



**PHX**  
WATER  
SMART



ALWAYS THINKING  
**AHEAD OF  
THE CURVE**

**WE SEE WATER DIFFERENTLY**



## COMMITMENT TO QUALITY

Phoenix Water Employees perform more than five million tests and measurements each year to ensure the highest quality drinking water for our customers.

# OUR EFFORTS TO BE PREPARED GO WELL BELOW THE SURFACE

For over 100 years, Phoenix Water has delivered safe, reliable tap water to homes and businesses in our community. And during this time, we've literally been putting water in the bank. Phoenix Water delivers renewable surface water supplies to our customers so that groundwater can be saved for the future.

We've worked hard to protect local groundwater supplies so that they are available to protect against drought and a changing climate. Our efforts help ensure that our underground reservoir of groundwater – our water in the bank – is there when we really need it.

## WE HAVE A HISTORY OF PRESERVING OUR FUTURE

Phoenix officially incorporated in 1881 and as its population and economy grew, so did the need for reliable water supplies. Phoenix began municipal water utility operations in 1907, serving water to a rapidly expanding community. For years, the city received surface water from the Verde River through a 30-mile long, 38-inch diameter redwood pipeline. In 1949, Phoenix constructed Arizona's first surface water treatment plant, located on the banks of the Verde River. Along the way, Phoenix completed its sewer system and began municipal wastewater operations. Today, Phoenix Water is one of the largest utilities in the country. Our vast infrastructure includes 7,000 miles of water lines, 5,000 miles of sewer lines, eight treatment plants, dozens of pump stations, reservoirs and wells, 50,000 fire hydrants, and 90,000 manholes over a 540 square-mile service area.





## DETAILED PLANNING IS CRITICAL

Making sure high water quality is achievable using the best design and best equipment is critical to success, along with maintaining the equipment for years to come.

# PLANNING MAY BE OUR GREATEST RESOURCE

We are acutely aware of the challenges posed by drought and climate change. To prepare, we have developed a diverse portfolio of water supplies that includes Salt, Verde, and Colorado River water, groundwater reserves, and reclaimed wastewater for non-potable purposes.

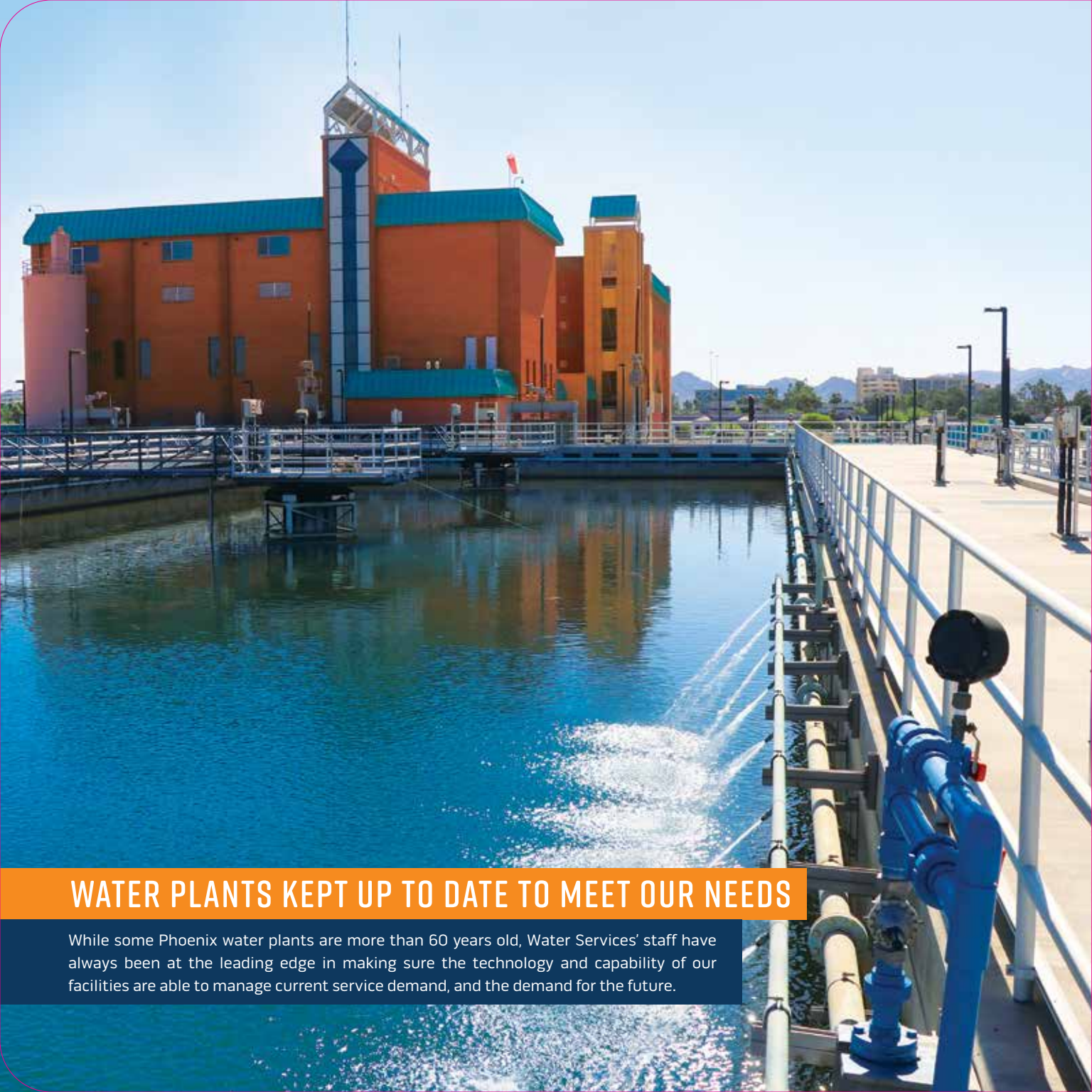
Thanks to our customers' willingness to conserve, Phoenix currently uses only around half of its Salt & Verde River water supplies, and around 2/3 of its Colorado River water supplies. This creates a buffer between supplies and demand that Phoenix can rely on during times of drought and surface water shortage.

