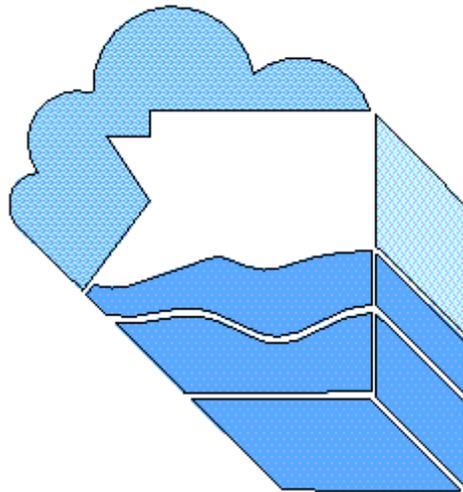


**ARIZONA DEPARTMENT OF WATER RESOURCES:  
RESPONSE TO SUNSET REVIEW FACTORS AND ADDITIONAL QUESTIONS**



**September 15, 2009**

**Herbert R. Guenther  
Director**

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**A. Twelve Statutory Sunset Review Factors (A.R.S. § 41-2954(D))**

**1. The Objective and purpose in establishing the agency.**

In 1980, the Arizona Department of Water Resources (ADWR) was created to ensure dependable long-term water supplies for Arizona's growing communities. ADWR succeeded the "authority, powers, duties and responsibilities of the Arizona Water Commission and the State Water Engineer relating to surface water, groundwater and dams and reservoirs." A.R.S. § 45-103(A). The Director of ADWR "has general control and supervision of surface water, its appropriation and distribution, and of groundwater to the extent provided by this title, except distribution of water reserved to special officers appointed by courts under existing judgments or decrees." A.R.S. § 45-103(B).

To carry out its statutory responsibilities, ADWR administers state water laws (except those related to water quality), explores methods of augmenting water supplies to meet future demands, and works to develop public policies that promote conservation and equitable distribution of water. ADWR oversees the use of surface and groundwater resources under state jurisdiction and negotiates with external political entities to protect and augment Arizona's water supply.

**Groundwater Management**

To address groundwater depletion in the state's most populous areas, the state Legislature created the Groundwater Management Code in 1980 and directed ADWR to implement its provisions. The goal of the Code is twofold: 1) to control severe groundwater depletion, and 2) to provide the means for allocating Arizona's limited groundwater resources to most effectively meet the state's changing water needs. This effort to manage Arizona's groundwater resources was so progressive that in 1986 the Code was named one of the ten most innovative programs in state and local government by the Ford Foundation and Harvard University. When granting the award, it was noted that no other state had attempted to manage its water resources so comprehensively. Accordingly, Arizona built consensus around its policy and then followed through to make it work in practice.

*Active Management Areas* – Areas where groundwater depletion is most severe are designated as Active Management Areas (AMAs). There are five AMAs: Prescott, Phoenix, Pinal, Tucson, and Santa Cruz. These areas are subject to regulation pursuant to the Groundwater Code. In the Phoenix, Prescott, and Tucson AMAs, the management goal is to achieve safe-yield by the year 2025. Safe-yield is accomplished when no more groundwater is being withdrawn than is being annually replaced. In the Pinal AMA, where the economy is primarily agricultural, the management goal is to preserve that economy for as long as feasible, while considering the need to preserve groundwater for future non-irrigation uses. The goal of the Santa Cruz AMA is to maintain its current safe-yield status and prevent local water tables from experiencing long-term decline. Each AMA carries out its programs in a manner consistent with these goals while considering and incorporating the unique character of each AMA and its water users.

*Management Plans* – Management plans reflect the evolution of the Groundwater Code, moving the AMAs toward their long-term water management goals. Management plans are required from each AMA for five sequential management periods extending from 1980 through 2025. ADWR is in the initial stages of formulating the Fourth Management Plan, scheduled for adoption by 2012. The provisions of the Fourth Management Plan will be in effect through 2020.

*Assured and Adequate Water Supply Programs* – The Groundwater Code established requirements to ensure that water supplies are adequate to meet the long-term needs of new development. The Assured Water Supply Program requires new subdivisions within AMAs to demonstrate that sufficient water supplies of adequate quality are physically, continuously and legally available for 100 years and that any groundwater use is consistent with the AMA's management plan and management goal. Rules associated with this program promote the use of renewable supplies, such as effluent and water delivered via the Central Arizona Project (CAP), as a component of an assured water supply.

For areas outside AMAs, the Adequate Water Supply Program requires that the developer inform potential buyers of the water availability for the property, but does not prevent the sale of property when a 100-year supply is not available. Requirements under these programs serve to protect consumers from the sale of subdivided land that lacks an available long-term source of water.

*Recharge Programs* – Provisions for recharge programs included in the Groundwater Code allow injection or infiltration of surface water or treated wastewater into an aquifer for storage. Through recharge programs, surplus renewable water supplies can be stored for use in the future or as a means of treating renewable supplies for annual use.

*Statewide Planning* – ADWR conducts statewide water resource planning. Statewide planning efforts include technical studies of local areas and assistance in projecting future water demands. ADWR produces the *Arizona Water Resources Assessment*, an extensive inquiry into the state's water status, to assist long-term planning.

*Rural Water Initiative* – ADWR participates in or facilitates 17 Rural Watershed Groups that represent water interests outside AMAs. ADWR provides technical and policy advice and assistance to these groups several times per year. In some cases, ADWR attends multiple meetings per month for the groups. The activities of the different Rural Water Groups vary greatly from group to group. In areas such as the Upper San Pedro (Sierra Vista area), Coconino Plateau (Flagstaff and surrounding areas), Verde River (Cottonwood to Camp Verde), Yuma, Bullhead City and Lake Havasu City, and Mogollon Rim (Payson and surrounding areas) significant water resources planning and development is either proposed or underway to meet the water supply needs of the area. These Rural Watershed groups are well represented on the Statewide Water Advisory Group (SWAG). *See Response to Sunset Factor 5 for more detail on SWAG.* Through their efforts, significant changes in water law and programs have been made in the last

four years. ADWR has a Special Line Item Appropriation that is used to fund personnel and water resources investigations to assist the local communities with long-term planning and management programs. Attached is a complete list of the groups and their accomplishments (*See Appendix A*).

*Water Bank* – In 1996, the Legislature created the Arizona Water Banking Authority (AWBA). By storing surplus Colorado River water in central and southern Arizona, AWBA helps safeguard against future shortages on the Colorado River and assists in meeting the state's groundwater management goals. ADWR provides staff support to AWBA. AWBA is a separate agency from ADWR.

*Water Protection Fund* – ADWR also provides staff support for the Arizona Water Protection Fund Commission, which was created by the Legislature to preserve and enhance flows in rivers and streams and their associated riparian habitats. The fifteen commission members reflect a wide range of interests, including representatives from municipal, agricultural and industrial water users as well as from environmental organizations.

### Surface Water Management

ADWR's surface water activities are focused in three areas: Adjudications, Colorado River Management, and Dam Safety and Flood Mitigation.

*Adjudications* – The State of Arizona is conducting general stream adjudications of water rights in two major portions of the state: the Gila and Little Colorado River systems and water sources. Adjudications are judicial proceedings in the State Superior Court for Maricopa and Apache Counties to determine the nature, extent and relative priority of the water rights of all persons in each river system and source. This includes water and claims to surface water based upon state law and federal law. ADWR's role in the process is to provide both administrative and technical assistance to the State Superior Court.

*Colorado River Management* – Renewable water supplies of the Colorado River serve seven states and several Indian tribes. ADWR strives to promote, protect, and comprehensively manage Arizona's entitlement of 2.8 million acre-feet annually of Colorado River water. This entitlement includes Arizona's water supply for future growth and is critical to the state's water management policies.

*Dam Safety and Flood Mitigation* – ADWR is responsible for the supervision of non-federal dams to reduce potential loss of life and damage to property; the management of the statewide flood warning system; assisting communities that participate in the National Flood Insurance Program; and establishing State Standards for Floodplain Management.

### Water Rights Administration

*Groundwater* – Groundwater pumping in AMAs requires a groundwater right or withdrawal authority from ADWR. State law assesses withdrawal fees and requires annual groundwater withdrawal and use reports to be filed for most pumping within AMAs. Groundwater use outside AMAs is not regulated and does not require a water right. However, drilling a well anywhere in the state requires that a Notice of Intent to Drill be filed with ADWR and also requires the well to be constructed in compliance with ADWR’s minimum well construction standards.

*Surface Water* – Surface water is subject to the "doctrine of prior appropriation," meaning that the first person to put the water to beneficial and reasonable use has a right superior to later appropriations. Rights to use surface water are designated through a permitting process at ADWR. Surface water permits may be used to support claims in the adjudication process. ADWR maintains records related to water rights in both computer and physical files, which are available to the public.

