



Oregon
Department
of Agriculture

Tualatin River Subbasin Agricultural Water Quality Management Area Plan

November 10, 2010

Local Advisory Committee Recommends Meeting Annually

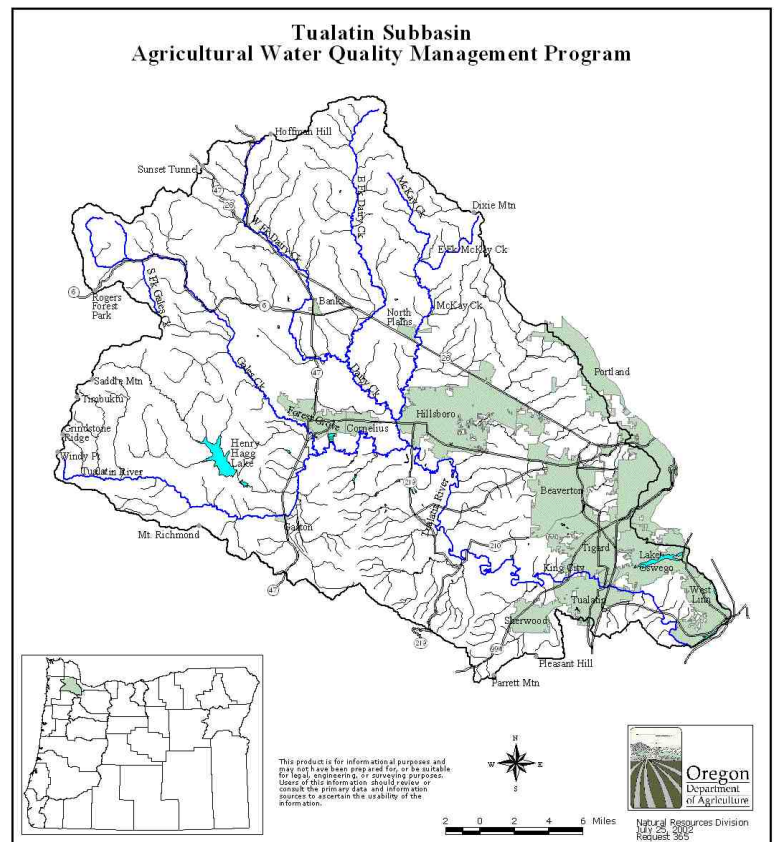
Executive Summary

Members of the Tualatin River Subbasin Agricultural Water Quality Management Area Local Advisory Committee (LAC) reconvened on November 11, 2010, to receive an update on activities and provide their recommendations. They suggested meeting annually to discuss various issues such as water quality monitoring data results and determining priority areas in the basin for implementation actions. Although it is legislatively required to submit a report to the Board of Agriculture every other year, the LAC expressed interest in meeting annually to provide additional guidance to local management area goals and objectives.

The LAC discussed the need for secured funding to support future water quality monitoring events and riparian vegetation restoration efforts. Members of the LAC agreed that without water quality monitoring, it is difficult to assess Area Plan effectiveness. Additionally the consensus among the LAC was that with continued water quality data, the Tualatin Soil and Water Conservation District (SWCD) can further target their outreach, technical assistance, project development, and implementation of management practices in identified priority areas throughout the basin.

In addition to monitoring, LAC members recognized the importance of continuing outreach and education efforts to small acreage landowners. The Tualatin SWCD received additional funding to hire an intern to focus on small acreage landowners and hobby farmers.

There were no recommended changes to the Area Plan or Rules at this time.



The Tualatin River watershed is a 710 square mile drainage area encompassing most of Washington, and small portions of Clackamas, Columbia, Multnomah, Tillamook, and Yamhill Counties. The Tualatin River originates in northwest Oregon's coast range, and flows generally eastward, discharging into the Willamette River at West Linn.

Agricultural Water Enhancement Program (AWEP) in Washington County

The Tualatin SWCD was awarded an AWEP grant to improve water quality and quantity in the Gales Creek and Upper Tualatin River target area through ranked conservation practices. The project will protect water resources used for public drinking water, irrigation, ESA-listed steelhead trout and recreation.

