



United States Department of Agriculture
Natural Resources Conservation Service

Agricultural Water Enhancement Program

AWEP

HELPING PEOPLE HELP THE LAND

December 2010

Through AWEP, NRCS provides support for projects that conserve and improve water quality, use irrigation water efficiently, mitigate the effects of drought and climate change and take other actions that benefit water resources.

Project Partners

- Susan River Watershed Partnership
- Ducks Unlimited
- UC Cooperative Extension Service
- Honey Lake Valley RCD
- Lassen Irrigation Company
- Lassen Special Weed Action Team
- California Waterfowl Association
- Pheasants Forever
- Bureau of Land Management
- Lassen County Ag Commissioner
- Lassen Land and Trails Trust

Project Objectives

- Improve water yield and duration of flow
- Improve riparian health and achieve proper functioning condition
- Improve water quality

Project Benefits

- Improved water efficiency
- Improved water quality
- Improved habitat for terrestrial and aquatic species
- Improved economic viability of agricultural operations within the watershed
- Improved recreational values along the Susan River and within the watershed

Lower Susan River Watershed Partnership Project

Addressing Water Conservation and Water Quality Concerns in the Lower Susan River Watershed

In 2010, with a partnership formed with the Susan River Watershed group, Honey Lake Valley Resource Conservation District (RCD) applied for the Agricultural Water Enhancement Program (AWEP) to assist private landowners in the lower Susan River on irrigation system improvements, noxious weed treatment and resource restoration. They were awarded \$750,000 in FY 2010, with that amount to come for each of the next four years.



The project area, along the lower section of the Susan River in Lassen County, was identified after consultation with partners within the watershed.

The entire project area includes 168,773 acres, of which 24,500 acres is irrigated land. Priority areas for treatment are the 19,500 acres along the Lower Susan River, where practices have the most direct impact on both water quality and groundwater use.

A total of 10 contracts were awarded in FY 2010 for conservation practices on more than 4,650 acres. These AWEP contracts are helping farmers and ranchers in the Lower Susan River watershed conserve water and reduce noxious weeds while improving the stream corridor and floodplain. Practices to address water quantity include irrigation water management, sprinkler systems, underground pipelines, and tail water recovery systems. Practices to improve water quality include cover crops, irrigation canals, pest management, and filter strips. NRCS is also providing direct technical assistance in conservation plan development.

In addition to the NRCS resources provided, the partners are providing services to plan and monitor water conservation and regulated water quality issues within the project area. Over the five-year project period (2010-2014) the partnership will contribute nearly \$8 million in non-Federal resources and services.



Honey Lake Valley RCD is administering the program, and the Lassen Irrigation Company is monitoring project compliance. The Special Weed Action Team continues to treat noxious weeds in the watershed. The University of California Cooperative Extension is providing on-farm evaluations of irrigation systems, providing recommendations to implement water management according to crop needs. Pheasants Forever, California Waterfowl Association, and Ducks Unlimited are working with landowners on wetland and upland habitat restoration.

The project area is located entirely within Lassen County. The area has been designated as a priority waterfowl and wildlife area by the California Waterfowl Association, Ducks Unlimited and Pheasants Forever. In addition, the California Department of Water Resources and Lassen County have designated the watershed as an important Ground Water Basin.

The Susan River Watershed group is focused on improving the Susan River Watershed by improving riparian habitat, removing noxious weeds, and increasing water efficiency and quality within the river corridor and delta. AWEF funds are being used to

achieve these goals through conversion of inefficient irrigation systems. Along the stream corridor, AWEF funds are being used to help farmers restore stream channels, treat noxious weeds, and plant more drought tolerant field crops. Also, development of off-site water and establishment of riparian buffers is helping to improve water quality.

Through the project, the partnership hopes to achieve a 25 percent decrease in groundwater consumption and anticipates helping about 90 percent of participating producers to meet State of California water quality permit requirements.



The Lower Susan River Watershed Partnership Project is addressing the following Resource concerns:

- Inefficient Water Use on Irrigated Land
- Inefficient Water Use on Non-irrigated Land
- Insufficient Flows in Water Courses
- Excessive Sediment and Turbidity in Surface Water
- Excessive Runoff, Flooding, or Ponding
- Excessive Nutrients and Organics in Surface Water
- Excessive Subsurface Water
- Excessive Seepage
- Impaired Rangeland Hydrologic Cycle
- Inadequate Drain Outlets
- Harmful Temperatures of Surface Water
- Reduced Capacity of Conveyances

As of December 2010, more than 18,645 feet of high-pressure underground pipeline have been installed to reduce water loss, four water control structures have been completed, and 1,329 acres are under contract for irrigation improvement for water savings.

