City of Phoenix

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Tres Rios Wetlands:
Water Sustainability & Efficiency

Cynthia Campbell
Water Resource Management Advisor
City of Phoenix

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Phoenix is a Desert City

Phoenix Water Supplies

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- 50% Salt/Verde Rivers

- 47% Colorado River

- 3% Groundwater

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50% Salt/Verde Rivers

Phoenix receives most of its surface water from the Salt and Verde Rivers through the **Salt River Project**.

Roosevelt Dam on the Salt River

Photo credit: srp.net

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47% Colorado River

The Central Arizona Project (CAP) delivers Colorado River water to several Phoenix metropolitan area water treatment plants.

Photo credit: Central Arizona Project

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Phoenix has a service area of **540 square miles** and serves **1.5 million** water customers and **2.5 million** wastewater customers (including customers in other cities).

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Each Year:

- Five water treatment plants **produce 300,000 acre-feet of potable water**

- Three wastewater treatment plants **treat 190,000 acre-feet of wastewater**

Reclaimed Water

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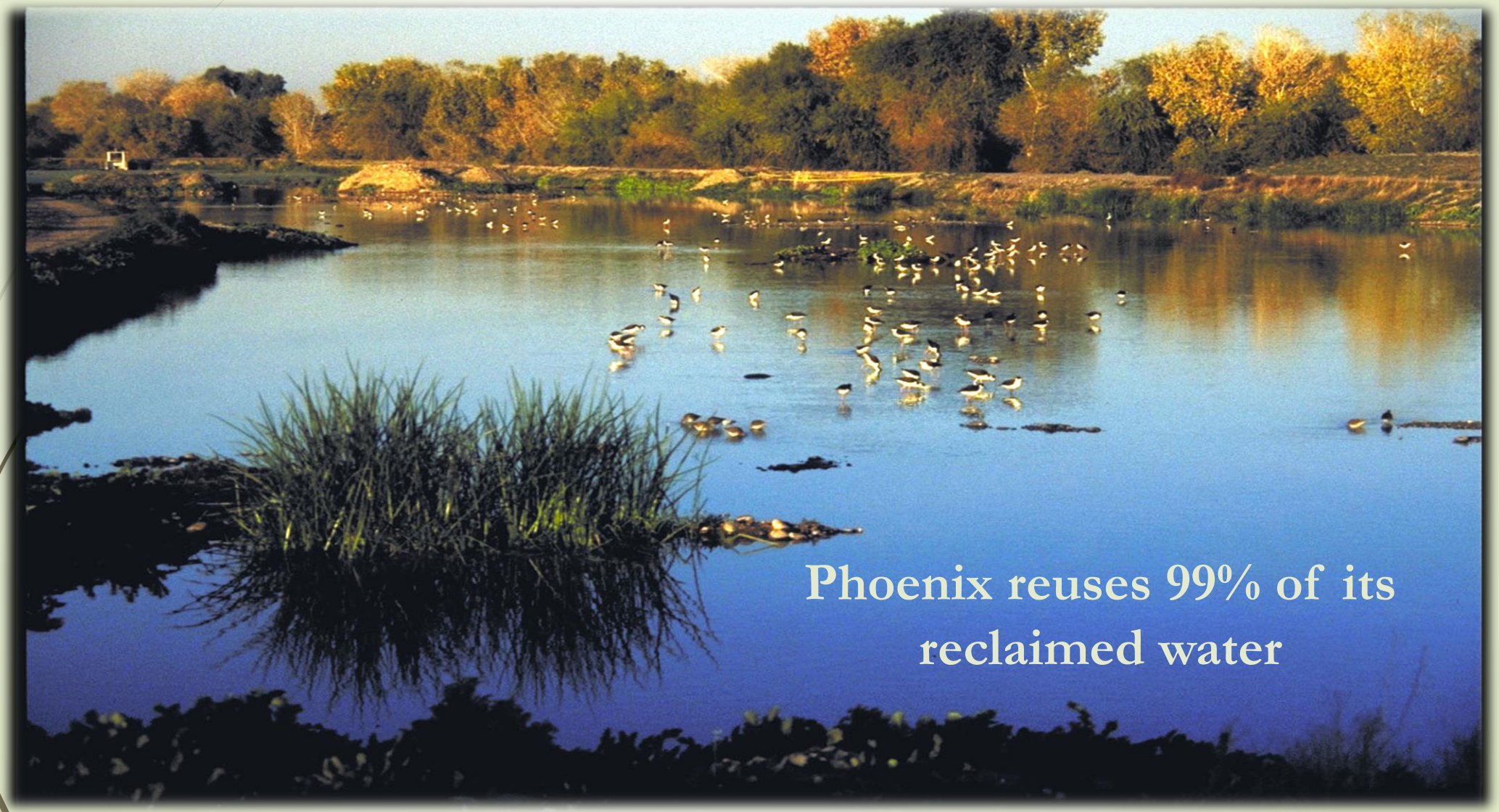

