

Annual Report

1995-1996

ARIZONA WATER PROTECTION FUND COMMISSION

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FIFE SYMINGTON
Governor

RITA P. PEARSON
Director

HONORABLE FIFE SYMINGTON
Governor of Arizona, and

HONORABLE MEMBERS
Arizona State Legislature

I am pleased to submit to you the first Annual Report of the Arizona Water Protection Fund Commission. This report provides an overview of this new program's development and implementation and highlights activities and accomplishments that occurred between October 23, 1994, the initiation of the grants program, and June 30, 1996.

Because this is a new statewide grants program, the Commission's efforts focused on the development of the program and the initiation and completion of the first funding period. As directed by statute, the Commission conducted a thorough process to inform the public about the program and to encourage public input to guide the development and direction of the program. The public helped to identify geographic locations in the state where funding activities should be focused, identify natural resources issues and concerns in these areas and identify strategies to address those issues and concerns.

To familiarize the public with the program and encourage involvement with Commission activities, the Commission has held monthly business meetings in different locations throughout the state. These monthly meetings have given the Commission the opportunity to meet with many different individuals, organizations and entities to learn first hand about some of the environmental and economic issues that are concerns at both local and regional levels that affect Arizona's stream and riparian resources.

The Commission was pleased with the applicant response for the program's first funding cycle. In 1995, a total of 82 applications were submitted. Applicants requested nearly \$28 million in fund money. After extensive evaluation and consideration, the Commission ultimately selected 24 proposals, requesting a total of \$6.8 million, to be funded. These projects are located in eleven different counties.

The Arizona Water Protection Fund program has gotten off to a strong start. The Commission is committed to supporting the development and implementation of quality projects that will provide the most benefit to Arizona's stream systems and their associated riparian species and to Arizonans who both enjoy and/or are dependent on these resources.

Sincerely,

A handwritten signature in cursive script that reads "John Keane".

John Keane
Commission Chair

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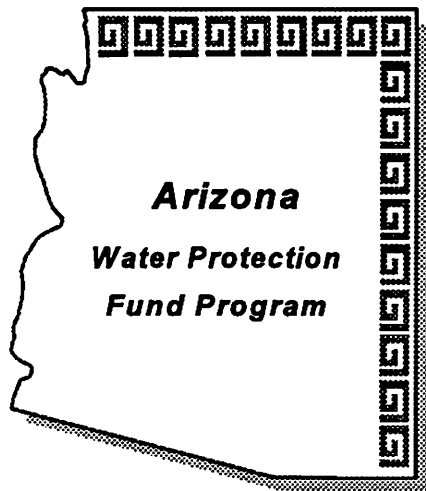
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Chairman
John Keane

Co-Chairman
Jim Hartdegen

1995-1996 Program Overview ---

- A grants program to enhance and protect Arizona's streams, for the people that use them and the habitat and wildlife that depend on them
- An innovative approach:
 - **positive incentives, instead of regulation and prohibitions**
 - **state administered, but locally implemented through broad-based community involvement**
- Grants are awarded through a **competitive proposal process** with **"on-the-ground" projects** emphasized
- Program Highlights:
 - established in 1994, with **1995 serving as the first full year**
 - proposals submitted from all over Arizona, with requests totaling nearly \$28 million
 - \$6.8 million awarded in 1995 for projects located in 11 counties
 - projects funded to **restore** high mountain meadows; purchase CAP water to **maintain** riparian and wetland habitat; recharge effluent to **protect** perennial streamflow
 - 43% of funds awarded to cities, towns & organizations; 40% to state/county agencies & districts; 10% to federal agencies; 4% to Indian tribes; 3% to universities

THE ARIZONA WATER PROTECTION FUND PROGRAM

The Fund and Commission

The 1994 Arizona Legislature established the Arizona Water Protection Fund with the enactment of House Bill 2590. This legislation also created the Water Protection Fund Commission to administer the fund through a grants program.

The purpose of the fund is to provide monies "for the development and implementation of measures to protect water of sufficient quality and quantity to maintain, enhance and restore rivers and streams and associated riparian resources". This also includes fish and wildlife species that are dependent on these resources.

The Water Protection Fund Commission is composed of fifteen voting members and four non-voting ex-officio members. Thirteen of the voting members are appointed by either the Governor, the President of the Senate, or the Speaker of the House of Representatives; while the Central Arizona Water Conservation District (CAWCD) and the Intertribal Council appointed one member each.

The individual Commission members represent a variety of land and water use and socioeconomic perspectives. In addition, several of the appointed positions required prior demonstration of technical expertise in water resource management and/or knowledge regarding riparian ecosystems functions and conservation.

