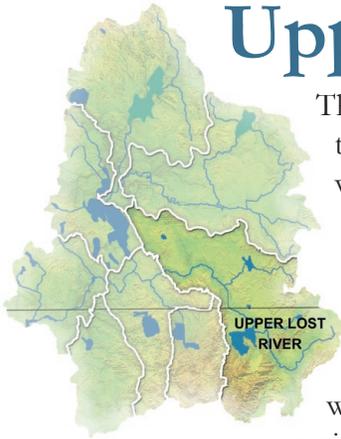


Upper Lost River Subbasin



The Lost River Subbasin originates above Clear Lake and passes through several agricultural valleys, ending in Tulelake. The valley once supported a vast network of wet meadows and marshes. This subbasin covers approximately 1.2 million acres and is split from the Middle Lost River Subbasin near Olene.

Irrigated agriculture generally occurs in the warmer valleys.

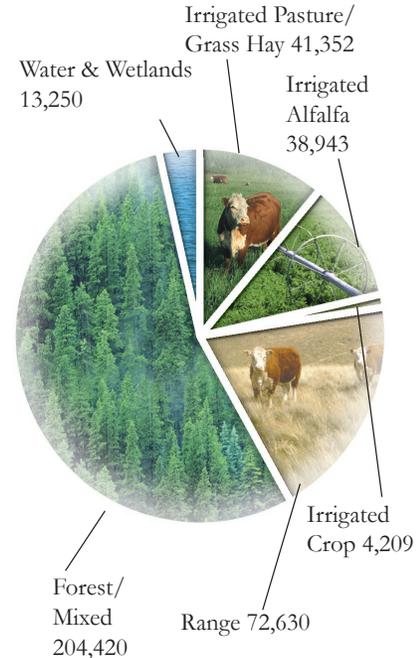
Flood is the most common pasture irrigation method, with about 50 percent of the water coming from the USBR project. Pasture condition is fair, and most pastures have not been renovated or re-leveled for some time. Maintenance would increase the efficiencies of 60 to 80 percent of the systems.

Alfalfa is customarily sprinkler-irrigated and well-managed. Although irrigation efficiencies are higher than for pasture, many sprinkler systems still need upgrading. Several irrigated crops are grown in the subbasin including cereal grains, potatoes, and strawberry plants.

Forestland, range and pasture are grazed by livestock. Rangelands are comprised of juniper and sagebrush steppes. Forestlands are generally mixed conifer. Livestock operations include cow/calf, stockers and dairies.

Confined livestock operations are located throughout the subbasin. The location and duration of confinement may pose a potential risk to water quality. Seven dairies located within the subbasin have existing liquid and dry livestock waste storage facilities.

Upper Lost River Subbasin
Agricultural Land Use/Cover



Upper Lost River Subbasin

Land Ownership

Private Lands	407,500
Public Lands	<u>771,300</u>
Total Land Area:	1,178,800

Irrigated Acres

USBR Project:	40,400
Non-USBR:	<u>44,100</u>
Total:	84,500

Resource Concerns

Wildlife habitat and water quality are two of the major resource concerns in the subbasin.

High water temperatures are usually linked to lack of shade, irrigation return flow or other warm water inputs.

As measured by total phosphorus, water quality appears to be gradually improving over the last 10 to 20 years. While agriculture is the dominant land use in this subbasin, other sources of phosphorus and other pollutants exist. Sewage treatment outfalls, on-site sewage disposal systems, wildlife, and natural inputs also contribute nutrients and other pollutants to the system.

While historically the river had significant fish runs, it currently supports only a small population of Shortnose and Lost River suckers.

Conservation Accomplishments

In the Upper Lost River Subbasin during the last two years, significant conservation progress has been made. With assistance from NRCS and local conservation districts, land managers have improved resource conditions on 234 acres of croplands and 5,282 acres of grazing lands, and have improved their management of irrigation water on 5,596 acres of irrigated lands.

In addition, 846 acres of riparian and wetland areas have been restored.

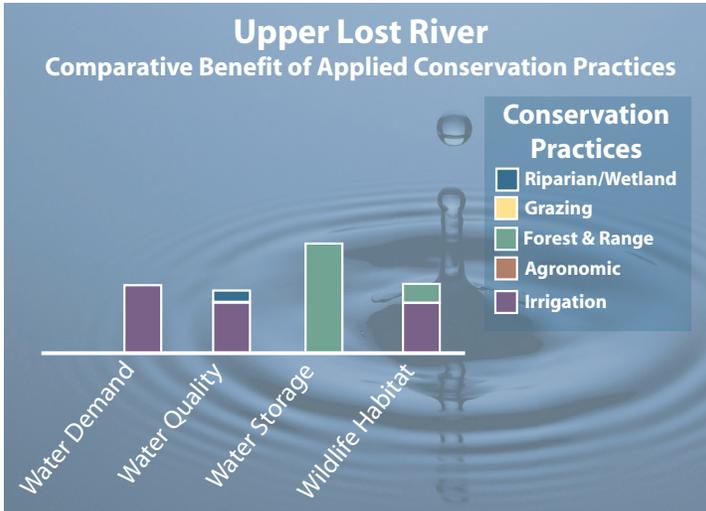
Priority Conservation Opportunities

Water Quality: Rotating livestock through smaller pastures will increase forage production, reduce soil compaction and improve water quality.

On cropland, integrated pest management, irrigation scheduling, increasing crop residue or installing filter strips will minimize risks associated with some pesticides used on cereal grains, potatoes, onions and other crops.

Implementing practices like diverting clean water before it flows through livestock confinement areas near water sources, will reduce the risk of polluted runoff.

Water Demand: On both surface-irrigated pastures and cropland areas, there are opportunities for land leveling or smoothing, lining or piping irrigation delivery ditches, upgrading irrigation systems and developing tailwater recovery systems to improve water use efficiency.



Conservation Investment

Projected Conservation Acres to be Treated*

Irrigated Land.....	58,100
Range & Forestland	147,400
Wildlife Habitat.....	1,200

Estimated Installation Cost

Irrigated Land\$10,993,000
Range & Forestland\$20,397,000
Wildlife Habitat\$1,945,000

Estimated Annual Operation, Maintenance & Management Cost

Irrigated Land\$3,667,000
Range & Forestland\$1,384,000
Wildlife Habitat\$66,000

*Based on conservation need and projected participation rates.