### Hydrology Support

ADWR hydrologists serve as the technical arm of ADWR, collecting and analyzing statewide water resource data and maintaining the state's Groundwater Site Inventory (GWSI) database. Hydrologic conditions are calculated and analyzed in preparing reports in response to legislative and judicial requests, public inquiries and water management planning efforts. ADWR hydrologists are often recruited to work on the scientific components of specific research projects and are also consulted in making determinations on permit applications. Additionally, the state Legislature has supported ADWR efforts to obtain more groundwater data around the state through the Automated Monitoring Initiative. This groundwater data collection effort relies on satellite technology to obtain water level measurements in areas of the state where groundwater information is lacking.

## **2. The effectiveness with which the agency has met its objective and purpose and the efficiency with which it has operated.**

ADWR has been effective in implementing its water management responsibilities. For groundwater management, ADWR has promulgated the first three Management Plans and is currently developing the Fourth Management Plan containing conservation programs for the municipal, agricultural, and industrial sectors for implementation in 2012. *See Response to Sunset Factor 9 for detail on policy changes that could help to meet the AMA goals.*

ADWR has also successfully developed and implemented a Statewide Drought Plan and Statewide Conservation Plan. Further, ADWR was involved in developing agreements between the seven Basin States<sup>1</sup> on issues relating to the management and use of the Colorado River, and developed legislation to allow counties and municipalities outside of the Active Management Areas to adopt ordinances that require adequate water supplies for new subdivisions. ADWR also secured legislation for a revenue stream to support

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<sup>1</sup> Arizona, California, Colorado, Nevada, New Mexico, Wyoming, and Utah.

water supply projects throughout Arizona with the Water Supply Development Revolving Fund. Other important areas of involvement include the modification of the Assured and Adequate Water Supply Rules to streamline the application and review processes, the adoption of permanent well spacing rules, and the preparation of the Arizona Statewide Water Atlas, which provides updated information regarding water supplies throughout the State.

Since 2000, ADWR has overseen, and in many cases assisted, the repair or removal of 25 deficient high hazard dams, including the 2005 emergency repair of River Reservoir in Apache County and the 2006 rehabilitation of City Dam owned by the City of Williams. Eight of these projects received funding from the ADWR Dam Repair Fund. ADWR has also enacted numerous efficiency improvements to the Dam Safety Program, markedly increasing both the number of safety inspections performed each year and the number of dams having Emergency Action Plans (EAPs) of pre-determined actions intended to prevent or mitigate adverse consequences of dam failure or improper operation. The additional inspections and follow-up have had the secondary effect of sharply increased construction permit applications to repair identified deficiencies. Finally, ADWR has established the Arizona Statewide Flood Warning System (AFWS) and supported development of local warning systems. Need for the AFWS became apparent during the floods of January 1993, when local response efforts were hindered by poor coordination among agencies and by a lack of information on flood threat. ADWR actively operates and maintains flood gages statewide (e.g. installations following the 2008 Havasupai Canyon flash flood); coordinates efforts among local, state and federal agencies; and operates the AFWS website.

In its last performance audit in 1999, the Auditor General stated that ADWR needed to review its efficiency in processing permits, as at that time various parties had expressed concern with the amount of time it took to process permit applications. ADWR processes 77 different permits associated with water use and dam safety in Arizona. ADWR undertook an extensive review of its processes and licensing timeframe requirements and has significantly improved this factor. For FY 2009, ADWR achieved a 99% compliance rate with its licensing timeframe requirements.

**Licensing Timeframe Compliance**

| <b>FY Year</b> | <b>Apps Received</b> | <b>Issued w/in Timeframe</b> | <b>Denied w/in Timeframe</b> | <b>Acted on Outside of Timeframe</b> | <b>LTF Compliance</b> |
|----------------|----------------------|------------------------------|------------------------------|--------------------------------------|-----------------------|
| 2008 – 2009    | 5,204                | 4,765                        | 14                           | 61                                   | 99%                   |
| 2007 - 2008    | 6,781                | 6,528                        | 28                           | 76                                   | 99%                   |

**3. The extent to which the agency has operated within the public interest.**

ADWR has operated within the public interest by administering the Groundwater Code and implementing groundwater conservation programs. ADWR also strives to promote, protect, and comprehensively manage Arizona's entitlement of 2.8 million acre-feet annually of Colorado River water. This entitlement includes Arizona's water supply for

future growth and is critical to the state's water management policies. Other programs that benefit the public include dam safety, flood mitigation, well registration, and the collection of hydrologic data to make better-informed water management decisions.

**4. The extent to which rules adopted by the agency are consistent with the legislative mandate.**

ADWR has authority to adopt rules necessary to carry out the purposes of Title 45, Arizona Revised Statutes. A.R.S. § 45-105(B) (1). Since its creation in 1980, ADWR has adopted rules governing the following areas: (1) fees charged by ADWR for filing applications and for copies of public records; (2) hearing procedures; (3) applications for surface water rights; (4) licensing time-frames; (5) assured and adequate water supply; (6) well construction and licensing of well drillers; (7) water measurement; (8) annual reporting requirements for water users; (9) inspections and audits; (10) dam safety procedures; and (11) the location of new wells and replacement wells in new locations in AMAs. ADWR's rules are located in Title 12, Article 15, Arizona Administrative Code.

ADWR's most recent five-year rule review report was submitted to the Governor's Regulatory Review Council ("GRRC") in 2006 pursuant to A.R.S. § 41-1056(A). In that report, the Department concluded that all of its rules were authorized by statute. GRRC approved the report in June of 2006. Since then, ADWR adopted the following rules or rule amendments:

- Rules governing the location of new wells and replacement wells in new locations in AMAs, as required by A.R.S. § 45-598. These rules became effective on August 7, 2006.
- Amendments to ADWR's assured and adequate water supply rules to incorporate new statutory requirements, to streamline the application review process, to make the rules clearer and more concise, and to increase the fees charged for applications and determinations. These rule amendments became effective on September 12, 2006.
- Adoption of amendments to ADWR's assured water supply rules for the Pinal AMA to reduce the amount of mined groundwater allowed for new certificates and designations of assured water supply. These rule amendments became effective on October 1, 2007.
- Technical amendments to ADWR's fee rules, hearing procedure rules, well construction rules and dam safety rules. These amendments became effective on October 6, 2007.

In July 2009, ADWR initiated a rulemaking proceeding to amend the assured water supply rules for the Pinal AMA to delay the date for the first reduction in the allocation factor used to calculate assured water supply credits for the extinguishment of grandfathered groundwater rights in the AMA. The rules currently provide for the first reduction to take effect on January 1, 2010. ADWR is proposing to delay the first reduction until January 1, 2014 in recognition of the downturn in the real estate market. If the first reduction were to take effect on January 1, 2010, some landowners within the

AMA may prematurely extinguish their irrigation grandfathered rights and cease farming operations, requiring the remaining owners of agricultural lands within the district to pay a greater percentage of the district's fixed costs. ADWR received permission from the Governor's office to commence this rulemaking proceeding.

ADWR is required by statute or session law to make three additional rule amendments. ADWR had begun work on all three rulemaking packages, and had initiated a formal rulemaking proceeding for one of the packages, when Governor Brewer issued a memorandum on January 22, 2009 directing all agencies to suspend their rulemaking activities pending a review by her office. As a result of that directive, the Department has suspended its work on these amendments until it receives authorization from the Governor's office to proceed. The following is a description of these rule amendments:

- Amendment of adequate water supply rules as required by SB 1575 (2007) – In 2007, the Legislature passed SB 1575, a bill authorizing cities, towns and counties outside AMAs to enact an ordinance requiring subdivision developers to obtain from ADWR a determination of a 100-year adequate water supply for their subdivision before recording their plats or offering lots for sale. The bill contained a session law requiring ADWR to amend its adequate water supply rules to include criteria for demonstrating a physically available 100-year supply of groundwater in specific aquifer systems and groundwater basins and sub-basins outside AMAs. The session law also requires ADWR to amend the rules to include criteria for making determinations on applications for exemptions from the adequate water supply requirements pursuant to A.R.S. § 45-108.03.

A Notice of Proposed Rulemaking for this rulemaking was published in the Arizona Register on December 19, 2008, and an oral proceeding was held on January 21, 2009. As a result of the Governor's directive, this rulemaking has terminated.