## SMART LONG-TERM PLANNING

For over 100 years, Phoenix Water has delivered safe and clean drinking water to Phoenix residents. Today, we provide water to more than 1.7 million customers. Due to our efforts to develop a sustainable water supply, Phoenix has been designated by the State as having a 100-year assured water supply. Through planned construction of infrastructure to treat and deliver renewable surface water supplies, we have reduced our reliance on groundwater to a minimum, creating a reserve we can call on during times of drought. We're working hard to provide reliable water supplies for public health and safety, recreation, industry, and quality of life for generations to come.

The Salt and Verde River watersheds encompass 13,000 square miles in the eastern and north central portions of Arizona, and the Colorado River watershed encompasses all or portions of seven states (Wyoming, Colorado, Utah, New Mexico, Nevada, California, and Arizona).





## WATER PLANTS KEPT UP TO DATE TO MEET OUR NEEDS

While some Phoenix water plants are more than 60 years old, Water Services' staff have always been at the leading edge in making sure the technology and capability of our facilities are able to manage current service demand, and the demand for the future.

# BECAUSE WE'RE NOT LACKING IN PLANNING, WE'RE NOT LACKING IN WATER

Phoenix has invested millions of dollars in projects to increase storage at reservoirs on the Salt and Verde Rivers. This allows us to capture and use storm and flood waters that otherwise would flow unused out of the Phoenix area. Our city also has one of the most aggressive leak repair programs in the country, usually repairing distribution system leaks within two to five days, which is no small feat, considering we maintain more than 7,000 miles of water lines within our 540 square mile service area.

## PLANNING HAS ITS BENEFITS

Arizona is a leader in water banking, meaning that we store water underground to be used at a later date. Arizona has banked millions of acre-feet of water through the Arizona Water Banking Authority. Our commitment to our future began in 1980, when the State of Arizona enacted the Groundwater Management Act. It was designed to reduce groundwater use in central Arizona. Later, in 1995, the state adopted Assured and Adequate Water Supply Rules that require all new development within Phoenix, and the other most populous areas of the state, to prove the availability of a 100-year water supply.

Phoenix's residential gallons per capita per day (GPCD) use of water has been reduced by 30% over the last 20 or more years. Phoenix customers are using less water in 2020 than in 1996, even with an increase in population of more than 400,000 residents.





## LETTING NATURE TAKE ITS COURSE

Phoenix is a pioneer in the use of reclaimed wastewater. We've been reclaiming wastewater and reusing this precious supply since the 1960's, long before other communities in the arid west. Nearly all of the reclaimed water generated in Phoenix is treated and reused for agricultural irrigation, local power generation, groundwater recharge, and wetland restoration. A large amount is also exchanged for Salt River water through a partnership with local Indian communities. Tres Rios is a constructed wetland complex for wastewater treatment located where the Salt, Gila, and Agua Fria rivers connect. Millions of gallons of reclaimed water from Phoenix's wastewater treatment plant are pumped into the 480 acres of wetlands daily. The water ultimately flows into the river bottom where it becomes a wildlife paradise for the hundreds of species of waterfowl, mammals, and amphibians that call the wetlands their home.