To achieve these objectives, the SWCD will focus on the following natural resource concerns:

- Water Quality – Excessive nutrients and organics in surface water
- Water Quality – Harmful temperatures of surface water
- Water Quantity – Insufficient flows in water courses
- Water Quantity – Inefficient water use on irrigated land

By focusing on the above resource concerns, this project aims to prevent future algae blooms in the Tualatin River by:

- reducing runoff of agricultural nutrients and sediments into surface water,
- implementing conservation systems on targeted farming operations,
- decreasing water temperatures in Gales Creek and the Upper Tualatin River by restoring riparian forests along high priority reaches of these rivers,
- increasing stream flow and increasing irrigation efficiency by helping farmers on highly irrigated lands convert to high efficiency drip, linear move and center pivot systems.



The entire Upper Tualatin River Watershed is 136,756 acres. Of those acres, 18,767 acres are located within the target area. Of the 18,767 acres, 2,195 acres are high priority sites on which this project will focus. In this focus area, approximately 1,236 acres are on 20 highly irrigated farms, 882 acres are on four dry land farms, and 77 acres are riparian sites (6.3 stream miles). This area includes:

- Gales Creek, the most important steelhead habitat in the basin;
- Wapato Lake, site of a blue-green algae bloom in 2008; and
- water sources for both the Joint Water Commission fresh water takeout and the Tualatin Valley Irrigation District takeout.

Project partners include agencies and organizations with strong presences in the Tualatin River Basin: Tualatin SWCD, Clean Water Services, Metro - Natural Areas Program, The Freshwater Trust, and Willamette Partnership. The project will also build upon existing partnerships with the Oregon Department of Agriculture (ODA) and the Oregon Department of Environmental Quality (DEQ).

Partners will contribute non-federal resources and funds in the amount of \$ 564,000 to complete targeted outreach, perform water quality and quantity monitoring, assess practice effectiveness, purchase ecosystem credits, and purchase conservation easements.

LAC Plan Review: continued

Background

The Tualatin River Subbasin Agricultural Water Quality Management Area Plan and Rules were developed with advice from the LAC. After review by the State Board of Agriculture, the director of ODA approved the Area Plan and Rules in 1996.

Since then, the LAC has met to review the Area Plan in 1999, 2001, 2004, 2006 and 2008.

When developing the current Area Plan, the LAC identified several goals that, if achieved, would significantly improve water quality in the Tualatin Subbasin. These specific goals are:

- to prevent and control water pollution from agricultural activities and soil erosion using the TMDL targets;
- to create a high level of awareness and understanding of water quality issues throughout the community through education and technical assistance;
- to control pollution as close to the source as possible;
- to base actions on sound conservation planning; and
- to ensure adequate funding and administration of the program to achieve mission, goals, and objectives.

The Area Rules require land managers in the Management Area to:

- prevent gully erosion and sheet and rill erosion above the Soil Loss Tolerance Factor (T);
- prevent runoff of manure, fertilizer or other wastes from reaching waterways;
- prevent irrigation return flow to streams;
- establish or maintain vegetative cover 25-feet wide from each streambank to filter nutrients and sediment; and
- allow streamside vegetation to grow and establish along perennial streams consistent with site capability to provide erosion control, streambank stability and minimization of direct solar heating.

The Tualatin River is 'water quality limited' for temperature, phosphorus, ammonia, chlorophyll a, flow modification and habitat modification.

Compliance Investigations

Since the last biennial review in November 2008, ODA investigated nine new compliance cases.

Complaint type:	Resulting action:
1. Livestock waste	Letter of Warning (on-going)
2. Livestock waste	Water Quality Advisory
3. Riparian veg removal	Letter of Warning
4. Riparian veg removal	Letter of Warning (on-going)
5. Riparian veg removal	Water Quality Advisory
6. Riparian veg removal	Misidentified property
7. Erosion/sediment runoff	Letter of Warning
8. Erosion/sediment runoff	Water Quality Advisory
9. Erosion/sediment runoff	Letter of Compliance



Manure storage facility implemented by landowner through assistance by the Tualatin SWCD

Implementation Activities

Since the last biennial review, the Tualatin SWCD, along with various other partner agencies and organizations, have continued to work with local landowners to develop 16 voluntary water quality farm plans covering 640.3 acres. Staff conducted 56 on-site evaluations to determine erosion potential, topsoil characteristics and appropriate agricultural activities, and helped these landowners access conservation funding programs to make improvements. Attachment A includes more detailed information about the goals identified in the Tualatin River Subbasin Area Plan and highlights of local activities in the last two years to achieve these goals.

