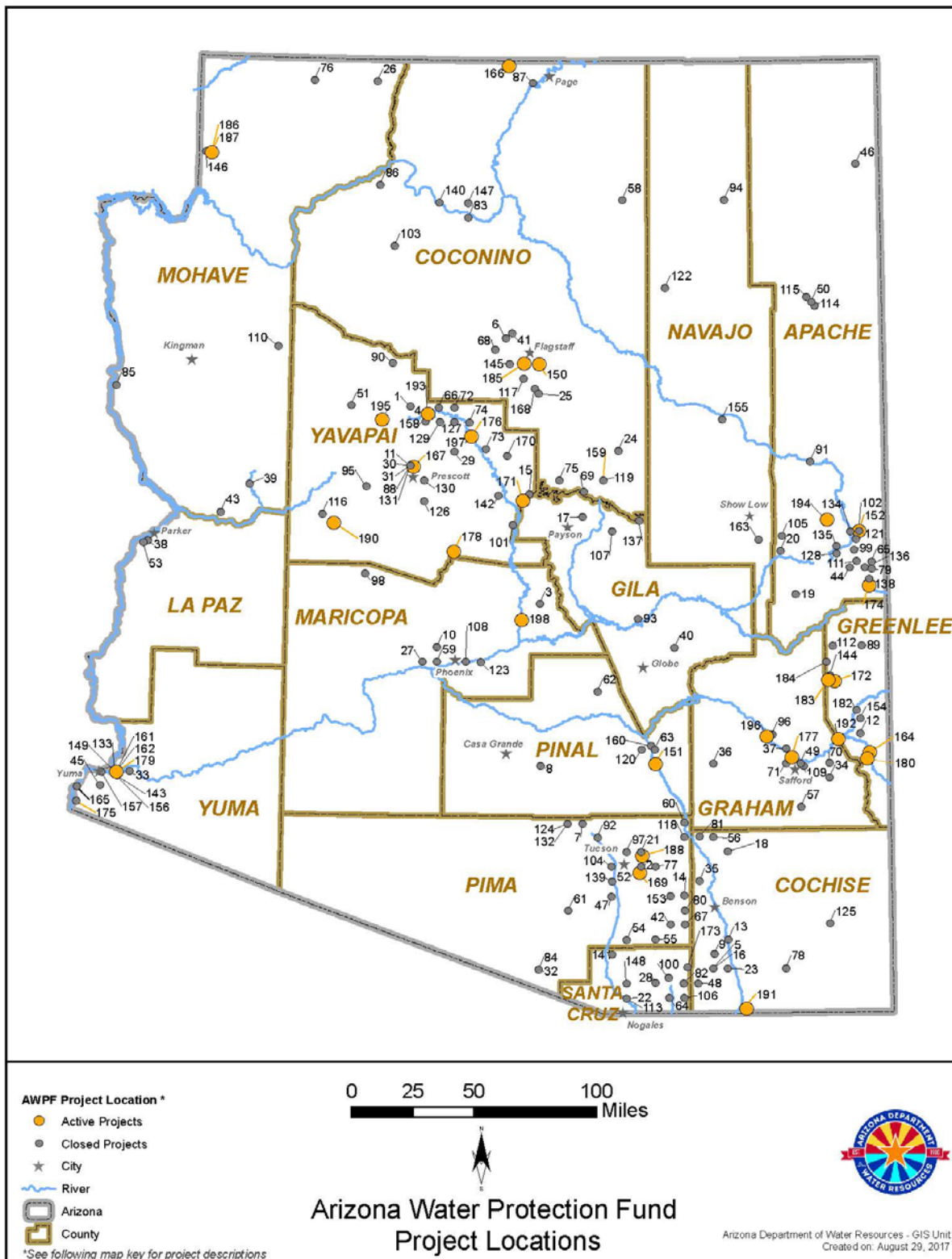
All final reports for funded projects from 2007-2017 can be viewed on the WPF website: www.azwfpf.gov. Final reports generated prior to 2007 can be requested from the Executive Director of the Water Protection Fund.