Members are appointed for 3-year terms. To alternate the reappointment dates, five members each were randomly selected at the first Commission meeting to serve 1-, 2- or 3-year terms. The current Commission members, their affiliations and term expiration dates and the appointing party are as follows:

Commission Member Name	Affiliation	Term Expiration	Appointing Authority
Antone, Martin	Ak-Chin Indian Community	1996	Intertribal Council
Block, Michael	Metropolitan Water District, Tucson	1997	Senate President
Brandt, Frank	Northern Arizona Audubon Society	1998	Governor
Brick, Paul	Arizona Association of Conservation Districts	1998	Governor
Hartdegen, Jim **	Cyprus Climax Metals	1996	Governor
Keane, John *	Salt River Project	1996	Governor
Koppinger, Doug	City of Tucson	1996	Senate President
Laurenzi, Andy	The Arizona Nature Conservancy	1997	Governor
Manning, Roger	Arizona Municipal Water Users Association	1997	Governor
Newman, John	Central Arizona Water Conservation District	1997	CAWCD
Orme, Paul	Orme Ranch	1997	House Speaker
Otte, Kay	City of Florence	1996	House Speaker
Parker, Dennis	Biologist	1998	House Speaker

Commission Member Name	Affiliation	Term Expiration	Appointing Authority
Stromberg, Julie	ASU: Center for Environmental Studies	1998	Governor
Waring, Gwen	NAU School of Forestry	1998	Senate President

- * Commission Chair
- ** Commission Co-Chair

The four non-voting, ex-officio members are: the Director of the Arizona Department of Water Resources, (ADWR) the Commissioner of the Arizona State Land Department (ASLD), the Chair of the Senate Natural Resources Committee, and the Chair of the House of Representatives Natural Resources Committee.

Agency Program Support

By statute, the ADWR is directed to provide legal, technical and administrative support to the Commission. Currently, ADWR provides four and a half full-time staff members to the program. These positions include a program manager, a hydrologist, a contracts officer and an administrative assistant. An ADWR attorney provides legal counsel to the Commission on a half-time basis.

The ASLD provides one full-time staff member to assist with the public involvement component of the AWPf program. The ASLD staff member also assists the state's 31 Natural Resource Conservation Districts in developing projects.

Sources of Program Funds

The Legislature appropriated \$4 million for fiscal year (FY) 1994-1995, \$6 million for fiscal year 1995-1996. The statute provides that \$5 million be appropriated for each FY thereafter, except that some of the \$5 million may be provided by certain CAP water charges. A fee will be collected by the CAWCD for each acre-foot of CAP water purchased or leased and delivered or credited to purchasers and lessees who do not already pay the CAWCD ad valorem tax or a payment in lieu of such tax. This fee will be applicable to out-of-state lessees and purchasers of CAP water. Currently, no funds have been generated from this source. Private gifts, grants or donations may also be accepted by the Commission for funding projects.

Monies were not generated for out-of-state CAP water lessees or purchasers for FY 1995. However, approximately \$500,000 will be transferred to the AWPf account in FY 1997.

PROGRAM DESCRIPTION

The program is managed as a competitive grants program with projects managed according to contractual agreements established between the Commission and each grantee. Project periods may be up to three years in length.

Applicants submitted grant applications by August 1, 1995. Once applications were selected for funding by the Commission, AWPf staff worked with the selected applicants to develop a scope of service for their project. In addition to a scope of service, the contract contains standard clauses required by state purchasing and contracts policies.

Usually, grantees are paid on a quarterly basis for project work which has been completed during the quarter. However, the Commission may advance up to 20% of the requested money to a grantee, if the grantee provides written evidence, and the Commission agrees, that the money is required to initiate the project. In all cases, 10% of the requested funds are withheld until the final project report has been approved by the Commission.

Applicant and Project Eligibility

Any person or entity, state or federal agency, or political subdivision of Arizona may submit an application for a Water Protection Fund grant. All projects or programs, however, must be located in Arizona, be consistent with state water law, and respond to the overall goals of the legislation.

Grants from the fund may be used for projects to:

- acquire CAP water or effluent for the purpose of protecting or restoring rivers and streams;
- develop and implement capital projects or specific measures that are consistent with the purposes of the fund;
- develop, promote and implement water conservation programs that benefit riparian ecosystems (program service areas must be located outside of the state's five active management areas which already have comprehensive conservation programs (limited to 5% of available fund monies));
- perform research and data collection, compilation and analysis (limited to 5% of available fund monies).

Man-made water resource projects may be funded, if the project directly or indirectly benefits a river or stream and creates or restores riparian habitat.

As mandated by statute, priority is given to projects that will protect, enhance or restore riparian and/or aquatic habitat located in watersheds of greatest public concern and that address riparian and aquatic threats and needs identified by the public. In addition, as directed by statute, priority is given to projects that:

- include matching contributions from other sources;
- provide continued, long-term project maintenance;
- include broad-based local support;
- directly benefit perennial or intermittent streamflow.

Projects are also evaluated for technical feasibility and cost.

Public Participation

The Commission solicited and considered public comment in all phases of the program. Formal procedures for public participation were adopted. The Commission also encouraged the public to present local area issues and concerns that are pertinent to the program at each monthly Commission meeting.

Specific activities where public participation was encouraged included the development of the application guidelines, the review of project proposals, monthly Commission meetings and application workshops.

Application Guidelines Development

The Commission solicited public comment regarding the application guidelines using three different methods. Comments regarding the guidelines were obtained by circulating a questionnaire to all interested parties on the AWPf mailing list and by conducting four workshops in Phoenix, Tucson, Cottonwood and Show Low. The guidelines recommendations were then incorporated into a draft application manual. The Commission conducted an informal hearing regarding the draft manual during its April 1995 meeting.