Tualatin TMDL Update – Avis Newell, DEQ Basin Coordinator

DEQ is in the process of revising portions of the Tualatin River Subbasin Total Maximum Daily Load (TMDL) and subsequent Water Quality Management Plan (WQMP). A TMDL is...

- the amount of a pollutant that a waterbody can assimilate and still meet water quality standards;
- for a particular pollutant;
- calculated so that water quality will meet applicable standards.

A TMDL is required when a stream is assessed as being impaired. An impaired stream means the stream does not meet one or more of its designated uses. Designated uses may include supporting aquatic life, swimming, wading, drinking water supply use, fish consumption, etc.

The current Tualatin TMDLs in place since 2001 that are related to agriculture are for temperature, total phosphorus, bacteria, ammonia, and dissolved oxygen. Those that are in revision include temperature and total phosphorus.

The first reason for updating the TMDL is due to Clean Water Services planning to discharge from their Forest Grove and Hillsboro municipal sewage treatment plants during the summer. As they currently discharge only outside of the TMDL season, they do not have waste load allocations for these sites. The second reason is that there has been a change to the temperature water quality standard in 2004. The update will reflect the newer standard.

The WQMP is the overall framework describing the management efforts to implement the Tualatin River Subbasin TMDLs and identifies existing plans that address water quality. The WQMP also identifies the designated management agencies, including ODA, and responsible parties who have a responsibility to submit TMDL Implementation Plans.

The Tualatin Agricultural Water Quality Management Area Plan is sufficient to meet the need for a TMDL Implementation Plan.

The changes to the Tualatin temperature and total phosphorus TMDLs are largely targeted at the point sources. Even though the temperature standard has been revised, the proposed load allocations for nonpoint sources in the basin will be for system potential shade. Similarly, load allocations for total phosphorus in the tributaries are likely to remain at the levels set in the 2001 TMDL. The TMDLs for bacteria, dissolved oxygen and ammonia will remain in place.

The advisory committee for this TMDL revision is the Tualatin River Basin Council (TRBC). The TRBC meets on the first Wednesday of each month at 7:00 p.m. in Hillsboro. DEQ will continue to present detailed information about the changes to the TMDLs at future council meetings. The Tualatin SWCD is on the council; however, the meetings are open to the public and ODA and LAC members are encouraged to attend.

Oregon Department of Agriculture

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LAC MEMBERS for 2010

- Dan Logan, Chair
- Bill Gaffi*
- Linda Gray*
- Bob Jossy*
- Dave Krahmer*
- Larry Landauer*
- Jim Love
- Roy Malensky, Vice Chair
- George Marsh
- Bob Terry*
- Brian Wagener*
- Greg White*

*indicates not present

Attachment A. Summary of Area Plan goals and progress of Area Plan implementation.

