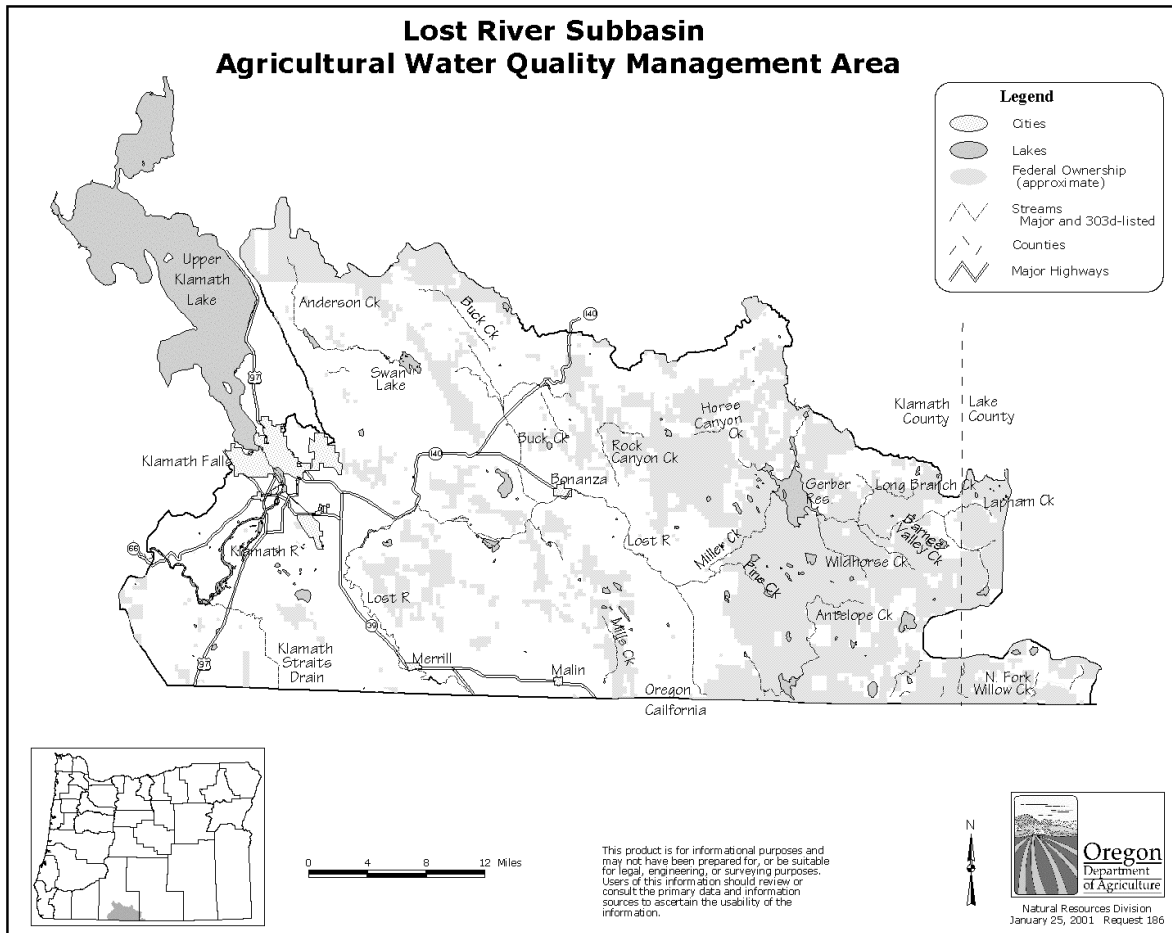


LOST RIVER

AGRICULTURAL WATER QUALITY MANAGEMENT AREA PLAN AND RULES

2nd BIENNIAL REVIEW REPORT TO THE OREGON STATE BOARD OF AGRICULTURE

May 13, 2008



MISSION OF THE LOST RIVER SUB-BASIN LOCAL ADVISORY COMMITTEE

*Protect water quality in the Lost River Subbasin
Agricultural Water Quality Management Area,
while sustaining the agricultural economy.*

I. INTRODUCTION

The Lost River Subbasin Local Advisory Committee (LAC) submits this report to the Board of Agriculture to summarize and evaluate implementation of the Lost River Subbasin Agricultural Water Quality Management Area Plan and Rules.

The Area Plan and Rules were created following passage of the Agricultural Water Quality Management Act in 1993. The Oregon Legislature adopted the Act to address concerns about agricultural effects to water quality.

From 1998 through 2004, ODA and the LAC developed an Area Plan and associated Administrative Rules for the Lost River Subbasin. The Oregon Department of Agriculture (ODA) adopted the Area Plan and Rules in June 2004. In 2006 the LAC met for the first biennial review of the Area Plan and Rules. The Klamath Soil and Water Conservation District (SWCD) has served as the Local Management Agency for the development and implementation of the Area Plan and Rules.

