Walker Basin Agricultural Activities

Agriculture in the Walker River Basin. | Credit: NFWF

NFWF CONTACT

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INITIATIVE DETAILS

To learn more, please go to www.walkerbasin.org

ABOUT NFWF

The National Fish and Wildlife Foundation (NFWF) protects and restores our nation's fish and wildlife and their habitats. Created by Congress in 1984, NFWF directs public conservation dollars to the most pressing environmental needs and matches those investments with private funds.

Learn more at www.nfwf.org

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Walker Lake in Nevada

The National Fish and Wildlife Foundation (NFWF) manages the Walker Basin Restoration Program in the Walker River Basin of Nevada and California. The primary objective of the program is to acquire water from willing sellers in the basin's agricultural valleys and to protect it instream for the benefit of the Walker River and Walker Lake, a desert terminal lake in Nevada.

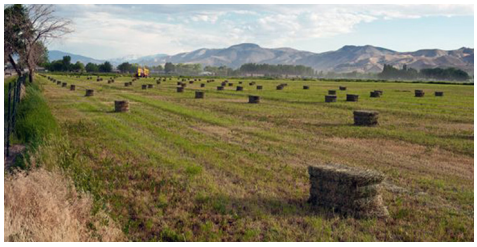
An important secondary purpose of the program is to protect agriculture and watershed interests in a manner consistent with efforts to restore and maintain Walker Lake. NFWF has funded a variety of projects within the agricultural community to help support and sustain the economic livelihoods of those who live and work in the basin. Below are examples of the projects supported by the program to date.

SUSTAINABLE AGRICULTURE PILOT PROJECT: DESERT PEARL FARMS

Project Description: In February 2013, NFWF entered into a Sustainable Agriculture Program agreement with Peri & Sons Farms and its landholding subsidiary Desert Pearl Farms LLC (DPF). NFWF sold DPF a total of 360 acres of land as well as primary ground water rights that were acquired in three other deals. Fields will be converted from alfalfa and irrigated pasture to organic vegetable crops (e.g. onion, broccoli, cauliflower, and a variety of leafy greens) over a 5-7 year period.

Results: DPF will share detailed records of all labor, equipment and supplies used on the property as well as financial records. This information will be analyzed annually to allow the program to gain more information on overall impact of alternative agriculture and land use conversions that reduce total water use in the Walker Basin while supporting jobs and the local economy. Results will inform both NFWF and the community as the program works with other interested landowners on water acquisitions and related land stewardship activities.





Agriculture activities in the Walker Basin. | Credit: NFWF

GRANT FOR AGRITOURISM PROGRAM: WESTERN NEVADA COLLEGE

Project Description: A $1.5 million grant was awarded to Western Nevada College (WNC) located in Fallon, Nev., to support the WNC's Special Crop Institute's agritoursm activities in the Walker River Basin. Agritourism is any activity that brings visitors to a ranch or farm. These efforts are consistent with finding alternatives to traditional alfalfa farming.

Results: The WNC has issued micro loans to local farmers to advance efforts to reduce overall water usage in the basin while maintaining income from other agricultural sources. WNC offers a variety of seminars and classes on marketing and native plant and seed production. An Agritourism Working Group has also been established to advance agritourism activities within the Walker River Basin community such as WNC's sponsorship of the Yerington Farmer's Market in the summer of 2014.

UNR/DRI GRANT: ALTERNATIVE AGRICULTURE

Project Description: NFWF has awarded two grants totaling $10 million to the University of Nevada, Reno and the Desert Research Institute. These grants fund many types of research projects, including alternative crop conversions as a means of conserving water in the Walker River Basin. Researchers have also looked at a variety of plants that might be suitable for re-vegetating previously irrigated farmlands.

Results: Researchers have looked into the potential of switching from alfalfa to less water-intensive crops such as teff, as well as native re-vegetation strategies for retired farmlands. An agreement with the University of Nevada Cooperative Extension (UNCE) allowed use of land at the NFWF-acquired Rafter 7 Ranch to research the reestablishment of native shrubs on retired farm land. This research and resulting information will be helpful for future re-vegetation efforts.

FARR WEST CONTRACT: DITCH IMPROVEMENTS

Project Description: Through a contract from NFWF, Farr West Engineering engaged in preliminary research and project design to update the Yerington Weir, as well as other outdated diversion structures that cause excess sedimentation, disrupted flows, and prevent fish passage. Farr West is also looking at the possibility of ditch consolidation in areas where irrigators are served by multiple ditches or ditches that parallel each other for miles.

Results: Currently there is a great deal of sediment buildup around the Yerington Weir. This project is designed to lead to consensus improvements which allow the sediment to move through the system rather than accumulating behind the Weir and other diversions. Ditch improvements will help the overall farming and ranching system in Mason Valley allowing the water to be transported with reduced ditch loss to irrigators on the system. It will also reduce flood risks during high-runoff periods for the City of Yerington and its residents.

WALKER RIVER IRRIGATION DISTRICT: CONTROL SYSTEM IMPROVEMENT PROGRAM

Project Description: Under a $3 million grant from NFWF[1], the Walker River Irrigation District (WRID) is completing water measurement and control system improvements that will modernize canal headgate regulation. WRID leveraged these funds with previous support from the Bureau of Reclamation. Currently many headgates need to be operated manually to adjust diversions to meet water delivery orders and water orders have to be collected by ditch riders and then relayed to the federal water master.

Results: The improvements will include the installation of standardized headgates on select canals and ditches with fully automated remote controls for adjusting and maintaining diversions. WRID is also establishing a Supervisory Control and Data Acquisition (SCADA) system. SCADA is a computer control and measurement system that enables the operator to remotely control and/or monitor certain sites within the irrigation system. This system will provide water users with real-time monitoring, automated control, troubleshooting and automatic data collection and reporting. The SCADA system also creates a platform for future control system improvements for all ditches in the system.

[1] These funds are part of a $25 million grant awarded to WRID "to administer and manage a three year water leasing demonstration program" (P.L. 111-85). The ditch improvements will aid with WRID's ability to manage flows associated with the leasing program.