Amendment of assured water supply rules for the Santa Cruz AMA – As described in the response to Sunset Factor 1, A.R.S. § 45-576 requires subdividers within AMAs to obtain from ADWR a determination of a 100-year assured water supply before recording their plats or offering lots for sale. As required by A.R.S. § 45-576(H), ADWR adopted rules to carry out the purposes of A.R.S. § 45-576. Those rules include criteria for demonstrating consistency with the management goal for each AMA except the Santa Cruz AMA. ADWR did not include criteria for the Santa Cruz AMA because the AMA was established the previous year and additional time was needed to develop criteria for determining consistency with the management goal for the AMA, given its unique management goal and the complex groundwater system in portions of the AMA.

During the past several years, ADWR has worked with stakeholders in the Santa Cruz AMA to develop appropriate consistency with management goal criteria for the AMA. At the time the Governor issued her memorandum directing state agencies to suspend their rulemaking activities, ADWR was preparing draft rules

to distribute to stakeholders for informal comment. ADWR was planning to file a Notice of Proposed Rulemaking with the Secretary of State during the second half of 2009. As a result of the Governor's directive, work on this rulemaking has been suspended.

- Amendment of assured and adequate water supply rules to provide for a reduction in water demand for gray water systems – In 2006, the Legislature amended A.R.S. § 45-576(H) to require ADWR to amend its assured water supply rules to provide for a reduction in water demand for an application for an assured water supply determination if a gray water system will be installed that meets the requirements of the rules adopted by the Arizona Department of Environmental Quality. ADWR drafted rule language for this amendment and distributed the language to stakeholders for informal comment in 2007. As a result of the Governor's directive to suspend rulemaking activities, work on this rulemaking has been suspended.

**5. The extent to which the agency has encouraged input from the public before adopting its rules and the extent to which it has informed the public as to its actions and their expected impact on the public.**

A. ADWR encourages substantial public input into our rulemaking process by facilitating informal stakeholder groups.

*Example 1: Well Impact and Well Spacing Rules*

Before ADWR issued the Notice of Proposed Rulemaking for the Well Spacing and Well Impact Rules, extensive stakeholder group meetings were held to obtain public input on the new rules. From October 27, 2004 to December 14, 2005, 17 stakeholder meetings were held. Approximately 100 people representing each of the water use sectors attended the first meeting. On average, approximately 30 to 50 people attended the meetings regularly.

*Example 2: Statewide Water Advisory Group*

In 2006, the director of ADWR formed an advisory committee, known as the Statewide Water Advisory Group ("SWAG"), to assess the growth and water supply issues facing Arizona, particularly in rural areas of the state. SWAG is made up of individuals from across the state representing diverse stakeholders, including developers, water resource planners, land use planners, state agencies, local governments, tribal communities and elected officials. After eight months of discussions and 14 public meetings SWAG recommended legislative changes to address several significant water supply issues identified during the meetings. In 2007, the Legislature enacted legislation implementing SWAG's recommendations, including legislation giving cities, towns and counties outside AMAs authority to require subdividers to demonstrate a 100-year adequate water supply before recording their plats and offering lots for sale (SB 1575), and legislation establishing a water supply development revolving fund to provide loans and grants to

water providers and Indian tribes for the development of new water supplies and infrastructure (HB 2692). SWAG will continue to meet as long as the members feel there are substantive issues to discuss.

ADWR also initiated a modification to the adequate water supply rules to incorporate changes resulting from SB 1575. ADWR completed a series of statewide informal stakeholder meetings as part of the public process to form consensus around changes to the water adequacy rules. Beginning in February 2008 and completed in November 2008, ADWR held more than 20 informal stakeholder meetings in various locations across the state. In addition to input at the informal stakeholder meetings, the public had an opportunity to submit written comments on the draft rules in August 2008.

B. ADWR has extensive communication with the public and the regulated community on its programs and how these programs affect operations and water supplies.

ADWR maintains a variety of formal and informal communication vehicles with the public. Within AMAs, the statutes provide for a Groundwater User Advisory Council in each AMA to assist the Area Director by making recommendations for public policy, management plan updates, and annual setting of withdrawal fees for groundwater pumping. These are publicly noticed meetings and provide the Area Directors with a forum to meet at least monthly with the regulated community to discuss issues within AMAs.

In addition to these formal communication groups within AMAs, ADWR routinely schedules workshops and outreach efforts for water providers, cities, towns and counties throughout Arizona to provide education and outreach concerning ADWR's permitting programs. For example, ADWR posts information on its website to notify the public of pending applications, the status of permits in process and permits completed. ADWR also maintains a comprehensive Imaged Records database available to the public on the ADWR website, allowing access to a variety of documents, including permit applications. ADWR maintains an interactive database for wells throughout Arizona, also accessible through ADWR's website, allowing access to listed wells and their hydrographs. ADWR also maintains a Surface Watershed Subscription List of persons that have requested to receive notice by letter of all new surface water applications and claims within a particular watershed.

Additionally, ADWR schedules "pre-application" meetings for prospective permitting applicants throughout its programs, to answer questions, offer guidance, and clarify expectations prior to an applicant beginning the formal application process. These pre-application meetings have allowed ADWR to process permits more quickly with fewer problems and issues.

Finally, in support of Arizona's Rural Watershed Initiative, ADWR participates in or facilitates 17 active Rural Watershed that represent the water interests outside AMAs. *See Response to Sunset Factor 1 for more detail on this program.*

**6. The extent to which the agency has been able to investigate and resolve complaints that are within its jurisdiction.**

ADWR administers compliance with its regulatory programs through a variety of strategies including education, auditing, monitoring, addressing public complaints, field investigations and enforcement. Public awareness of ADWR compliance efforts may be the most significant factor in attaining a high voluntary compliance rate among Arizona water users.

ADWR has developed, and continues to keep updated, a *Compliance and Enforcement Manual*, available on its website. The *Compliance and Enforcement Manual*, in conjunction with regularly scheduled internal Compliance Committee meetings, helps achieve ADWR's goal of consistency and fairness in its enforcement actions, including assessing potential penalties, and provides clarity to the regulated community regarding ADWR's policies and procedures.

ADWR successfully investigates and resolves complaints regarding illegal construction and operation of jurisdictional dams. Since 2000, ADWR has investigated over 500 water impoundments and identified nearly 80 previously unregistered jurisdictional dams. ADWR employs a combination of technical assistance and compliance efforts to either bring these dams into conformance with safety requirements, or ensure their safe removal.

ADWR lacks authority to resolve complaints by surface water users regarding disputes or conflicts with other surface water users. Actions to resolve such disputes must be brought in the superior court. ADWR also lacks administrative enforcement authority for violations of the state's surface water laws. When ADWR receives a complaint that a person is violating the surface water laws, it attempts to persuade the violator to comply. If that fails, ADWR requests the County Attorney or the Attorney General to investigate and take proper enforcement action. In some cases the public is frustrated by ADWR's inability to resolve surface water complaints.

**7. The extent to which the attorney general or any other applicable agency of state government has the authority to prosecute actions under the enabling legislation.**

The Legislature has authorized the director of ADWR to "employ legal counsel to advise and represent ADWR in connection with legal matters before other departments and agencies of this state, and represent ADWR and this state in litigation concerning affairs of ADWR." A.R.S. § 45-104(F). Because of this statutory authorization, ADWR is represented by its own legal staff and not by the Attorney General.

There are at least two reasons that the Legislature authorized ADWR to employ its own legal staff rather than be represented by the Attorney General. First, if ADWR were represented by the Attorney General, it would create conflicts of interest because the Attorney General also represents state agencies, such as the State Land Department, that

apply for permits from ADWR and that are regulated by ADWR. Second, ADWR is the technical advisor to the General Stream Adjudication Court, and the Attorney General would have a conflict in representing both ADWR and other state agencies in those proceedings.

ADWR is authorized by statute to take administrative enforcement action against persons violating the following statutes within Title 45, Arizona Revised Statutes: (1) statutes governing bodies of water within AMAs (A.R.S. §§ 45-131, et seq.); (2) the water conservation plumbing requirements (A.R.S. §§ 45-311, et seq.); (3) the Groundwater Code (A.R.S. §§ 45-401, et seq.); (4) the Underground Water Storage, Savings and Replenishment Act (A.R.S. §§ 45-801.01, et seq.); (5) the water exchange statutes (A.R.S. §§ 45-1001, et seq.); (6) the dam safety statutes (A.R.S. §§ 45-1201, et seq.); and (7) the Gila River Indian Community Water Settlement Program (A.R.S. §§ 45-2601, et seq.). ADWR has authority to conduct audits and inspections to determine if violations occur. ADWR's enforcement authority includes issuing cease and desist orders, applying to the superior court for injunctive relief and recommending to the superior court that civil penalties be assessed. Except in the case of a temporary cease and desist order pending an administrative hearing, ADWR must provide an opportunity for an administrative hearing at the Office of Administrative Hearings before taking enforcement action. Criminal penalties are authorized for intentional violations of the statutes governing bodies of water in AMAs, the Groundwater Code, the dam safety statutes and the Gila River Indian Community Water Settlement Program. Criminal prosecutions may be brought only by local law enforcement agencies, the county attorney or the Attorney General.