Reclaimed Water Uses

- Palo Verde Nuclear Generating Station
- Tres Rios Constructed Wetland
- Roosevelt Irrigation District
- Buckeye Irrigation District

Palo Verde Nuclear Generating Station

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Phoenix delivers over **65 MGD (million gallons per day) of reclaimed water**, providing cooling water for the PVNG station facility.

Tres Rios Constructed Wetland

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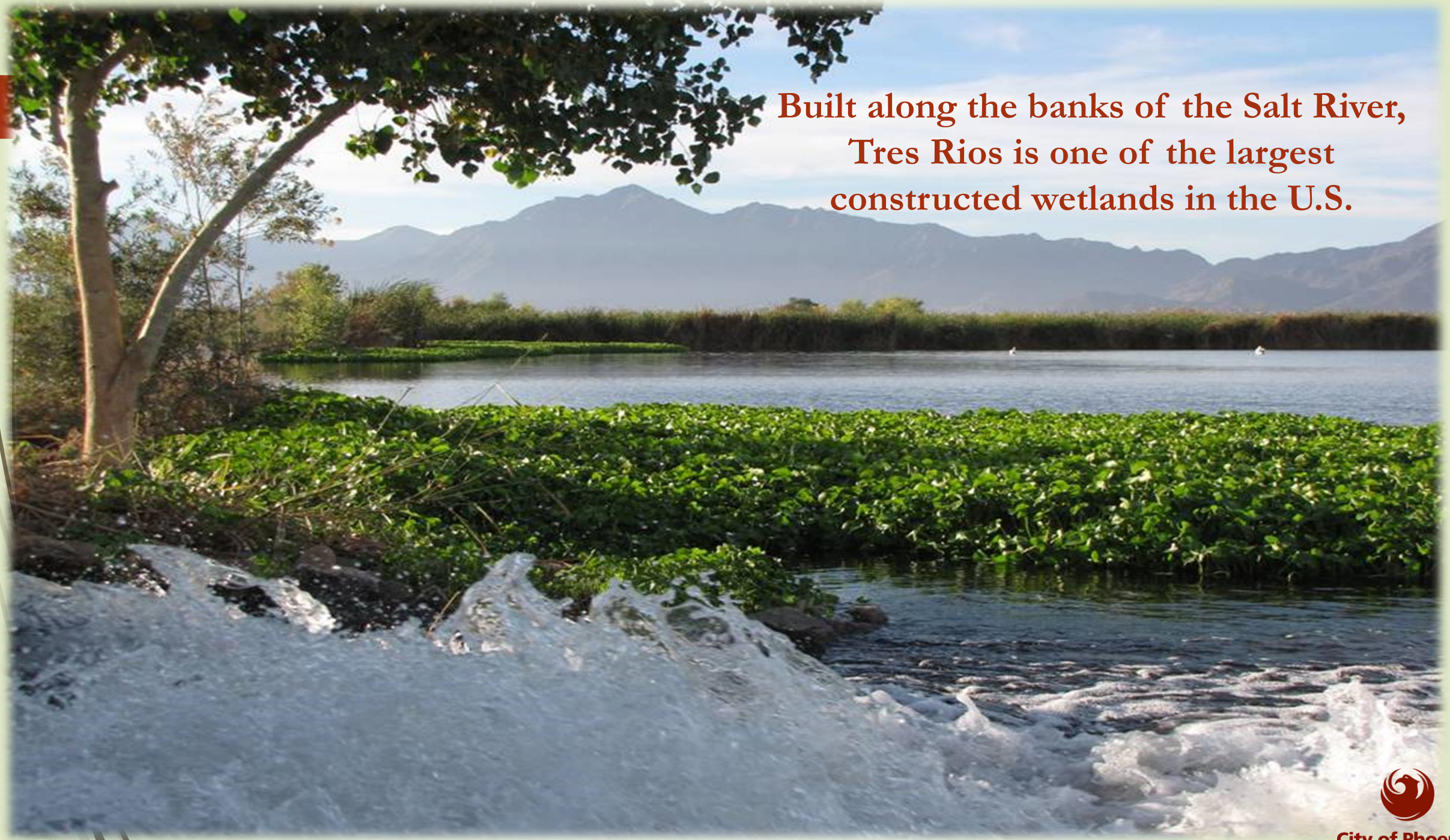
Constructed in 2009 with the assistance of the U.S. Army Corps of Engineers, Tres Rios is a **700-acre wetland** that acts as final treatment from the 91st Avenue Wastewater Treatment Plant.



