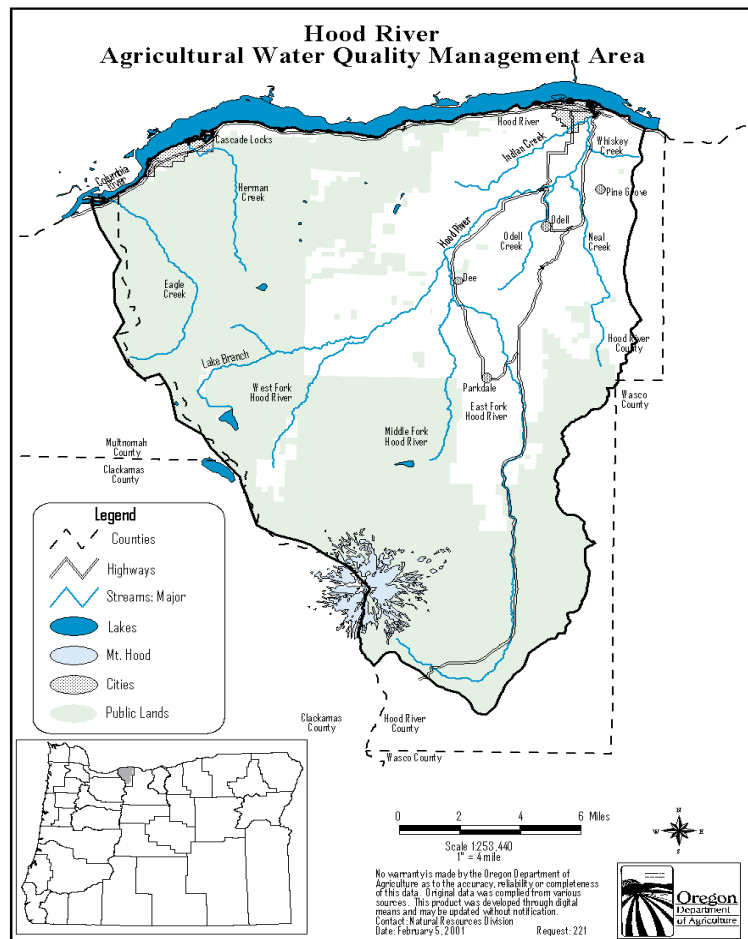


Hood River

AGRICULTURAL WATER QUALITY MANAGEMENT AREA PLAN AND RULES

3rd BIENNIAL REPORT TO THE OREGON STATE BOARD OF AGRICULTURE

December 12, 2006



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I. Purpose

The Oregon State Legislature passed the Agricultural Water Quality Management Act (Senate Bill 1010) in 1993, authorizing the Oregon Department of Agriculture (ODA) to develop plans and adopt rules to address agricultural water quality concerns. To implement this law, ODA worked with Soil and Water Conservation Districts (SWCDs) and Local Advisory Committees (LACs) comprised of farmers, ranchers, and other interested parties to develop Water Quality Management Area Plans and Rules in 39 regions of Oregon with water quality concerns.

Oregon's Agricultural Water Quality Program administrative rules (OAR Ch. 603, Div. 90) provide for ODA and each LAC to conduct biennial evaluations of Area Plans and Rules. These biennial reviews include a summary of actions taken, progress and impediments toward achieving Area Plan goals, and recommendations to the Oregon Board of Agriculture, ODA and other conservation partners for the next biennium.

The Hood River LAC submits this report to the Board of Agriculture to summarize and evaluate implementation of the Hood River Area Plan and Rules.

II. Background

ODA and the Hood River LAC developed an Area Plan and Rules for the Hood River basin, which were adopted by ODA in March 2001. The Plan and Rules have been reviewed biennially since that time (April 2003, November 2004, December 2006).

The LAC consists primarily of agricultural landowners residing in the Management Area landowners, who represent agricultural orchards, livestock, specialty crops, and small livestock. Other interests included Hood River Growers-Shippers Association, fruit

packing houses and agricultural businesses, irrigation districts, Hood River Watershed Group, fish biologists, Hood River County Board of Commissioners, OSU Extension, Confederated Tribes of the Warm Springs Reservation, and the Hood River SWCD.