Photo: WPF Commissioner Bill Schock participating in the ribbon cutting ceremony for the Horseshoe Draw Flood Control project near Hereford, Arizona.

Appendix A: Map and List of AWPF Projects

The Map and List of AWPF Projects contain a compilation of grants awarded between FY 1995 - 2017 that have been implemented through contracts and had expenditures made against the grant award.



List of AWPf Projects with Map Key

Map #	Grant #	Project Title	Grant Amount	County	Project Status
1	95-001	Stable Isotope Assessment of Groundwater and Surface Water Interaction: Application to the Verde River Headwaters	\$21,508.00	YAVAPAI	Closed
2	95-002	Partnership for Riparian Conservation in Northeastern Pima County (PROPIMA)	\$78,100.00	PIMA	Closed
3	95-003	Sycamore Creek Riparian Management Area	\$115,522.00	MARICOPA	Closed
4	95-004	Road Reclamation to Improve Riparian Habitat Along the Hassayampa and Verde Rivers	\$45,693.00	YAVAPAI	Closed
5	95-005	Preservation of the San Pedro River Utilizing Effluent Recharge	\$333,863.00	COCHISE	Closed
6	95-006	Critical Riparian Habitat Restoration along a Perennial Reach of a Verde River Tributary	\$102,535.00	COCONINO	Closed
7	95-007	High Plains Effluent Recharge Project	\$189,000.00	PIMA	Closed
8	95-008	Picacho Reservoir Riparian Enhancement Project	\$2,400,000.00	PINAL	Closed
9	95-009	Regeneration and survivorship of Arizona Sycamore	\$34,617.00	COCHISE	Closed
10	95-010	Assessment of the Role of Effluent Dominated Rivers in Supporting Riparian Functions	\$46,750.00	MARICOPA	Closed
11	95-012	The Comprehensive Plan for the Watson Woods Riparian Preserve	\$33,267.34	YAVAPAI	Closed
12	95-014	Gila Box Riparian and Water Quality Improvement Project	\$157,223.00	GREENLEE	Closed
13	95-015	San Pedro RNCA Watershed Rehabilitation/Restoration Project	\$286,000.00	COCHISE	Closed
14	95-016	Refinement of Geologic Model, Lower Cienega Basin, Pima County, Arizona	\$7,390.00	PIMA	Closed
15	95-017	Restoration of Fossil Creek Riparian Ecosystem	\$59,693.00	YAVAPAI	Closed
16	95-018	Autecology and Restoration of Sporobolus Wrightii Riparian Grasslands in Southern Arizona	\$53,734.00	COCHISE	Closed
17	95-019	Quantifying Anti-Erosion Traits of Streambank Graminoids	\$14,910.00	GILA	Closed
18	95-020	Teran Watershed Enhancement	\$142,378.38	COCHISE	Closed
19	95-021	Lofer Cienega Restoration Project	\$161,204.00	APACHE	Closed
20	95-022	Gooseberry Watershed Restoration Project	\$126,406.00	APACHE	Closed
21	95-023	Sabino Creek Riparian Ecosystem Protection Project	\$16,385.00	PIMA	Closed
22	95-024	Potrero Creek Wetland Characterization and Management Plan	\$75,300.00	SANTA CRUZ	Closed
23	96-0001	San Pedro Riparian National Conservation Area Watershed Protection and Improvement Project	\$89,250.00	COCHISE	Closed
24	96-0002	Completion Phase: Hi-Point Well Project	\$77,844.40	COCONINO	Closed
25	96-0003	Hoxworth Springs Riparian Restoration Project	\$31,545.00	COCONINO	Closed
26	96-0004	Hydrologic Investigation & Conservation Planning: Pipe Springs	\$50,000.00	MOHAVE	Closed
27	96-0005	Tres Rios-River Management and Constructed Wetlands Project	\$1,000,000.00	MARICOPA	Closed
28	96-0006	Hydrogeologic Investigation of Groundwater Movement and Sources of Base Flow to Sonoita Creek and Implementation of Long-Term Monitoring Program	\$155,715.00	SANTA CRUZ	Closed
29	96-0007	Ash Creek Riparian Protection Project	\$19,248.00	YAVAPAI	Closed
30	96-0008	Watson Woods Vegetation Inventory	\$16,115.00	YAVAPAI	Closed
31	96-0009	Watson Woods Riparian Preserve Visitor Management	\$8,556.79	YAVAPAI	Closed
32	96-0010	Rehabilitating the Puertocito Wash on the Buenos Aires National Wildlife Refuge.	\$83,432.00	PIMA	Closed