Information gathered from the questionnaires, workshops and hearing testimony were then used to draft the final grant application manual. The manual was finalized at the May 1995 meeting and was made available to the public June 1, 1995, a month in advance of the statutory deadline.

Public Review of Project Proposals

The Commission solicited requests from the public to review applications submitted for funding by mailing notices of the availability of the applications to all interested parties on the AWPf mailing list and by placing advertisements in the major newspaper serving each county. Copies of the proposal summaries were available for review at all five ADWR offices and each of the fifteen primary county offices. In addition, copies of the proposals were available upon request.

The Commission provided 55 days for all interested parties to review and comment on the applications. The Commission received 80 comments from the public. Of the comments, 73 were letters of support. One letter, a form letter developed by an applicant, was submitted by more than 700 individuals. Letters expressing concerns for 7 of the proposed projects were also received. As part of the public process, the affected applicants were provided the comments and given the opportunity to submit responses to the comments. All public comments and applicant responses were reviewed and considered by the Commission before proposals were selected for funding.

Commission Meetings

The Commission holds monthly public business meetings at locations throughout Arizona. The purpose of holding meetings throughout the state is to give interested parties a chance to attend and participate in the development of the program and Commission policies. The meetings also provide local area representatives an opportunity to present local and regional issues and concerns. These individuals may be invited in advance of a meeting to give a presentation or they may offer comments or provide information during one of the two calls to the public offered at each meeting.

Past meeting locations include: Phoenix, Tucson, Flagstaff, Yuma, Nogales, Sierra Vista, Douglas, Camp

Verde, Safford, Chinle, Prescott Valley, Show Low, Lake Havasu City, Wickenburg and Casa Grande. Several issues and concerns, such as restoring backwater channel areas along the Arizona side of the Colorado River, protecting streamflow in the Upper San Pedro River, stabilizing the stream channel and restoring riparian habitat along the Upper and Lower Gila River, maintaining water quality in the Hassayampa River and protecting flows in the Verde River from groundwater pumping, were described to the Commission at these meetings.

The AWPf staff conducted several grant application workshops throughout the state. The purpose of the workshops was to familiarize the interested public with the program, to give them direction as to what kinds of projects were eligible for funding and to provide an overview on how to complete a project proposal. Staff held thirteen workshops during the 1995 funding cycle and recently completed fifteen for the 1996 funding period. Similar to the monthly Commission meetings, the workshops are offered in several different locations. Some of the locations include: Phoenix, Tucson, Nogales, Prescott, Benson, Safford, Kingman, Parker, Yuma, Show Low, Flagstaff, Springerville, Casa Grande and Camp Verde.

Meeting Notices

In addition to posting notices and agendas for meetings and workshops in the lobby at the ADWR office in Phoenix, Commission meeting announcements are provided to the Clerk of each city and county office for public posting. Local newspapers are sent notices for inclusion in their public interest sections. In addition, meeting notices, agendas and minutes are sent monthly to approximately 1,000 interested parties on the AWPf mailing list. The list includes all incorporated cities and towns, Indian communities, Natural Resource Conservation Districts, irrigation districts and county offices. Several state, local and federal agency offices and various organizations, individuals and legislators are also on the list.

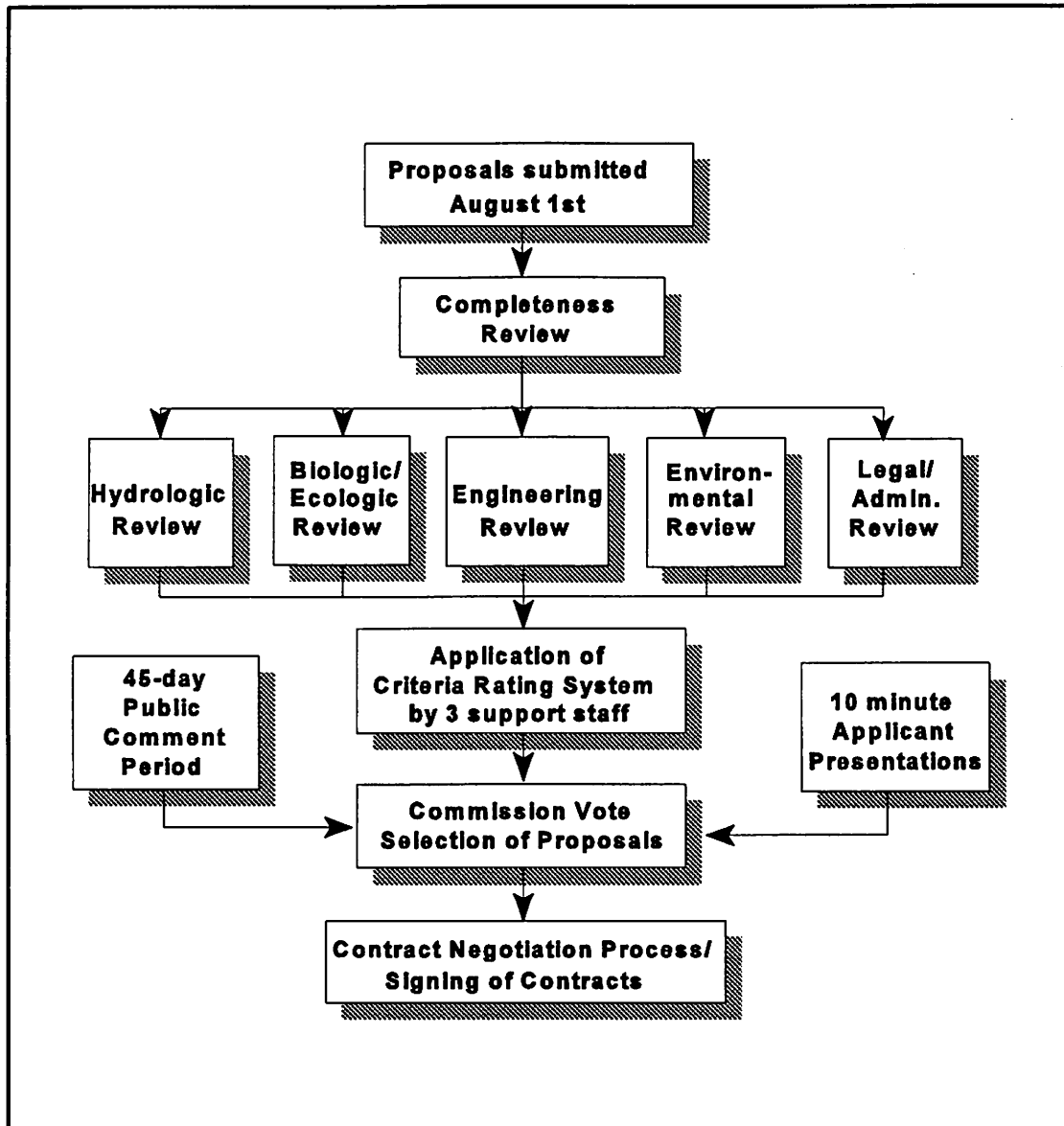
Application Evaluation and Selection Process

