



# Water Management in Arizona

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Water management in Arizona is sometimes considered to be as clear as mud and it begs the question of “why is everything to do with water so complicated?” To understand water in Arizona one needs to first understand some of the fundamentals:

- Arizona currently has an adequate water supply, but it is limited and it is not always located in the place that you need it.
- Everyone seems to want and need more water.
- No one wants to pay too much for water.
- People who have water protect it with a passion.
- People who don't have enough water, think the people who do, either use too much, should share, or should sell to them.

When it comes to the regulation of water in Arizona there are five categories of water rights and even within a category there may be differences based on geographic locations. The five categories of water rights recognized in Arizona are groundwater, surface water, Colorado River water, effluent, and reserved groundwater rights. For the purpose of this article we will focus only on groundwater and surface water.

Groundwater is Arizona's most abundant water resource and Arizona is lucky to have some of the largest and most productive aquifers in the southwest. Despite this fact, however, groundwater is not always located where it is needed. Because most of rural Arizona relies exclusively on groundwater as its source of water, many of the State's groundwater aquifers are being overdrafted (meaning more water is being withdrawn from the aquifer than is being recharged).

The regulation of groundwater in Arizona is dependent upon whether or not you are located inside or outside of an Active Management Area (AMA). There are five AMAs in Arizona and they are located within Maricopa, Pinal, Pima, Santa Cruz, and Yavapai Counties. The five AMAs are known as the Phoenix, Pinal, Tucson, Santa Cruz, and Prescott AMAs.

Inside AMAs there are certificated groundwater rights and the use and management of groundwater is strictly regulated. Outside of AMAs there are no certificated groundwater rights and the use of groundwater is based on the doctrine of reasonable and beneficial use. Outside of AMAs a landowner may drill a well on their property and put the water



to beneficial use with the only restrictions being that they own the property where the well will be drilled, the well is drilled by a licensed well driller who has received a drill card from the Arizona Department of Water Resources authorizing the driller to drill the well, and the water will be put to beneficial use. The only other regulation on the use of groundwater outside of AMAs is a restriction on interbasin transfers of groundwater. There are a few exceptions to the prohibition of interbasin transfers, but they are explicitly stated in statute.

Surface water is perhaps the most misunderstood of the water rights categories and the regulations governing its use are probably violated most often. To understand surface water, a person needs to understand what surface water is. Arizona Revised Statutes § 45-141 defines surface water as "waters of all sources, flowing in streams, canyons, ravines or other natural channels, or in definite underground channels, whether perennial or intermittent, floodwaters, wastewaters, or surplus water, and of lakes, ponds and springs on the surface." The key words in the definition are water from all sources flowing in natural channels. Water that is flowing down a paved road or on the roof of a house is not considered to be surface water until it flows into a natural channel.

Surface water in Arizona follows the Doctrine of Prior Appropriation, which means the person who puts the water to beneficial use first has the senior right to the use of the water. Prior to capturing surface water in the State of Arizona an individual must first obtain a surface water permit, right or claim in order to impound or use the water. Surface water can only be appropriated for the beneficial uses as defined in statute. The beneficial uses defined in statute are domestic, municipal, irrigation, stock watering, water power, recreation, wildlife (including fish), mining, and nonrecoverable water storage. Flood and sediment control are not recognized beneficial uses. The type of beneficial use also dictates the quantity of surface water that may be appropriated. Surface water is appurtenant (attached) to the land to which it has been certificated and may not be used anywhere else without going through a sever and transfer process.

In recent years, with the continuation of drought and greater demands on the water supplies from an increasing population, there has been a growing trend in rural Arizona to construct one or more earthen or rock dams across washes or other natural channels in order to capture "flood flows." The reasons cited for constructing these structures have been for everything from recreational purposes, to erosion control, to wildlife, to recharge, etc. Earthen structures constructed in a natural channel that captures

surface water and prevents it from flowing downstream without a surface water right or claim may be in violation of State surface water law. Newly constructed rock dams or gabions that allow the surface water to completely pass through the structure, however, may not be in violation of surface water law. Older rock dams or gabion type structures may be in violation of surface water law if they have become sealed over time with sediments resulting in the capture and impoundment of surface water. It is always important to consult with the Arizona Department of Water Resources prior to construction of these structures, as the Department will investigate every situation that is reported or found and take appropriate action. Additionally, the Department will soon begin working on developing Surface Water Rules that will clarify the requirement for beneficial use and permitting associated with the use of these structures.

Perhaps the biggest misconception by individuals or groups involved in constructing these types of structures is the perception that they are only capturing flood flows that would have otherwise just "runoff." The misconception is that the "runoff" that is not captured serves no purpose and is just lost. In most, if not all cases, there are downstream users that have surface water rights or claims that depend on those flood flows in order to receive the water they have a right to. Capturing some or all of the flood flows may prevent a downstream user with a surface water right or claim from receiving the surface water they are legally entitled to use.

The Arizona Department of Water Resources recommends to anyone considering constructing any type of structure that may divert, impede, or capture the flow of surface water to check with the Surface Water Section prior to construction to ensure surface water laws are not going to be violated. Other questions pertaining to the status of water in any particular groundwater basin within the State may also be obtained by going to the Department's website [www.azwater.gov](http://www.azwater.gov) and looking at the Statewide Water Atlas. The Statewide Water Atlas presents all of the known information about water for each of the 50 groundwater basins in the State, including estimates of water in storage, current demands by water use type, groundwater trends, etc. The Water Atlas is divided into nine volumes with each volume focusing in on a specific planning area. The Department's website is also the place to download applications or to get additional information regarding water in the State of Arizona.

