



NFWF

Western Water Program

The National Fish and Wildlife Foundation's Western Water Program supports effective conservation actions to improve water quantity and quality and benefit fish and wildlife populations in the western United States and the U.S.-Mexico border region. Working with public agencies, tribal entities, nonprofit groups and other partners, NFWF funds projects that acquire water rights from willing sellers to increase water flows in streams, lakes and wetlands, and to restore healthy water-dependent habitats for many wildlife species.

Throughout the West, water demands for agriculture and other human uses jeopardize the health of our rivers, streams, and lakes and the fish and wildlife communities they support. NFWF and its many partners, including core program affiliates like Ecosystem Economics, Mentor Law Group, and WestWater Research, take a watershed-based approach to water transactions, maintaining and restoring critical freshwater habitats while addressing the needs of farmers and ranchers and the communities in which they live. The Columbia Basin and Rio Grande Water Transactions Programs, the Walker Basin Restoration Program, and the Flow-based Ecosystem Credit Market Initiative exemplify our strategy.

Columbia Basin Water Transactions Program

In 2002, the Bonneville Power Administration (BPA) established a partnership with NFWF to manage a program supporting innovative, voluntary transactions to improve streamflows in the Columbia Basin states of Idaho, Montana, Oregon and

Washington. During the peak growing season, legal water withdrawals for irrigation leave many streams and rivers low or dry, with significant consequences for imperiled salmon, steelhead, trout, and other fish and wildlife. Using permanent acquisitions, leases, purchased water saved through efficiency gains, and other approaches, the Columbia Basin Water Transactions Program (CBWTP) supports state water agencies, tribes, conservation organizations and other program partners to assist farmers, ranchers and irrigation districts in restoring flows.

To date, the CBWTP has invested \$27.5 million to secure more than 5.8 million acre feet (AF) of water, boosting flows to benefit high-priority habitats and native fish populations. In 2011, the program outperformed any previous year, enhancing over 600 miles with more than 111,000 AF of flow. The CBWTP has built a strong and successful program that now serves as a national model, balancing the need to secure flow improvements with the needs of irrigated agriculture throughout the arid West. The program is made possible through funding by BPA in cooperation with the Northwest Power and Conservation Council (NPCC).

The CBWTP has developed an Accounting Framework that uses well-defined measures of progress to assess the effectiveness of water transactions in improving habitat conditions for targeted species. The framework is built upon a tiered logic path that tracks contractual compliance, hydrologic change, habitat response, and population impacts over time resulting from water transactions. Each tier expands in both complexity and effort and subsequently provides a greater amount of data and information on the contribution of transactions to desired ecological outcomes. Once fully implemented, the framework will generate data that not only accounts for short- and long-term outcomes, but also provides strategic guidance to ensure that future transactions contribute to meaningful and measurable ecological changes.

Walker Basin Restoration Program

The Walker Basin Restoration Program (WBRP) was established by Congress in October 2009 for the primary purpose of restoring and maintaining Walker Lake, an at-risk desert lake at the terminus of the Walker River stream system of Nevada-California. NFWF assumed leadership of the Program in January 2010 through an agreement with the Bureau of Reclamation (Reclamation). The agreement allocates approximately \$118 million for the acquisition of water rights and related interests from willing sellers. Actions include leasing water from willing landowners under a demonstration program led by the Walker River Irrigation District (WRID); conservation and stewardship of associated riparian and watershed resources; establishment of a local nonprofit to hold and manage acquired property interests; and priority research to guide and monitor WBRP investments. In addition, the Reclamation agreement provides up to \$88 million in Desert Terminal Lakes (DTL) funding to support the core purposes of the program as well as other DTL priorities. Depending on many factors, the funds now committed could be used to acquire up to 80 percent of the water that scientists believe may be needed to restore and maintain Walker Lake for the long-term benefit of federally-threatened Lahontan cutthroat trout, common loons, and other species.