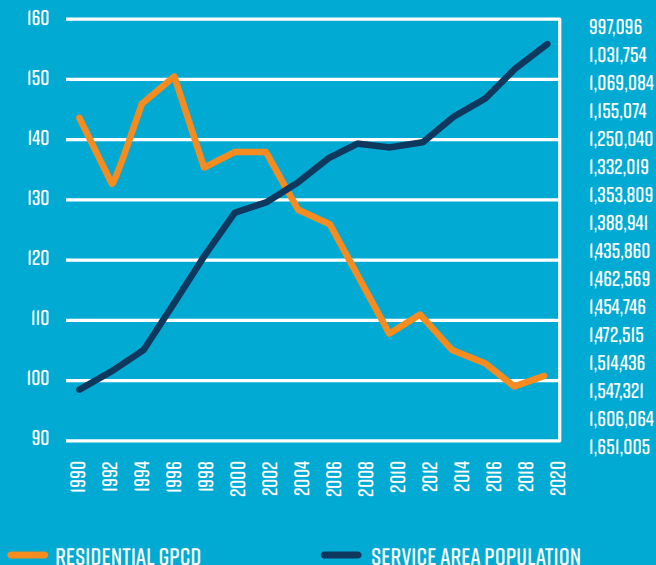




# SMART DROUGHT RESPONSE REQUIRES A DEEP COMMITMENT

We are deeply committed to water conservation. Phoenix was a founding member of the regional Water Use It Wisely conservation program, one of the longest-running and most successful conservation campaigns in the country. The city has numerous conservation programs and initiatives available to Phoenix residents. We offer free landscape irrigation and planting workshops to residents year-round, and teach free conservation classes to schools, HOAs, organizations, and businesses. Residents can also order helpful conservation literature and media online at no cost ([phoenix.gov/water](http://phoenix.gov/water)).

## PHOENIX POPULATION & WATER USAGE



## PREPARING IN EVERY SEASON

When it comes to water conservation, Phoenix plays the long game. Rather than focusing on short-term, reactive strategies during drought conditions, Phoenix focuses on long-term culture change. We encourage our residents to embrace a desert lifestyle, because some day the drought will end, but it will still be hot and dry here, and water will still be scarce. This strategy has paid off in dividends. Phoenix's residential gallons per capita per day (GPCD) use of water has fallen roughly 30% over the last twenty years. Phoenix customers are using less water in 2020 than in 1996, despite adding 400,000 residents to our population.

**WE ENCOURAGE OUR  
RESIDENTS TO EMBRACE  
A DESERT LIFESTYLE.**



## MEETING REGULATIONS FOR DRINKING WATER

Phoenix has always been at the leading edge of making sure that the technology and staff know how to enable us to go beyond just meeting the drinking water standards.

# WHEN YOUR COMMITMENT ENDURES, WATER DOES TOO

Phoenix has taken proactive steps to ensure sustainable water supplies; we are built for drought. In an era of climate change, we must continue to innovate to ensure a high quality of life for future generations.

## PHOENIX/TUCSON WATER EXCHANGE

*To help protect against potential Colorado River shortages, Phoenix entered into unprecedented partnerships in 2014 with the City of Tucson and Metro Water.* These partnerships serve to increase the reliability of Phoenix's Colorado River water supply over the long term, while providing near-term benefits to increase groundwater levels in Pima County. Phoenix will store some of its unused Colorado River water in Tucson aquifers – water that Phoenix would otherwise lose to another water user. During potential shortages on the Colorado, Phoenix's stored water will be pumped and delivered to the City of Tucson and Metro Water for delivery to their customers. In exchange, both Tucson water providers will order an equivalent part of their Colorado River water for delivery to Phoenix water treatment plants for Phoenix customers.