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Tres Rios
3 Purposes:
Tertiary treatment
Flood control
Habitat restoration

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From the treatment plant, 60-70 MGD of reclaimed water flows through two deep water basins, three flow regulating cells and the overbank wetland, extending 2-3 miles downstream.

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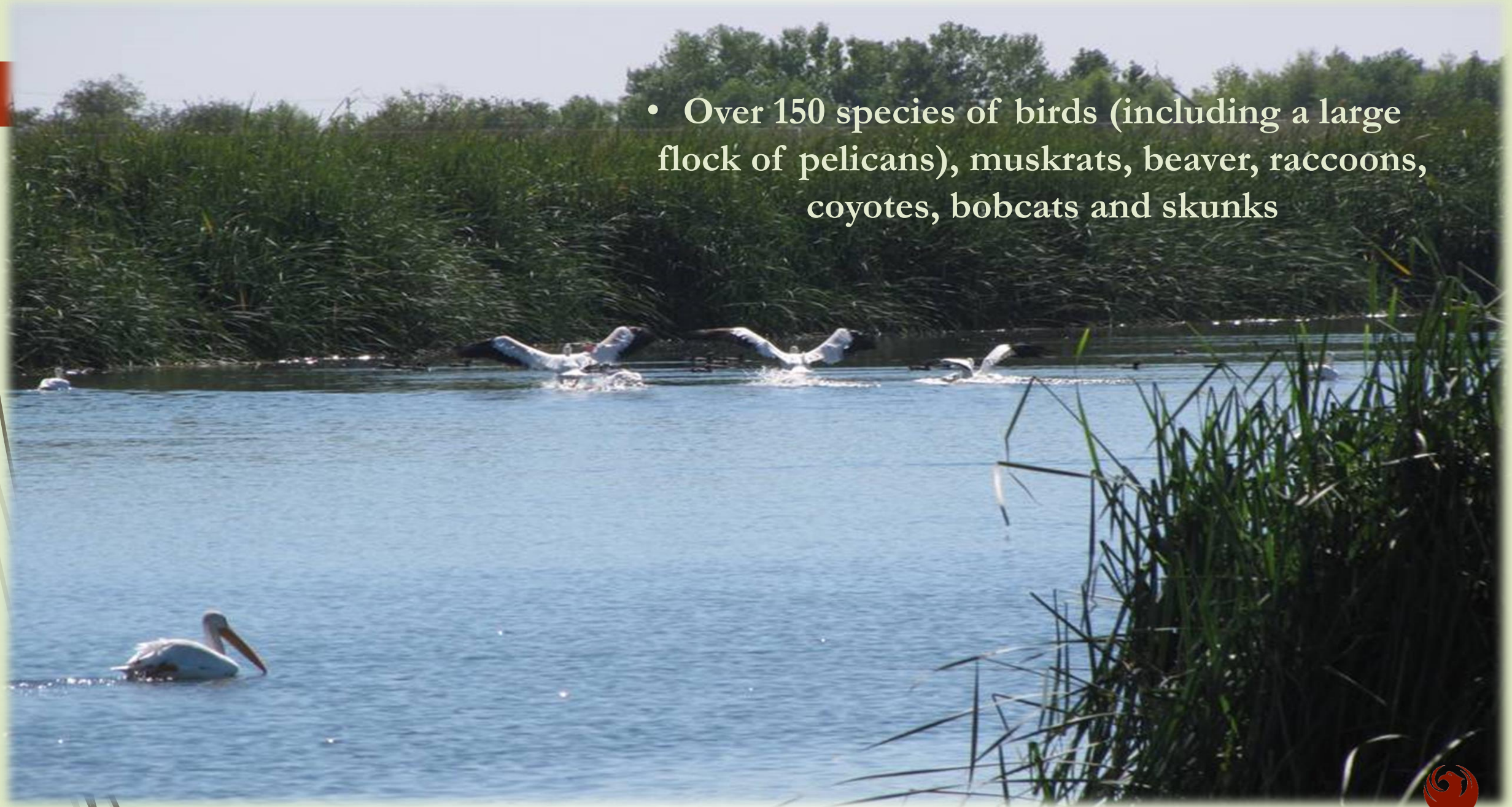
