

# Owyhee

## Agricultural Water Quality Management Area Plan



**Oregon**  
Department  
of Agriculture

**WINTER 2010/2011**

### Discussion on How Best to 'Show Progress'

The Owyhee River Basin Local Advisory Committee (LAC) met January 25, 2011, with the Oregon Department of Agriculture (ODA) to review the Owyhee River Basin Agricultural Water Quality Management Area Plan (Area Plan). Another 17 people attended the meeting as well.

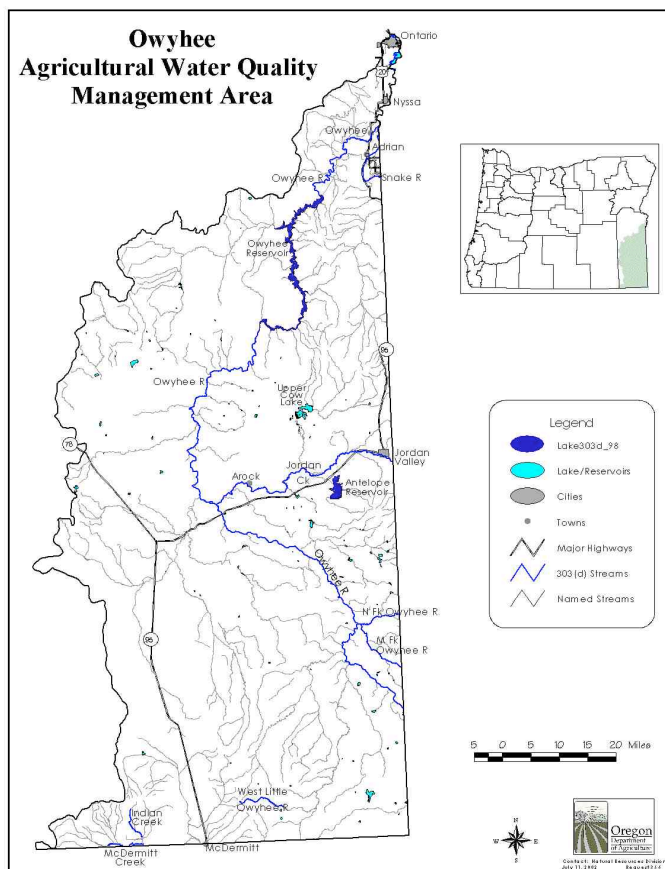
The LAC diligently worked to update the Area Plan for the first time in ten years. They also modified the Area Plan to address requirements in the Snake River – Hells Canyon Total Maximum Daily Load (TMDL).

Staff from the Malheur County Soil and Water Conservation District (SWCD) and the Owyhee Watershed Council (OWC) summarized their activities to address water quality issues in the area.

LAC members expressed concerns about funding and the need to show progress to the non-agricultural community:

- Not enough funding available to do the necessary monitoring to show improvements in water quality.
- Hard to do projects strategically when funding requires a match from landowners. Work gets done where landowners can afford to contribute to the cost of projects.
- All projects benefit water quality, but some may not be able to *show* a difference.

The LAC asked ODA to take the lead in determining and showing progress and informing the general public and other interested parties.



*The Management Area consists of the area drained by the Owyhee River and all its tributaries in Oregon. It also includes the Oregon portion of the Upper Quinn subbasin.*

#### **LAC Members**

Rod Frahm, Chair	Mike Hanley
Reid Saito, V-Chair	Vicky Price
Martin Andre	Bob Skinner
Charles Barlow	Ray Waldo
Norm Bennett	Lou Wettstein
Dave Bunker	



## Improving Water Quality

### Natural Resources Conservation Service: last five years

- Provided cost-share to implement 310 practices on 156,695 acres.

### Malheur County SWCD: last two years

- Constructed three wetlands on private property and one sediment pond in the middle of an irrigation district canal.
- Joined partners in putting on an irrigation water management workshop.
- Demonstrated strip-tillage and no tillage with the newly purchased no-till drill (see story).
- Conducted tours of constructed wetlands for Adrian students, landowners, and agency personnel.
- Produced water quality brochure and distributed it at various events and in the office.
- Made presentations at their water quality station to fifth graders at the annual OWC Field Day at the Owyhee Dam.
- Included practices applicable to small acreages in the SWCD newsletter.
- Developed and distributed a brochure for "Best Methods for Riparian Restoration in Eastern Oregon."
- Conducting the second phase of the Owyhee River Improvement Project, monitoring water at specified locations to assess areas as priorities for projects to improve water quality.
- Protected streambank along the Jordan River through bank shaping, planting shrubs, and fencing.



*Effective Management Practices in the Management Area: constructed wetland captures pollutants (above) and irrigation with a center pivot uses water efficiently and results in less runoff from fields (below).*



### Owyhee Watershed Council: last two years

- Initiated the Lower Owyhee River Rehabilitation Project to address water quality issues in Fletcher Gulch, Overstreet Drain, and the Lower Owyhee River. Total project costs are \$749,004.
  - Converted 490 acres of cropland from furrow to sprinkler irrigation.
  - Developed designs for three pressurized lateral pipelines
  - Piped 15,410 feet of mainline and 5680 feet of drains
- Owyhee Field Day serves over 500 fifth graders annually. Partners include 50 volunteers, 50 presenters, Owyhee Irrigation District, Malheur County Schools, and over 200 businesses and private individuals that donate approximately \$13,000 annually.
- Implemented 11 projects through the small grant program:
  - Eight projects improved irrigation efficiency on 540 acres by installing 20,625 feet of mainline, bubblers, pivots, wheel lines, and three sediment ponds.
  - Three projects protected and improved six miles of riparian habitat by treating 300 acres of medusahead rye grass, revegetating 300 acres, and providing off-site water (installed five troughs, one solar pump, 1,640 feet of pipeline, and 2.5 miles of fence).

## No-Till Drill Popular with Farmers

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

Nobody expected that 29 landowners would use it on 2,306 acres in the program's 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:



Drilling barley into corn stubble in Malheur County

**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 603-095-2700, which were adopted by ODA in 2003. 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 Owyhee Watershed Council.

Their mission is to: *enhance or maintain water quality through the promotion of agricultural activities that are technically and economically feasible.*

### Area Plan Goals

- Maintain or improve water quality.
- Secure adequate funding for the implementation of this Area Plan to achieve its mission, goals, and objectives.
- Use the media and other educational methods to increase awareness of agriculture's efforts to maintain and improve water quality.
- Minimize conditions on agricultural lands that might contribute to a reduction in water quality.
- Promote the use of state tax credits for landowners who are implementing good stewardship practices on their land.
- Promote the coordination of water quality protection efforts among the federal and state agencies, landowners, and all residents of the Owyhee Basin.
- Monitor and evaluate the effectiveness of the Area Plan and update as needed.



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## Water Quality Requirements

Agricultural landowners in the Owyhee Management Area must comply with the following Area Rules:

A landowner shall be responsible for only those conditions caused by activities conducted on land 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.

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 the department or its designee is in compliance.
3. Streamside Conditions: no person may contribute to conditions that preclude establishment and development of adequate riparian vegetation for streambank stability and shading, consistent with site capability.



Irrigation-induced erosion in the Owyhee Basin

## Complaints

ODA enforces the Area Rules. No complaints have been received in this Management Area.

*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)