The Hood River County Soil and Water Conservation District (SWCD) is the local entity responsible for implementing the Area Plan. The SWCD and ODA sign Local Management Agency (LMA) agreements to formalize these responsibilities. These agreements are updated annually and currently in effect through June 2007.

III. Area Plan and Rules

The LAC identified several objectives that, if achieved, would significantly improve water quality in the Management Area.

1) Minimize agriculture's contribution to the following water quality concerns: temperature, nutrients, bacteria, pesticides, sediment, and petroleum products.

2) The LAC, Hood River SWCD, and ODA will assist landowners, participate in a long-term monitoring plan, and continue to include the public in the implementation of the Area Plan and Rules.

The LAC helped ODA develop Area Rules specifically for Hood River. These rules address water quality objectives identified in the Area Plan. The Rules require that agricultural landowners:

- Must allow the establishment, growth, and maintenance of vegetation along streams sufficient to control water pollution by moderating solar heating, minimizing streambank erosion, filtering sediments and nutrients from overland flows, and improving the infiltration of water into the soil profile.

- Not pollute ground or surface water by discharging waste into waters of the state or placing any wastes in a location where they are likely to escape or be carried into the waters of the state.

IV. Area Plan and Rules Implementation Activities, 2004-2006

A. Landowner assistance

Hood River SWCD worked closely with ODA, Natural Resources Conservation Service (NRCS), OSU Extension, and other partners to provide technical and financial assistance to landowners and to increase awareness in local communities of water quality issues (see Attachment A).

B. Monitoring and Evaluation

Evaluation of the Area Plan’s success involves several types of monitoring. These are:

- Baseline condition monitoring
- Trend monitoring
- Implementation monitoring
- Effectiveness monitoring

1. Baseline Condition and Trend Monitoring

– What are current conditions and how are they changing?

Baseline condition monitoring provides a starting point for assessing water quality trends and land conditions. To evaluate the effects of the Area Plan and Rules, implementation partners must establish a picture of conditions prior to implementation.

Trend monitoring evaluates long-term changes in landscape conditions and water quality. In general, trend monitoring activities are a continuation of baseline monitoring activities.

Currently, ODA is focusing land condition monitoring efforts on riparian areas because these areas have such an influence over water quality. Riparian land conditions are

evaluated every five years for the Hood River by analyzing aerial photographs of about 5% of the riparian agricultural land. ODA staff examine riparian ground cover at specific points in 90-foot bands along the stream from the aerial photos and assign each sample stream reach a score based on ground cover. The score can theoretically range from 70 (all trees) to 0 (all bare ground). Staff will then compare that score with the score when photos are taken again in 5 years to track changes in riparian conditions over time. Because site conditions vary across the state, there is no one correct riparian index score.

Riparian scores from the 2004 photos are:

East Fork Hood River	63.68
Griswell Creek	63.12
Indian Creek	61.71
Neal Creek	60.95
Odell Creek	57.75

To assess existing water quality conditions, ODA staff review water quality data from the Oregon Department of Environmental Quality’s Laboratory Analytical Storage and Retrieval (LASAR) database. ODA looks at all data for trends, but focuses on the parameters of concern for the specific Management Area.

Twelve monitoring stations in the LASAR database met our criteria for this basin. However, none of these include data collected after 1998.

2. Implementation monitoring – What is being accomplished?

Implementation monitoring tracks the conservation practices that have been implemented to benefit water quality. The local SWCDs track practices that have been implemented through quarterly reports to the Oregon Department of Agriculture and through an NRCS database. In addition, projects that have received funding from the

Oregon Watershed Enhancement Board are tracked in OWEB's restoration database.

It is more difficult to track beneficial practices that landowners have implemented on their own without funding or outside technical assistance.

3. Effectiveness monitoring – Are efforts protecting and improving water quality?

Effectiveness monitoring occurs at two scales. At a Management Area scale, land condition data and water quality data are compared over time to determine if changes in land conditions are improving water quality. This is the only scale of monitoring being done at present in the Management Area.

