Biennial Review Request for Comments From DEQ (revised 8-28-12)

"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)

Survey Checklist for (basin description): **Crooked**
DEQ Basin Coordinator: Bonnie Lamb
Date: **December 31, 2013**

I. Area Plan Content

A. Issue identification

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

   DEQ COMMENT: Yes.

2. Does the Area Plan adequately reflect current TMDL status?

   DEQ COMMENT: Yes. TMDLs have not yet been developed in this area.

3. Does the Area Plan sufficiently present the TMDL load allocation that it is intended to address?

   DEQ COMMENT: NA. TMDL load allocations have yet been developed.

4. Does the Area Plan adequately include items from applicable Groundwater Management Area Action Plans?

   DEQ COMMENT: There is not a Groundwater Management Area identified in the Crooked River Agricultural Management Area. However, the Deschutes Basin Water Quality Status and Action Plan (DEQ 2012) identified groundwater quality concerns in the Crooked River Subbasins, particularly for nitrates and bacteria. See further discussion in the response to Question A(7).

   ODA Response: ODA and the LAC will discuss and address the Water Quality Status and Action Plan during the next Biennial Review meeting in two years.

5. Does the Area Plan present the requirements of Coastal Zone Management Act applicable to agriculture?

   DEQ COMMENT: NA

6. Does the Area Plan include sufficient items from the State of Oregon; Pesticide Management Plan for Water Quality Protection?

   DEQ COMMENT: Yes. A discussion is provided under "Applicability" on page 4. At the time of this review, pesticides have not been identified as a water quality issue in the Crooked River Management Area.

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?

   DEQ COMMENT: No. There is not a clear discussion of drinking water related to agricultural pollution sources (toxics, bacteria and nitrates). Data presented in the Deschutes Basin Water Quality Status and Action Plan (DEQ 2012) shows areas of high nitrate and bacteria contamination in drinking water wells in parts of the Crooked Subbasins, particularly in the Lower Crooked. The Lower Crooked River Watershed Assessment (Nielsen-Pincus 2008) specifically identified high nitrogen fertilizers used in crop and livestock production as a potential source of nitrate contamination in the groundwater in this area.

   There is information on the DEQ website which shows where drinking water source areas are, and there do appear to be some groundwater areas in the Crooked geographic area. Link: http://www.deq.state.or.us/wq/dwp/dwp.htm.

   DEQ recommends that ODA and the SWCD include a task in the Plan to further evaluate if there is a potential for agricultural sources to contaminate drinking water in the Plan area. If this kind of assessment has already been done, then we recommend that this evaluation be included in this Area Plan.

   ODA Response: ODA will work with the LAC to add drinking water source information, and include the DEQ link for the Crooked River geographic area. We welcome DEQ input on potential agricultural sources of contamination of drinking water in the Plan area.

B. 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?

      DEQ COMMENT: Yes, this is clearly stated in the Area Plan Goal (page 5). No, this is not clearly stated in the Objectives (page 6) (see comments under B2 for further discussion).

ODA Response: OAR 603-090-0030 (1) states that "An area plan shall include … a statement that the goal of the area plan is to prevent and control water pollution from agricultural activities and soil erosion and to achieve applicable water quality standards." The Plan includes a statement that the goal of the Plan is to protect and control water pollution and meet water quality standards. The objectives do not repeat this. However, the objectives should include those activities or tasks to achieve the goal. See our response under B2, below, for further discussion.

2. Does the Area Plan include clear and measurable objectives that are designed to meet water quality standards and TMDL load allocations?

   DEQ COMMENT: No. The Objectives (page 6) appear to be mostly related to providing information to landowners and the general public. While this is important, the Area Plan should also include specific, measureable water quality objectives. Even though there are not specific TMDL load allocations to respond to, there are known water quality issues in the Crooked Management Area, which should be more clearly addressed in this Plan.

   In other Area Plans I have reviewed, they have included objectives such as: maintaining adequate streamside vegetation, controlling erosion on uplands to acceptable rates, achieving stable stream banks, and using irrigation water efficiently. More information is then provided under each of these objectives about what this objective means in terms of land management activities, how these objectives will be achieved and by when, and how compliance with area rules will be assessed. You can refer to the recently revised Area Plans for the Upper Deschutes and Lower Deschutes for examples.