II. BACKGROUND

When developing the Area Plan and Rules, the LAC identified two objectives to protect and improve water quality:

1. Maximize the beneficial effects of agricultural irrigation and grazing practices on bacteria loads, nutrients, and water temperature, while acknowledging that background water quality is limited due to hot springs, historic channelization, and the volcanic origin of soils.
2. Increase public awareness of water quality concerns beyond the scope of

this Area Plan or the responsibility of the private landowner, including:

- natural background conditions (geothermal springs, nutrients, algae, low-gradient streams)
- fluctuation of flow in the Lost River (Bureau of Reclamation)
- commingled waters (Lost River and Klamath River)
- interstate waters (Oregon and California)
- high water temperatures correlated with solar radiation and high ambient temperature
- lack of streambank shade on wide channelized streams and impoundments
- unusual weather
- urban and suburban runoff

Four Area Rules were adopted:

1. Sheet Rill and Wind Erosion. (a) Combined sheet, rill, and wind erosion of soil, averaged through a crop rotation period, must be less than or equal to T. (b) If an alternative standard is needed for certain soils, ODA and the Klamath SWCD, acting as the Local Management Agency, will request an alternative recommendation from the NRCS State Conservationist for an appropriate erosion control standard.
2. Streamside Areas. (a) By December 31, 2005, agricultural activities must allow the establishment or improvement of vegetation to provide bank stability and shading of natural streams consistent with the vegetative capability of the site. Evaluation of vegetation will consider conditions for a stream reach in contiguous ownership. (b) Except as provided in (a), grazing, weed control, and other common agricultural activities are allowed in riparian areas. (c) Channel maintenance provided for

under ORS 196.600 to 196.905 (Removal Fill laws) is not subject to 603-095-3940(4)(a).

3. Livestock Waste Management.
 - (a) Effective on rule adoption, landowners must prevent movement of animal waste into waters of the state from animal handling or feeding operations that concentrate animal waste.
 - (b) Waste storage and application shall be done in such a way as to keep from exceeding beneficial use for forage and/or crops.
4. Waste Management. Effective on rule adoption, no person subject to these rules shall violate any provision of ORS 468B.025 or ORS 468B.050.

III. IMPLEMENTATION, 2006-2007

A. Technical Assistance and Outreach

The Klamath SWCD worked closely with USDA NRCS and Farm Service Agency (FSA), and OSU Extension Service staff to provide competent technicians, coordinators, and workshop presenters. These agencies also helped initiate mass media campaigns. See attachments for project descriptions and locations.

B. Monitoring and Evaluation

DEQ database

Existing data on DEQ's Laboratory Analytical Storage and Retrieval (LASAR) database only has two sites with continuous data in this basin, both on the mainstem of the Lost River. One site is located at the Anderson-Rose Dam, and the other is in Merrill at Highway 39. The Anderson-Rose Dam site has data that continues until 1998 with many gaps between 1985-1997. The Highway 39 site has continuous data beyond 2001. This site also covers nearly all the Lost River drainage, so it provides a good

single point for looking at water quality trends in the basin. It would be useful to have at least one more sampling location on the mainstem Lost River. Potential sites for this would be at the F canal diversion, and at the East Langell Valley Road crossing.

In addition to the data on LASAR, there are other groups that have done focused studies (i.e. short duration monitoring) in the Lost River Basin:

- USFS temperature study of the Lost River, 2000-2002
- USGS Physical, Chemical, and Biological Data for Detailed Study of Irrigation Drainage in Klamath basin, Open File Report 93-497
- USGS Water Resources Report of Irrigation Water in the Lost River Basin, report 90-42304

As of February 2008, the Lost River Highway 39 site appeared to show a slight increasing trend in chemical oxygen demand; along with many low dissolved oxygen concentrations. Total phosphorus concentrations remained high, and ammonia concentrations were slightly elevated.

C. Complaints

Since the last biennial review, ODA received no new complaints in the Management Area.

IV. BIENNIAL REVIEW PROCESS

In May of 2008, the LAC met for the second biennial review and update of their Area Plan and Rules. The LAC consists of Management Area landowners representing agricultural commodities (cattle, hay, dairy, nursery stock, and irrigated rowcrops), local and state agricultural commodity groups, irrigation districts, fisheries biologists, and

Klamath SWCD. The following LAC members participated:

- Glenn Barrett – Co-Chair
- Bill Kennedy – Co-Chair
- Andy Hamilton
- Bill Rust
- Luther Horsley
- Tracey Liskey

In addition, the meeting was attended by:

- TJ Woodley – Klamath SWCD
- Doug Whitsett – Oregon State Senator
- Gail Whitsett
- Eric Nusbaum – ODA

SWCD staff updated the LAC on their educational and technical assistance activities. ODA staff updated the LAC on the Agricultural Water Quality Program's activities around Oregon.