The director of ADWR is authorized by statute to “[p]rosecute and defend all rights, claims and privileges of this state respecting interstate streams.” A.R.S. § 45-105(A) (9). ADWR's legal staff represents ADWR in negotiations with the other seven Colorado River basin states and the federal government on issues relating to Arizona's rights to the Colorado River. If litigation becomes necessary to defend those rights, ADWR's legal staff will represent ADWR.

As described in *Response to Sunset Factor 6*, ADWR has no authority to bring administrative enforcement actions for violations of the state's surface water laws. Certain violations of the surface water laws have been classified as class 2 or 3 misdemeanors and may be prosecuted by local law enforcement agencies, the county attorney or the Attorney General. See A.R.S. §§ 45-112 and 45-190. Actions to resolve disputes between surface water users must be brought in the superior court, a costly and time consuming process.

#### **8. The extent to which the agency has addressed deficiencies in its enabling statutes that prevent it from fulfilling its statutory mandate.**

Since its creation in 1980, ADWR has proposed or supported numerous amendments to Title 45, Arizona Revised Statutes, to help it better accomplish its statutory mandate. These amendments include both technical and substantive amendments. When proposing

legislation, ADWR works closely with stakeholders and other interested members of the public to get their input and to attempt to accommodate any concerns they may have. Examples of recent legislation proposed or supported by ADWR are set forth below.

ADWR regularly reviews the statutes it administers to determine if technical amendments are necessary. When ADWR determines that a technical amendment is necessary, it proposes legislation to make the technical amendment. For example, in 2008, ADWR proposed SB 1326 to correct internal references within A.R.S. § 45-454, the statute governing exempt wells.

ADWR also regularly reviews its programs and its authorities to determine if substantive amendments are needed to help achieve its statutory mandate, as in the following recent examples:

- HB 2277 (2005). This bill added a new article to Title 45, Chapter 1 requiring most public water systems within the state to prepare and regularly update a system water plan consisting of a water supply plan, a drought preparedness plan and a water conservation plan. The bill also requires public water systems to file annual water use reports with ADWR. This legislation has significantly increased water planning and drought preparedness by public water systems, particularly in rural areas where historically there was little water planning by those entities.
- SB 1557 (2007). This bill established the modified non-per capita conservation program for large municipal water providers within AMAs and made the program mandatory for large providers not designated as having an assured water supply. This legislation should result in greater water efficiency by water providers and less administrative workload for ADWR.
- For the past several years, ADWR has proposed, and the Legislature has enacted, temporary legislation authorizing the Director to allow persons outside AMAs to transport groundwater between groundwater basins when the Director determines that an emergency exists due to lack of precipitation or a temporary water shortage caused by a water system failure. The groundwater may be used only for stock watering, domestic uses or potable municipal water service only until the emergency subsides. The most recent legislation was passed in 2009 (HB 2440).

In 2006, ADWR formed SWAG to discuss ways to develop reliable water supplies and improve water management throughout the state, particularly in rural areas (*See Response to Sunset Factor 5*). In 2007, SWAG proposed several legislative amendments for this purpose. ADWR supported these legislative proposals and testified on their behalf before the Legislature. The following bills were passed as a result of this effort:

- SB 1575. This bill authorizes cities, towns and counties outside AMAs to adopt an ordinance or regulation requiring developers of new subdivisions to obtain a determination from ADWR that there is a 100-year adequate water supply for the subdivision before the plat can be recorded and lots can be offered for sale. The

bill allows counties to adopt such an ordinance or regulation only if approved by unanimous vote of the board of supervisors. Prior to the enactment of this legislation, cities, towns and counties outside AMAs had no authority to require subdividers to obtain a determination of a 100-year adequate water supply from ADWR.

- HB 2692. This bill created the water supply development revolving fund consisting primarily of monies to be appropriated by the Legislature. Monies in the fund are to be used to provide loans and grants to municipal water providers and Indian tribes for the acquisition of water supplies and the development of facilities for the delivery, storage, recovery and reuse of water supplies.
- HB 2484. This bill prohibits the drilling of a new well anywhere in the state if ADWR determines that the well would cause the movement of contaminated water from a remedial action site to another well.
- HB 2300. This bill authorizes the establishment of a water district in the southern portion of Cochise County to address water management issues in the area. The bill established an organizing board for the district and provides for the establishment of the district if approved by a majority of voters at an election. If established, the goal of the district will be to help sustain the Upper San Pedro River and assist in meeting the water supply needs of Fort Huachuca and communities within the district.

In 2005, ADWR drafted and supported legislation implementing two major Indian water rights settlements involving the Gila River Indian Community (“GRIC”) and the Tohono O’odham Indian Nation (“TON”). This legislation, enacted as HB 2728, was necessary to make the settlement agreements effective. The legislation was supported not only by the GRIC and the TON, but also numerous other water users throughout the state. The settlement agreements resolved long-standing water rights claims by the GRIC and TON, providing more certainty for water users in the state and avoiding lengthy and costly litigation.

**9. The extent to which changes are necessary in the laws of the agency to adequately comply with these factors.**

Legislation would improve ADWR’s compliance with these factors in the following issue areas:

*Issue 1: Reduction of Groundwater Reliance in the Five AMAs*

As mentioned previously in *Response to Sunset Factor 1*, the Groundwater Code establishes a goal of safe-yield by 2025 for the Prescott, Phoenix, and Tucson AMAs. Safe-yield is accomplished when no more groundwater is withdrawn from the aquifer than is annually replaced. Although Arizona law has set a goal of achieving safe-yield by 2025 for groundwater supplies in the State’s most severely depleted areas, groundwater

depletion is likely to continue past that date under the current regulatory structure. The consequence of not achieving safe-yield will be to threaten the long-term availability of water supplies for existing homes, industries and communities in AMAs.

Pursuant to A.R.S. §§ 45-562 through 45-568.02, ADWR is required to adopt a series of five groundwater management plans for each AMA to be implemented in sequence from 1980 through 2025. ADWR is currently initializing the Fourth Management Plan, which it anticipates implementing in 2012. The Code mandates the inclusion of progressively more restrictive groundwater conservation requirements and methods to supplement groundwater supplies from one management period to the next. The Code is specific as to what programs must be included in each sequential management plan and ADWR has met the statutory mandates requiring the establishment of a water rights system and the continuing development and refinement of mandatory conservation requirements for industrial, municipal, and agricultural water users.

Although the management plans prepared by ADWR comply with the Code's mandated water management goals, ADWR acknowledged as early as 1994 in its *Arizona Water Resources Assessment* that the mandatory conservation requirements contained in the plans may not be sufficient to reduce groundwater use to safe-yield levels in AMAs. In addition, the Phoenix AMA Third Management Plan, which was adopted in December 1999, acknowledged that, "[a]lthough safe-yield is an attainable goal, it is apparent that sufficient progress has not been made toward this goal, nor have the statutory and institutional structures to succeed been fully established." Further, the Tucson AMA Third Management Plan states, "[t]here are structural weaknesses in certain portions of the Groundwater Code...because few of the Code provisions are tied directly to achieving the [safe-yield] goal."

Both the Phoenix AMA and Tucson AMA Third Management Plans discuss alternative approaches or programs that should be evaluated to assist AMAs in their efforts to achieve the safe-yield goal. Possible programs or options to address water management problems include: incentives for groundwater recharge into the aquifer and use of renewable resources, greater restrictions on new groundwater pumping, and addressing the cost disparities between groundwater and renewable supplies. In 2000, a Governor's Water Management Commission (Commission) was created to study these issues and make recommendations. The Commission was made up largely of entities with a direct interest in how the regulations affect their water use. Although the Commission recommended a number of statutory changes to help achieve the safe-yield goal, only a handful of the Commission's recommendations were ultimately adopted into law.

The following are the primary reasons that safe-yield will not be achieved under the current statutes:

- ❖ ***ADWR has limited ability to reduce grandfathered groundwater use*** – The Groundwater Code created several types of grandfathered rights, depending on the historic groundwater use, and established methods for determining the amount of groundwater associated with each grandfathered right. The majority of these

grandfathered groundwater rights are associated with the agricultural and industrial sectors. While the Groundwater Code, through the management plan conservation requirements, allows ADWR to require grandfathered right holders to implement reasonable conservation measures designed to reduce their groundwater use, the Code does not give ADWR authority to significantly reduce the amount of groundwater associated with each grandfathered right. Furthermore, the Groundwater Code does not give ADWR authority to require grandfathered rights holders to eventually convert from groundwater to renewable water sources.

