

## Arizona Department of Water Resources

**CONCLUSION:** The Arizona Department of Water Resources (Department) was established to manage Arizona's water resources and has various responsibilities related to groundwater regulation, surface water rights, and state-wide water planning. We found that the Department should adopt the remaining management plans for the State's active management areas (AMAs). Additionally, the Department should improve its collection of required reports from well owners and well drillers, follow up with potential groundwater users within the State's irrigation nonexpansion areas (INAs) to ensure required reports are submitted, and issue a statutorily required water conservation report. We also provide information on the Department's Colorado River management responsibilities.

### Department behind schedule in adopting AMA management plans

The Department is required to adopt and publish a management plan for each AMA for each of the five management periods established in statute: 1980 to 1990, 1990 to 2000, 2000 to 2010, 2010 to 2020, and 2020 to 2025. These plans include mandatory conservation programs for withdrawing, distributing, or receiving groundwater for agricultural, industrial, and municipal users to help achieve each AMA's statutorily defined management goal(s), such as attempting to achieve and maintain a long-term balance between the annual amounts of groundwater withdrawn and returned to the ground.

**AMAs**—Designated areas of the State where groundwater decline was heaviest and that are subject to groundwater regulation under state law. There are five AMAs in the State: Phoenix, Pinal, Prescott, Santa Cruz, and Tucson.

**INAs**—Areas designated as having insufficient groundwater to provide a reasonably safe supply for irrigation at the current rate of withdrawal. Once an INA is established, additional land may not be irrigated to preserve the existing irrigation of cultivated lands. There are three INAs in the State: Douglas, Harquahala, and Joseph City.

The AMAs' fourth management plans should have been adopted by January 1, 2008, in order to have become effective at the start of the fourth management period in 2010. However, as of October 2018, the Department had adopted the fourth management plans for only two of the five AMAs—one in 2014 and another in 2016—although the plan for a third AMA was in development. As a result, the AMAs have operated or will have operated under the third management plans for much longer than the 10-year period specified in statute. Additionally, given the status of the fourth management plans, development of the fifth management plans will be several years behind schedule.

The Department uses the management plan development process as an opportunity to assess an AMA's progress toward achieving its management goal(s), but its untimely development of the fourth management plans has delayed this. Similarly, statute requires or allows for additional or increased conservation measures in each subsequent management plan. Delayed development of the management plans thus delays the implementation of any additional or increased conservation measures.

Between 2009 and 2014, the Legislature reduced the Department's appropriated staff positions by 61 percent, although a portion of these staff positions have since been reappropriated to the Department. As a result, the Department has allocated fewer staff to work on the management plans than in the past, and these staff also assist with other department duties.

### Recommendations

The Department should:

- Comply with its statutory requirements to develop and promulgate the remaining management plans for the five AMAs.
- Complete a staffing analysis to determine the appropriate level of AMA staffing needed to complete the AMA management plans, including whether cross-training could help address staffing needs, and assign staff resources accordingly.

## Other department actions needed

As reported in the Sunset Factors section, the Department generally met its statutory objectives and purposes for key department functions we reviewed. However, we identified the following areas for improvement:

**Department should collect outstanding reports from well owners and well drillers**—Well owners and well drillers are required to file various reports after completing a department-approved project, such as drilling or deepening a well. These reports provide the Department with information about the actual condition of the wells. However, we identified instances where well owners and well drillers did not file the required reports. The Department lacked formal procedures for following up on outstanding reports.

### Recommendation

The Department should develop and implement written policies and procedures to routinely follow up on and collect outstanding post-project reports from well owners and well drillers.

**Department should follow up with groundwater-use nonreporters in INAs**—Statute requires groundwater right holders who withdraw groundwater from a nonexempt well within an INA to file annual groundwater-use reports with the Department by March 31 of the following year. Those who do not withdraw groundwater are not required to file any report with the Department. Because the Department does not follow up with nonreporters but assumes that they did not use groundwater, it does not know whether it should have received additional reports. Given a decline in the percentage of potential reporters who filed an annual report for calendar years 2015 through 2017, it is possible that some nonreporters are pumping groundwater but not reporting as required.

### Recommendation

The Department should develop and implement written policies and procedures to follow up with nonreporting groundwater right holders in INAs, including requesting them to voluntarily report nonusage.

**Department should issue water conservation report**—Statute requires the Director to publish a report every 3 years on municipal providers' per capita water use and water conservation efforts within the AMAs. This report provides information that allows the public and the Department to assess and compare municipal providers' water conservation efforts. However, the Department has not published this report since October 2011.

### Recommendation

The Department should complete and issue the report on municipal providers' water conservation programs every 3 years, as required by Arizona Revised Statutes §45-563.01.

## Department's duties include Colorado River management

The Department's authority to manage and protect the State's claim to Colorado River water is evidenced through legislative intent and statute, which gives the Department's director the authority to consult, advise, and cooperate with the Secretary of the Interior. Under this authority, the Department has managed Arizona's supply of Colorado River water through cooperation and negotiation with the U.S. Bureau of Reclamation (Reclamation), the six other Colorado River Basin States (California, Colorado, Nevada, New Mexico, Utah, and Wyoming), tribes and Indian communities, and Mexico.

The Colorado River system is overallocated, and Lake Mead is in structural deficit, which did not become issues until a growing population increased demand and periods of prolonged drought stressed the water supply. In 2007, Reclamation adopted guidelines to define what constitutes a water shortage and how to manage supplies in the reservoirs should a shortage be declared. However, because of ongoing drought, the Colorado River Basin States have developed a set of proposed Drought Contingency Plan (DCP) agreements that supplement the 2007 guidelines. The Legislature must authorize the Department's director to sign the DCP agreements on behalf of the State. To that end, the Department has worked with various stakeholders to achieve consensus on how to implement the DCP agreements in Arizona. As of this report's issuance, the terms of an Arizona implementation plan were still under negotiation.