The 82 proposals submitted for the 1995 funding cycle were extensively reviewed and evaluated. The AWPf staff initially reviewed the proposals to ensure that they were complete, met the goals of the fund and did not violate any of the statutory criteria associated with the fund. Once this level of review was completed, copies of the remaining 67 proposals were provided to the appropriate ADWR personnel for hydrologic, engineering, legal and administrative review. Copies were provided to personnel at the Arizona Game and Fish Department for biologic and ecologic review. The Arizona Department of Environmental Quality reviewed the environmental aspects of the proposals. The results of these reviews were then provided to 3 AWPf staff members who rated each proposal using a 100-point criteria rating system developed by the Commission for evaluating projects.

During the evaluation period applicants were given the opportunity to give presentations to the Commission regarding their proposed projects. Over a two-day period in September, 67 presentations were made to the Commission.

The scores resulting from application of the criteria rating system, a list of specific issues and concerns that was generated by review staff and public comments were submitted to the Commission on November 1, 1995. The Commission used this information and the information provided by applicants during the presentations to determine which proposals they supported. During a two-day meeting, November 28 and 29, 1995, the Commission members selected the proposals to be funded.

Figure 1. The Evaluation and Selection Process



THE FISCAL YEAR 1995/1996 FUNDING CYCLE

Overview of Funding Cycle

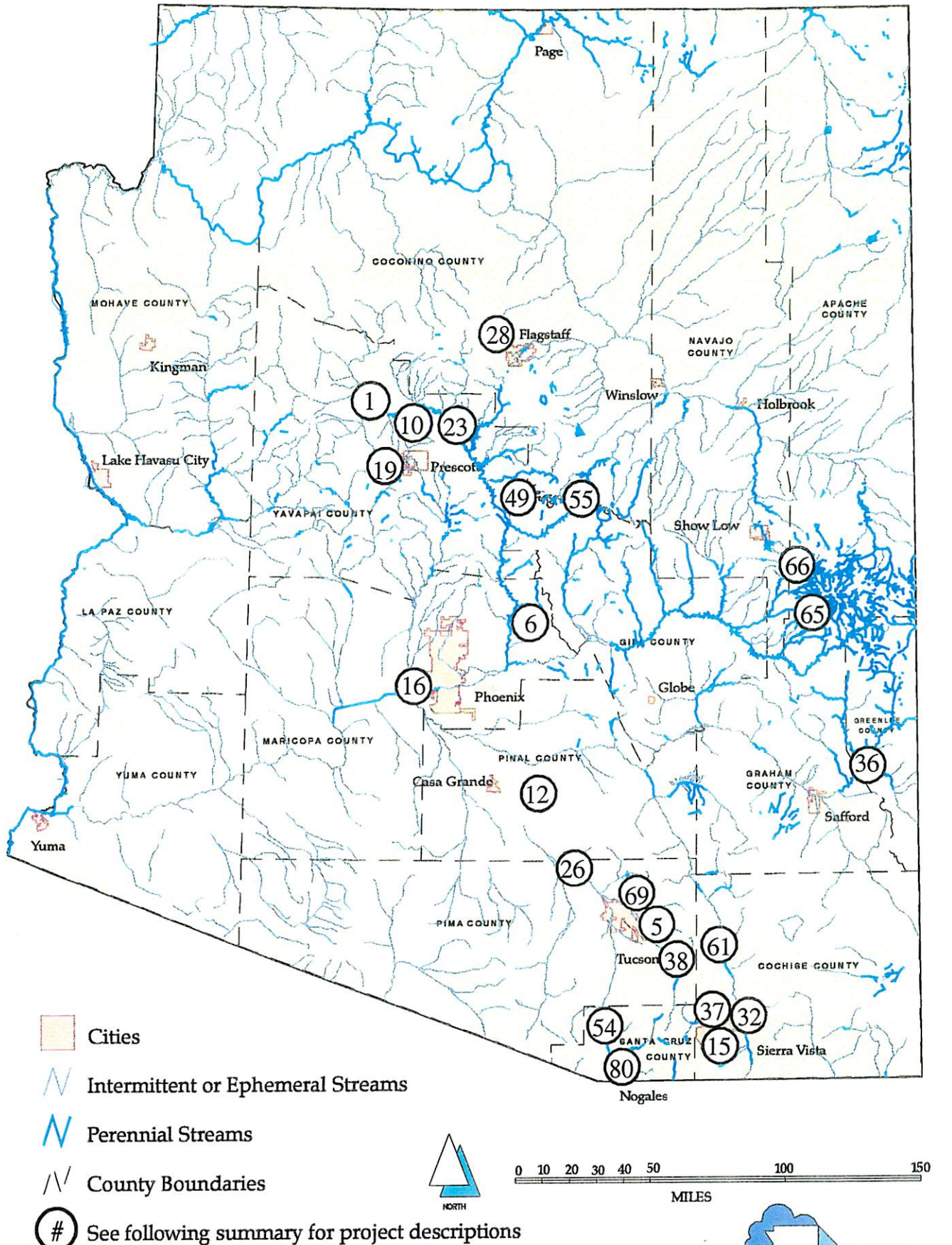
During the programs first funding period, eighty-two proposals were submitted to the AWPf Commission for consideration. Applicants requested nearly \$28 million and represented a variety of state and federal agencies, towns, municipalities, Indian Tribes, counties, universities, districts, organizations and individuals. The proposed projects were located in fourteen different counties. The relatively large number of proposals submitted from applicants located throughout the state indicates the interest the public has in this program. A breakdown of some of the statistics for the first funding cycle of the program are provided in the following table:

Applicant-type	Applications: # submitted	AWPF dollars (\$): requested	Applications: # selected	AWPF dollars (\$): allocated	Matching \$ contributions
All applicants	82	27,610,500	24*	6,861,500	5,522,300
Federal agencies	16	3,075,000	6	701,900	429,300
State/County agencies	15	5,432,900	3	2,596,400	1,468,300
Towns/Municipalities	12	6,187,900	1	2,562,000	2,778,500