List of AWPf Projects with Map Key

33	96-0011	Lower Colorado River - Imperial Division Restoration	\$435,928.00	YUMA	Closed
34	96-0012	Eagle Creek Watershed and Riparian Stabilization	\$80,626.00	GRAHAM	Closed
35	96-0013	Happy Valley Riparian Area Restoration Project	\$64,697.00	COCHISE	Closed
36	96-0014	Klondyke Tailings Response Strategy Analysis (RSA)	\$77,614.00	GRAHAM	Closed
37	96-0015	Abandonment of an Artesian Geothermal Well	\$113,360.00	GRAHAM	Closed
38	96-0016	'Ahakhav Tribal Preserve	\$1,131,477.00	LA PAZ	Closed
39	96-0017	Big Sandy River Riparian Project	\$92,000.00	MOHAVE	Closed
40	96-0018	San Carlos Spring Protection Project	\$131,540.00	GILA	Closed
41	96-0019	Response of Bebb Willow to Riparian Restoration	\$33,752.00	COCONINO	Closed
42	96-0020	Cienega Creek Stream Restoration	\$210,700.00	PIMA	Closed
43	96-0021	Riparian Vegetation and Stream Channel Changes Associated with Water Management along the Bill Williams River	\$14,788.00	MOHAVE	Closed
44	96-0022	Saffell Canyon and Murray Basin Watershed Restoration Project	\$24,316.00	APACHE	Closed
45	96-0023	Watershed Restoration at the Yuma Conservation Gardens	\$31,050.00	YUMA	Closed
46	96-0025	Tsaile Creek Watershed Restoration Demonstration	\$152,775.00	APACHE	Closed
47	96-0026	Riparian Restoration on the San Xavier Indian Reservation Community	\$591,319.00	PIMA	Closed
48	97-027	Lyle Canyon Allotment Riparian Area Restoration Project	\$60,359.57	COCHISE	Closed
49	97-028	Creation of a Reference Riparian Area in the Gila Valley – Discovery Park	\$182,000.00	GRAHAM	Closed
50	97-029	Demonstration Enhancement of Riparian Zone and Stream Channel along stretch of Pueblo Colorado Wash at Hubbell Trading Post	\$91,110.00	APACHE	Closed
51	97-030	Walnut Creek Center for Education and Research - Biological Inventory	\$50,580.00	YAVAPAI	Closed
52	97-031	Lincoln Park Riparian Habitat Project (f.k.a. Atturbury Wash Project)	\$154,580.00	PIMA	Closed
53	97-032	'Ahakhav Tribal Preserve - Deer Island Revegetation	\$228,800.00	LA PAZ	Closed
54	97-033	Proctor Vegetation Modification	\$11,487.00	PIMA	Closed
55	97-034	Oak Tree Gully Stabilization	\$42,491.00	PIMA	Closed
56	97-035	Watershed Improvement to Restore Riparian & Aquatic Habitat on the Muleshoe Ranch CMA	\$128,315.00	COCHISE	Closed
57	97-036	Stable Isotopes as Tracers of Water Quality Constituents in the Upper Gila River	\$27,338.00	GRAHAM	Closed
58	97-037	Talastima (Blue Canyon) Watershed Restoration Project	\$310,192.00	COCONINO	Closed
59	97-038	Tres Rios Wetlands Heavy-Metal Bioavailability and Denitrification Investigation	\$117,028.00	MARICOPA	Closed
60	97-040	Bingham Cienega Riparian Restoration Project	\$84,679.00	PIMA	Closed
61	97-041	Altar Valley Watershed Resource Assessment	\$88,730.00	PIMA	Closed
62	97-042	Queen Creek Restoration & Management Plan	\$207,595.00	PINAL	Closed
63	97-044	San Pedro River Preserve Riparian Habitat Restoration Project	\$336,127.00	PINAL	Closed
64	97-045	Santa Cruz Headwaters Project	\$100,445.00	SANTA CRUZ	Closed
65	98-046	EC Bar Ranch Water Well Project	\$20,300.00	APACHE	Closed
66	98-047	Upper Verde Adaptive Management Unit	\$115,300.00	YAVAPAI	Closed
67	98-049	Empire/Cienega/Empirita Fencing Project	\$54,850.00	PIMA	Closed
68	98-050	Watershed Restoration Of A High-Elevation Riparian Community	\$304,775.00	COCONINO	Closed