C. Complaints

ODA received three complaints in the Management Area during the past two years:

- A large pile of horse manure near Hood River that was actively managed to create compost to spread on an orchard. The landowner received a Water Quality Advisory, with recommendations to prevent water pollution.
- Piles of shavings and manure related to an annual equestrian event. The landowner received a Letter of Compliance, with recommendations to remove the piles before fall rains started.
- A barnyard and seasonal flooding on Odell Creek that flooded a downhill horse facility. The landowner received a Water Quality Advisory and is working with the HRSWCD and others on a long-term fix.

V. Area Plan and Rules Review Process

In December of 2006, the LAC met to conduct the third biennial review and update of their Area Plan and Rules.

The following LAC members participated:

- Mike Oates, Chair
- Davinne McKeown-Ellis

- Brian Nakamura
- Roger Nelson
- Jim Wells

The LAC heard progress reports from Hood River SWCD staff on implementation of Area Plan objectives. The Hood River SWCD and its partners have focused on: maintaining and improving riparian vegetation, managing livestock manure, improving irrigation practices and systems and understanding and managing pesticide use to reduce pesticide levels in streams.

ODA staff provided an update on compliance and monitoring activities.

LAC members agreed to change the Area Plan to include the draft 2004/06 303(d) list and to reference ODA's monitoring of riparian condition.

Committee members suggested that:

- the SWCD provide workshops on irrigation systems improvements
- ODA locate water quality data collected since 1998 and include it in the next Area Plan.

LAC members said that ODA's compliance program is working really well and complimented both ODA and the SWCD on all their implementation efforts.

VI. Conclusions

The Hood River Area Plan and Rules have helped protect and enhance water quality. Both the number and severity of observed agricultural land management conditions with potential to degrade water quality have been decreasing. More producers and rural residents have learned about the effects of land management decisions on water quality, existing rules to protect water quality, and the importance of land management to recently listed threatened and endangered species.

Landowners also recognize that in the long term, conservation of soil, water, nutrients, and other resources is necessary for sustained production and quality of rural life.

ATTACHMENT A: Assistance provided by the Hood River SWCD December 2004 - December 2006

Educational

Developed:

- Streamcare brochure reprinted in July 2006 (300 copies).
- Updated water conservation brochure for use during 2005 drought. Brochure was distributed through irrigation and water districts.
- Developed district website.

Assisted ODA staff:

- Preparations were made for the biennial review meeting on Dec. 12, 2006. Space was reserved, public notice sent to the media, agenda was developed and sent to participants and interested public.

Articles (and circulation numbers):

- Article on Conservation Security Program – May 2005 – Hood River News (5,800)
- Articles on 2006 conservation plant sale – fall 2005 - Hood River News (5,800) and Columbia Gorge Weekly (6,000)
- Articles on OWEB small grant program - Mid-Columbia Hort News (300 – 11/05), Columbia Gorge Weekly (6,000 – 11/05), Hood River News (5,800 – 12/05), Mid-Columbia Hort News (300 – 7/06), HRGSA newsletter (450 – 7/06) and Hood River News (5,800 – 8/06)
- Annual reports for the Hood River SWCD 10/05 (650) and 10/06 (750)
- Article on Scotch broom – May 2006 Hood River News (5,800)
- Article on proper pond construction and permitting – July 2006 Hood River News (5,800)
- Article on streamside landowner tips – Sept. 2006 - Hood River News (5,800)
- Articles on Oct. 28, 2006 horsekeeping workshop and tour in Hood River News (twice-5,800), Columbia Gorge Weekly (6,000) and Community Education bulletin (15,500)
- Article on 2007 conservation plant sale – fall 2006 – Hood River News (5,800)

Plan & Rules distribution: 2004 revised Plan and Rules sent to LAC and technical advisors (35) in February 2005. Additional copies distributed on site visits and at County fair.

Workshops and/or tours (and attendance):

- Two neighborhood workshops held in February 2005 at Rockford and Parkdale; information on Plan and Rules presented (50+).
- Six CSP workshops held in spring 2005 to introduce CSP program and stewardship practices that are covered under CSP (vegetative buffers and manure management included) (100+).
- Tour of knotweed sites with County Commissioners and staff in June 2005 (12).