During its first two years the WBRP completed six transactions with willing sellers valued at \$23 million as well as a \$2 million flood water forbearance agreement with WRID and participating members. Property interests acquired to date include more than 10,000 AF/year of perpetual surface and ground water rights and nearly 2,000 acres of land. In addition, the 2011 forbearance agreement resulted in up to 30,000 AF of increased river flows due to reduced flood water diversions. Significant interest in the acquisition program continues, and discussions and negotiations are currently underway in response to inquiries and offers from potential willing sellers. The WBRP is now seeking change of use approvals on acquired water rights from the Nevada State Engineer to protect the acquired water instream to benefit the Walker River and Walker Lake. In addition, the WBRP is negotiating a thru-Reservation water conveyance agreement with the Walker River Paiute Tribe and a 3-year water lease demonstration program grant agreement with WRID.

The WBRP takes a holistic approach to water acquisition efforts. This means devoting significant Program resources on secondary issues associated with a successful large scale acquisition program. Some activities include: donating acquired lands adjacent to the Mason Valley Wildlife Manage-



As demand for water across the western states has grown, NFWF has responded by working with local groups to increase flows and restore healthy habitats.

ment Area to the State of Nevada for use as upland wildlife habitat; developing and implementing re-vegetation projects on lands affected by WBRP water transactions; and working with ditch companies, landowners, agricultural producers, resource agencies, and local water managers to address the myriad land stewardship and water management challenges and opportunities associated with the purchase and conversion of water rights from irrigation to instream use.

Flow-based Ecosystem Market Credit Initiative

Drawing on its broad experience with water transactions, NFWF is currently developing a pilot Flow-based Credit Initiative. This innovative, market-based initiative is designed to fund priority water transactions by establishing a mechanism to allow businesses, counties and municipalities, landowners and others to purchase flow-based credits derived from water transactions to satisfy applicable mitigation requirements (e.g., those arising from the Clean Water Act).

With support from the Natural Resources Conservation Service through its Conservation Innovation Grant program, NFWF is implementing a Flow-based Credit pilot within the Scott, Shasta and Wood sub-basins of the Klamath Basin in northern California and southern Oregon. NFWF is also partnering with local agencies and conservation organizations to support their activities and ensure that flow credit transactions are completed and monitored. NFWF's technical consultants are building a model to estimate temperature impacts of restored flow. Once completed, NFWF will test the model in the Klamath Basin and elsewhere.

Rio Grande Water Transactions Program

In 2011 NFWF received an initial grant from the U.S. International Boundary and Water Commission (USIBWC) via the U.S. Fish and Wildlife Service (USFWS) to launch the Rio Grande Water Transactions Program (RGWTP). In its initial phase, the RGWTP is working with Audubon New Mexico to establish the framework for acquiring water rights from willing sellers to support the restoration of riparian habitat for the federally-endangered Southwest willow flycatcher and other at-risk species along the 105-mile Canalization Project reach of the river in southern New Mexico from Elephant Butte Dam to El Paso, Texas. Through an additional grant from USIBWC/USFWS, the Program will also assist local irrigation districts in their efforts to ensure that the RGWTP is developed cooperatively and in ways that make sense for them and their members.



NFWF's water transaction projects balance the need to restore vital streams with the needs of ranchers and farmers.

Emerging Initiatives

NFWF and its core program affiliates are working with federal and state agencies to explore the development of other transactions-based freshwater restoration initiatives in the Sierra Nevada/Central Valley/Bay-Delta watershed of California; the

