

# Malheur River Basin Agricultural Water Quality Management Area Plan

WINTER 2010/2011



## More Outreach to Landowners Needed

The Malheur River Basin Local Advisory Committee (LAC) met January 24, 2011, with the Oregon Department of Agriculture (ODA) to review the Malheur River Basin Agricultural Water Quality Management Area Program. An additional 20 people attended the meeting. Another meeting was held on February 7 to update the Malheur River Basin Area Plan.

Staff from the Malheur County Soil and Water Conservation District (SWCD) and the Malheur Watershed Council (MWC) summarized their outreach and technical assistance activities, which focused primarily on reducing irrigation-induced erosion. Other activities addressed juniper encroachment.

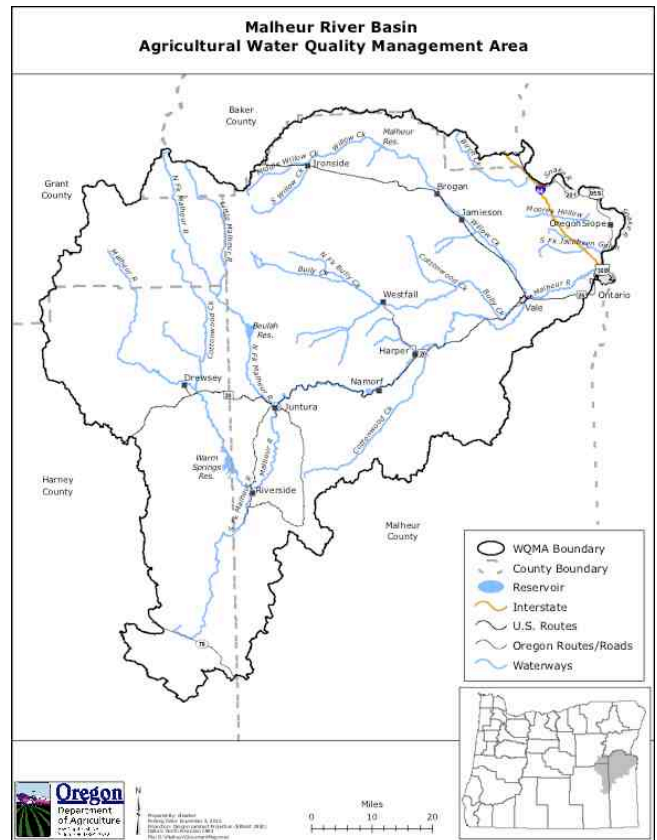
The LAC encouraged conservation partners to increase efforts to provide information on water quality and effective management practices to landowners. They acknowledged that the Oregon State University Experiment Station has provided invaluable research and information on effective practices to improve water quality.

Suggestions included:

- Create and distribute a stewardship guide to new rural landowners
- Make brochures from the Experiment Station more available to landowners through distribution in diverse locales
- More outreach through the watershed councils

The LAC expressed concerns that unstable funding for the SWCD and MWC could make it difficult for those entities to deliver programs.

They appreciated ODA's 'democratic' approach to preventing water pollution and encouraged ODA to try to get other agencies to emulate that approach.



*The Management Area consists of the Malheur River drainage and basins draining directly to the Snake River between the Malheur and Burnt Rivers.*

### LAC Members

Gary Smith, Chair	Jim Nakano
Jim Bentz	Marvin Remple
Herb Futter	Bill Romans
Les Ito	Darrell Standage
Doug Maag	Marc Suyematsu
Bob Moore	Loren Weideman

# Just Some of Our Accomplishments

## MALHEUR COUNTY SWCD

The SWCD has focused on improved irrigation in northern Malheur County.

### Monitoring/Assessment

In the last two years, the SWCD received funding from the Oregon Watershed Enhancement Board (OWEB), Department of Environmental Quality (DEQ), and ODA for monitoring:

- Over 40 agricultural drains to help implement the Snake River/Hells Canyon and Malheur River Total Maximum Daily Loads (TMDLs)
- Water quality of at least 20 agricultural drains into the Malheur River from the Warm Springs Irrigation District (WID). The areas contributing to these drains will be delineated and entered into a GIS database. Combining the water quality and GIS data will result in a prioritized list of drainage areas in which to focus efforts to minimize sediment and nutrients entering the Malheur River. Primary partners include WID, Vale-Oregon Irrigation District, and the Owyhee Irrigation District.

- Effectiveness of the Luther constructed wetland in capturing pollutants before they enter the Malheur River from an agricultural drain.



	Nitrate	Ortho-phosphorus	E coli
<b>Inlet</b>	3.9	0.2	320
<b>Outlet</b>	1.1	0.013	14

The SWCD is also inventorying irrigation district infrastructure and entering that information into a GIS database to help plan and prioritize irrigation improvement projects.

### On-the-Ground Projects

- Three constructed wetlands, one pump-back system and sediment control pond, three irrigation erosion control projects, one feedlot rehabilitation, one streambank protection project, two juniper removals, and one riparian restoration.

## MALHEUR WATERSHED COUNCIL

The MWC heads a large coordinated restoration effort focused in the Willow Creek basin. Three separate phases of this project have been completed, with a fourth phase in progress. To date, 55 landowners have installed 61 separate practices.

