9.1 INTRODUCTION

The Water Management Assistance Program (WMAP) is intended to provide financial and technical resources to assist water users in the development and implementation of conservation programs, facilitate augmentation and renewable water supply utilization, and obtain information on hydrologic conditions and water availability in the PRAMA. A.R.S. §§ 45-567(A)(5) and (A)(7).

The WMAP is funded primarily from groundwater withdrawal fees collected from each person withdrawing groundwater in an Active Management Area (AMA) from a non-exempt well. A.R.S. § 45-611(C). Withdrawal fees are authorized by the Groundwater Code and determined by the director in amounts that are restricted by the acre-footage of groundwater withdrawn and beneficially used. A.R.S. § 45-611(A)(2).

From 1990 to 2010 WMAP financial and technical assistance in support of conservation, augmentation and monitoring projects benefitted the PRAMA. In 2010, the satellite AMA offices were closed and WMAP funds swept by the Arizona Legislature due to the state budget shortfall. During the fourth management period, it may be necessary to limit the WMAP program to projects that are focused on augmentation to further assist in achievement of the PRAMA management goal.

9.2 DESCRIPTION

Programs funded by the WMAP help water users achieve the efficient use of water supplies and help the PRAMA meet its water management goal. The water management goal of the PRAMA is to attain safe-yield by the year 2025.

9.2.1 Conservation Assistance

Conservation assistance helps water users plan and undertake conservation programs and lessens the number of enforcement actions related to conservation requirements. It is used for information and education services, including services that increase public awareness about of the importance of water conservation and the PRAMA's groundwater supplies. It also provides technical support designed to increase water use efficiency across the PRAMA. Conservation assistance supports ADWR's role as a central source for information on water conservation, augmentation, and recharge.

9.2.2 Augmentation

Augmentation assistance helps supplement the water supply of an AMA, and includes water importation, water storage, and artificial recharge. A.R.S. § 45-561(2). Augmentation assistance helps water users study, design and construct renewable resource facilities and provides information to resolve technical feasibility issues or to optimize recharge project operation. It also includes studies initiated or conducted by ADWR, cost sharing grants for augmentation projects, studies initiated or conducted by others; and planning and technical support for AMA-wide and local area water management strategies.

9.2.3 Monitoring and Assessment

Monitoring and assessment activities provide information and data that various water-using sectors can use to develop strategies for reaching safe-yield in the context of the hydrologic conditions in the PRAMA. Monitoring and assessment activities are also critical to developing water management strategies that take more localized water conditions into account and in the revision of the well spacing and impact rules. Examples of the information and data that can be obtained through monitoring and assessment activities include the following:

- Groundwater movement and volumes
- Locations of recharge and depletions

- Location and movement of poor quality water
- Impact of continued groundwater pumping, including water level declines and land subsidence
- Streamflows, snowmelt and precipitation data.

9.3 FUNDING

The WMAP is funded primarily from groundwater withdrawal fees levied and collected from each person withdrawing groundwater in an AMA from a non-exempt well. A.R.S. § 45-611(A). Other sources of funding include one-half of the annual surcharge collected from persons holding a permit for interim groundwater use in bodies of water within the AMA and application fees for underground storage facility permits, groundwater savings facility permits, water storage permits, and recovery well permits. A.R.S. § 45-133(E) and § 45-871.01(A).

No later than October 1 of each year, the director must set the groundwater withdrawal fee for the following calendar year. A.R.S. § 45-614. Prior to setting the fee, the Groundwater Users Advisory Council (GUAC) for the AMA recommends to the director how the fee should be set within the statutory limit. Within 30 days after setting the fee, the director is required to give written notice of the fee to all counties, cities, towns, private water companies, political subdivisions, and holders of groundwater withdrawal permits in the AMA. A.R.S. § 45-614(C). The fee is required to be paid to ADWR at the time the person withdrawing the water files an annual report pursuant to A.R.S. § 45-632. A.R.S. § 45-614(E).

The total fund amount for each year is known by April (after the receipt of annual reports in March). Total available funding for the programs varies from year to year depending on the amount of groundwater withdrawn and any carry-over of funds from previous years.

All fees received by ADWR for the WMAP must be transmitted to the state treasurer. A.R.S. § 45-615. The state treasurer is required to hold the fees in a separate fund and to maintain within the fund separate accounts for each AMA. A.R.S. § 45-615(1). Monies held in the fund for an AMA may be used only to finance the augmentation and conservation assistance programs for the AMA and to fund any projects that are authorized by the director for monitoring and assessing water availability within the AMA. A.R.S. § 45-613(A). Table 9-1 shows the total groundwater pumped, annual groundwater withdrawal feeds, and total fees collected from 1990 through 2012.