Display booth at Hood River County Fair in July, 2005 and 2006; Area Plan & Rules, other technical and educational materials were available for pick up.

Some other presentations (and attendance):

- Mid-Columbia Today radio show in February 2005 to promote neighborhood meetings and remind landowners about rule to maintain vegetative buffer on streams.
- Presentations to HRC Board of Commissioners in September 2005 and 2006.
- Mid-Columbia Today radio show in May 2005 to discuss water conservation as well as noxious weeds.
- Spoke to Cascade Locks families (≈20) about stream care prior to trash clean up along Dry Creek in May 2005.
- Mid-Columbia Today show in August 2005 about water conservation.

Technical:

Assisted ODA WQ Specialist with complaint responses. One follow-up site visit to westside orchardist with composting operation in January 2005. One visit with landowner in Dee area concerned about a neighbor's illegal wetlands destruction and illegal pond construction. One visit to upper valley landowner about pasture and manure management issues.

Site visits:

- ✓ Advised Dee landowner about re-location of sprayer fill station away from drainage leading to West Fork Hood River.
- ✓ Follow up site visit with DEQ to site of chemical spill into tributary leading to Neal Creek. Discussed riparian plantings to buffer waterway.
- ✓ Site visit to wedding venue near Neal Creek with County Planner to review proposed building addition adjacent to waterway.
- ✓ Site visit to Dee Hwy property to view potential drainage clean out project. Follow up discussions with EFID, WRD, DSL and County. Landowner advised to consult with DSL prior to any instream work.
- ✓ Site visit to Odell landowner wanting recommendations for pasture renovation and wetlands protection.
- ✓ Site visit to Dee landowner about location of burn pile adjacent to wetland area (landowner moved burn pile).
- ✓ Numerous site visit to property on Odell Creek and Central Vale Drive to plan effort to mitigate flooding, livestock access to creek and undersized culverts. Project planning continues.

Spoke with Mt. Hood railroad about willow cutting along RR ROW in response to a complaint. Spoke with vineyard owner about blackberry removal along Phelps Creek.

Donated native plants to:

- ✓ HRMS native plant arboretum (200) spring 2005
- ✓ BMX park (100) spring 2006
- ✓ Master Gardener native plant demonstration garden (35) spring 2006
- ✓ Cascade Locks School (100) spring 2006

Riparian plantings – 925' of Lenz Creek.

Irrigation upgrades: OWEB - $13.3 + 15 + 7.5 + 10.9 + 3.5 = 50.2$ acres.

EQIP – $34.7 + 64.9 + 15 = 114.6$ acres.

Total = 164.8 acres.

Other – chemical fill station relocation, bridge installed to replace ford on Neal Creek, and two manure composting facilities.

Financial:

Funds secured via OWEB small grant program:

- Seven Streams trail relocation project
- Neal Creek Bridge project
- Lenz Creek improvement project
- Learning Garden noxious weed removal and bioswale project
- Rust Irrigation improvement project
- Morrison Park noxious weed eradication project
- Smith Orchard irrigation improvement project
- Trout Creek Ridge irrigation improvement project

USDA Environmental Quality Incentives Program:

- FY 2005 – three irrigation designs done under NRCS contribution agreement with SWCD.
- FY 2006– \$125,446 in EQIP contracts. Four landowners received funds; 70 applied.

USDA Conservation Security Program:

- FY 2005 – 105 stewardship contracts awarded for over \$1.5 million.
- FY 2006 – \$1.0 million awarded in second year of CSP under 105 contracts.

Other: Edmunds/Dirks bequest and matching OWEB grant were split between CGEI's SECRETS to our forest home ecology curriculum for area 5th grade classrooms and HRVHS's Advanced Biology classroom for water monitoring supplies.

In addition to grant-writing done for OWEB small grant program, grant-writing assistance was provided to:

- USFS for East Fork Hood River culvert removal project.
- FID for Lowline pipeline project and irrigation improvement/education project.