List of AWPf Projects with Map Key

69	98-051	Evaluation of Carex Species for Use in Riparian Restoration	\$47,907.00	COCONINO	Closed
70	98-052	Tritium As A Tracer Of Groundwater Sources And Movement In The Upper Gila River Drainage	\$41,028.00	GRAHAM	Closed
71	98-054	Fluvial Geomorphology Study And Demonstration Projects To Enhance And Restore Riparian Habitat On The Gila River From The New Mexico Border	\$449,872.00	GRAHAM	Closed
72	98-055	Horseshoe Allotment: Verde Riparian Project II	\$82,561.99	YAVAPAI	Closed
73	98-057	Upper Verde Valley Riparian Area Historical Analysis	\$44,019.00	YAVAPAI	Closed
74	98-058	Effects Of Removal Of Livestock Grazing On Riparian Vegetation And Channel Conditions of Selected Reaches of the Upper Verde River	\$116,500.00	YAVAPAI	Closed
75	98-059	Verde River Headwaters Riparian Restoration Demonstration Project	\$204,629.00	COCONINO	Closed
76	98-061	Watershed Enhancement on the Antelope Allotment	\$137,307.00	MOHAVE	Closed
77	98-062	Partnership For Riparian Conservation In Northeastern Pima County II	\$54,734.55	PIMA	Closed
78	98-066	Hay Mountain Watershed Rehabilitation	\$116,525.00	COCHISE	Closed
79	99-067	EC Bar Ranch Wildlife Drinker Project	\$30,500.00	APACHE	Closed
80	99-068	Lower Cienega Creek Restoration Evaluation Project	\$83,272.00	PIMA	Closed
81	99-069	Riparian and Watershed Enhancements On the A7 Ranch - Lower San Pedro River	\$521,197.45	COCHISE	Closed
82	99-070	Lyle Canyon Allotment Riparian Area Restoration Project --- Phase 2	\$214,211.00	SANTA CRUZ	Closed
83	99-071	Protection Of Spring and Seep Resources of The South Rim, Grand Canyon National Park By Measuring Water Quality, Flow and Associated Biota	\$238,953.00	COCONINO	Closed
84	99-072	Leopard Frog Habitat and Population Conservation At Buenos Aires National Wildlife Refuge	\$120,485.00	PIMA	Closed
85	99-073	Colorado River Nature Center Backwater ---- Phase 2	\$41,500.00	MOHAVE	Closed
86	99-074	Proposal to Inventory, Assess And Recommend Recovery Priorities For Arizona Strip Springs, Seeps and Natural Ponds	\$101,856.00	COCONINO	Closed
87	99-075	Glen and Grand Canyon Riparian Restoration Project	\$371,285.00	COCONINO	Closed
88	99-076	Watson Woods Preserve Herpetological Interpretive Guide and Checklist	\$31,255.55	YAVAPAI	Closed
89	99-077	Blue Box Crossing	\$150,000.00	GREENLEE	Closed
90	99-078	Aquifer Framework And Ground-Water Flow Paths In Big and Little Chino Basins	\$188,140.00	YAVAPAI	Closed
91	99-079	Little Colorado River Riparian Restoration Project	\$404,587.00	APACHE	Closed
92	99-080	Cortaro Mesquite Bosque	\$486,650.00	PIMA	Closed
93	99-083	Cherry Creek Enhancement Demonstration Project	\$263,225.00	GILA	Closed
94	99-084	Assessments of Riparian Zones in the Little Colorado River Watershed	\$79,443.50	NAVAJO	Closed
95	99-085	Kirkland Creek Watershed Resource Assessment	\$131,430.00	YAVAPAI	Closed
96	99-086	Abandonment of Gila Oil Syndicate Well #1	\$333,790.00	GRAHAM	Closed
97	99-087	Rillito Creek Habitat Restoration Project	\$293,000.00	PIMA	Closed
98	99-088	Wickenburg High School Stream Habitat Creation	\$69,100.00	MARICOPA	Closed
99	99-089	Town of Eagar/Round Valley Water Users Association Pressure Irrigation Feasibility Study & Preliminary Design	\$320,540.00	APACHE	Closed

