

WATER CONSERVATION AND RE-USE

Rio Grande Environmental Water Transaction Program: Providing Water for Restoration



The Rio Grande river, also known as the Rio Bravo, runs nearly 1,900 miles from Colorado to the Gulf of Mexico. The Rio Grande Canalization Project (RGCP) is a flood control project spanning 105 miles of the river in New Mexico and West Texas. In 2009, the United States Section of the International Boundary and Water Commission (USIBWC) committed to restoring over 550 acres of riparian habitat along the RGCP. The USIBWC and partners established the RGCP Environmental Water Transactions Program (EWTP) to acquire and lease water rights for restoration efforts.



KEY ISSUES ADDRESSED

Groundwater pumping, stream channel modifications, rising temperatures, and frequent droughts have led to a depletion of natural flows and loss of riparian habitats along the Rio Grande. Water is fully appropriated for farming or municipal uses, leaving little to none for natural river habitats. Water transactions focused on supporting water for the environment can help mimic natural flood regimes and provide needed moisture for existing and restored riparian habitats. In this project, partners worked out the details and logistics for using Rio Grande Project water to support habitat restoration along the RGCP. This involved US Bureau of Reclamation law, irrigation district policies, federal real property regulations, and on-the-ground infrastructure. Planting vegetation along the river could further deplete limited water, so the EWTP is meant to offset water depletions at restoration sites, garnering support from the agricultural community for the creation of habitat.

PROJECT GOALS

- Develop a framework for an environmental water transaction program
- Buy and/or lease enough water rights over a 10-year period to offset water use and provide supplemental irrigation for priority restoration sites

JUST ADD WATER

Managed river systems like the RGCP can continue to provide important habitat for declining species. Environmental water rights will support over 500 acres, and nearly 90,000 native plants planted between 2011 and 2019.



Irrigation Check Structure

PROJECT HIGHLIGHTS

Restoration as Agriculture: Characterizing environmental water transfers as “agricultural use” allowed the use of Rio Grande water on restoration sites, per the Reclamation Act of 1902. Like any other irrigator, USIBWC receives an equal water allotment per acre and proportionally shares shortages during low water years.

Water Security for Farms: As a result of EBID’s support for environmental water transactions, the project reach was excluded from critical habitat designation for endangered flycatchers. The resulting program is a voluntary, market-based transaction program that supports riparian restoration to benefit endangered species and other wildlife while eliminating fears that farmers’ water would be taken in drier years to support endangered species.

Identifying Sellers: USIBWC has used diverse strategies to find willing sellers of water rights. Those utilized to date include opportunistic sales by word of mouth, transfers of rights that were lost because water users had not paid water delivery fees, and discussions with municipal water rights holders.

Collaborators

- United States Section of the International Boundary and Water Commission
- US Fish and Wildlife Service
- National Fish and Wildlife Foundation
- Audubon New Mexico
- Elephant Butte Irrigation District

Funding Partners

- United States Section of the International Boundary and Water Commission

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Photos courtesy of USIBWC

LESSONS LEARNED

Using irrigation infrastructure to deliver water can mimic the effects of river-floodplain connectivity and can help support the creation or enhancement of endangered species habitat.

Water rights are considered real property. Since the federal government was acquiring/leasing the water, the process had to adhere to federal laws and regulations for acquiring property.

Collaboration between irrigators and conservationists has been effective. Irrigation districts can identify and implement successful approaches to reallocate water for environmental benefit given water administrative constraints. Conservationists can identify restoration targets and determine environmental water requirements.

Farmers and conservationists can both benefit from integrated water management. Shared benefits include improved habitat for people and wildlife, water quality, channel restoration, and groundwater recharge/local water retention.

NEXT STEPS

- Secure the voluntary cooperation of the irrigation district in the Texas portion of the project area
- Continue planting trees and shrubs and build additional irrigation infrastructure to irrigate additional sites
- Develop aquatic habitat restoration sites
- Purchase or lease additional water rights

PROJECT RESOURCES

For more information on this project, contact Elizabeth Verdecchia: elizabeth.verdecchia@ibwc.gov

For additional project resources and case studies, visit the Collaborative Conservation and Adaptation Strategy Toolbox:

WWW.DESERTLCC.ORG/RESOURCE/CCAST



Reading a Flow Meter