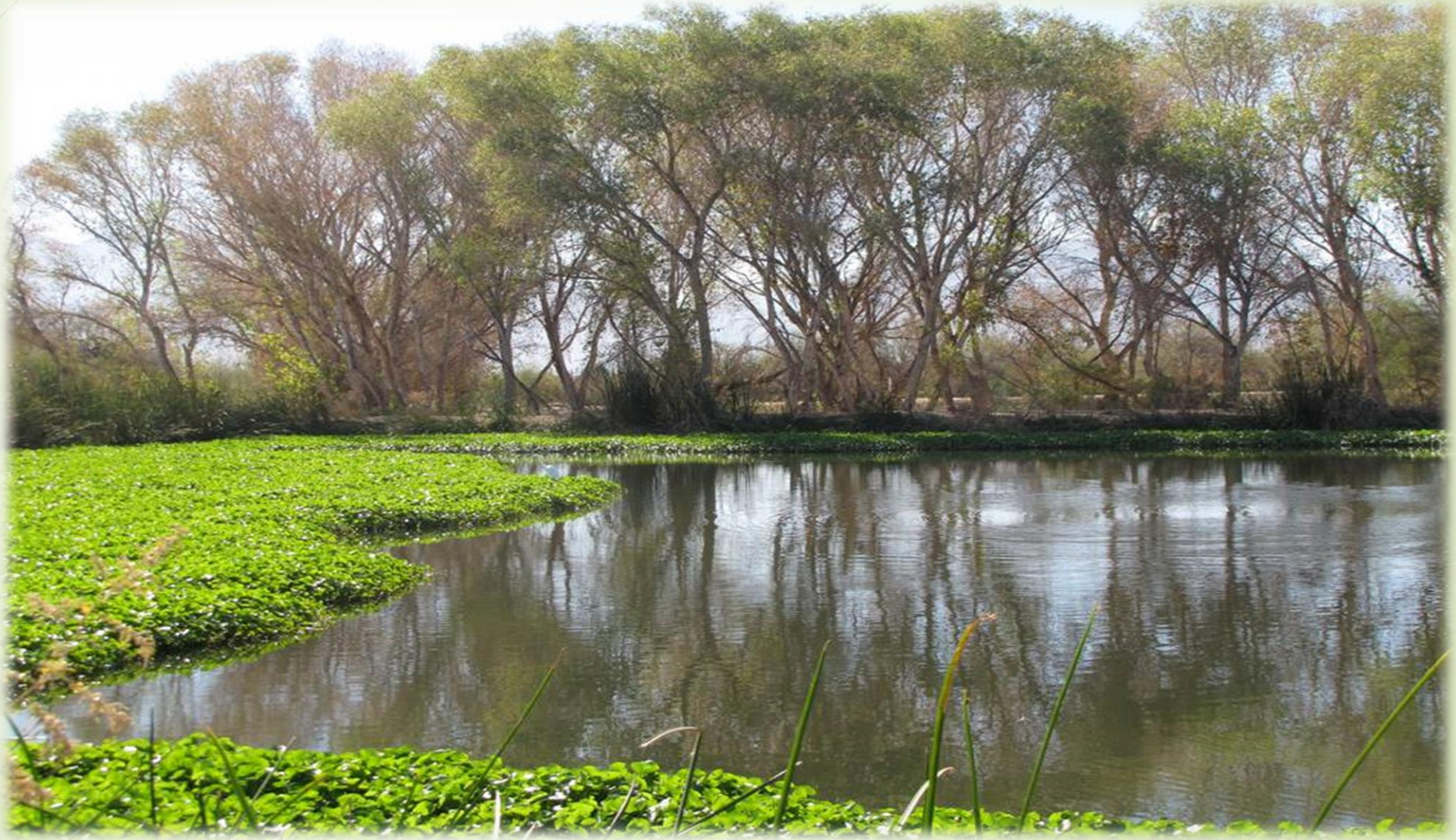


- Over 150 species of birds (including a large flock of pelicans), muskrats, beaver, raccoons, coyotes, bobcats and skunks

Former agricultural fields were graded and contoured into wetlands. Rushes, sedges, arrowhead, cattail, and floating aquatics were installed to recreate wetlands of the southwestern United States.