Indian Tribes	5	1,792,200	2	287,600	376,500
Universities	10	6,070,200	5	171,500	132,300
Districts	9	2,003,000	1	151,800	51,800
Organizations/ Individuals	15	3,049,300	6	390,300	285,600

* One selected applicant withdrew his application prior to signing a contract

A total of 24 proposals were selected by the Commission during the first funding cycle. See the following project summaries and state map (Figure 2) for project locations and descriptions. In addition to the selected applications, the Commission received several proposals for projects that appeared to have merit, but needed further development for the Commission to fully assess. Many of these applicants have expressed interest in revising and submitting new applications for the FY 1996/1997 funding cycle. In addition, the Commission and the AWPf staff have been contacted by various Indian Tribes, NRCs, state agencies, municipalities and other organizations that are currently developing projects to be submitted for consideration.

Figure 2. 95-96 Project Locations



Summary of Funded Projects

Some of the FY 1995/1996 grantees have submitted progress reports, maps and information in accordance with their contract scope of service. In addition, the AWPf staff has begun conducting field evaluations of some of the project sites. This includes being present for some of the initial data collection.

Brief descriptions of the funded projects are as follows:

AWPF #01: Stable Isotope Assessment of Groundwater and Surface Water Interaction - Application to the Verde River Headwaters

AWPF Funding: \$21,508

Total Project Cost: \$21,508

This is a one-year study to sample surface and groundwater in the Chino Valley and analyze the waters for naturally occurring stable isotopes of hydrogen and oxygen. The main goal of the proposal is to assess the hydraulic connections that exist between the aquifers of the Chino Valley and the headwaters of the Verde River and to determine what effect, if any, groundwater pumping within the Valley may have on the flow in the upper Verde River.

The study is being performed by Drs. Robert E. Grimm and L. Paul Knauth from the Department of Geology at Arizona State University.

AWPF #05: Partnership for Riparian Conservation in Northeastern Pima County (PROPIMA)

AWPF Funding: \$78,100

Total Project Cost: \$160,231

This is a two-year study to design and implement landowner-based strategies for protecting healthy riparian ecosystems from urbanization pressures in the Tanque Verde Creek and Rincon Creek watersheds by restricting disturbance of riparian habitat on private land and to identify and develop restoration strategies for damaged riparian ecosystems in these two watersheds.

