

Ch. 13 Water Resources

Arizona State Water Board

Background Information

As a desert community, Arizona receives 8.04 inches or 20.42 cm rainfall per year. There are basically four categories of water supplies available in Arizona: Colorado River water, surface water other than Colorado River water, groundwater and effluent.

Surface Water

Surface water from lakes, rivers and streams is Arizona's major renewable resource. However, because of our desert climate, the amount of surface water available can vary dramatically from year to year, season to season, and place to place. In order to make the best use of the surface water when and where it is needed, storage reservoirs and delivery systems have been constructed throughout the state. Most notable are the major reservoir storage systems located on the Salt, Verde, Gila and Agua Fria rivers. Almost all of the natural surface water in Arizona has been developed.

Colorado River Water

A separate category of surface water in Arizona is the water supplied through the Colorado River. The federal government constructed a system of reservoirs on the River to harness its supplies for use in several states. Arizona, California, Nevada, New Mexico, Utah, Colorado, Wyoming and Mexico share the River's resources. Rights to use Colorado River water are quantified by a string of legal authorities known as the "Law of the River." Based on this body of law, Arizona has the right to use 2.8 million acre feet annually of Colorado River water. Mohave, La Paz and Yuma county water users rely on Colorado River as their principal water supply. When fully utilized, the Central Arizona Project will deliver on average 1.5 million-acre feet of Colorado River water to Maricopa, Pinal and Pima Counties.

Groundwater

About 43 percent of the state's water use comes from groundwater sources. Groundwater is found beneath the earth's surface in natural reservoirs called aquifers. In most cases the water stored in these reservoirs has been in place for millions of years. Throughout this Century, groundwater has been pumped out more rapidly than it is being replenished, creating a condition called overdraft. Though a large amount of water remains stored in Arizona's aquifers, its availability is limited by location, depth and quality. By continuing to overdraft the state's groundwater supplies, we challenge our ability to ensure a secure water supply for the future. In recognition of this threat, Arizona implemented the Groundwater Management Code in 1980. The Groundwater Code promotes water conservation and long-range planning of our water resources.

Reclaimed Water

Reclaimed water, or effluent, is the one increasing water source in our state. As our population and water use grows, more treated wastewater will be available. Reclaimed water is treated to a quality that can be used for purposes such as agriculture, golf courses, parks, industrial cooling, or maintenance of wildlife areas.

Your Task

The Arizona State Water Board is charged with regulating and allocating the State's water supply. Based on data from recent years, **Arizona uses approximately 6.96 million acre-feet of water annually. One acre-foot equals 325,851 gallons.** An acre-foot is enough water to serve the needs of a family of five for one year.

Working with your partner, make a presentation to the water board requesting the quantity of water you need in order to support your programming for the fiscal year ending in June of next year. Your allocation for the current year is stated on your role play card. Please note that Arizona continues to see population growth that is faster than the rest of the nation so your request should be at least 2.5% higher than current levels of consumption.

In your presentation, remind the board why you need the water, how you use it, and how it is essential for your constituents.