



# Organ Pipe Cactus NATIONAL MONUMENT



**Hugging the Mexican border in Arizona, about two hours southwest of Phoenix, Organ Pipe Cactus National Monument was established in 1937 to preserve a pristine example of Sonoran Desert Habitat. An average of 217,000 people visit the park each year to enjoy desert plants, sunny hikes, scenic drives, and starry nights.**

Summers can be brutally hot, with temperatures exceeding 110 degrees. The popular winter months at this International Biosphere Reserve are milder, with daytime temperatures in the 70s. About eight inches of rain fall annually, largely on the eastern side of the park, in the Ajo Mountains—which occasionally see snow. Many visitors camp at the park for a few nights, while others stop for the day en route to Mexico. Ninety-five percent of the park’s 330,000 acres are wilderness, and the night skies are some of the darkest in the nation. Organ Pipe Cactus offers an extraordinary opportunity for solitude.

But at a desert park this remote—85 miles from the closest interstate—visitation is completely dependent on adequate water

supply and distribution. Water is critical at Organ Pipe Cactus. When its accessibility isn’t reliable, the entire operation is at risk.

**THE CHALLENGE: Aging and failing water system at a park site that’s known for its arid and hot climate and remote setting**

Several of Organ Pipe Cactus’s water mains date to the 1960s and are prone to frequent failure. The two wells, tanks, and water lines serve units of employee, law enforcement, and volunteer housing; visitor and staff restrooms; and an administrative center. The antiquated system has collapsed so often that it’s become incredibly inefficient and unsustainable. Those failures have even left the park with some temporary water shortages because the water lines—not

**BY THE NUMBERS:**



**\$8.3 million**  
investment from the GAOA to repair projects



**217,000**  
annual visitors



**110 degree**  
temperatures in the summer



**330,000 acres**  
of wilderness



**8 inches**  
of annual rainfall

**PHOTOS:** Cover: ©LHBLCC/Shutterstock  
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designed to last nearly this long—have broken down underground and led to unexpected leaks. The current system does not have an automatic detection system, so if a line breaks at night, it could leak for hours before it's repaired. In some instances, the tanks have mostly drained out, causing water shortages. "That shouldn't happen at all," Stonum said, "and definitely not on a regular basis."

Waiting to address this problem will result in continued and recurring water outages for visitors and employees. As the system degrades, additional leaks will continue to emerge that may impact the park's fire protection and fire-fighting capabilities. Leaks also serve as potential points of contamination of the park's water supply and could pose a significant health risk to all visitors and employees—potentially forcing a complete shutdown of the park and its facilities for an extended time.

### THE PROJECT

Through an investment that is approximately \$8.3 million, the Great American Outdoors Act will rehabilitate the park water systems. New underground primary and secondary water distribution lines will be constructed to meet potable water needs and required flow for fire protection. A failing water supply well and two water storage tanks will be replaced. Undersized pipe

**“We’re not connected to any municipal water supply,” said park superintendent Scott Stonum. “Because of our remote location, we don’t have an alternative—for drinking and administration, but also in case there’s fire.”**

and all existing asbestos-cement distribution main lines will be replaced to comply with Arizona Department of Environmental Quality requirements. All valves will be replaced, including valve boxes and hydrants. Existing meters will be replaced with remote read capable meters and magnetic flow meters near initiation of the water supply. A supervisory control and data (SCADA) system will be installed for remote monitoring and control purposes. Replacement of distribution lines will involve excavation across at least 12 park roads, which will require subsequent surface repairs. The work will begin in spring of 2023 and will take three to five months.

### THE IMPACT

Improvements to the water supply and distribution system will ensure increased resilience in the face of climate change and drought; minimize disturbances;

and increase protection of natural and cultural resources. This project will address life safety, health, and utility code deficiencies, making the park's developed



areas safer for employees and visitors for decades to come. After completion, unscheduled repair and corrective maintenance costs are expected to decrease. Maintaining the water system in good condition is a high priority, and the new well, tank, and pipe components will allow for more sustainable preventive and recurring maintenance schedules. The replacement system will use more durable materials and components to provide maximum efficiency for pumping, distribution, and water conservation. After completion, the systems shouldn't require major recapitalization or modernization for at least the next 50 years.

The Great American Outdoors Act is successfully repairing infrastructure at hundreds of parks across the country. However, with a nearly \$22 billion backlog, much more is needed. We urge Congress to extend the Legacy Restoration Fund for an additional five years.

Preserving Our Past.



Protecting Our Future.

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