List of AWPf Projects with Map Key

100	99-090	Redrock Riparian Improvement	\$62,350.00	SANTA CRUZ	Closed
101	99-091	Effects of Livestock Use Levels on Riparian Trees on the Verde River	\$41,417.00	YAVAPAI	Closed
102	99-092	Little Colorado River Enhancement Demonstration Project	\$348,627.94	APACHE	Closed
103	99-093	Coconino Plateau Regional Water Study	\$134,200.00	COCONINO	Closed
104	99-094	Santa Cruz River Park Extension	\$434,684.00	PIMA	Closed
105	99-095	Brown Creek Riparian Restoration	\$34,037.00	APACHE	Closed
106	99-096	Upper Santa Cruz Watershed Restoration	\$184,950.00	SANTA CRUZ	Closed
107	99-097	Dakini Valley Riparian Project	\$66,130.00	GILA	Closed
108	99-098	Rio Salado Habitat Restoration Project	\$950,408.00	MARICOPA	Closed
109	00-099	Gila Reference Riparian Area, Discovery Park	\$152,850.80	GRAHAM	Closed
110	00-100	Willow Creek Riparian Restoration Project	\$33,480.00	MOHAVE	Closed
111	00-101	Murray Basin and Saffell Canyon Watershed Restoration Project	\$260,727.83	APACHE	Closed
112	00-102	Upper Eagle Creek Restoration on East Eagle Allotment of Four Drag Ranch	\$66,330.00	GREENLEE	Closed
113	00-103	Riparian Restoration on the Santa Cruz River - Santa Fe Ranch	\$49,008.00	SANTA CRUZ	Closed
114	00-104	Continued Enhancement of Pueblo Colorado Wash at Hubbell Trading Post National Historic Site	\$69,349.00	APACHE	Closed
115	00-105	Hubbell Trading Post Riparian Restoration with Treated Effluent	\$81,951.00	APACHE	Closed
116	00-106	Tres Alamos Ranch Dirt-Tanks-To-Aquatic-Habitat Conversion	\$69,220.56	YAVAPAI	Closed
117	00-108	Lake Mary Watershed Streams Restoration Project	\$253,119.00	COCONINO	Closed
118	00-109	Lower San Pedro Watershed Project	\$249,871.00	PIMA	Closed
119	00-110	Upper Fairchild Draw Riparian Restoration	\$35,515.00	COCONINO	Closed
120	00-111	Cooperative Grazing Management For Riparian Improvement on the San Pedro	\$228,701.00	PINAL	Closed
121	00-112	Town of Eagar/Round Valley Water Users Assoc. - Additional Mapping For Water Quality Improvements in the Watershed	\$151,829.00	APACHE	Closed
122	00-113	Polacca Wash Grazing Management	\$267,511.00	NAVAJO	Closed
123	00-114	The Papago Park Green Line Project	\$229,152.00	MARICOPA	Closed
124	00-115	Tucson Audubon Society North Simpson Farm Riparian Recovery Project	\$127,409.30	PIMA	Closed
125	03-116	Cottonwood Creek Restoration	\$185,772.50	COCHISE	Closed
126	03-117	Lynx Creek Restoration at Sediment Trap #2	\$179,771.50	YAVAPAI	Closed
127	03-118	Verde River Riparian Area Partnership Project	\$111,221.00	YAVAPAI	Closed
128	03-119	Wet Meadows for Water Quality and Wildlife - A Riparian Restoration Project	\$137,027.30	APACHE	Closed
129	04-120	Verde Headwaters 3-D Hydrogeological Model Framework and Visualization	\$46,634.00	YAVAPAI	Closed
130	04-121	Lynx Creek Restoration	\$266,020.00	YAVAPAI	Closed
131	04-122	Watson Woods Riparian Preserve Restoration Feasibility Project	\$183,523.80	YAVAPAI	Closed
132	04-123	Tucson Audubon Society, Santa Cruz River Habitat Project, North Simpson Site, Phase 2	\$130,786.00	PIMA	Closed
133	04-124	Yuma East Wetlands Riparian Revegetation Project	\$285,878.25	YUMA	Closed
134	05-125	Wilkins' Family Little Colorado River Riparian Enhancement Project	\$293,618.00	APACHE	Closed