- ❖ ***Agricultural flexibility credits allow carryover to future years*** – The Groundwater Code established a flexibility account for agricultural groundwater users within AMAs that allows them to accrue credits for unused groundwater entitlements and carry the credits over for use in the future. Any portion of an agricultural user’s annual irrigation groundwater entitlement that is not used during the year is added to the user’s credit balance. An agricultural user can accrue an indefinite amount of groundwater credits in its flexibility accounts, as the Groundwater Code does not establish a maximum credit balance. Additionally, with certain restrictions, an agricultural user can transfer the credits earned during a year to another agricultural user in the same AMA. An agricultural user with credits in its flexibility account can use the credits to ***exceed*** its annual groundwater allotment as established in the management plan. The credits accrued by agricultural users have essentially created a lien against the groundwater supply that if used in the future could increase groundwater depletion and further hamper the AMAs’ ability to achieve safe-yield. In 2007, agricultural flexibility credits in the Prescott, Phoenix, and Tucson AMAs totaled more than 6.8 million acre feet, or more than 6.5 times the total groundwater consumption for these AMAs in the same year. The agricultural sector in the Phoenix AMA already has enough accrued credits to supply all agricultural water needs in that AMA until at least 2013.
  
- ❖ ***Groundwater withdrawal permits increase the amount of groundwater that may be withdrawn in an AMA*** – In addition to grandfathered rights, the Groundwater Code created groundwater withdrawal permits that allow persons without a grandfathered right to pump groundwater in an AMA for the following purposes: (1) to drain land for agricultural production or building stabilization; (2) for the withdrawal of poor quality water; (3) for hydrologic testing; (4) for generating emergency electrical energy; (5) for mineral extraction and processing; and (6) for general industrial uses. ADWR is required by statute to issue permits for mineral extraction and industrial uses for terms of up to 50 years if the permit applicant meets certain criteria. ADWR is further required to renew these permits for as long as the applicant continues to meet the statutory criteria. In 2007, groundwater withdrawal permits allowed 15,691 acre feet of groundwater to be used in the Phoenix, Prescott and Tucson AMAs, although only 4,527 acre feet of groundwater, or 29 percent of the allowance, were actually used.

## *Issue 2: Ensuring Long-Term Water Supplies for Future Generations*

One of ADWR's most important roles is securing water supplies for future generations. As such, when the Groundwater Code was adopted in 1980, it changed the water adequacy requirements for new subdivisions within AMAs by requiring a developer of subdivided land in an AMA to obtain a determination of a 100-year **assured** water supply from ADWR before the plat for the subdivision can be recorded and a public report can be issued by the Arizona Department of Real Estate ("ADRE"). A.R.S. § 45-576. In order to obtain a determination of assured water supply, the developer must demonstrate that a water supply of adequate quality is physically, continuously and legally available for 100 years, that the developer has financial capability to construct any necessary delivery and treatment facilities, and that any groundwater use is consistent with the management plan and management goal of the AMA. Areas outside AMAs are not subject to the assured water supply requirements, but remain subject to the adequacy provisions of A.R.S. § 45-108.

Limited consumer protections in areas outside of AMAs provide residents with less assurance of a future water supply than residents within AMAs. Consumer protection is weaker in two ways. First, outside AMAs, only the first purchaser of a new subdivision lot must receive notification of the sufficiency of the water supply. Within AMAs, new subdivisions must have a sufficient water supply before any lots are sold. Second, well spacing is regulated in AMAs but is not regulated in areas outside AMAs. Thus, outside AMAs, new large wells may be drilled near a well serving a subdivision, causing the subdivision well to go dry.

The limited consumer protections in areas outside AMAs raise several concerns regarding the water supply on which those homeowners rely:

- ❖ ***Need for more assurance of sufficient water*** – The adequate water supply provisions, applicable outside AMAs, require ADWR to issue a report on the sufficiency of the water supply, but do not prohibit the development or sale of subdivision lots in the absence of sufficient water. If ADWR determines that the water supply is insufficient, the developer is required only to notify potential buyers by displaying the water supply information in promotional materials and subdivision lot sales contracts. Only the original purchaser is entitled to notification regarding the water supply, as there is no requirement that the water supply information be disclosed to purchasers when the subdivision lot is resold. As mentioned above, this contrasts with the assured water supply provisions applicable within AMAs, which prohibit the development or sale of subdivisions that do not have a sufficient 100-year water supply, thereby protecting consumers from purchasing a subdivision lot with insufficient water to meet their needs.

In 2007, SB 1575 was enacted to address the inequity between the two sets of requirements in response to recommendations from SWAG (*see Response to Sunset Factor 5*). SB 1575 amended the subdivision laws to authorize cities, towns and counties outside AMAs to require developers within their jurisdictions

to demonstrate a 100-year adequate water supply before platting and selling lots. A county may adopt such a requirement only upon the unanimous vote of the board of supervisors. To date, only Cochise County, Yuma County, the Town of Patagonia, and the City of Cottonwood have adopted such requirements. All other areas of the state outside AMAs are still regulated under the original adequacy provisions.

The Department of Economic Security projects that by 2025 there will be approximately 1,570,600 additional people living outside AMAs. As only the original purchaser of a subdivision lot outside AMAs receives information regarding the sufficiency of the water supply, subsequent purchasers may not know that the water supply is insufficient. A partial solution would be to require ADWR's water supply determination to be recorded with the County Recorder's Office. While this would not require that subsequent purchasers receive notification regarding the sufficiency of the water supply, it would provide notification during a title search. ADWR recommends that the Legislature consider enacting a law to require that subdivision developers record with the appropriate County Recorder's Office ADWR's determination of the sufficiency of the subdivision's water supply.

However, even if increased notification of the sufficiency of the water supply is legislated in the future, under the adequate water supply program, subdividers outside AMAs are allowed to develop and sell new subdivisions that do not have sufficient water. This affects not only the purchasers of lots within the new development, but could also result in the depletion of the water upon which existing residents rely. To provide greater protection, ADWR recommends that the Legislature consider amending A.R.S. § 45-576 to extend the assured water supply provisions outside AMAs. If the assured water supply provisions were extended outside AMAs, there would be no need to require developers to record ADWR's determination of the sufficiency of the water supply.

- ❖ ***Well spacing and impact is unregulated*** – ADWR is not authorized to regulate the spacing between wells or the impact that a new well will have on existing wells outside AMAs. The Groundwater Code requires filing a notice of intent to drill a well outside an AMA, but does not require minimum spacing between wells, or prohibit new wells that will deplete the water supply of existing wells. In contrast, within AMAs, the Groundwater Code requires ADWR to adopt rules that prevent new wells from causing unreasonably increasing damage to surrounding land or other water users. With certain limited exceptions, ADWR's rules prohibit drilling new wells within an AMA if the proposed well will excessively decrease the water supply of an existing well.

As growth occurs outside AMAs without renewable water supplies, most new residents will drill wells to obtain groundwater. If additional wells deplete the water supply, new homeowners, existing residents, municipalities, and industry will be affected. Consequently, ADWR recommends that the Legislature consider

amending A.R.S. § 45-598 to give the Department authority to authorize ADWR to establish well spacing requirements outside AMAs.

*Issue 3: Surface Water Permitting*

As described in the *Responses to Sunset Factors 6 and 7*, ADWR lacks authority to bring administrative enforcement actions for violations of the state's surface water laws, manage the use of surface water resources pursuant to water rights or claims, or resolve disputes between surface water users. ADWR recommends that the Legislature provide these authorities in statute.

**10. The extent to which the termination of the agency would significantly harm the public health, safety or welfare.**

The consequences of terminating ADWR would be significant, especially during this time of reduced state General Fund revenues and reductions to budgets and staff throughout state government. The danger in terminating ADWR is primarily three-fold: (1) the loss of scientific and water policy expertise, or at least diffused expertise, in the state workforce, (2) the loss of credibility among the Colorado River basin states, critical to negotiating Colorado River management issues, and (3) most importantly, a lack of focus on the mission of securing a sustainable water future for Arizona. While some programs might eventually be absorbed into other agencies after the state's economy has recovered, and revenues might allow for hiring new staff within other agencies to take on certain water quantity responsibilities, the short-term costs to the state, in terms of lost water resources as well as hardship on Arizona's businesses and communities that rely on ADWR, would be substantial and hard-hitting. An additional danger of eliminating ADWR is the possibility that important programs, especially in rural Arizona, would slip through the cracks as responsibilities are absorbed into other agencies. Long-term costs to the state would be a hodge-podge of programs and activities without certainty of success.