The applicant is the Rincon Institute, (formed in 1990 to help protect the natural resources of Saguaro National Park from the increasing pressure of urbanization), but the Partnership involved in this study consists of personnel from the Coronado National Forest, Saguaro National Park, University of Arizona, U.S. Geological Survey, as well as developers and landowners in these watershed areas.

AWPF #06: Sycamore Creek Riparian Management Area

AWPF Funding: \$115,522

Total Project Cost: \$231,044

This is a three-year project in which a fence is being constructed to restore and protect the unique riparian resources associated with 19 miles of Sycamore Creek, a major tributary to the Lower Verde River. Approximately 15 miles of fence will be constructed to address the problems of uncontrolled livestock grazing and off-highway vehicle use that have severely degraded the riparian ecosystem associated with the creek.

The project is being performed by the Tonto National Forest, Mesa Ranger District of the U.S. Forest Service.



A photo monitoring site on Sycamore Creek

AWPF #10: Road Reclamation to Improve Riparian Habitat along the Hassayampa and Verde Rivers

AWPF Funding: \$45,693

Total Project Cost: \$60,437

This is a three-year capital project that will close and revegetate 19.7 miles of roads adjacent to the Hassayampa and Verde Rivers within the Prescott National Forest. The goal of the project is to reduce surface runoff into the rivers, restore riparian and upland vegetation on the closed and reclaimed road surfaces, and eliminate illegal road access that damages the riparian ecosystems in these areas.

The project is being performed by the Prescott National Forest of the U.S.D.A. Forest Service.

AWPF #12: Picacho Reservoir Riparian Enhancement Project

AWPF Funding: \$2,400,000

Total Project Cost: \$3,200,000

This is a three-year project (with water purchases continuing for approximately 15-20 years) that will enable Pinal County to purchase sufficient quantities of CAP water over a 15-20 year period to protect and enhance the 2,400-acre riparian and wetland habitat that currently exists within the reservoir. The purpose of the project is to maintain a minimum, viable water pool during times of drought. In addition, some of the reservoir channels will be dredged and recontoured to enhance the availability of water to the wetland and riparian habitat.

The project is being performed by Pinal County.



An aerial view of Picacho Reservoir and associated riparian habitat

AWPF #15: Regeneration and Survivorship of Arizona Sycamore

AWPF Funding: \$34,617

Total Project Cost: \$56,117

This is a 2.5-year research project that involves the collection of field data along several perennial, intermittent, and ephemeral streams in southern and central Arizona, with the primary goal of increasing the understanding of factors that influence regeneration and survivorship of Arizona sycamore. Factors related to water availability (depth to groundwater) and land use (grazing) will be emphasized in the study.

The project is being performed by Dr. Juliet C. Stromberg, Associate Research Professor at Arizona State University's Center for Environmental Studies.

AWPF #16: Assessment of the Role of Effluent Dominated Rivers in Supporting Riparian Functions

AWPF Funding: \$45,750

Total Project Cost: \$86,482

This is a one-year research project, to establish study sites along six reaches of three Arizona streams (two reaches per stream), where both an effluent dominated section and a natural perennial section exist. The study will concentrate on one of the selected streams and will compare some of the functions of the riparian ecosystem along the effluent-dominated and non-effluent dominated reaches to determine whether effluent-dominated discharges produce different responses of some of the major components of the riparian ecosystem than non-effluent dominated reaches.

The project is being performed by Dr. Duncan T. Patten, Professor Emeritus at Arizona State University's Center for Environmental Studies.

AWPF #19: *The Comprehensive Plan for the Watson Woods Riparian Preserve*

AWPF Funding: \$33,267

Total Project Cost: \$44,667

This is a 6-month project which will produce a comprehensive plan to manage Watson Woods, a 125 acre riparian gallery forest located along Granite Creek in Prescott, Arizona. This comprehensive plan will be divided into four components: management, restoration, monitoring, and environmental education program plans.

The project is being performed by the Prescott Creeks Preservation Association.

AWPF #23: *Streambank Use by Livestock: Effects on Native Aquatic Vegetation, Morphology, and Fish Habitat and Populations*

AWPF Funding: \$37,800

Total Project Cost: \$98,000

This two-year study will quantify and delineate the effects of forage removal and trampling by livestock on streambank vegetation, streambank morphology and stability, and fish habitat and populations. The study sites are located along the upper Verde River within the Prescott National Forest.

The project is being performed by Drs. John N. Rinne, Alvin Medina, and Jerry Stefferud, from the Rocky Mountain Forest and Range Experimental Station, of the U.S.D.A. Forest Service.

AWPF #26: *Lower Santa Cruz River Effluent Recharge Project*

AWPF Funding: \$189,000

Total Project Cost: \$854,500

This three-year project will integrate riparian protection and enhancement with operation of a groundwater recharge facility utilizing treated wastewater. The project is located along the effluent-dominated riparian corridor of the Santa Cruz River in the northwest portion of the Tucson Active Management Area and is the first component of a much larger project that will stretch for several miles within the floodplain of the Santa Cruz River.

The project is being performed by the Pima County Flood Control District in conjunction with several federal, state and local agencies.

