Arizona

At A Glance

CRWUA

Colorado River Profile

Allotment of Colorado River water:
2.8 million acre-feet

Percentage of allocation that is developed:
Allocated=100 percent,
Used=100 percent

Population served by Colorado River water:
3,080,000

Irrigated acres served by Colorado River water:
560,000

Major crops under irrigation:
cotton, alfalfa, lettuce, wheat, citrus, barley, and cauliflower

Percentage of contribution of Colorado River water to meeting state's needs:
32 percent

Watershed area in square miles:
114,000

Average precipitation on river in state:
2 - 4 inches

Precipitation in areas of state served by Colorado River water:
6 - 12 inches

Facilities to deliver Colorado River water:
Central Arizona Project, Gila Project, Wellton-Mohawk Project & Yuma Project

Other major water projects serving state:

Arizona...a state of infinite diversity. Its landscapes stimulate the senses and imagination with endless horizons of snowcapped mountains, lush forests, the Grand Canyon and enchanting deserts accented with saguaros reminding most Arizonans of their fragile, dry environment.

The Colorado River highlights Arizona's river country. At the state's western border, the river and lakes separate Arizona from California and Nevada with 300 miles of shoreline. As the river spills from the northern part of the state through the majestic Grand Canyon, it has become an aquatic paradise for those people looking for a reprieve from the ferocious desert sun. Thousands now raft, sail, ski, fish, swim, float in innertubes, camp beside it, rent houseboats on it, lease river front cabanas or participate in numerous year-round boating and fishing competitions.

The Colorado River also plays a major role in the state's water supply and resource management. Water is Arizona's most important natural resource. Ensuring a dependable water supply now and into the next century is of tremendous importance. To meet this goal, the state has passed one of the most aggressive groundwater management codes in the nation to ensure the efficient use of the limited groundwater supplies. In addition, the Central Arizona Project (CAP) was built to augment surface water supplies by importing surface water from the Colorado River, a supply that is renewed yearly by rainfall and snowmelt. In fact, CAP is the state's single largest resource for renewable water supplies and manager of long-term water resources.

Salt River Project

The Central Arizona Project is Arizona's single largest resource for renewable water supplies.

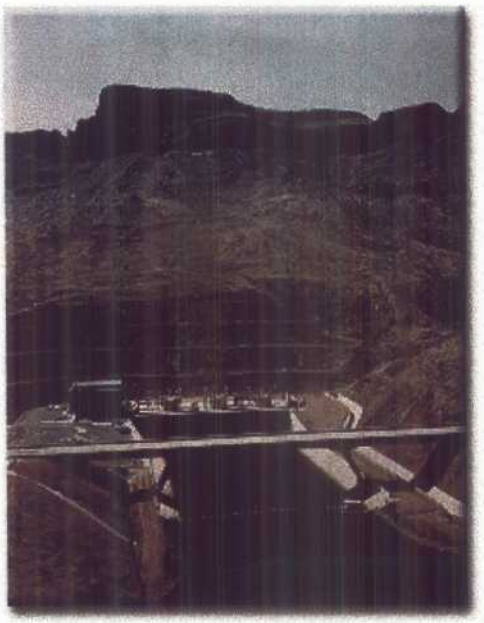
CAP is the vehicle that will allow Arizona to fully utilize its 2.8 million acre-foot allocation of Colorado River water. At optimum operational capacity, CAP will deliver an average of 1.5 million acre-feet of river water to central and southern Arizona. Before CAP deliveries started in 1985, Arizona was using less than half its entitlement, primarily by entities along the Arizona side of the river. For example, Yuma County users in southwest Arizona receive significant amounts of Colorado River water through the Gila, Yuma, and Wellton-Mohawk Projects.

CAP delivers water to three types of customers: municipal and industrial users, agricultural users, and Indian communities. CAP water is delivered through a system of open canals, inverted siphons, pumping plants, sophisticated computer control and communications systems, and tunnels to distribution points from Lake Havasu on the Colorado River to the system terminus south of the city of Tucson. In all, the system transports water 336 miles from a beginning elevation of 447 feet to its final delivery of about 2,900 feet.

Each year Arizonans use 2.5 million acre-feet more groundwater than can be replaced by nature. Depleting groundwater supplies causes serious problems. In many parts of the state, areas of land once supported by groundwater are slowly sinking and cracking as the water is withdrawn. This results in structural and economic damage to buildings, roads, and agricultural fields. In addition, deeper wells must be drilled to reach the lower levels of water, raising the costs of pumping and reducing the quality of the water. Clearly a renewable water source was needed as a substitute for groundwater. CAP solves approximately 60% of the current groundwater overdraft problem. CAP water is not intended to increase overall water usage, rather, it's designed to be a substitute for groundwater. Conservation still will be necessary to solve the state's groundwater depletion problems.

The state's groundwater code established a framework and three main goals: reducing the severe overdraft problem in several parts of the state, providing a means to allocate limited groundwater resources to most effectively meet the changing

needs of the state, and augmenting Arizona's groundwater through water supply development. This code provides for the comprehensive, practical and economical management of the state's groundwater resources in Arizona's most heavily used aquifers.



Recent changes in the assured water supply rules of Arizona's 1980 Groundwater Management Act led to the development of the Central Arizona Groundwater Replenishment District (CAGRD). The CAGRD is a division of Central Arizona Water Conservation District, which manages CAP, and was created in 1995.

The specific rule change which created the need for the CAGRD is a consistency with goals requirement, defining the date which the state's active management areas (AMA's), large defined aquifer areas, must reach a safe yield situation in which the water table would not drop further. This change resulted because it was determined in 1993 that the management goals would not be met for most AMA's if groundwater pumping increased with expected new demands.

The rule change strictly limits the amount of groundwater which a new development in the state's AMA's may use in proving a required 100 year water supply. For example, in the Phoenix AMA, only 7.5 percent of the 100 year water supply can be mined groundwater. The new groundwater restrictions apply even if the property has grandfathered groundwater rights. Some credits apply from extinguishing grandfathered rights but developers can no longer convert farms to new subdivision developments by relying on a farm's large water right to satisfy the assured water supply rules.

The CAGRD functions as the replenishment agent after its members have used their own groundwater supply or water provider. CAGRD purchases renewable water supplies and

recharges water in the same AMA from which the member's groundwater was withdrawn. In most years, CAP water will be used for replenishment. CAGRD membership is voluntary, but for many developers and water providers, it is the only practical way to quality for an assured water supply. The CAGRD is limited to land in the Phoenix, Pinal and Tucson AMA's.

Although there is a phase-in period, eventually all uses of mined groundwater by CAGRD's members will be replenished by the CAGRD, acre-foot for acre-foot. An annual replenishment tax is collected from members for the previous "report" year; the CAGRD calculates a rate-per-acre-foot of replenished water in each AMA based on CAGRD's costs to operate and replenish water in that AMA in the report year.

The CAGRD benefits its members by providing an efficient central system to accomplish replenishment. It benefits Arizona by providing a way for the AMA goals of the state's progressive Groundwater Management Act to be met, while at the same time, helping the state meet its demands created by urban growth.

In 1996, the Central Arizona Project continued to integrate itself as a key water management resource organization fundamentally important to the state. For the first time in its history, CAP water deliveries set a record by delivering and recharging more than one million acre-feet of water, an important achievement for Arizona's water management picture. The deliveries now move Arizona closer to utilizing and preserving its full, annual entitlement of Colorado River water.

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