*See Response to Sunset Factor 1 for detailed information about the important programs and responsibilities that would be at risk if ADWR is terminated. Also see Response to Additional Question 4 for more discussion on the consequences of eliminating ADWR.*

**11. The extent to which the level of regulation exercised by the agency is appropriate and whether less or more stringent levels of regulation would be appropriate.**

ADWR's level of regulation is appropriate for the 77 types of licenses it currently issues. ADWR regulates a wide range of activities including water rights, the transportation and storage of water, and the regulation of wells and well drillers. However, there are some areas where additional tools are needed if ADWR is to meet its regulatory goals. *See Response to Sunset Factor 9 for more detail.*

**12. The extent to which the agency has used private contractors in the performance of its duties and how effective use of private contractors could be accomplished.**

When and where appropriate, the agency has successfully utilized private contractors to accomplish certain well-defined tasks.

Flood Warning

ADWR contracts with the Salt River Project (SRP) for database and web server functions for the Arizona Flood Warning System (AFWS). The AFWS uses existing SRP computer and communication infrastructure to operate the system and website in a very cost effective manner.

ADWR performs most of the operation and maintenance responsibilities associated with ADWR-owned flood warning equipment. However, private contractors are sometimes used to perform specialized tasks such as communication tower work or to assist when widespread emergency repair requires additional technical staff. Doing so is more cost-effective than providing such specialized training for current staff or making additional hires.

Floodplain Management

ADWR employs private contractors for short-term projects in the development of standards for floodplain management in carrying out its responsibilities under A.R.S. § 48-3605(A) which states, “[t]he director of water resources shall develop and adopt criteria for establishing the one-hundred year flood and delineating floodplains.” This work is funded exclusively from voluntary contributions from the local floodplain management community without the use of state funds.

Hydrology Support

- Del Rio Drilling (2001) – Hired to drill 3 ADWR-owned monitor wells in the Prescott AMA.
- Burgess and Niple (2004) – Hired to review and comment on ADWR’s conceptual and renewable water budget for the Pinal AMA.
- Hydrologic Research Center (2005) – Hired to develop stochastic stream-flow projections for the Santa Cruz River for assured water supply physical availability projection work in the Santa Cruz AMA.

**B. Additional Questions (A.R.S. § 41-2954(F))**

**1. Identify the problem or the needs that the agency is intended to address.**

In 1980, ADWR was created to ensure dependable long-term water supplies for Arizona's growing communities. In order to accomplish that goal, ADWR administers the state's laws governing the use of surface water and groundwater resources, and represents Arizona in discussions with the federal government and political entities outside of Arizona regarding the Colorado River, including negotiations to protect Arizona's rights to the Colorado River.

In addition, ADWR explores methods of augmenting water supplies to meet future demands, and develops policies that promote conservation and equitable distribution of water. ADWR also inspects dams and participates in flood control planning to prevent property damage, personal injury, and loss of life. In support of these activities, ADWR collects and analyzes data on water levels and on water-quality characteristics. Other responsibilities include management of floodplains and non-federal dams to reduce loss of life and damage to property.

**2. State, to the extent practicable, in quantitative and qualitative terms, the objectives of the agency and its anticipated accomplishments.**

ADWR's mission is to preserve and protect Arizona's water resources for the future and to ensure Arizona's citizens are protected from dam failures and flooding. ADWR's Strategic Plan includes the goals for the agency, with clear objectives and specific performance measures. ADWR's most important goals are discussed below.

- **Goal 1: ADWR will provide leadership in water management problem solving.**

ADWR maintains responsibility to protect Arizona's allocation of the Colorado River and tasks related to that objective remain a priority for ADWR. Working with partners, ADWR successfully negotiated several agreements among the Seven Colorado River Basin States to operate the River in ways that help Arizona avoid shortages, support River augmentation projects and develop a framework for bi-national water management discussions with Mexico. Additionally, after consulting with Colorado River water users within the state, ADWR recommended to the United States Bureau of Reclamation, and the Bureau adopted, a process for determining reductions in the volumes of Colorado River to be delivered to various classes of users within the state when the state's Colorado River entitlement is reduced due to a declared shortage.

Managing Arizona's water for the future is also a priority for ADWR. Since its last sunset review in 1999, ADWR has facilitated three Indian water rights settlements, including a settlement of water rights of the Gila River Indian Community, and has provided technical reports concerning those settlements in the General Stream Adjudication. As required for some of the settlements, ADWR also has provided post-

settlement technical support in the form of agricultural mapping and well inventories. In addition, ADWR has completed other technical reports on a variety of issues in the General Stream Adjudication and most recently issued a preliminary Hydrologic Survey Report for the Hopi Reservation and a subflow zone delineation report for the San Pedro River Watershed. ADWR's on-going work in the General Stream Adjudication includes preparing a report on federal claims for the San Pedro Riparian National Conservation Area and work on subflow-related issues in the Verde River Watershed.

Groundwater management within the five AMAs is the cornerstone for ADWR activities. Since the last sunset review, ADWR has completed one management plan (Third Management Plan), modified the non-per capita municipal conservation program to become more efficient and effective, completed a comprehensive assessment of water resources within the AMAs, undertaken substantial review and modification of the assured and adequate water supply permitting program to clarify requirements and eliminate redundant information submittals, initiated activities for development of the Fourth Management Plan, and created and implemented drought preparedness tools and provided assistance in the formation of six county-based local drought impact groups.

Developing a culture of water conservation is a fundamental aspect of ADWR's leadership in water management throughout Arizona. ADWR expanded its water conservation focus to include greater Arizona and integrated its conservation staff to develop a single Conservation Program that effectively increases ADWR's ability to provide information, tools and direct assistance without an increase in staffing. ADWR has developed a number of tools and programs, including the popular Rinse Smart program of highly efficient spray valves for commercial kitchens that have been installed throughout Arizona, with assistance from partners such as the Salt River Project, Southwest Gas and the United States Bureau of Reclamation. A wide array of conservation tools and information is available on ADWR's user-friendly website (<http://www.azwater.gov>).

- **Goal 2: ADWR will provide quality information on water resources to the public.**

ADWR believes one of its central functions is to provide quality information on Arizona's water resources to the public to enable sound water policy development at all levels of government. Since the last sunset review, ADWR has developed a statewide monitoring program to acquire data, implemented an automated monitoring program throughout the state, developed and updated crucial groundwater models within AMAs, assisted watershed partnerships with water resource investigations, and partnered with the United States Geological Survey and the United States Bureau of Reclamation to complete water resource feasibility work funded in part through the Arizona Rural Watershed Initiative.

Importantly, ADWR has compiled data, turned it into information, and presented it to the public in the very popular Arizona Water Atlas, which will total 9 volumes by calendar year 2010. The Arizona Water Atlas, an electronic resource available on ADWR's

website, allows the public to access information and data geographically, by water resource characteristics and, in volume 9 forthcoming, by supply sustainability.

- **Goal 3: ADWR will ensure Arizona’s citizens are protected from the likelihood of failing dams or poor floodplain management.**

ADWR protects the public by reducing the likelihood of dam failures, works with dam owners to rehabilitate unsafe dams, develops and operates the Arizona Statewide Flood Warning System, and serves as the Arizona state coordinator of the Community Assistance National Flood Insurance Program. Since the last sunset review, ADWR has streamlined and refined its dam safety classification system, significantly increased the number of jurisdictional dams with updated Emergency Action Plans, and provided technical and financial assistance for the rehabilitation and repair of several unsafe dams, including River Reservoir in Apache County, City Dam in Coconino County and Magma Dam in Pinal County.

Other goals include maintaining a collaborative culture within ADWR and with the public, providing timely permitting and other services.

**3. Identify any other agencies having similar, conflicting or duplicative objectives and an explanation of the manner in which the agency avoids duplication or conflict with other such agencies.**

ADWR’s mission is unique among state agencies and has no conflicting or duplicative objectives with any other state agency. ADWR strives to work in complementary and collaborative ways with its sister agencies to ensure an efficient and effective implementation of ADWR’s programs. For example, ADWR’s assured and adequate water supply program requires new developments to demonstrate that a water supply of adequate quality is physically, continuously and legally available for 100 years, and that the developer has the financial capability to construct a water supply system to serve the water. ADWR developed procedures that allow for the demonstration of adequate water quality through the existing monitoring and reporting processes of the Arizona Department of Environmental Quality, so there are no duplicative requirements. ADWR also allows financial capability to be demonstrated through approvals issued by the Arizona Corporation Commission to avoid duplication. ADWR works closely with the Arizona Department of Game and Fish for determinations of amounts of water required to sustain fish and wildlife in evaluating instream flow applications and with county flood control districts to ensure appropriate floodplain management programs.