## WATERSHED PROTECTION

We share our watersheds with farmers, ranchers, towns, businesses, and Indian communities. Without healthy and productive watersheds, we all suffer. Phoenix entered into a three-year partnership with the National Forest Foundation (NFF) to help protect Phoenix's water supply. The NFF's watershed improvement projects on National Forest lands in northern Arizona **reduce wildfire risk, improve streams and wetlands, enhance wildlife habitat, restore native plants, and limit erosion and transportation of sediment into Arizona waterways.** Phoenix will invest in the Northern Arizona Forest Fund that is designed to improve forest health and water quality in the Salt and Verde River watersheds, which are vital surface water supplies to downstream users in the greater Phoenix metropolitan area.

## COLORADO RIVER RESILIENCY

In 2014, as part of the Water Services Department's Capital Improvement Program (CIP), Phoenix established a Colorado River Resiliency Fund, averaging approximately \$6 million per year. ***The resiliency fund will protect Phoenix against future shortages on the Colorado River and help ensure the city remains a leader in the sustainable management of its water supplies.*** It will be used for enhancing existing water infrastructure, purchasing additional water for underground storage, developing new wells that both recharge and pump from local aquifers, partnering on watershed management projects, and implementing Colorado River system conservation programs. Shortage on the Colorado River is coming. We're doing everything we can to ensure we continue to deliver the reliable water supplies that underlie our public health and economic opportunity.

**“THE NATION BEHAVES WELL IF IT TREATS THE NATURAL RESOURCES AS ASSETS WHICH IT MUST TURN OVER TO THE NEXT GENERATION INCREASED; AND NOT IMPAIRED IN VALUE.”** - Theodore Roosevelt - Champion of conservation and reclamation, and as the President of the United States, signed the Reclamation Act of 1902, which established the current water system on the Salt River that makes Phoenix and the Valley the thriving metropolis of the southwest.



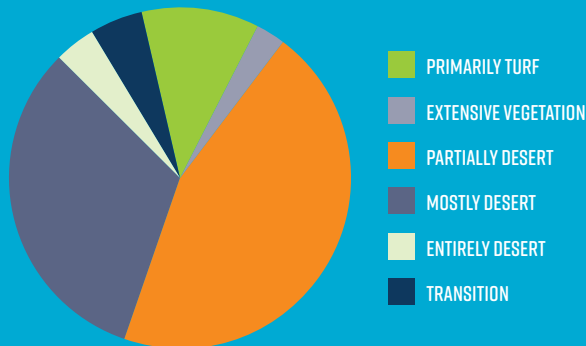
## WE STAND BEHIND EVERY DROP

In Phoenix a 24/7 operation insures Water quality is maintained at all times, and that staff can respond quickly to possible changes in source water quality.

PHOENIX

# A COMMUNITY THAT LOVES THE DESERT

## PHOENIX RESIDENTIAL LANDSCAPING (SINGLE-FAMILY UNITS)



## WATER CONSERVATION: FIVE EASY WAYS TO GET STARTED

### 1. GO DESERT.

Choose to surround your home with beautiful, low-water use plants. Visit [www.amwua.org/plants](http://www.amwua.org/plants) for a free landscaping guide.

### 2. WATER ACCORDING TO PLANT NEEDS AND THE WEATHER.

[phoenix.gov/wrc](http://phoenix.gov/wrc)

### 3. STOP WATERING AT SUNRISE TO REDUCE EVAPORATION.

### 4. CHASE DOWN TOILET LEAKS.

Download a free guide here: [www.smarthomewatguide.org](http://www.smarthomewatguide.org)

### 5. USE YOUR EYES.

Pay attention to your water consumption each month and look for signs of overwatering in your yard! [phoenix.gov/wrc](http://phoenix.gov/wrc)

## ADDITIONAL INFORMATION

### TAKE A LANDSCAPE WATERING CLASS!

Sign up at: [phoenix.gov/water](http://phoenix.gov/water)

### 101 WAYS TO CONSERVE WATER.

Visit our partner [www.wateruseitwisely.com](http://www.wateruseitwisely.com) for easy ways to use water wisely.

### PHOENIX WATER CONSERVATION.

[phoenix.gov/wrc](http://phoenix.gov/wrc)





Phoenix  
DEPARTMENT

UP TO 15% OF YOUR  
WATER USE IS  
OUTDOORS

## TEACHING THE NEXT GENERATION

Phoenix staff spends considerable time throughout the year educating youth and teens about the importance of water quality and conservation. It is the next generation that will carry the torch of knowledge forward to show others how the impact of water users affect everyone.

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**CITY OF PHOENIX WATER SERVICES DEPARTMENT**  
**QUALITY. RELIABILITY. VALUE.**

[PHOENIX.GOV/WATER](https://PHOENIX.GOV/WATER)



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