AWPF #28: *Riparian Habitat Restoration along a Perennial Reach of a Verde River Tributary*

AWPF Funding: \$102,535

Total Project Cost: \$224,418

The primary purpose of this three-year project is to restore habitat critical to the successful regeneration of a Bebb willow-mixed graminoid riparian plant community in the area of Hart Prairie located northwest of Flagstaff on a tributary to Sycamore Creek. The project involves removing an existing surface water diversion, restoring the natural drainage channel, fencing critical areas, and monitoring the surface and subsurface water quantity and quality.

The project is being managed by Drs. Abe Springer (Assistant Professor of Geology [Hydrogeology]) and Laura E. Dewald (Assistant Professor of Forestry [Conservation Biology]), from Northern Arizona University.



Aquifer data collection on the Hart Prairie Preserve

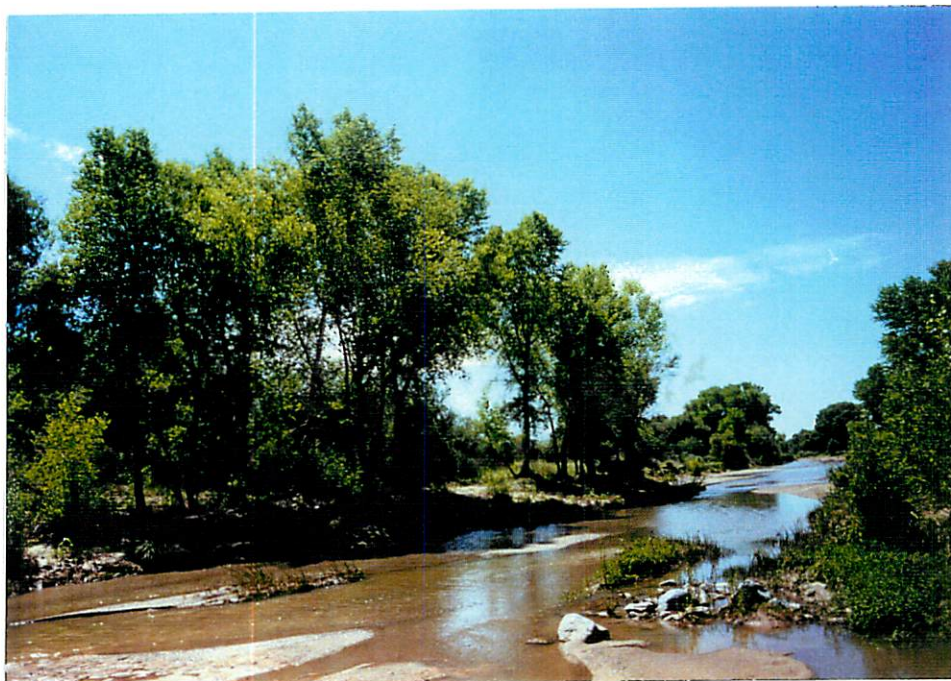
AWPF #32: Preservation of the San Pedro River Utilizing Effluent Recharge

AWPF Funding: \$2,562,000

Total Project Cost: \$5,340,500

The primary purpose of this three-year project (with a 20-year commitment for recharge) is to recharge effluent to protect the base flows of the San Pedro River from the impacts of groundwater mining (i.e., over-draft) in the area. The project will attempt to accomplish this by recharging the aquifer with effluent generated from the City of Sierra Vista's Wastewater Treatment Plant.

The project is being performed by the City of Sierra Vista in conjunction with the Bureau of Reclamation.



The San Pedro River near Sierra Vista

AWPF #36: Gila Box Riparian and Water Quality Improvement Project

AWPF Funding: \$157,223

Total Project Cost: \$200,368

This one and one-half year project will improve and enhance the riparian habitat and water quality of the Gila Box Riparian National Conservation Area (RNCA) on the upper Gila River by moving livestock grazing on the river to the adjacent upland areas. This will be accomplished by constructing approximately six miles of fencing, as well as installing water lines, stock tanks and solar pumps to provide water to the upland areas.

The project is being performed by the Safford District Office (Gila Resource Area) of the Bureau of Land Management.

AWPF #37: San Pedro RNCA Watershed Rehabilitation/Restoration Project

AWPF Funding: \$286,000

Total Project Cost: \$368,982

The primary purpose of this one and one-half year project is to rehabilitate and restore approximately 4,450 acres of eroded, ephemeral washes and upland areas that are located 0.5 to 1 mile from the San Pedro River within the San Pedro Riparian National Conservation Area (SPRNCA). This will be accomplished by recontouring ephemeral washes and adjacent uplands and by revegetating these areas with native plant species.

The project is being performed by the Safford District Office (Tucson Resource Area) of the Bureau of Land Management.

AWPF #38: Refinement of Geologic Model, Lower Cienega Basin, Pima County, Arizona

AWPF Funding: \$7,390

Total Project Cost: \$10,221

This two and one-half month research project is designed to produce a refined geologic model for the lower Cienega Basin, located southeast of Tucson. This geologic model is an important component of computer models that are used to predict the impact of groundwater pumping within the basin on perennial and intermittent flowing reaches of lower Cienega Creek.

The project is being performed by the Arizona Geological Survey.