9.4 HISTORY

9.4.1 Second Management Period

The assistance program originated during the second management period (1990 – 2000) as an augmentation program, including incentives for artificial recharge. A.R.S. § 45-565(A)(6). A program for conservation assistance was required in 1990. A.R.S. § 45-615(1), as amended by Laws 1990, Ch. 320 § 9. In 1996, legislation authorized funding for monitoring and assessing water availability and subsidence in addition to augmentation and conservation assistance. A.R.S. § 45-611(A). The addition of monitoring and assessing resulted in changing the name of the program from the “Conservation and Augmentation Fund” (as in the Second Management Plan) to the “Water Management Assistance Program” (as in the Third Management Plan).

In the PRAMA, fees collected during the second management period (1990 – 2000) were used to fund two conservation projects: the development of a water conservation education and rebate program and a Natural Resource Conservation Service workshop scholarship. Through the 1997 grant cycle, no augmentation projects had been funded. A small percentage of total funds collected were used by ADWR to provide legal and administrative support to the program. Needs identified included additional monitoring and hydrologic research and a study of the impact of exempt wells on overall AMA water

supplies, along with the identification of areas that are at-risk for exempt wells.

TABLE 9-1
ANNUAL WITHDRAWWAL FEE[1] SUMMARY
PRAMA

Year	Groundwater Pumped (Acre-Feet)	Withdrawal Fee[2] ($/acre--foot)	Monies Collected
1997	17,181	$1.00	$17,181.44
1998	15,251	$1.00	$15,250.78
1999	16,231	$1.00	$16,230.78
2000	17,474	$1.00	$17,473.92
2001	16,967	$1.00	$16,967.10
2002	20,447	$1.00	$20,446.64
2003	16,405	$1.00	$16,405.12
2004	18,565	$1.00	$18,564.58
2005	15,779	$1.00	$15,779.40
2006	18,395	$1.00	$18,395.41
2007	19,757	$1.00	$19,757.30
2008	16,159	$1.00	$16,158.55
2009	15,903	$1.00	$15,902.57
2010	12,875	$1.00	$12,875.04
2011	15,784	$1.00	$15,783.63
2012	14,716	$1.00	$14,732.10

[1] Withdrawal fees and fees collected reflect only that portion of the groundwater withdrawal fee established to support the WMAP. Total withdrawal fees through 1997 have been greater than Table 1 fees, since the first one dollar per acre-foot of the annual withdrawal fee was established for general ADWR administrative purposes.

[2] The figures in the groundwater pumped column reflect the most recent information available in the AMA. This information may vary from the figures used at the time the groundwater withdrawal fees were actually collected.

9.4.2 Third Management Period

The Third Management Plan (3MP) (2000 -2010) required a program for "additional augmentation of the water supply of the AMA, if feasible, including incentives for artificial groundwater recharge" (A.R.S. §45-566(A)(6)) and a program for "conservation assistance to water users within the AMA." A.R.S. § 45-566(A)(8). The following objectives for the WMAP in the PRAMA were identified in the 3MP:

- Provide funds for the development of conservation assistance programs for agricultural, municipal, and industrial water users and for information and education on water conservation.
- Maximize the use of renewable sources of water such as surface water and effluent.
- Provide funds for the planning, design, and construction of such augmentation and recharge projects.
- Act as a central source for information on water conservation, augmentation, and recharge.
- Increase public awareness of the importance of water conservation and augmenting the AMA's groundwater supplies.
- Monitor and assess hydrologic conditions and the potential impacts of continued groundwater pumpage and water level declines.

The process for applying WMAP funds programs and projects changed during the third management period due to legislation enacted in 1999. A.R.S. §§ 41-2701 through 41-2706. As a result, Chapter 9 was modified in 2003 to meet the requirements for soliciting and awarding grants as required by the new legislation. The legislation requires state agencies to follow specific procedures in soliciting and awarding grants, including: 1) publishing notice of a request for grant applications; 2) appointing at least three peers

or other qualified individuals who are not members of the GUAC to evaluate the applications; and 3) keeping all information in the applications confidential until the grants are awarded. Table 9-2 lists the programs that were funded during the third management period.