Piping irrigation laterals for Vale Oregon Irrigation District and Orchard Water District was a large part of the project and was co-funded by OWEB and the US Bureau of Reclamation.

Since 2003, the Council has:

- Piped over 190,000 feet of laterals serving 6,500+ acres,
- Converted 1,692 acres from flood to sprinkler irrigation,
- Piped 81,576 feet of mainlines and 21,859 feet of drains and canals,
- Constructed 15 pumpback systems serving 1,175 acres,
- Installed 19 off-stream watering systems with 10,210 feet of pipe,
- Installed 83,530 feet of riparian/wetland protection and cross fencing,
- Planted 4,000 riparian plants, and
- Improved 755 acres of rangeland.

The project also includes substantial water quality monitoring, as well as the on-going education and outreach efforts necessary to continue such positive landowner support and participation. Total project cost for all phases is \$7,296,817.

*The Natural Resources Conservation Service has provided approximately 3.5 million dollars in the last 10 years to support water quality projects in the Malheur River Basin.*

## No-Till Drill Popular with Farmers



The SWCD anticipated that farmers would test the no-till drill on about 200 acres in the program’s first year.

Nobody expected that 29 landowners would use it on 2,306 acres in its first season. Farmers planted a variety of crops such as triticale, winter wheat, buckwheat, barley, sorghum, and rye grass into diverse types of crop residue. The drill is so popular that farmers are on a waiting list to lease the drill next year.

All of these fields started with residue prior to planting various seed types. Steve Norberg, OSU Extension Service, is collecting data on fuel savings from fewer passes across the fields, production and yields, stir-rating (soil tilth), and other issues of interest to farmers trying to make a living and be good land stewards.

### Why no-till?

A no-till drill plants a crop directly into the residue of the previous crop. The drill can be configured to apply fertilizer during seeding. This has multiple benefits:

**Keep your soil:** Residue in fields helps hold soil in place and reduces the amount of wind erosion. It also reduces irrigation-induced soil erosion. This year, Oregon DEQ paid the drill rent for the growers using the no-till drill, as they are very interested in the improved quality of water flowing off of fields that have residue.

**More productive soils:** Residue adds organic matter to the soils, increasing soil tilth.

**Reduced fertilizer use:** Banding fertilizer instead of broadcasting it means you use less fertilizer. It also means less fertilizer is likely to be lost to local rivers.

**Cost savings:** With fewer passes and targeted fertilizer applications, farmers should have more money in the bank! Attention to the small details of farming pays off in the long run.

### Area Plan Background

ODA worked with the LAC to develop the Area Plan and associated Oregon Administrative Rules 603-095-0900, which were adopted by ODA in 2001. The LAC reconvenes every two years to review progress towards meeting Area Plan goals. The LAC includes farmers, ranchers, dairymen, environmentalists, Malheur County SWCD, and the Malheur Watershed Council.

The Area Plan goal is to encourage voluntary compliance by agricultural producers with federal and state requirements to solve point and nonpoint source pollution through voluntary farm planning, technical assistance, financial assistance and educational programs to increase awareness.



*Drilling barley into corn stubble in Malheur County.*

This No-Till Drill Program is funded by the Oregon DEQ and the OWEB under the sponsorship of OSU Extension and the Malheur County SWCD.



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## Water Quality Requirements

Agricultural landowners in the Malheur River Basin Management Area must comply with the following Area Rules:

A landowner is responsible for only those conditions caused by agricultural activities conducted on land controlled by the landowner. Conditions resulting from unusual weather events (equaling or exceeding a 25-year storm event) or other exceptional circumstances are not the responsibility of the landowner. Limited duration activities may be exempted from these conditions subject to prior approval by ODA.

1. Waste Management: no person shall violate any provision of ORS 468B.025 or ORS 468B.050.

2. Irrigation Surface Water Return Flow: return flow will not cause an excessive, systematic, or persistent increase in sediment levels already present in the receiving waters, except where the return flows do not cause the receiving waters to exceed established sediment standards. A landowner conducting irrigation activities in accordance with a plan approved in writing by ODA or its designee is in compliance.

3. Active Streambank Erosion: no person may cause active streambank erosion beyond the level that would be anticipated from natural disturbances given existing hydrologic characteristics.

4. Riparian Vegetation: no conditions are allowed that prevent the establishment and development of adequate riparian vegetation consistent with vegetative site capability to control water pollution by providing control of erosion, filtering of sediments, moderation of solar heating and infiltration of water into the soil profile.

5. Range and Pasture Management: vegetative condition shall be managed such that the functionality of the watershed is not impaired. Watershed function includes the ability of vegetation to filter sediment, utilize nutrients, control soil erosion, optimize infiltration of water to the soil profile, and minimize the rate and maximize the duration of runoff from precipitation. A landowner conducting activities in accordance with a plan approved in writing by ODA or its designee is in compliance.

## Complaints

ODA enforces the Area Rules. ODA investigated one complaint in the Malheur Basin Management Area, which related to sediment and manure entering irrigation water from a livestock area along a corral. The landowner fenced off the canal and provided an alternative watering source for the cattle.

*We're on the Web!*

[http://egov.oregon.gov/ODA/NRD/water\\_quality\\_front.shtml](http://egov.oregon.gov/ODA/NRD/water_quality_front.shtml)