**4. Assess the consequences of eliminating the agency or of consolidating it with another agency.**

*See Response to Sunset Factor 10.*

As stated previously, ADWR is unique among state agencies. Arizona is at a critical juncture in its water resources management. Several counties, including Cochise,

Coconino, Gila and Yavapai counties, already present a water deficit situation, where water supplies are inadequate to meet present demand, let alone future demands. The AMAs are struggling to meet their water management goals, including those AMAs that have safe yield by 2025 as their target. Arizona continues to endure drought-related conditions, and the effect of climate change on water supplies remains an unknown factor. The relationships among the Seven Basin States of the Colorado River are unpredictable, and although we are in a period of relative calm, history reminds us of the natural tension that exists between the Upper and Lower Basins, and indeed within the Lower Basin itself. Arizona is embarking on a new and fragile relationship with the country of Mexico as it relates to international water resources we both share. Now perhaps more than ever, the expertise, technical knowledge, and water resource management provided by ADWR are necessary for the future prosperity and sustainability of Arizona. Elimination of ADWR would bring chaos at a time when continuity and innovation is required to assure Arizona's water future.

Consolidation with another state agency would only dilute ADWR's critical mission and reduce the effectiveness with which ADWR has operated.

# **Appendix A**

## Rural Watershed Partnerships and Initiative Funding

| Watershed Partnership  | Primary Participants   | Current Projects & Accomplishments   | Projects Funded/Co-Funded by Rural Watershed Initiative  |
|--|--|--|--|
| Upper San Pedro Partnership  | Sierra Vista<br>Ft. Huachuca<br>Cochise County<br>Huachuca City<br>TNC<br>Audubon<br>Bella Vista Water<br>ADWR<br>USF&W<br>USFS<br>NRCO<br>BLM<br>USGS<br>USBoR<br>USDA<br>Bisbee<br>Tombstone<br>AACD                     | Completed comprehensive groundwater study, 2007<br>Completed Numeric Groundwater Model, 2008<br>Completed DSS model, 2009<br>Completed SPRNCA Water demand study 2007<br>Completed recharge study of detention basins 2007<br>Completed Water Supply Appraisal Study 2008<br>Constructing facilities to transfer effluent from Huachuca City to the Fort for recharge.<br>Completed 5 <sup>th</sup> iteration of water conservation & management plan<br>Complete Section 321 Reports to Congress annually<br>Provided \$1,000,000+ in funding for conservation projects in watershed.<br>Conduct public outreach and educational forums | Co-Funded with USGS and Upper San Pedro Partnership a Comprehensive Groundwater Study and Numeric Model.<br>Co-Funded with USGS and Upper San Pedro Partnership the San Pedro Riparian National Conservation Area (SPRNCA) water demand study<br>Co-Funding completion of Feasibility Study  |
| VERDE WATERSHED<br>Yavapai County Water Advisory Council (Verde Watershed Authority)<br>(24 special interest groups) | Prescott<br>Prescott Valley<br>Chino Valley<br>Paulden<br>Yavapai County<br>Sedona<br>Camp Verde<br>Clarkdale<br>Cottonwood<br>Jerome<br>Yavapai Apache<br>Yavapai Prescott<br>ADWR<br>TNC<br>USFS<br>USGS<br>USBoR<br>SRP | <ul style="list-style-type: none"> <li>• Completed comprehensive groundwater study 2008</li> <li>• Completed numeric groundwater model 2009</li> <li>• Completed aero magnetic study 2006</li> <li>• Completed Verde watershed study 2000</li> <li>• Completed water management plan for Verde watershed area. 2007</li> <li>• Completed historical agricultural demand study 2006</li> <li>• Currently in the 2<sup>nd</sup> year of a 3 year Water Supply Appraisal Study</li> </ul>   | <ul style="list-style-type: none"> <li>• Co-Funded with USGS and Yavapai County Water Advisory Council a Comprehensive Groundwater Study and Model Development of the Verde Watershed</li> <li>• Co-Funded with the BOR the Water Supply Appraisal Study</li> <li>• Co-Sponsor of Verde River Water Education Advisory Council Teacher workshop</li> </ul> |
| Coconino Plateau Water Advisory Council (CPWAC)  | Flagstaff<br>Coconino County<br>Williams<br>Sedona<br>Page<br>Tusayan<br>Grand Canyon<br>Grand Canyon Trust<br>Navajo Nation<br>Hopi Tribe<br>Havasupai Tribe<br>ADWR<br>USBoR   | <ul style="list-style-type: none"> <li>• Completed Water Supply Appraisal Study 2007.</li> <li>• Completed comprehensive groundwater study 2008</li> <li>• Completed development of numeric groundwater model 2009</li> <li>• Completed Phase I Water Demand Study for Coconino Plateau 2000</li> <li>• Completed Growth Impacts Study 2000</li> <li>• Completed Western Navajo</li> </ul>   | <ul style="list-style-type: none"> <li>• Co-Funded with USGS and Coconino Plateau Advisory Council Comprehensive Groundwater Study</li> <li>• Co-Funded with USGS completion of groundwater model</li> <li>• Co-Funded with Grand Canyon Trust a Water Demand Study.</li> </ul>  |

| Watershed Partnership                             | Primary Participants  | Current Projects & Accomplishments  | Projects Funded/Co-Funded by Rural Watershed Initiative  |
|---|---|---|--|
|   | USGS<br>USFS<br>NAU<br>TNC<br>State Lands<br>Doney Park Water<br>State Parks<br>AZ Game & fish<br>ADEQ  | Pipeline Study<br><ul style="list-style-type: none"> <li>Completed Strategic Water Management study 2008</li> </ul>   | <ul style="list-style-type: none"> <li>Co-Funded with USBoR a Water Appraisal study for Coconino Plateau.</li> <li>Seeking Congressional authority to complete Feasibility Study</li> </ul>  |
| Gila Watershed Partnership                        | Safford<br>Thatcher<br>Pima<br>Graham County<br>Greenlee County<br>Gila Resources<br>ADWR<br>AZ G&F<br>BLM<br>USFS<br>BOR<br>NRCS/RC&D<br>AZ Game & Fish  | <ul style="list-style-type: none"> <li>Completed Fluvial Geomorphology study 2005</li> <li>Completed first draft of water demand study 2006</li> <li>Initiated the development of water resource management plan for the watershed area</li> <li>Coordinate public outreach and educational forums</li> <li>Capped several saline wells contributing to the degradation in water quality of the Gila River</li> <li>Coordinated several resin bush eradication projects.</li> <li>Initiating the development of a comprehensive water management plan.</li> </ul> | <ul style="list-style-type: none"> <li>Co-Funded with BLM Geomorphology Study</li> <li>Co-Funded with Gila Watershed Partnership a Water Resource Management and Watershed Plan</li> <li>Funded Water Demand Study</li> </ul>        |
| Mogollon Highlands (Northern Gila County)         | Payson<br>Pine<br>Strawberry<br>Gila County<br>Tonto Apache Nation<br>ADWR<br>SRP<br>USFS<br>USBoR<br>USGS<br>Brooks Utilities<br>Pine Strawberry Water Improvement Dist.<br>Rim Trails Water Improvement Dist.<br>Local Citizens and Special Interest Groups | <ul style="list-style-type: none"> <li>Completed comprehensive groundwater study 2007</li> <li>Completed numeric groundwater model 2009</li> <li>Completed Water Supply Appraisal study 2009</li> <li>Completed Strategic Plan 2006</li> <li>Completed feasibility study and cost estimate for Blue Ridge Reservoir pipeline 2008</li> </ul>  | <ul style="list-style-type: none"> <li>Co-Funded with USGS Comprehensive Groundwater Study and Model Development.</li> <li>Co-Funded with USBoR and Payson Water Supply Appraisal Study</li> </ul>                                   |
| Upper Little Colorado River Watershed Partnership | Springerville<br>Eagar<br>Greer<br>Nutrioso<br>Apache County<br>ADWR<br>ADEQ<br>AZ G&F<br>NRCS/RC&D<br>Local Citizens and Special Interest Groups   | <ul style="list-style-type: none"> <li>Completed aerial mapping survey and GIS coverage of the Little Colorado River (LCR) and its tributaries 2000.</li> <li>Completed geomorphic and biological assessment of the LCR 2002.</li> <li>Completed Stream riparian restoration project 2004.</li> <li>Upgraded the Round Valley Irrigation Delivery System 2000.</li> </ul>   | <ul style="list-style-type: none"> <li>Funded aerial mapping survey and GIS coverage of Little Colorado River.</li> <li>Co-Funded with Round Valley Irrigation and the Partnership the Irrigation Delivery System Upgrade</li> </ul> |

