Oregon Department of Agriculture

Powder/Brownlee Subbasin Agricultural Water Quality Management Area Plan

February 2011

Powder/Brownlee Local Advisory Committee Meets to Review Area Plan

Executive Summary

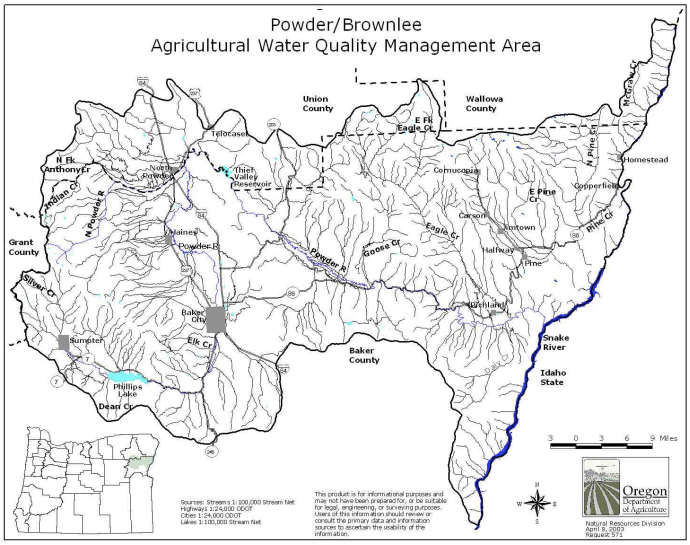
The third biennial review of the Powder/Brownlee Agricultural Water Quality Management Area Plan was held on February 17, 2011. The Powder/Brownlee Local Advisory Committee (LAC) met with the Baker Valley Soil and Water Conservation District (SWCD) and the Oregon Department of Agriculture (ODA) to review progress of the Area Plan implementation. LAC members present were: Curtis Martin, Tim L. Kerns, Tim A. Kerns, Peggy Browne, Gordon Summers, Dean DeFrees, Ralph Morgan, and Myron Miles. Also attending were representatives from the Baker Valley SWCD, and staff from the SWCD, Oregon Department of Environmental Quality (DEQ) and ODA.

ODA reviewed the goals and objectives of the Area Plan and the Area Rules and presented a PowerPoint on riparian conditions and compliance issues around the state.

The SWCD presented their report of implementation activities conducted by the SWCD and Natural Resources Conservation Service (NRCS). The report included an overview of the education and outreach activities and technical assistance provided to landowners during 2008-2010.

LAC Findings and Recommendations

Discussion focused on the lack of resources available to conduct an adequate monitoring program to show whether or not agriculture activities are impacting the water quality of area streams. A monitoring program should include training for landowners to be able to do monitoring on their own properties. Some LAC members believe that surrogates for water quality, such as shade-producing riparian vegetation, should not be used to evaluate water quality trends. Water quality should be evaluated only by actual data collected for water column measurements.



The Powder/Brownlee Management Area includes all of the land drained by the Powder River and it's tributaries and the lands drained by Pine Creek and it's tributaries and all tributaries that run directly to the Snake River.

DEQ is developing a Total Maximum Daily Load (TMDL) for the Powder Basin. TMDLs rely on surrogate measures in setting load allocations for pollutants, including stream heating. ODA stated that there is scientific evidence supporting use of surrogates for evaluating water quality.

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Compliance investigation: unacceptable streambank conditions cause by overgrazing

North Powder students planting willows on banks of the Powder River

It was noted that there are a few discrepancies between the Area Plan and the Rules regarding compliance investigation procedures. These will be corrected when the Plan is revised to incorporate the TMDL information.

Impediments to Implementation

LAC members complemented the SWCD on the progress of their implementation activites. No impediments were noted other than lack of resources to support water quaity monitoring.

Compliance Summary

Four compliance investigations have been conducted in the basin. The investigations concerned the lack of riparian vegetation along streambanks caused by overgrazing.

All of the investigations resulted in issuance of Letters of Warning to the operators. Two landowners received financial assistance through the SWCD to complete fencing to exclude grazing from the riparian areas. One investigation was closed due to an ODA determination that spring flood damage had greatly reduced the capability of the site to produce the desired riparian vegetation.

Follow-up visits will be conducted this summer to determine effectiveness of the installed practices.

Background

The Area Plan was developed by the LAC to identify strategies to reduce water pollution from agricultural lands through a combination of educational programs, monitoring, suggested land treatment, and management activities.

The Area Plan is used by landowners and the SWCD for guidance to solutions for water quality problems and to enhance public awareness and understanding of water quality issues.

In December 2003, the Oregon Board of Agriculture adopted the Powder/Brownlee Area Plan and Oregon Administrative Rules (603-095-3600 thru 3660). Biennial reviews were conducted in 2007 and 2009. Minor changes were made in 2007 to clarify the role of the LAC regarding compliance investigations.