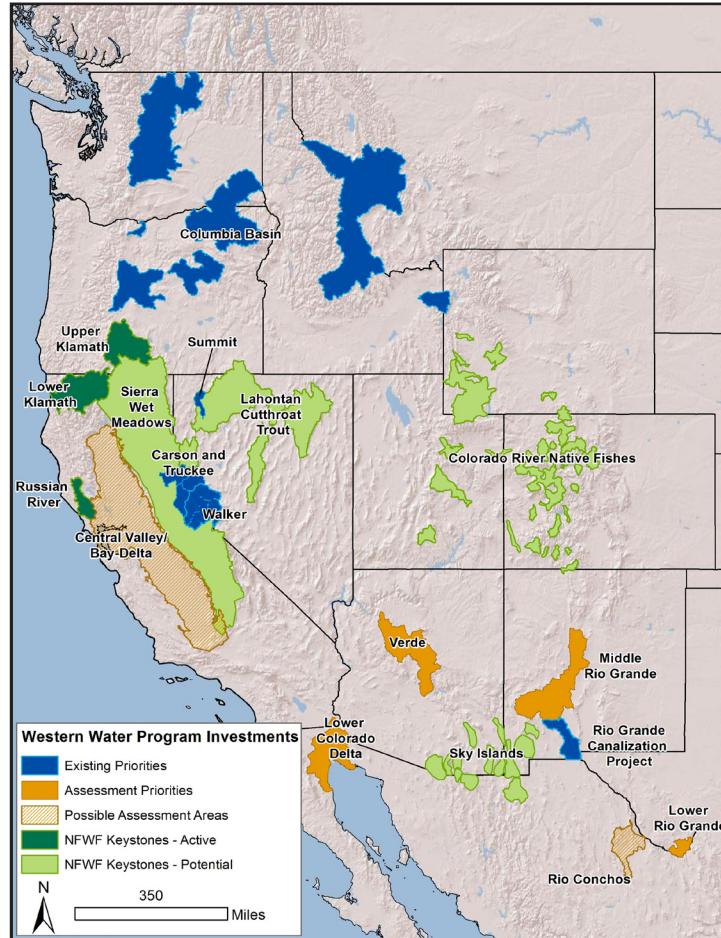
lower Colorado River Basin; in other bi-national watersheds of the southwest United States and northern Mexico; and the upper Colorado River Basin. For example, NFWF is exploring opportunities for developing and supporting voluntary transactions-based initiatives in other parts of the Rio Grande/Rio Bravo watershed, including the Middle Rio Grande upstream of Elephant Butte Reservoir and the bi-national reach of the river into and through Big Bend National Park near the Rio Conchos confluence.

In the Central Valley, for example, NFWF developed recommendations in 2011 for USFWS and BOR regarding potential establishment of a Central Valley Water Transactions Program, with initial funding anticipated to come through the Central Valley Project Improvement Act. NFWF's specific recommendations build on the more general recommendations of two recent independent expert reports and envisioned a pilot-scale program commencing in 2012 to help meet the water needs of Central Valley wildlife refuges and fisheries. More recent efforts include assessments of NFWF's habitat restoration

priorities for wet meadow systems in the Sierra Nevada, and whether water transactions might be adapted in that context to help achieve priority conservation outcomes.

NFWF is also working with the Walton Family Foundation (WFF) and other partners to support freshwater restoration initiatives throughout the Colorado River Basin and in other

priority western watersheds. Current efforts include an evaluation of the Colorado River Delta Water Trust in Mexico; review and certification of flow improvement investments in Utah's Bear River Basin for the Bonneville Environmental Foundation; and assessment of potential transactions-based wildlife and habitat conservation opportunities in alignment with NFWF's other conservation priorities. Finally, as part of the WFF partnership, NFWF recently organized and co-hosted a Western Water Transactions Workshop (May 21-24 in Reno, Nevada) to enhance opportunities for shared learning and networking among practitioners, agencies, and funders.



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Established by Congress in 1984, the National Fish and Wildlife Foundation (NFWF) sustains, restores and enhances the nation's fish, wildlife, plants and habitats. Working with federal, corporate and individual partners, NFWF has funded more than 4,000 organizations and helped to direct more than \$2 billion to conservation projects. Learn more at www.nfwf.org.