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By mostly eliminating non-native plant species like tamarisk (salt cedar) and bringing back cottonwood and willow, Tres Rios resembles the wetland habitats that existed along the Salt and Gila Rivers in the 1800s.

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The Overbank portion of the wetland is open to the public from sunrise to sunset, 365 days a year.

Accessing the wetland requires a permit from the City of Phoenix, which is good for 3 months with unlimited visits.

For more information, visit www.tresrios.net

New Ideas for Sustainability

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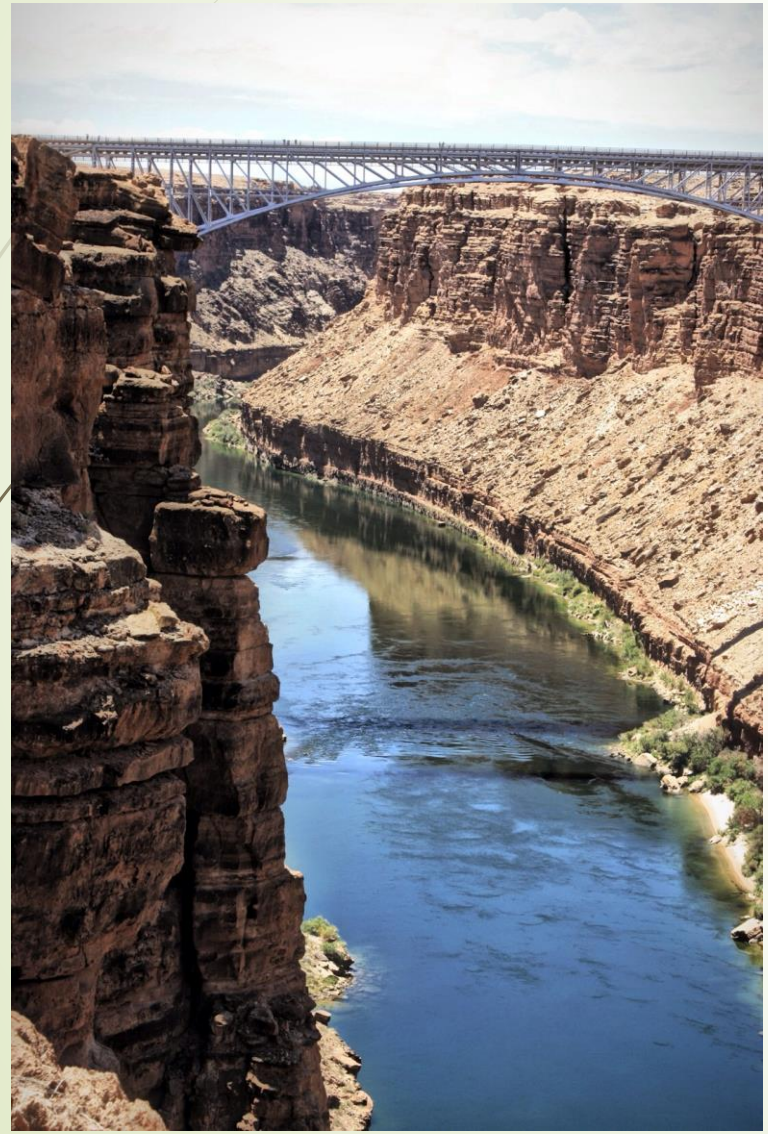

- Phoenix established a **Colorado River Resiliency Fund** that is used for watershed protection, recharge, storage and other activities (i.e. system conservation in Colorado River).

- **2017 Agreement in Principle** (Phoenix, Arizona Department of Water Resources, Gila River Indian Community and Walton Family Foundation)

Source Water Protection

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Gila River Habitat Restoration

- In a unique arrangement with the Gila River Indian Community, Phoenix is storing a portion of its Colorado River allocation at the Community's **Olberg Dam Underground Storage Project**.
- Later, Phoenix can exchange the credits it earns from recharge with the Community's Colorado River allocation.

Olberg Dam Underground Storage Facility

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By reintroducing recharged water near the banks of the Gila River, the Community can begin to realize its vision of returning a riparian habitat back to a portion of the River.

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QUESTIONS?

Contact Information:
Cynthia.Campbell@phoenix.gov

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For More Information
Sarah Luna, AZ WRAN Coordinator
llsarah@msn.com