| Watershed Partnership                           | Primary Participants  | Current Projects & Accomplishments   | Projects Funded/Co-Funded by Rural Watershed Initiative   |
|---|---|--|---|
|   |   | <ul style="list-style-type: none"> <li>Completed water budget 2007</li> </ul>  |   |
| Silver Creek Watershed Partnership              | Snowflake<br>Taylor<br>Holbrook<br>Winslow<br>Show Low<br>Navajo County<br>Silver Creek ID<br>ADWR<br>NAU<br>Local Citizens<br>Show Low Creek Watershed Partnership | <ul style="list-style-type: none"> <li>Completed Silver Creek channel and riparian restoration study 2004</li> <li>Completed Value Engineering Analysis of unsafe dams 2006</li> <li>Currently working on water budget, which will be used in the development of a water resources management plan.</li> </ul>   | <ul style="list-style-type: none"> <li>Co-funded with Partnership and Navajo County a Silver Creek Channel and riparian restoration study.</li> </ul>   |
| Upper Bill Williams Partnership                 | Skull Valley<br>Peebles Valley<br>Yarnell<br>Yavapai County<br>ADWR<br>Local Ranchers   | <ul style="list-style-type: none"> <li>Preliminary water budget has been completed 2006</li> </ul>   | <ul style="list-style-type: none"> <li>Funded Watershed reconnaissance</li> </ul>   |
| Northwest Arizona Watershed Alliance            | Kingman<br>Mohave County<br>Hualapai Nation<br>ADWR<br>BLM<br>Local Citizens<br>USFS  | <ul style="list-style-type: none"> <li>Completed groundwater reconnaissance survey of 5 basin area.</li> <li>Coordinated the clean-up of numerous wildcat dumpsites.</li> <li>Initiated the development of a Water Resource Management Plan for watershed area.</li> <li>Currently in 5<sup>th</sup> year of 7 year comprehensive groundwater study and groundwater model development</li> </ul> | <ul style="list-style-type: none"> <li>Funded comprehensive groundwater reconnaissance survey.</li> <li>Co-Funded with USGS and Mohave County comprehensive groundwater study</li> <li>Co-Funding with USGS development of numeric groundwater model</li> </ul> |
| Upper Agua Fria Watershed Partnership           | Cordes Lakes<br>Mayor<br>Yavapai County<br>Black Canyon City<br>Spring Valley<br>ADWR<br>ADEQ<br>State Lands<br>UofA<br>BLM<br>USFS<br>Local Citizens               | <ul style="list-style-type: none"> <li>Completed watershed reconnaissance study 2006.</li> <li>Completed active recharge site identification study 2007</li> </ul>   | <ul style="list-style-type: none"> <li>Funded Watershed Inventory and Analysis Study.</li> <li>Funded completion of the identification of active recharge sites study.</li> </ul>   |
| Community Watershed Alliance (Middle San Pedro) | Benson<br>St. David<br>Pomerene<br>NRCDC/RC&D<br>ADWR<br>Local Ranchers<br>USGS<br>Special Interest Groups  | <ul style="list-style-type: none"> <li>Currently in the 5<sup>th</sup> year of a 7 year comprehensive groundwater study and groundwater model development</li> <li>Completed conceptual groundwater model 2009</li> </ul>  | <ul style="list-style-type: none"> <li>Co-Funded with USGS comprehensive groundwater study</li> <li>Co-Funding with USGS development of numeric groundwater model</li> </ul>  |

| <b>Watershed Partnership</b>                                    | <b>Primary Participants</b>   | <b>Current Projects &amp; Accomplishments</b>  | <b>Projects Funded/Co-Funded by Rural Watershed Initiative</b>  |
|---|---|--|---|
| Lower San Pedro Watershed Partnership<br>(Currently Not Active) | Reddington<br>Cascabel<br>NRCD/RC&D<br>Local Ranchers<br>ADWR   | <ul style="list-style-type: none"> <li>Completed watershed reconnaissance study 2005</li> </ul>  | <ul style="list-style-type: none"> <li>Funded watershed reconnaissance study</li> </ul>   |
| Little Colorado River Watershed Coordinating Council (LCRWCC)   | Navajo County<br>Apache County<br>Navajo Nation<br>Hopi Tribe<br>ADWR<br>USBoR<br>BLM<br>USFS<br>NRCS<br>Local Ranchers<br>ULCR Partnership<br>Silver Creek Partnership | <ul style="list-style-type: none"> <li>Initiated Tamarisk removal and revegetation pilot project.</li> </ul>   | <ul style="list-style-type: none"> <li>Co-funded with Partnership and Winslow Development and Ecosystem Restoration Program for the Montane Forest Regimes of the LCR.</li> </ul>           |
| Arizona Strip Partnership<br>(Currently Not Active)             | Fredonia<br>Kanab, Utah<br>Colorado River City<br>ADWR<br>BLM<br>USBoR<br>USFS<br>USGS<br>National Parks<br>Local Ranchers & Citizens                                   | <ul style="list-style-type: none"> <li>Completed seeps and springs study of Kanab Creek.</li> <li>Completed watershed reconnaissance study.</li> <li>Completed database development</li> </ul>   | <ul style="list-style-type: none"> <li>Co-funded with USGS a seeps and springs study of Kanab Creek.</li> <li>Co-funded with USGS a database development and 5 year work plan</li> </ul>    |
| Show Low Creek Watershed Partnership                            | Show Low<br>Lakeside<br>Pinetop<br>Navajo County<br>Show Low Creek Irrig.   | <ul style="list-style-type: none"> <li>Initiating the development of a water resources management plan.</li> <li>Completed Groundwater elevations study (2006)</li> <li>Initiated the GPS survey of agricultural lands</li> <li>Initiated Rainbow Lake Clean-up</li> </ul> | <ul style="list-style-type: none"> <li>Funded groundwater elevations study.</li> </ul>  |
| Eagle Creek<br>(Currently Not Active)                           | Local Ranchers & Special Interest Groups  | <ul style="list-style-type: none"> <li>Completed Stream Restoration Project (2005)</li> </ul>  | <ul style="list-style-type: none"> <li>Co-funded with Sonoran Institute a stream restoration project.</li> </ul>  |
| Northern Arizona Municipal Water Users Association (NAMWUA)     | Prescott<br>Prescott Valley<br>Flagstaff<br>Williams<br>Cottonwood<br>Clarkdale<br>Sedona<br>Chino Valley<br>Payson   | <ul style="list-style-type: none"> <li>Completed projected water demands study through 2040 (2007)</li> </ul>  | <ul style="list-style-type: none"> <li>Funded Workshop to identify potential solutions for meeting projected demands.</li> </ul>  |
| Navajo Nation   | USBoR<br>NDWR<br>USCOE<br>ADWR<br>BIA<br>NTUA<br>IHS  | <ul style="list-style-type: none"> <li>Completed survey of agricultural lands in Upper Basin (2005)</li> <li>Completed groundwater elevation survey of NTUA wells (2006)</li> <li>Completed</li> </ul>   | <ul style="list-style-type: none"> <li>Funded survey of agriculture lands</li> <li>Funded groundwater elevation survey of NTUA wells</li> <li>Funded geologic reconnaissance for</li> </ul> |

| Watershed Partnership                      | Primary Participants   | Current Projects & Accomplishments  | Projects Funded/Co-Funded by Rural Watershed Initiative           |
|--|--|---|---|
|  |  | development of Water Quality ATLAS (2005) <ul style="list-style-type: none"> <li>• Completed Navajo Drought Report (2005)</li> <li>• Completed Western Navajo Water Supply study</li> </ul>                                 | preliminary work related to Feasibility Study                     |
| Yuma Area Water Resources Management Group | City of Yuma, Cocopai Tribe, Yuma Irrigation District, North Gila ID, Yuma Mesa ID, Wellton Mohawk ID, Yuma County Water Users' Association. | <ul style="list-style-type: none"> <li>• Amended the Groundwater Code to Allow limited groundwater transportation from the area</li> <li>• Better management of high groundwater levels.</li> </ul>                         | <ul style="list-style-type: none"> <li>• None to date.</li> </ul> |
| Mohave County Water Authority              | Cities of Bullhead, Havasu, Kingman and Mohave Valley Irrigation District.   | <ul style="list-style-type: none"> <li>• Consolidated Colorado River water contract</li> <li>• Purchased Cibola ID lands and water contract for members</li> <li>• Negotiated Water Banking shortage allocation.</li> </ul> | <ul style="list-style-type: none"> <li>• None to date.</li> </ul> |