List of AWPf Projects with Map Key

135	05-126	X Diamond Ranch LCR Riparian Enhancement Project	\$352,119.00	APACHE	Closed
136	05-127	EC Bar Ranch Reach 8 Water Well and Drinker Project	\$22,235.00	APACHE	Closed
137	05-128	Canyon Creek Riparian Restoration Project, Reach 4-5	\$106,919.00	GILA	Closed
138	05-129	Georges Lake Riparian Restoration Project	\$168,636.50	APACHE	Closed
139	05-130	Riparian Restoration on the San Xavier District - Project Two	\$36,353.00	PIMA	Closed
140	05-131	Management & Control of Tamarisk and Other Invasive Vegetation at Backcountry Seeps, Springs and Tributaries in Grand Canyon National Park	\$245,500.00	COCONINO	Closed
141	05-132	Esperanza Ranch Riparian Restoration Project	\$279,411.50	SANTA CRUZ	Closed
142	05-133	Verde Wild and Scenic River Fence Enclosure	\$63,888.50	YAVAPAI	Closed
143	05-134	Quechan Indian Nation Yuma East Wetlands Restoration Project - Phase I	\$263,803.25	YUMA	Closed
144	06-135	Double Circle Ranch Riparian Fencing Project	\$84,448.00	GREENLEE	Closed
145	06-136	The Arboretum at Flagstaff Wetland Habitat Enhancement	\$116,000.00	COCONINO	Closed
146	06-137	Pakoon Springs Restoration Design and Implementation Project	\$262,103.00	MOHAVE	Closed
147	06-138	Management and Control of Tamarisk and Other Invasive Vegetation at Backcountry Seeps, Springs, and Tributaries in Grand Canyon National Park - Second Year of Phase II	\$258,397.00	COCONINO	Closed
148	06-139	Coal Mine Fence	\$187,013.00	SANTA CRUZ	Closed
149	06-140	Yuma Crossing National Heritage Area Yuma East Wetlands Restoration Project - Phase I	\$256,790.00	YUMA	Closed
150	07-141	Picture Canyon Rio De Flag Meander Restoration Project	\$330,225.00	COCONINO	Closed
151	07-142	Reduction of Erosion and Sedimentation along the Lower San Pedro River Through Hydrologic Restoration of Modified Ephemeral Washes	\$396,409.00	PINAL	Closed
152	07-143	Little Colorado River & Nutrioso Creek Riparian Enhancement Project	\$198,996.00	APACHE	Closed
153	07-144	Evaluation of Riparian Habitat and Headcutting on Lower Cienega Creek	\$23,972.00	PIMA	Closed
154	07-145	Kaler Ranch Erosion Control Project, Phase II	\$284,332.00	GREENLEE	Closed
155	07-146	Little Colorado River Project on H-Y Ranch River Property	\$53,000.00	NAVAJO	Closed
156	07-147	The Effects of Restoration on Wildlife Recovery at the Yuma East Wetlands Restoration Project	\$68,016.00	YUMA	Closed
157	07-148	South Channel Phase II Restoration Project	\$603,487.00	YUMA	Closed
158	07-149	Control of Tamarisk on 12 Miles of the Upper Verde River	\$366,390.00	YAVAPAI	Closed
159	07-150	Fairchild Draw Riparian Restoration Project	\$172,674.00	COCONINO	Closed
160	08-151	Test of Riparian Recovery Following Cessation of Groundwater Pumping, Lower San Pedro	\$61,795.00	PINAL	Closed
161	08-152	AWPF Yuma East Wetlands 68-acre Riparian Revegetation	\$746,667.60	YUMA	Closed
162	08-153	The Effects of Restoration on Herpetofaunal and Mammalian Community Recovery	\$156,833.40	YUMA	Closed
163	08-154	Billy Creek Natural Area Riparian Restoration Project	\$248,826.00	NAVAJO	Closed
164	08-155	Restoration of the Gila River at Apache Grove	\$744,747.00	GREENLEE	Closed