Plan Goals and Objectives

The goal of the Plan is to:
Attempt to reduce identified water quality limitations on agricultural and rural lands if it is economically and technically feasible.

Water quality objectives:

- Stream bank erosion remains within expected levels.
- Maintain or improve the ability of riparian vegetation to function within the capabilities of the site.
- Continue and expand the current Baker SWCD's monitoring program.

Rule Summary

OAR 603-095-3640
Prohibited Conditions

(1) A landowner is responsible for only those conditions caused by activities conducted on land owned or managed by the landowner. Criteria do not apply to conditions resulting from unusual weather events or other exceptional circumstances that could not have been reasonably anticipated.

(2) Pollution and Waste Management
…no person subject to these rules shall violate any provision of ORS 468B.025 or ORS 468B.050.

(3) Streamside Conditions
(a)…activities will allow the establishment and development of riparian vegetation, consistent with site capability.
(b) Landowners are not responsible for browsing and grazing by wildlife.
(c) The rule does not specify any activities that must cease and does not require any particular activity to take place.

Success Stories

Planting the Powder
Baker Valley SWCD

In the fall of 2010, the Planting the Powder Project installed over 1.5 miles of riparian plantings on three different landowners properties on the Powder River. This project was installed by Grass Growers, a local contractor from Baker City. In total, there were approximately 450 willow clumps and 420 bundles and several hundred pole plantings implemented. These plantings were installed through the clump and bundle planting methods. Clumps in this section were spaced 15 to 20 feet apart while bundles were placed between each set of clumps. Clumps are excavated by backhoe, collecting rootwads and all to be inserted into holes that are excavated below the low watermark. The holes are put at this elevation to make sure the roots of the willows are always able to acquire water, even during low flow conditions. Bundles were made up of between four to seven willows in each bundle. In time, this project will help provide wildlife habitat, shade for the stream and strength and stabilization for the streambanks improving the overall water quality of the Powder River.

North Powder
Push Up Dam Removal
Baker Valley SWCD

Another project implemented in the fall of 2010 was the North Powder Push-up Dam Removal. In the past, the landowner blocked off the river with a push up dam to divert water down his irrigation ditch; creating a fish barrier and degrading water quality downstream. This design was an "A" shaped weir with a low profile to divert irrigation water, but still allow fish passage throughout the year. Most of the structure is not visible above the waters' surface. Previously, there was no way to control the amount of water that entered the ditch, so a 24" canal gate with a 12" sediment bypass was installed to help control the amount of water entering the ditch. High Country Contracting, a local firm, was selected to implement the project according to design.

Clear Creek Fish Passage
Enhancement Project
Eagle Valley SWCD

In spite of the devastating spring flooding that ravished Pine and Eagle Valleys, the Eagle Valley SWCD was able to build a better future for irrigators on Clear Creek. The Clear Creek Fish Passage enhancement project improved four irrigation diversions by removing pushup dams and replacing them with permanent, fish friendly diversions structure, installing a fish screen, and measuring devices. This project was several years in the making but with the help of Oregon Watershed Enhancement Board (OWEB), US Fish and Wildlife Service, Oregon Department of Fish and Wildlife and landowners, the project was finally implemented in the summer of 2010. This project will not only help fish passage and make diverting water easier for irrigators but also improve water quality by keeping heavy equipment off the creek.

Clear Creek streambank damage done by June 2010 floods

Implemented Activities
Outreach and Education

- Four fall conservation tours,
- Four other tours,
- Four youth outreach and education events,
- Nine displays,
- 18 newspaper articles,
- Two newsletters,
- Two annual reports.

Technical Assistance

OWEB funded projects:

- Six water quality improvements – pipelines, bank stabilization, road improvements.
- Seven upland water quality improvements – juniper removal, fencing, spring developments.

Implementation Activities, con't.

- Six in-stream/diversions – push-up dam removal, measuring devises, fish screens;
- Two riparian restoration – fencing, planting;
- Two irrigation improvements;
- Four technical assistance – planning, design.

Partner agency contributions –

- USDA/NRCS
- US Fish & Wildlife Service
- Oregon Dept. of Fish & Wildlife
- Oregon Water Resources Dept.
- ODA

Funding

- 27 OWEB projects

USDA program funding (NRCS & FSA)

- 82 Environmental Quality Incentive Program contracts;
- Four Wildlife Habitat Incentive Program contracts;
- 34 Conservation Stewardship Program contracts;
- Eight Grassland Reserve contracts;
- Eight Cooperative Conservation Initiative Program contracts;
- One Conservation Inovation Grant contract – grassbank;
- 16 Conservation Reserve Enhancement Program contracts.

Partner agency contributions -

- ODFW – sage grouse projects, fish screens, diversion projects
- USFWS – fish screens, divesions, monitoring
- OWRD – measuring devices

FSA – Farm Service Agency
ODFW – Oregon Dept. of Fish and Wildlife
USFWS – U.S. Fish and Wildlife Services
OWRD – Oregon Water Resources Dept.

LAC Members

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