AWPF #49: Restoration of Fossil Creek Riparian Ecosystem

AWPF Funding: \$59,693

Total Project Cost: \$172,393

The purpose of this three-year proposal is to determine the potential effects that re-establishment of part or all of the presently diverted flows of Fossil Creek could have on re-establishment of riparian vegetation along the stream's corridor. The stream has been dewatered for approximately 80 years by diversions for hydroelectric use, but may receive some or all of this water within the next few years due to the relicensing of these diversions in 1995/1996.

The project is being performed by Dr. Alvin L. Medina, from the Rocky Mountain Forest & Range Experimental Station, of the U.S.D.A. Forest Service.

AWPF #54: Autecology & Restoration of Sporobolus wrightii Riparian Grasslands in Southern AZ

AWPF Funding: \$53,743

Total Project Cost: \$109,759

The purpose of this two and one-half year study is to acquire ecological information necessary to understand the natural processes allowing for regeneration and maintenance of *Sporobolus wrightii* (giant sacaton) riparian grasslands along alluvial rivers in southern Arizona. This information will be used to determine the natural recovery and restoration potential of this type of community on abandoned agricultural fields located along these alluvial river systems.

The project is being performed by Ronald L. Tiller and Linda Kennedy Elliot, research assistants at Arizona State University's Center for Environmental Studies.



Vegetation data collection in a giant sacaton community

AWPF #55: Quantifying Anti-Erosion Traits of Streambank Graminoids

AWPF Funding: \$14,910

Total Project Cost: \$29,960

The purpose of this one-year study is to measure and compare physical traits of streamside grasses and grass-like plants (graminoids) which determine their potential capacity to stabilize streambanks. The study will be located at Buck Springs, a 7500' elevation riparian meadow in the Coconino National Forest southeast of the Blue Ridge Ranger Station.

The project is being performed by Caitlin X. Cornwall, research assistant at Arizona State University's Center for Environmental Studies.

AWPF #61: Teran Watershed Enhancement

AWPF Funding: \$151,753

Total Project Cost: \$203,544

The purpose of this three-year project is to enhance the water quality and quantity and riparian habitat located along the Lower San Pedro River by improving upland conditions within the Teran Watershed, a tributary to the San Pedro River. Thousands of small, loose-rock dam structures will be constructed in an attempt to reduce surface water runoff rates, increase duration of channel flow, improve groundwater recharge and enhance riparian habitat for wildlife.

The project is being performed by the Redington Natural Resource Conservation District.

AWPF #65: Lofer Cienega Restoration

AWPF Funding: \$161,204

Total Project Cost: \$336,852

This three-year project incorporates stream assessments, long-term monitoring, fence construction, grazing management, biological assessments, and feral horse trapping and removal in an attempt to restore Lofer Cienega. Lofer Cienega is one of the largest cienegas on the Fort Apache Indian Reservation and when in a healthy condition provides critical wildlife and fish habitat. In addition it is a significant cultural resource to the tribe.

The project is being performed by the White Mountain Apache Tribe.

AWPF #66: Gooseberry Watershed Restoration

AWPF Funding: \$126,406

Total Project Cost: \$327,220

The primary purpose of this two-year project is to restore the health of Gooseberry Watershed by improving management of the riparian meadows and reconstructing stream crossings. The project will incorporate stream assessments, improved riparian grazing management, clean-up projects and public education, channel restoration and biologic assessments to meet its goals.

The project is being performed by the White Mountain Apache Tribe.

AWPF #69: Sabino Creek Riparian Ecosystem Protection

AWPF Funding: \$16,385

Total Project Cost: \$16,385

The purpose of this three-year project is to acquire the necessary equipment to record streamflow measurements and to write a report which analyzes and presents the data in a format that can be submitted to the Arizona Department of Water Resources in support of an application for non-consumptive, instream flow water right for a reach of Sabino Creek. The project area is a privately owned natural riparian park owned by the Hidden Valley Homeowner's Association in Tucson.

The project is being performed by the Hidden Valley Homeowner's Association.



A newly constructed exclosure to monitor vegetation growth in the Gooseberry Watershed

AWPF #80: Potrero Creek Wetland Characterization and Management Plan

AWPF Funding: \$75,300

Total Project Cost: \$89,100

The wetland/riparian area is located adjacent to Nogales. The purpose of this one-year project is to determine why the wetland/riparian area exists, what is critical to its continuation as a wetland area, and what is the potential for habitat improvement or habitat replication. The project will include both a biologic and hydrogeologic evaluation of the site as well as development of a wetland management plan.

The project is being performed by Environet Incorporated, a consulting firm located in Phoenix, Arizona.

FINANCIAL INFORMATION

Arizona Water Protection Fund
Combined Statement of Receipts, Expenditures and Fund Balance
For the Two Years Ended June 30, 1996*
(000's omitted)

Receipts:

Transfers In-

Appropriation from General Fund

July 1, 1994

\$4,000

July 1, 1995

6,000

\$10,000

Investment Income

652

Expenditures:

ADWR Support

(447)

ASLD Support

(100)

Commission Expenses

(35)

Grant Disbursements

(1,941)

(2,523)

Fund Balance

8,129

Less Remaining Grant Obligations

(4,836)

Unobligated Fund Balance

\$3,293

* Includes Fiscal Year 1996 Adjustment Period entries