V. RECOMMENDATIONS

The LAC recommended that the following water quality monitoring of the Lost River be conducted by the Klamath SWCD:

- Natural flow of hot water into system from thermal springs
- Background affect of avian wildlife on riparian areas and nutrient delivery to the river
- Assist landowners in self-monitoring water quality on their property

The LAC also recommended that the Klamath SWCD and ODA work together in the following areas of education and outreach:

- Educating the public on what agriculture is doing to improve water quality
- Educate new small ranch/farm owners on their responsibility to the agriculture community to improve water quality

The LAC recognizes that the Lost River TMDL will affect the Lost River Area Plan. The LAC reiterates that the Lost River Area Plan addresses agricultural load allocation of the TMDL adequately. The LAC feels it is imperative that there be local involvement in the development of the TMDL. The LAC believes that ODA with the LAC should actively participate in the development of the TMDL.

Attachment A: Implementation activities by the Klamath SWCD: 2006-2007.

In the past two and one half years, the KSWCD has been involved in a wide variety of activities to promote the information presented in the Lost River and the Klamath Headwaters Agricultural Water Quality Management Area Plans (Area Plans).

Listed below is an executive summary of some of those activities. The pledge of the KSWCD is to educate and assist landowners on water quality issues in their watershed. We also have placed the District on a first call basis for any water quality complaints or inquiries for Klamath County. Our goal is to make certain that the KSWCD staff and directors are available to every landowner in Klamath County and to provide technical assistance and explore funding possibilities to correct identified problems whenever possible.

- Had over 4000 contacts with landowners regarding water quality, irrigation water management and NRCS Environmental Quality Incentive Program (EQIP) projects. These contacts were pro-active and provided landowner education regarding the Agricultural Water Quality Program and the Area Plans for both the Lost River and the Klamath Headwaters Management Areas.
- Worked with 3 landowners regarding possible water quality concerns. The KSWCD provided technical assistance and secured funding to assist in water quality improvements.
- 32 conservation plans on 5100ac. for Oregon Watershed Enhancement Board (OWEB) small grants projects on water quality improvements.
- Distributed at least 17 press releases and articles concerning water quality.
- Completed 98 conservation plans, and EQIP contracts on 15,600 ac. for irrigation water management, water quality and water quantity resource concerns
- Presented 24 conservation awards to landowners and organizations.
- Over 230 site visits on irrigation water management and water quality.
- Published 20 different articles in district newsletters regarding educational outreach and other associated water quality issues.
- Interviewed on state wide syndicated radio show concerning Agricultural Water Quality Program and other water quality issues
- Worked with the Lava Beds/Butte Valley Resource Conservation and Development Agency (RCD) on implementing the Walking Wetlands program in both Oregon and California
- Made 5 presentations to the Klamath County Commissioners on water quality issues.

- Made a presentation to the Klamath County Natural Advisory Committee on water quality, Conservation Reserve Enhancement Program (CREP) and the Conservation Security Program (CSP) programs being offered in Klamath County.
- Held 18 meetings on water quality issues.
- Made 9 public presentations regarding water quality.
- Completed two-year status reviews for both the Klamath Headwaters, and Lost River LAC Plans.
- Signed a Cooperative Agreement with the U.S. Fish and Wildlife Service to distribute fencing materials for Sprague River riparian fencing, and grazing management.
- Put on a two-day workshop presentation in Tucson, Arizona in partnership with Oregon Department of Environmental Quality (DEQ) on the state Total Maximum Daily Load (TMDL) process and the agricultural water quality plans developed by landowners in Klamath County.
- Conducted three workshops on water quality and other conservation programs including livestock stream fencing.
- In partnership with the California NRCS, we established a 6-member coalition of conservation districts referred to as the Klamath River Coalition of Conservation Districts to work on water quality and water quantity.
- Continue to work with the Lava Beds-Butte Valley RCD on issues relating to water quality on the Lost River watershed, which terminates in Tulelake, California.
- Had three meetings with State and Federal legislators concerning water quality improvement, water management, and conservation programs
- The District presented three separate three-day, (9 days total) workshops for Klamath City and Klamath County 6th grade students on water quality. Held in conjunction with the OSU Forestry Tour at Clover Creek.
- Presented two different two-day and one night, (four days and two nights) on water quality and noxious weed programs at the Klamath Farm EXPO.
- At five power meetings, discussed flood conversions to sprinkler irrigation for irrigation water management and water quality improvement.
- Established four juniper removal contracts exceeding 280 acres.
- Developed a contractor list of 28 different interested people or companies for juniper removal to free up underground water supplies.

- Established 17 underground pipelines totaling over 23,000 ft for water quality and water conservation.
- Contracted and established 11 stream miles of willow caging, noxious weed eradication and livestock exclusion.
- Wrote over 65 conservation plans for Klamath County landowners.
- Made 826 contacts with landowners regarding riparian restoration.
- Made 137 field visits for riparian planning.
- Established 15 conservation plans, with four new CREP contracts.
- Conservation plans and contracts excluded cattle grazing from 233 acres of riparian pastures, and treated over 50,368 linear feet of river frontage.