TABLE 9-2
RECENT PROJECTS FUNDED, 2005 – 2010
PRAMA

Contract	Recipient	Amount
2005-2592	Northern Arizona University	$37,178.00
2006-2593	Department of Interior	$14,600.00
2007-2635	University of Arizona	$13,200.00
2007-2634	Department of Interior – USGS	$14,600.00
2008-2749	University of Arizona	$16,500.00
2009-2773	Department of Interior	$14,400.00

9.5 NEEDS, GOALS AND ISSUES FOR THE FOURTH MANAGEMENT PLAN

ADWR estimates that approximately $125,000 is likely to be generated for the WMAP during the fourth management period, based on the population and demand projections included in Chapter 11 of this plan. If more annual recovery or long-term storage credit recovery occurs than groundwater pumping during the fourth management period, that figure would be less. If demand is higher than projected and there is a corresponding increase in groundwater pumping, a higher volume of WMAP funding would be generated.

9.5.1 Future Needs Identified in the 3MP

The 3MP for the PRAMA identified the need for additional monitoring and hydrologic research and studies on the impact that withdrawal of water by exempt wells has on overall AMA water supplies, along with the identification of areas that are at-risk for exempt wells.

9.5.2 Yavapai County Water Advisory Committee

Following is a brief summary of issues and needs identified in 2011 by the Yavapai County Water Advisory Committee:

- Expected growth and increased demand for water will require additional or new supplies of water.
- Increased studies and knowledge about water resources are needed to make informed decisions.
- Innovative solutions to address conservation and a new regulatory framework for the development and management of water resources will be needed.
- Improved communication, education and action among all water-using sectors are necessary for an integrated approach to water management.

9.5.3 PRAMA Water Demand and Supply Assessment 1985 – 2025

The *DRAFT Version 2 Demand and Supply Assessment, Prescott Active Management Area* identified the following challenges and needs:

- Difficulty projecting the nature of the economy
- Climate/Drought and renewable supply availability
- Relationship between power cost and water cost
- Ability to obtain additional renewable supplies
- Financial capability to import water supplies

- Potential for any future water agreements
- Local/Regional Cooperative Water Management
- Localized Groundwater Management
- Location of Underground Storage vs. Location of Annual or LTS Credit Recovery
- Climate Change Planning and Response Program
- Short-Term Drought Response Program
- Additional Infrastructure and Funding
- Ability to respond positively to economic growth without increasing groundwater withdrawals
- Planning horizon beyond 2025

9.6 PROCEDURES

A WMAP may be included in the Fourth Management Plan (4MP); however, due to the recent reduction of ADWR staff, it may be necessary to limit projects to those that do not require extensive staff time for administration. The following is a description of how projects are funded, identified, solicited, and awarded. A flow chart summarizes the process *(See Figure 9-1)*.

9.6.1 Identifying Priority Projects

In an effort to apply available funding and technical assistance to the most important projects, ADWR identifies priorities with assistance from members of the water-using community and the GUAC. Information may potentially be gathered in the following ways:

- Soliciting public input at GUAC meetings and reviewing GUAC meeting minutes for recommendations and comments from the GUAC and the public.
- Soliciting ideas from conservation coordinators at state level water conservation information sharing meetings.
- Meeting with technical administrators of currently funded projects to assess project progress and anticipate future needs.
- Conducting surveys and/or requesting letters of intent so that stakeholders have the opportunity to put their ideas in writing.
- Documenting expressions of interest and inquiries received via phone, email, or in person.
- Meeting with appropriate water management staff to learn about agency needs, resources, and legal or financial changes such as industrial, municipal, municipal BMP, agricultural BMP, and Water Duty.
- Reviewing current focus areas of other funding agencies and/or meeting with grant coordinators (e.g. BOR) to identify needs, gaps, and/or areas for collaboration.

9.6.2 Applying Funds to WMAP Projects

ADWR identifies priorities for program assistance with input from members of the GUAC and the water-using community. Recommendations are made to the director about allocating funds among the program categories: conservation, augmentation, and monitoring hydrologic conditions or assessing water availability.

