

# CCRN Cochise Conservation & Recharge Network

Supporting the San Pedro River & Local Communities



The Cochise Conservation and Recharge Network is an innovative series of projects capable of increasing flows in the upper San Pedro River, conserving groundwater and improving the health of the riverside corridor.

#### Network Partners:

Cochise County, Cities of Sierra Vista and Bisbee, The Nature Conservancy, and the Hereford Natural Resource Conservation District.

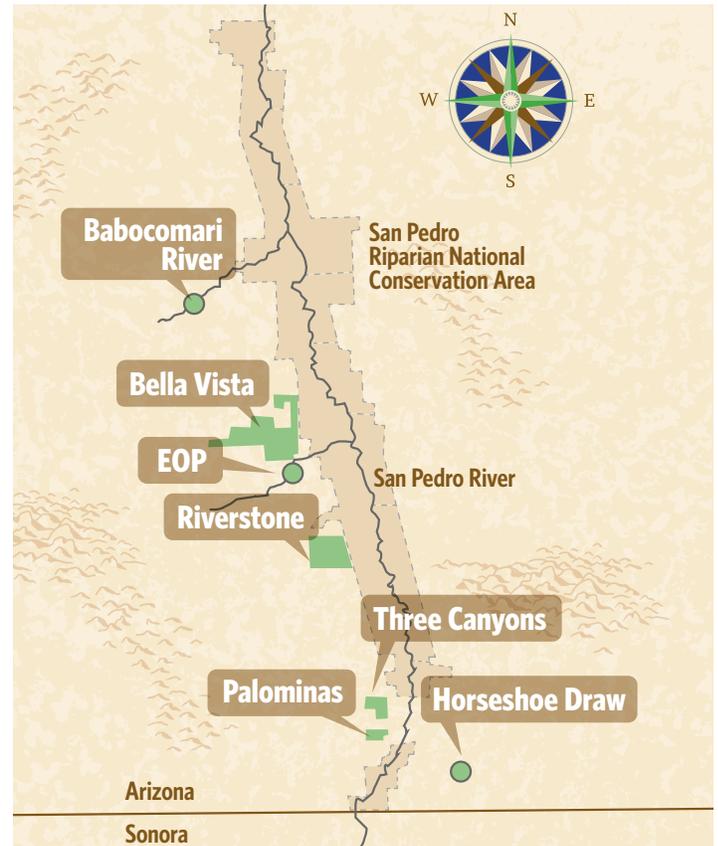
## NETWORK ACCOMPLISHMENTS

The regional network of projects encompasses **6,344 acres of lands along approximately 25 miles of the river where replenishment** can most benefit the flows of the river. The Nature Conservancy assisted with the acquisition of much of these lands with funding from the U.S. Army's Compatible Use Buffer Program. Cochise County, the Hereford Natural Resource Conservation District and the City of Sierra Vista supported the design and construction of these projects.

CCRN projects have led to approximately 3,000 acre-feet per year of groundwater savings, meaning that they have reduced historic pumping or prevented future pumping by that amount. An additional 3,000 acre-feet of stormwater and effluent is also being recharged back into the underground aquifer each year to replenish supplies.

#### A Formula That Works

- **1 billion gallons of water recharged**
- **1 billion gallons saved from historic and future pumping that will not occur**
- **Equals 2 billion gallons of groundwater yearly**



## Seven Cochise Conservation & Recharge Network Sites

## COMPLETED CCRN PROJECTS

- The Sierra Vista Environmental Operations Park (EOP) was the first aquifer replenishment project, which began operating in 2002. Since then, it has put back into the ground approximately 2,700-acre-feet of water each year.
- The Palominas Flood Control and Recharge Project, constructed in 2014, was a pilot test to evaluate designs of future projects where more runoff is available to be captured. This project served as a model for additional recharge projects along the river.
- Horseshoe Draw, which controls erosion and recharges stormwater, began operation in 2017.

"This is a whole new way to manage our water in a way that meets the needs of people and nature. This is a template for the West."

—Pat Call, Cochise County Supervisor

# The Future of the Upper San Pedro River

Additional funding and support is needed to design, construct and monitor additional CCRN projects. Future stormwater and effluent recharge projects include:

- The **Bella Vista Coyote Wash** Urban Enhanced Runoff Recharge Project, currently under design, is expected to be shovel ready for construction in Spring 2020.
- An additional recharge project is needed near the international border in **Palominas** to increase water availability there, if a source of water for recharge there can be secured.
- Productive recharge locations at the **Riverstone** site, near Hereford, have also been identified if source water there becomes available.

Network partners share resources for land acquisition, the initial design and construction of recharge infrastructure projects, and their long-term operation and maintenance. The partners also work together to evaluate the effectiveness of these projects over time through long-term monitoring programs.

While many metropolitan areas have initiated regional aquifer recharge programs to sustain groundwater supplies for urban residents, this **network of recharge projects is unique in its focus to support both rural communities and sustain one of the last large flowing desert rivers.**

“The San Pedro projects are the first to be designed to sustain the flows of a river system and to help rural communities. The benefits to the groundwater will be as important for water users on wells, as it will be for the river.”

— Holly Richter, The Nature Conservancy

| Recharge Sites                     | Pre 2015                                                     | 2016                | 2017                | 2018                  | 2019                | 2020             |
|------------------------------------|--------------------------------------------------------------|---------------------|---------------------|-----------------------|---------------------|------------------|
| Sierra Vista EOP                   | Initial Investigation, Final Investigation, Design/Construct |                     |                     |                       |                     |                  |
| Palominas                          | Initial Investigation, Final Investigation, Design/Construct |                     |                     |                       |                     |                  |
| Horseshoe Draw                     | Initial Investigation                                        | Final Investigation | Design/Construct    |                       |                     |                  |
| Bella Vista                        | Initial Investigation                                        |                     | Final Investigation | Design/Construct      | Design/Construct    | Design/Construct |
| Additional Palominas Area Recharge |                                                              |                     |                     | Initial Investigation | Final Investigation | Design/Construct |
| Riverstone                         | Initial Investigation                                        |                     |                     |                       |                     |                  |
| <b>Conservation Sites</b>          |                                                              |                     |                     |                       |                     |                  |
| Babocomari                         | Initial Investigation                                        |                     |                     | Operation             | Operation           | Operation        |
| Three Canyons                      | Initial Investigation                                        | Operation           | Operation           | Operation             | Operation           | Operation        |

■ Initial Investigation   
 ■ Final Investigation   
 ■ Design/Construct   
 ■ Operation   
 ■ Monitoring