   ODA Response: The LAC will be meeting again in June/July 2014 to continue working on developing Measurable Objectives for the Crooked River Basin. Measurable Objectives will be added to the Area Plan once they are developed. ODA continues to revise and improve measurable objectives-timelines-milestones for plans throughout the state.

C. 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?

   DEQ COMMENT: No. Although there are no TMDLs or GWMAs in this area, water quality and/or geographic priorities can still be developed based on known water quality impairments and possible agricultural contributions. The documented water quality issues (from the 303(d) list) include: temperature, bacteria, pH/D.O., biological criteria, and total

dissolved gas. The latter parameter does not appear to have a relationship to agricultural activities.

While specific water quality objectives have not been identified yet in the Area Plan, the section on Beneficial Management Practices (Section 4) does appear to identify most of the priority issues that need to be addressed: healthy productive riparian areas; healthy productive uplands; properly managed croplands; and properly managed livestock. Perhaps information from this section could be used to develop specific water quality objectives.

ODA Response: The Crook County Soil and Water Conservation District has identified Dry River Canyon as their priority geographic area (ODA Focus Area). The LAC will be meeting again in June/July 2014 to work on developing Measurable Objectives for the Crooked River Basin. Measurable Objectives will be added to the Area Plan once they are developed.

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

   DEQ COMMENT: No. It appears that the implementation actions in the Plan are the activities identified in Section 4 (Beneficial Management Practices). While these are all important practices, there is no prioritization of activities or geographic areas included in the Plan. There are also no targeted conditions or milestones identified to know when the desired conditions will be met. Without this information, tracking implementation progress and effectiveness will be quite difficult. DEQ would encourage ODA and the LAC to develop priority geographic areas, target conditions, and a schedule for implementation during this biennial review process.

   For example – if having healthy, productive riparian areas is an objective, how do you know when you have achieved this? How will you evaluate compliance with the Streamside Riparian Rule and when will 100% compliance be attained? Are there some geographic areas that are a higher priority than others?

   ODA Response: The Crook County Soil and Water Conservation District has identified Dry River Canyon as their priority geographic area (ODA Focus Area). The Focus Area will be tracking implementation, progress, and effectiveness and will inserted into the Area Plan during the next Biennial Review.

3. If applicable, is the Watershed Approach Action Plan addressed?

   DEQ COMMENT: A Watershed Approach Plan has been developed for the Deschutes Basin (2011). It is not specifically referenced in the Area Plan.

   The surface water issues identified in the Crooked River Subbasins include: temperature, nutrients, dissolved oxygen, pH, altered hydrology, habitat modification, sedimentation/turbidity and total dissolved gas. The groundwater issues identified in the Crooked River Subbasins include: nitrate, bacteria, and arsenic.

   The Area Plan appears generally to address most of the surface water issues listed above that could be related to agricultural practices. As mentioned under A(7), DEQ recommends that ODA and the SWCD include a task in the Plan to further evaluate if there is a potential for agricultural sources to contaminate drinking water in the Plan area.

   ODA Response: ODA and the LAC will discuss and address the Watershed Approach and Action Plan during the next Biennial Review meeting in two years.

4. 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.

   DEQ COMMENT: No. DEQ does not feel like the Area Plan provides enough specific information to track implementation progress and effectiveness, however. See the response to Question C(2).

   The draft of the Area Plan that we reviewed did not include accomplishments achieved under the Plan to date. This kind of an evaluation would help to determine the success of the Plan in pollution reduction.

   ODA Response: ODA and the Crook County SWCD will be developing accomplishment tables for the entire Management Area and the Focus Area. ODA will work with the LAC to insert the accomplishments tables into the Area Plan during the next Biennial Review.

5. Does the Area Plan include timelines, schedules, and measurable milestones that are consistent with the TMDL WQMP?

DEQ COMMENT: No. Although there is not a TMDL WQMP, the Area Plan should still provide timelines, schedules and measureable milestones for tracking the improvement of water quality conditions.

At a minimum, it seems like the Plan should include the following: (1) explanation of how compliance with the different conditions of the Rule will be determined – how will each be measured? (2) determination of baseline compliance with the rule; (3) interim milestones and timeline to achieve 100% compliance (for priority areas and whole Area); and (4) describe a monitoring strategy that will allow ODA to assess Plan effectiveness.