List of AWPf Projects with Map Key

165	08-156	Cocopah Colorado River Restoration	\$296,708.00	YUMA	Closed
166	08-157	Paria River Exotic Removal Project - Phase I	\$293,960.10	COCONINO	Closed
167	08-158	Watson Woods Riparian Preserve Restoration Project	\$798,988.00	YAVAPAI	Closed
168	08-159	Hoxworth Springs Stream Channel Restoration Project	\$142,543.20	COCONINO	Closed
169	08-160	Atturbury Wash Riparian Stewardship Project	\$390,839.00	PIMA	Closed
170	08-161	Montezuma Well Riparian Pasture Restoration Project	\$296,155.00	YAVAPAI	Closed
171	09-162	Middle Fossil Creek Riparian Habitat Protection and Restoration	\$250,348.00	GILA	Closed
172	09-163	Double Circle Ranch Erosion Control Project	\$35,356.00	GREENLEE	Closed
173	09-164	Babocomari River Riparian Protection Project	\$118,125.00	SANTA CRUZ	Closed
174	09-165	Alpine Ranger District Riparian Improvement	\$372,579.00	APACHE	Closed
175	09-166	Hunter's Hole Riparian and Wetland Restoration Project	\$683,345.87	YUMA	Closed
176	09-167	Tavasci Marsh Wetland Restoration Project	\$374,838.00	YAVAPAI	Closed
177	09-169	Gila River Water Conservation Education Program	\$148,612.80	GRAHAM	Closed
178	09-171	Black Canyon Riparian Restoration Project	\$291,700.00	YAVAPAI	Closed
179	11-172	Avifaunal and Butterfly (Lepidoptera) Recovery in Restored Wetland and Riparian Habitats	\$100,758.00	YUMA	Closed
180	11-173	Invasive Weed Control - Gila River Corridor, Greenlee County	\$261,995.96	GREENLEE	Closed
181	11-174	Eagle Creek Riparian Restoration at Filleman Crossing	\$265,776.00	GREENLEE	Cancelled
182	11-175	E. Coli Reduction on the San Francisco River through Alternative Livestock Water on the Kaler Ranch, Phase II	\$137,594.43	GREENLEE	Closed
183	11-176	Double Circle Ranch Erosion Control Project Phase II	\$36,866.60	GREENLEE	Closed
184	11-177	Eagle Creek Riparian Protection Project	\$136,714.11	GREENLEE	Closed
185	11-179	Inventory of Tamarisk Leaf Beetle and Effects on Riparian Habitat in the Colorado, Verde, Salt and Tonto Rivers	\$141,972.80	COCONINO	Closed
186	11-180	Pakoon Wash and Pakoon Springs Restoration and Enhancement Project	\$306,353.00	MOHAVE	Closed
187	11-181	Hidden Slough and Leopard Frog Marsh Restoration in Glen Canyon National Recreation Area , AZ	\$348,901.00	MOHAVE	Closed
188	14-182	Arundo Eradication & Riparian Restoration of Sabino and Bear Creek, Tucson, AZ	\$51,262.00	PIMA	Active