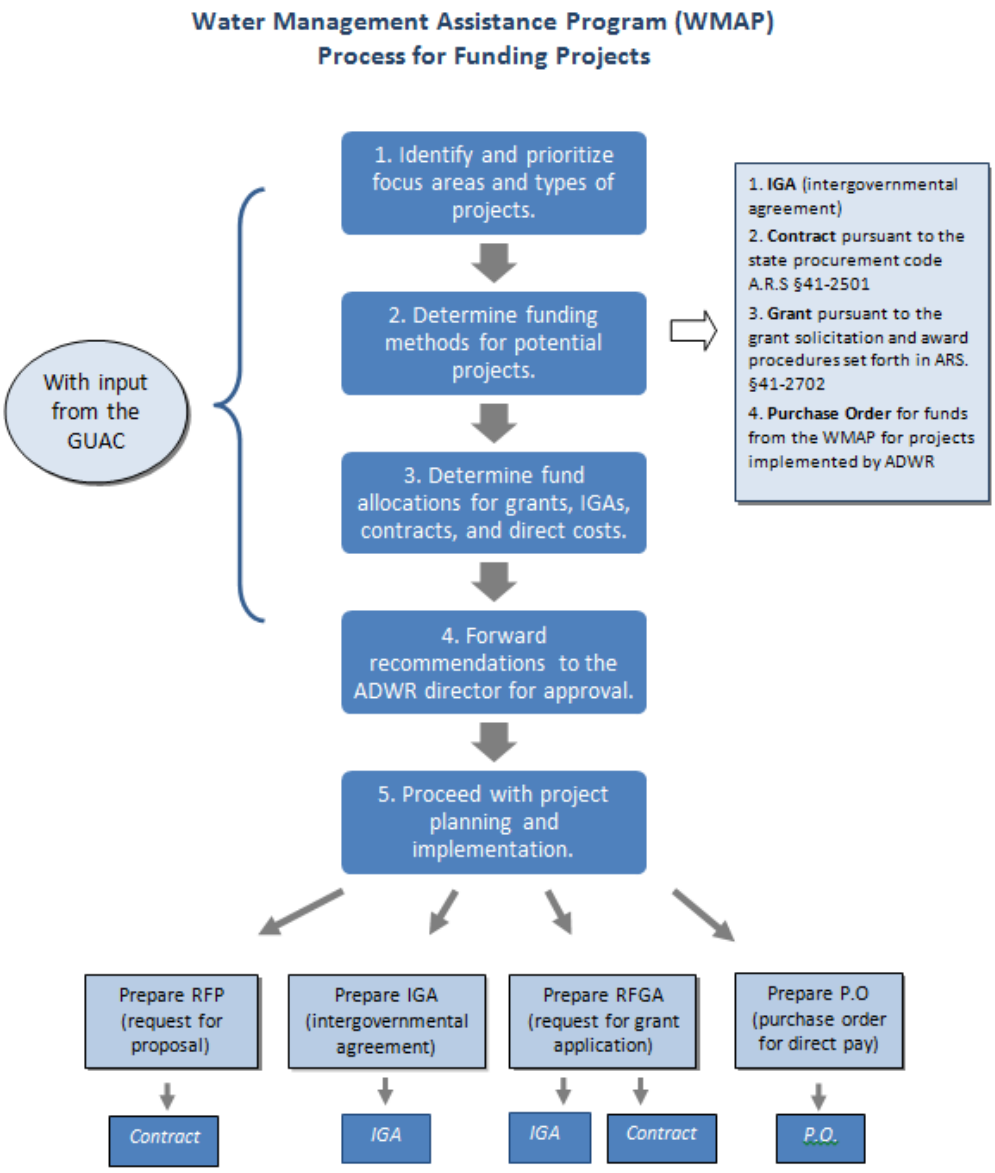
The type of project or program to be funded determines whether or not one of the following four methods are used to apply funds: Intergovernmental agreement (IGA), contract, grant, and direct use by ADWR.

A. Intergovernmental Agreement

ADWR may enter into an Intergovernmental Agreement or IGA with public agencies (as defined in A.R.S. § 11-951): "*'public agency' includes the federal government or any federal department or agency, Indian tribes, this state, any other state, all departments, agencies, boards and commissions of this state or any other state, counties, school districts, fire districts, cities, towns, all municipal*

corporations, and any other political subdivisions of this state or any other state." IGAs are appropriate when the source of the service requested is limited, and the awards do not have to be competitive. The project must involve a joint exercise of powers common to the parties or an agreement for joint or cooperative action.

FIGURE 9-1
WMAP PROCESS



B. Contract

ADWR may enter into a contract for specific services by issuing a Request for Proposal (RFP). An RFP is used for specific services or a narrow scope of work and where the lowest bid is not necessarily the winning bid. A.R.S § 41-2534. An RFP is used for purposes of procuring a specific end product in the form of materials, services or construction.