ODA Response: The Crook County Soil and Water Conservation District has identified Dry River Canyon as their priority geographic area. The LAC will be meeting again June/July 2014 to discuss and develop Measurable Objectives for the Crooked River Basin. Measurable Objectives will be added to the Area Plan once they are developed. ODA continues to revise and improve measurable objectives-timelines-milestones for plans throughout the state.

6. Is monitoring adequate to determine whether progress is being made to achieve the goals of the plan? If no, are monitoring needs identified and is there a strategy to meet those needs?

   DEQ COMMENT: It is hard to determine if monitoring is adequate or not. The monitoring section of the Plan describes a fairly comprehensive monitoring program that is conducted by the Crooked River Watershed Council. However, DEQ and ODA did not have the resources during this biennial review to adequately evaluate this data to determine current water quality conditions and/or trends. The Plan identifies that this data evaluation will occur for the next biennial review. At that time, we can evaluate if the monitoring is adequate to track progress or if something more is needed.

   In addition to the monitoring of water quality parameters, it seems like the monitoring section of the Plan should include: assessment of land conditions, assessment of implementation of activities, and assessment of how well the Plan is working. And each biennial review should report on the progress made since the last review.

   ODA Response: The Crook County Soil and Water Conservation District has identified Dry River Canyon as their Focus Area. Water Quality monitoring is being conducted in the SWCDs Focus Area and will be reported on during each Biennial Review. The Crooked River Watershed Council is currently collecting water quality data for the Dry River Canyon Area. Data will be analyzed and inserted into the Area Plan during the

next biennial review meeting. ODA will also work with DEQ to gather and interpret other water quality data in the management area.

II. Implementation/evaluation

A. Are voluntary efforts sufficient to implement the Area Plan or are additional incentives needed to increase the rate of participation?

DEQ COMMENT: This is hard to evaluate at this point since the draft we reviewed did not have accomplishments and Area Plan progress since the last biennial review described. It would be helpful if we could have this type of implementation information available prior to the biennial reviews.

ODA Response: Prior to the next biennial review, ODA will work with the LAC and the Crook County SWCD to summarize agricultural water quality accomplishments throughout the management area. We will also summarize accomplishments and progress made toward measuring change in the Dry River Canyon Focus Area. On a statewide level, by mid 2014 ODA will begin the two initial Strategic Implementation Areas. The SIAs are implemented by ODA to evaluate compliance in a selected watershed, conduct outreach to those areas that need compliance assistance, and conduct compliance visits where needed.

B. Are milestones and timelines established for Area Plans achieving the goal of the Program?

DEQ COMMENT: No. This information does not appear to be included in the Plan. See comments above under Sections 1(B) and 1 (C).

ODA Response: The Crook County Soil and Water Conservation District has identified Dry River Canyon as their priority geographic area. The Focus Area will have milestones and timelines, which will be inserted into the Area Plan during the next Biennial Review. ODA continues to revise and improve measurable objectives-timelines-milestones for plans throughout the state.

C. Is reasonable progress being made towards accomplishing milestones and timelines in the Area Plan?

DEQ COMMENT: This is hard to evaluate at this point since the draft we reviewed did not have accomplishments and Area Plan progress described.

ODA Response: Focus Areas will be a primary way for Oregon agriculture to track and show progress in protecting and improving water quality. The Crook County Soil and Water Conservation District will report on progress in the Dry River Canyon Focus Area during the next Biennial Review. ODA will work with the LAC to incorporate the report into the next Plan review.

III. Area Rules

A. Are the prohibited conditions likely to be effective in making reasonable progress towards meeting state water quality goals?

DEQ COMMENT: It seems like it. Although we have some questions because, according to the Rule, it appears that all landowners were supposed to be in compliance with the Streamside Riparian Area Management Rule by 2009. Has that happened? If not, do implementation activities under the Plan need to be changed?

ODA Response: The date attached to the riparian rule is the effective date: the rule became effective in 2009. ODA continues to work with multiple water quality partners to achieve and exceed compliance. Prior to the next biennial review, ODA will work with the LAC to report on the accomplishments made in the management area and the work completed toward measuring progress in the Dry River Canyon Focus Area. These reviews will better enable us to review the success of our efforts.

B. Are additional prohibited conditions or other mandatory control measures needed?

DEQ COMMENT: See comment above. It seems like the conditions need to be updated, at least in terms of the timeline.

ODA Response: The riparian rule became effective in 2009. ODA continues to work with multiple water quality partners to achieve and exceed compliance.