Goal	Progress
<p>1. Prevent and control water pollution from agricultural activities and soil erosion.</p>	<ul style="list-style-type: none"> - 16 Voluntary Water Quality Farm Plans (VWQFPs) have been approved by the Tualatin Soil and Water Conservation District since November 2008, covering 640.3 acres. - 56 on-site evaluations were completed to determine erosion potential, topsoil characteristics, and appropriate agricultural activities. - ODA received nine complaints since the last biennial review. Three landowners received Water Quality Advisories, two issues resulted in no threat to waters of the state, and four landowners received Letters of Warning. Of those four, two landowners corrected the problem and received a Letters of Compliance. The other two landowners are making progress to correct the problems identified in the Letters of Warning. - The SWCD and Tualatin River Watershed Council participated as members of the Lower Willamette West Small Grant team, providing technical assistance to landowners performing restoration projects. - Limited resources for SWCD staff have made implementation a challenge. - The SWCD has continued to work with Clean Water Services, Farm Service Agency, and Natural Resources Conservation Service to implement the Enhanced Conservation Reserve Enhancement Program. This program provides increased financial incentives for landowners to create riparian buffers and funds two technicians at the SWCD.
<p>2. Create a high level of awareness and understanding of water quality issues among the agribusiness community and rural public through education and technical assistance activities</p>	<p>Since November 2008, Tualatin SWCD has had several outreach opportunities to various groups in the basin. The following are some highlights:</p> <ul style="list-style-type: none"> - Hosted an Annual BBQ/Tour in 2009 and 2010 to highlight SWCD activities and showcase conservation practices through project tours. The events reached a total audience of about 120. The attendees toured stream restoration projects and other conservation practices, including a wetland restoration project, solar thermal project, and nutrient management techniques. - Prepared and staffed displays at various community events, reaching over 900 people. Displays included information on nonpoint and point source pollution. Events included the NW Agriculture Show, Hillsboro Farmers Market (4), Washington County Fair, Dixie Mountain Strawberry Festival, North Willamette Horticulture Society Annual Meeting, Gales Creek Night Out. - 3 presentations about water quality programs and assistance SWCD provides to landowners, reaching an audience of 57. - Produced seven newsletters (<i>Conservation Connection</i>) reaching 3,400 residents.

Goal	Progress
	<ul style="list-style-type: none"> - Produced two Annual Reports. - Distributed approximately 1,600 fact sheets through community events and mailings. - Updated District's website monthly. A counter was added to the website, showing over 4,000 people have visited the website over the past two years. - Hosted two workshops: "Composting 101" and "Master your Pasture" for livestock owners and a horse farm tour, reaching an audience of 36. - Produced 200 pasture-grazing sticks to distribute to landowners. - Developed four posters to provide "tips" on Composting, Manure Management, Pasture Management and Mud Management. Posters were hung in local feed stores, vet offices, stables. - Produced a newsletter for livestock owners reaching 250 livestock owners. - Set up a manure exchange program, Manure Link. - Reached 70 second graders with the watershed display; reached 100 high school students at a Career Fair at a local high school.
3. Control pollution as close to its source as possible.	<ul style="list-style-type: none"> - Tualatin SWCD insures that landowners developing VWQFPs meet the Soil Loss Tolerance Factor (T), apply nutrients according to OSU recommendations, and improve irrigation efficiency to prevent irrigation water discharge. - Conducted 56 site visits to implement the water quality program. - Provided water quality technical assistance to about 6,600 landowners through direct mailings (e.g. newsletters, workshop invitations, fact sheets), phone/e-mail correspondence, and walk-in customers.
4. Base actions on sound conservation planning.	<ul style="list-style-type: none"> - 16 VWQFPs have been developed since November 2008. Plans are developed according to NRCS Field Office Technical Guide and conservation planning guidelines.
5. Ensure adequate funding and administration of the program to achieve mission, goals, and objectives.	<ul style="list-style-type: none"> - The LMA secured funds from ODA, National Fish and Wildlife Foundation's Pulling Together Initiative, OWEB*, and USDA NRCS** to support implementation of the Tualatin River Subbasin Area Plan through: <ul style="list-style-type: none"> o Conservation plan development o Best Management Practice technical assistance, project design, and implementation o Cost-share assistance o Education and outreach - The LMA continues to seek grant funding for outreach/education, technical assistance and implementation of Best Management Practices. - The SWCD partnered with Clean Water Services, Metro, The Freshwater Trust, Willamette Partnership, and NRCS to apply for funding through the Agricultural Water Enhancement Program (AWEP). The application was approved and \$364,728 was received in 2010 to improve water quality and quantity in the Gales Creek and Upper Tualatin River target area through ranked

Goal	Progress
	<p>conservation practices. The project will protect water resources used for public drinking water, irrigation, ESA-listed steelhead trout, and recreation. In 2010, 12 contracts were approved and projects have begun to be implemented. Funding will continue in 2011 and 2012.</p> <ul style="list-style-type: none"> - The SWCD, USDA, and Clean Water Services have worked together to create additional incentives for landowners through the Conservation Reserve Enhancement Program (see summary under Goal 1). <p>*OWEB = Oregon Watershed Enhancement Board ** USDA NRCS = United States Department of Agriculture Natural Resources Conservation Service</p>