

Biennial Review Request for Comments From DEQ (revised 12-30-14)

“The State Department of Agriculture and the State Board of Agriculture shall consult with the Department of Environmental Quality or the Environmental Quality Commission in the adoption and review of water quality management plans and in the adoption of rules to implement the plans.” ORS 568.930(2)

Basin Coordinator Pamela Wright, June 18, 2015

Survey Checklist for Upper Willamette Area Plan

- 1) Does the Area Plan include all water quality limited water bodies, including 303(d) listed and with approved TMDLs?

No, the 2010 Water quality 305(b) report is available. It indicates which water bodies are currently listed which need TMDLs, streams that have approved TMDLs, and streams that have concerns but not enough data for listing.

- 2) Does the Area Plan adequately reflect current TMDL status?

No. . There are additional listings for biocriteria, flow and habitat modification, DO, pH, and metals. The Biocriteria says that: Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.

The following streams are not meeting standards

Upper Willamette Subbasin 305(b) Report Listings.

Upstream of these Monitoring Sites Are Not Meeting Standards	Miles	Listing Status
Willamette River	54.8 to 108	Cat 5: Water quality limited, 303(d) list, TMDL needed
Willamette River	108 to 119.7	Cat 5: Water quality limited, 303(d) list, TMDL needed
Fox Hollow Creek	0 to 7.1	Potential concern
Long Tom River	24.2 to 57.2	Potential concern
Upstream of these Monitoring Sites Are Not Meeting Standards		Status
Long Tom river at RM 18.0 near Junction City		303(d)
Flat Creek		303(d)
Shafer Creek		303(d)
Little Muddy Creek (Muddy Creek, Willamette)		303(d)
Courtney Creek		303(d)

Calapooia River	303(d)
Muddy Creek	303(d)
Beaver Creek	303(d)
Muddy Creek at River Mile 9.1	303(d)
Muddy River at River Mile 3.0	303(d)
Dunawi Creek	303(d)
Periwinkle Creek	303(d)
Lukiamute River	303(d)
South Fork Berry Creek at River Mile 0.75	Potential Concern

Please synthesize the issues of flow modification with the names of irrigation districts and their goals. The 2010 Water Quality identified flow modification as a concern for several streams

- 3) Does the Area Plan sufficiently present the TMDL load allocation that it is intended to address?
Yes, the Area Plan does cite the mercury, temperature and bacteria allocations from the 2006 TMDL.
- 4) Does the Area Plan adequately include items from applicable Groundwater Management Area Action Plans?
No.
- 5) Does the Area Plan present the requirements of Coastal Zone Management Act applicable to agriculture?
NA
- 6) Does the Area Plan include sufficient items from the State of Oregon; Pesticide Management Plan for Water Quality Protection?
No, the Area Plan does not address pesticide management.
- 7) Does the Area Plan sufficiently address the needs in drinking water source areas related to agricultural pollution sources within the geographic area of the plan?
No

Goals and Objectives:

- 1) Do the goals and objectives of the Area Plan clearly state that the purpose of the Area Plan is to prevent and control water pollution and to meet water quality standards?
Yes, the goals state that as a purpose, but the objectives do not have sufficient detail to show that those goals can be met.
- 2) Does the Area Plan include clear and measurable objectives?
The objectives are clear, but not measurable.

Strategies to Meet Water Quality Goals and Track Progress

- 1) Are geographic and/or water quality issue priorities listed in the Area Plan consistent with TMDL and GWMA priorities?

The Area Plan does not list geographic or water quality priorities. Kevin has indicated verbally it might be the Calapooia. We would recommend predicting potential priority areas for the next four years as well so we may be secondarily focused on those areas.

- 2) Are geographic scales and implementation actions identified in the Area Plan appropriate to track implementation, progress, and effectiveness?

The implementation actions in the Area Plan are not tied to a geographic scale, so tracking effectiveness would be quite difficult.

- 3) Does the Area Plan provide sound evidence or reasons why implementation actions could lead to pollution reduction? If some of the implementation actions are not consistent with TMDL and other WQ goals, explain why those practices do not contribute toward meeting those WQ goals.

The Implementation Actions fall into two categories: the Voluntary Approach and the Regulatory Prevention and Control Measures. If the regulatory measures were actively implemented (which would include correction and restoration), they have the potential to reduce bacteria and heating pollution to the subbasin streams. Neither of the regulatory measures in the Area Plan addresses runoff or erosion from agricultural land, two sources of bacteria (as well as other non-TMDL parameters such as pesticides and nutrients). The voluntary measures will be difficult to quantify –they certainly could contribute to meeting water quality goals, but it would be quite difficult to measure how much effect they had on any observed water quality improvements.

- 4) Does the Area Plan include timelines, schedules, and measurable milestones that are consistent with the TMDL WQMP.

The Area Plan does not include timelines, schedules or measurable milestones.

Area Rules

- 1) Are there any comments on the Area Rules?

An erosion rule would be helpful for implementing the bacteria TMDL, as well as the temperature TMDL (by reducing channel width and exposure to solar radiation).

On Section Factors Affecting Water Quality, please make the distinction between point source and non pointsource. The majority of water quality problems in the Willamette Basin are due to nonpoint source pollution. Point sources are highly regulated and have frequent water quality testing. Their impact on water quality has been shown to be a small contribution to temperature, bacteria and mercury compared to non-point pollution. The only point sources on agricultural lands are CAFOs.

Secton Water Quality Research, Monitoirng, and Enhancement Efforts misinterprets DEQ water quality data. The Ambient Monitoring Network is for trend monitoring and does not reflect any single land use.

In summary of research on agriculture studies, several important local studies seem to be missing. For example Wigington, J.P., S.M. Griffith, J.A. Field, J.E. Baham, W.R. Horwath, J. Owen, J.H. Davis, S.C. Rain and J.J. Steiner. 2003. Nitrate removal effectiveness of a riparian buffer along a small agricultural stream in western Oregon. *J. Environ. Qual.* 32:162-170. The results indicate riparian buffers, even small ones, greatly improved water quality in agricultural areas in the Willamette Basin.

In the section, *Documenting Effectiveness Using Areas of Focus*, please clarify that the focus area efforts will be followed up by an effort to evaluate some elements of program effectiveness at the watershed scale, or possibly of BMPs. (As written it implies it would be used to evaluate effectiveness of the entire Ag Plan Program including non-focus areas.) An evaluation of the focus areas could be useful for evaluationg ODA's efforts to focus attention on small areas.