C. Grant

A grant process is used when selection requires a competitive process to be fair. It can be used for both governmental and non-governmental entities. The scope of the project should not be too specific as to single out only one or two possible entities and not too general so as to generate projects that do not meet project objectives. ARS § 41-2702 includes a set of requirements for the grants process including the following:

1. Preparation of a Request for Grant Application that includes scope, funding amount and evaluation criteria (RFGA);
2. Confidentiality of applications until an award or awards are made; and
3. Evaluation by at least three evaluators. Note that GUAC members may not serve as evaluators, but can be involved in their selection.

D. Direct use by ADWR

If a project is to be implemented by ADWR, it will use monies directly from the WMAP.

9.6.3 Contract Development, Monitoring and Support

Each person receiving monies for WMAP purposes through a grant, IGA or contract must enter into a contractual agreement with ADWR. Contracts, prepared by ADWR staff, describe what tasks are to be accomplished and set deadlines for task completion and fund disbursements. ADWR staff track progress and review deliverables for compliance with contract requirements. ADWR authorizes and issues payments, modifies contracts as needed, and provides other legal and administrative support.

9.6.4 ADWR's Role in the WMAP

Fund management and administration of grants and contracts are coordinated between ADWR's Administration Division and the AMAs. The Administration Division's functions include management of the separate funds for each AMA and contract administration. The following responsibilities may be assigned to ADWR staff:

A. Prioritize, review, provide input on and develop project proposals.

B. Analyze potential projects and identify appropriate funding methods (grant, IGA, procurement contract).

C. Administer IGAs, contracts, and grants.

D. Implement ADWR projects.

E. Provide technical and field assistance

F. Provide information and educational services. ADWR staff develop water conservation information materials, educational curricula and displays, and programs specific to water users within the AMAs. These materials and programs may be developed independently, with WMAP funding, or through partnerships with other government agencies, community groups or utilities. ADWR staff also maintain web-based or hard copy inventories of information and educational materials for distribution to water users, and provide water-related presentations to civic groups, schools and other groups.

9.6.5 GUAC Role in the WMAP

The GUAC advises the AMA director, makes recommendations on groundwater management programs and policies for the AMA and submits comments to the area director and to the director on draft

management plans. A.R.S. § 45-421. The following list describes the GUAC's role in the WMAP:

A. Providing recommendations regarding withdrawal fees.

B. Providing input and recommendations about the goals and priority focus areas for the PRAMA.

C. Assisting ADWR in selecting general project ideas for funding prior to the solicitation of applications or proposals.

D. Allowing public input and comment on potential projects at meetings.

E. Identifying sets of criteria for evaluating proposals and contracts.

F. In coordination with ADWR, participating in selecting evaluators for grants.

9.6.6 Criteria Used to Evaluate Projects

Specific sets of criteria are needed when developing RFGAs or RFPs. These criteria are established by ADWR with assistance from the GUAC. Certain criteria may be given greater weight, and any weighted system must be applied consistently. Following is a list of criteria to be considered:

A. Compatibility of the project with ADWR policies and programs and the management goal of the AMA.

B. Compliance of the project with applicable laws and administrative regulations. In the case of regulated water users, this includes the extent to which this project helps that regulated water user reach 4MP conservation requirements.

C. Cost effectiveness of the project. Positive factors include the ability to combine the project with other projects if that combination will result in cost and human resource savings; the ability to predict water demand reduction and the extent and duration of the reduction relative to project costs.

D. Extent to which the type of project is applicable to other users, other sectors, and other AMAs and the likelihood of community and/or sector support for the project.

E. Significance of the project's potential economic, environmental, and social impacts;

F. Extent to which the type of project has previously been proven feasible and effective, or the extent to which implementation of the project will provide information on feasibility and effectiveness, if not previously proven.

G. Evidence of a demonstrated need and that it is likely that the project would not be implemented without water management assistance funding.

H. Ability to monitor demand reductions during and after implementation of the project. This includes the ability to produce documented comparisons of pre-project and post-project water savings, scientific data collections and reporting methods, or pre-program and post-program surveys to verify project results.

I. Effectiveness of project, which includes factors such as a background on current and historic water use if applicable, a clear statement of purpose, goals, methodology, and list of deliverables (data collection, interim and final reports, etc.).

J. Whether the project is innovative and includes sufficiently researched budget information to determine if the requested funding is warranted (e.g. salary costs and benefits, retrofit device costs, equipment purchases, and supplies).

K. Ability to result in timely and efficient development of alternative renewable water supplies or contributions to regional or critical area water management solutions.

L. Likelihood of developing transferable information or technology.