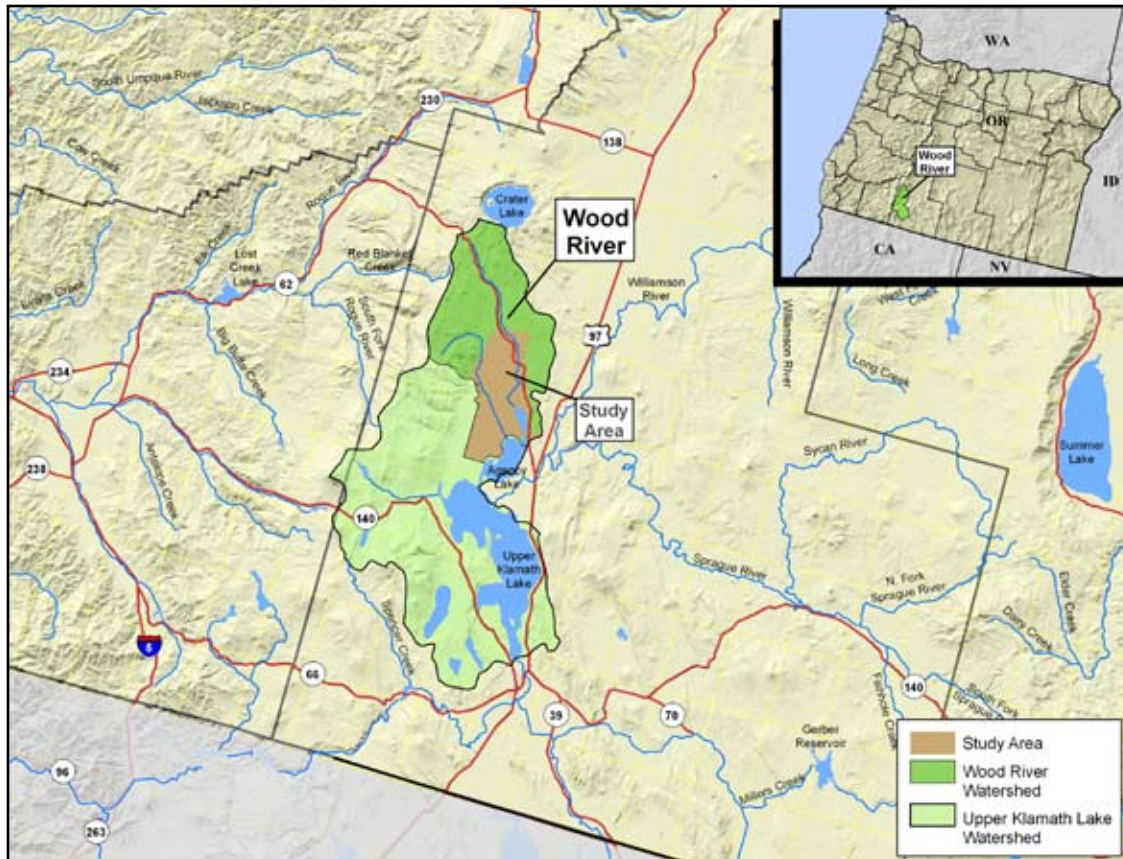




Wood River Watershed, Oregon 2006-2008

*NRCS Special Emphasis Watershed, one of 30 CEAP watershed projects.



CEAP Assessment

Evaluate effects of high intensity grazing management (prescribed grazing), irrigation water management and riparian restoration on forage production, animal health, ranch economics, riparian habitat, stream bank stability, water quality, wildlife and fish.

Watershed Description

- 140,000 acres in watershed, study area 37,000 acres
- 58% public lands, 26% private grazing lands (mostly irrigated, wet meadow), 15% private forest
- Endangered species: bull trout, Lost River and shortnose suckers

- Upper Klamath Lake has been designated as an impaired waterbody due to low dissolved oxygen, high pH, and excessive algal growth, affecting fish survival.
- External phosphorus loading has been implicated as the primary mechanism triggering hyper-eutrophic conditions in the lake.
- Upper Klamath and Agency Lakes, which receive runoff from the Wood River watershed, have a TMDL for total phosphorus. A stream temperature TMDL was completed for Fourmile Creek, a tributary to the lakes.



Riparian area on Crooked Creek.



Monitoring evapo-transpiration & vegetation.

Issues: Irrigation water demand, pasture condition, water quality, fish and wildlife habitat (including endangered suckers and migratory birds), economically viable agriculture.

Groundwater, surface flow, soil moisture and evapo-transpiration rates will be monitored as they pertain to vegetation and water quality responses to grazing and riparian management practices. Over the last three years, the Klamath Basin Rangeland Trust has gathered monitoring data on stream flow, water table and soil moisture levels, water quality, and other parameters.

The study will help landowners determine the level of grazing and irrigation that can be sustained economically and environmentally in the Wood River valley.

Approach

Field Monitoring: pasture vegetation, condition, trend and productivity; livestock nutrition and health; riparian and aquatic habitat, channel morphology, fish biomass, migratory birds; water quality, soil moisture, water table levels and evapotranspiration rates; economic returns.

Computer Simulation Models: Danish Hydraulic Institute MIKE SHE model (soil moisture and water table levels); DHI Daisy extension (evapo-transpiration, crop growth, water quality).

Assess Practices: Prescribed grazing, irrigation water management, riparian restoration and management.

Communicating Results

Two progress reports and a final report are planned. Stakeholder and interagency meetings will be held to share information. The final report will include detailed descriptions of the effects of grazing and irrigation water management on livestock forage production, economics, riparian and aquatic habitat, and fish and wildlife.

Collaborators

- Klamath Basin Rangeland Trust
- U.S. Fish and Wildlife Service
- Klamath Tribes
- Klamath Soil and Water Conservation District
- Oregon State University
- Local ranchers

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