190	14-184	Date Creek Riparian Restoration Project	\$147,877.00	YAVAPAI	Cancelled
191	14-185	Horseshoe Draw Flood Control, Restoration and Erosion Mitigation Study and Design Project	\$198,625.00	COCHISE	Closed
192	15-186	Phase Two Gila River Corridor Invasive Weed Control	\$133,338.42	GREENLEE/GRAHAM	Active
193	15-187	Upper Verde River Habitat Improvement Project	\$169,325.00	YAVAPAI	Active
194	17-188	A&NC Focal Area Watershed Improvement Project	\$303,975.00	APACHE	Active
195	17-189	Erosion Control to Stabilize Soils and Restore Historic Grasslands in the Upper Verde River Watershed	\$138,183.00	YAVAPAI	Active
196	17-190	River Restoration through Hazardous Fuels and Invasive Species Removal	\$94,903.00	GRAHAM	Active
197	17-191	Verde River Habitat Improvement Project	\$246,448.00	YAVAPAI	Active

List of AWPf Projects with Map Key

198	17-192	Lower Verde River Riparian Restoration Project	\$113,896.00	MARICOPA	Active
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* The “Grant Amount” column represents the full grant awarded for each project and will total more than the grant disbursements and grant obligations sections on the financial page. Some grants have been completed for less money than the amount budgeted while others have terminated prior to expenditure of the full grant amount. This column has not been changed to reflect these situations.

Appendix B: Financial Statement

Fund Balance as of July 1, 2016	<u>\$ 2,632,224.61</u>
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Receipts

Investment Income	\$ 26,263.61
Interstate Water Sales	
Receipts and Donations	<u>\$ 390,000.00</u>
Total - Receipts	<u>\$ 416,263.61</u>

Expenditures

ADWR Support	\$ 81,185.06
ASLD Support	
Commission Expenses	
Grant Disbursements	\$ 494,331.86
Legislative Transfers Out	<u>\$ 140,000.00</u>
Total - Expenditures	<u>\$ 715,516.92</u>

<u>Fund Balance</u>	<u>\$ 2,332,971.30</u>
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Less: Remaining Grant Obligations	<u><u>(1,108,801.62)</u></u>
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Uncommitted Fund Balance - June 30,2017	<u>\$ 1,224,169.68</u>
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Accounts - Uncommitted

Grant Funds	\$ 1,163,066.22
Administration Expenses	<u>\$61,103.46</u>
Total - Account Balance	<u>\$ 1,224,169.68</u>