



Oregon
Department
of Agriculture

South Santiam Agricultural Water Quality Management Area Plan Review

Fall 2010

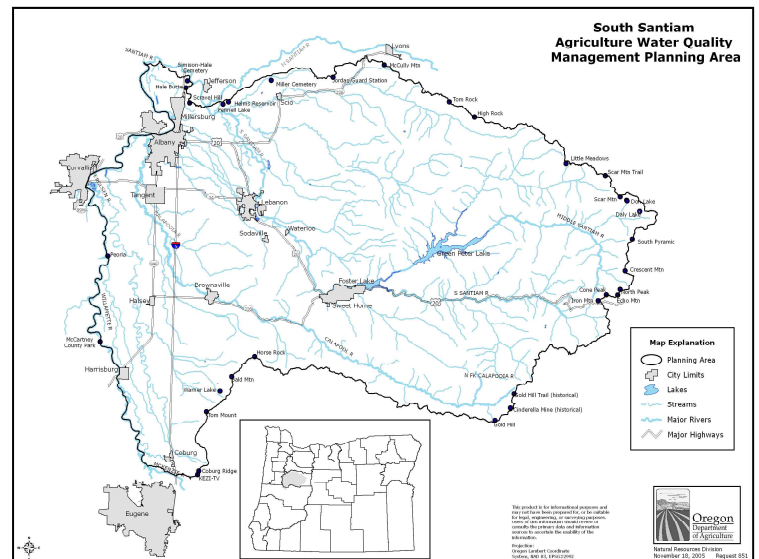
Committee Identifies Outreach and Monitoring Needs

On September 29, 2010, the Local Advisory Committee (Committee) met with the Oregon Department of Agriculture (Department) and the Linn Soil and Water Conservation District (District) to review implementation of the Area Plan.

The Committee emphasized their support for an outcome-based agricultural water quality program. The Committee stated that the success of the program in Linn County is dependent on partnerships between state and local entities. The relationships that the District develops with landowners are also very important. The Committee commended the District for their education and outreach work. The District's efforts to implement management practices with landowners to improve water quality and resolve compliance issues were also recognized. (See Attachment A, for a list of accomplishments.

At the review, the Committee identified the following as constraints to implementation of the Area Plan:

- Landowners may not perceive that there are water quality problems because they are not visible and are minimal in comparison to other areas in the United States.
- The public is not hearing about the good things that are accomplished by the agricultural community.
- Implementation of practices to improve water quality may not be economically feasible for landowners.
- Water quality data is not available for the area to show baseline conditions or source identification of problems.



Map: The South Santiam Management Area consists of all agricultural and rural land, except for Federal and Tribal Trust lands, in the South Santiam, Calapooia, and Muddy Creek watersheds, as well as several smaller watersheds that drain directly into the Willamette River. Communities in the Management Area include Albany, Brownsville, Coburg, Halsey, Harrisburg, Lebanon, Scio, and Sweet Home, as well as several unincorporated communities.

To address the constraints, the Committee recommended several actions and asked for additional outreach efforts regarding the Area Plan. In addition, the agricultural community needs to publicize its accomplishments better. Such as, work accomplished through cost-share or other assistance programs. The Committee would like to account for the work that agricultural landowners are doing on their own without these programs. Lastly, the Committee suggests seeking funding for water quality monitoring in the Management Area. Water quality data needs to be sufficient to determine baseline conditions and agricultural contributions to water quality issues. Data from water quality monitoring will allow prioritization of resources in the areas that have the greatest need.

Oregon Department of Environmental Quality (DEQ) declared the Southern Willamette Valley Groundwater Management Area (GWMA) in 2006. The GWMA covers an area of approximately 210 square miles along the Willamette River. Included in the GWMA are the towns of Junction City, Harrisburg, Coburg. Non-point source pollution, agricultural runoff, and human and animal waste have been identified as major contributors to groundwater contamination.

Groundwater within the area makes it more vulnerable to contamination. Nearly all the residents in the GWMA rely on groundwater for their drinking water. The Environmental Protection Agency set the maximum groundwater standard for nitrates at 10 mg/L to protect infants and pregnant or nursing children. Municipal water providers must meet this standard for water supplied to its users. Unlike urban users, rural residents dependent on private wells do not benefit from public drinking water standards.

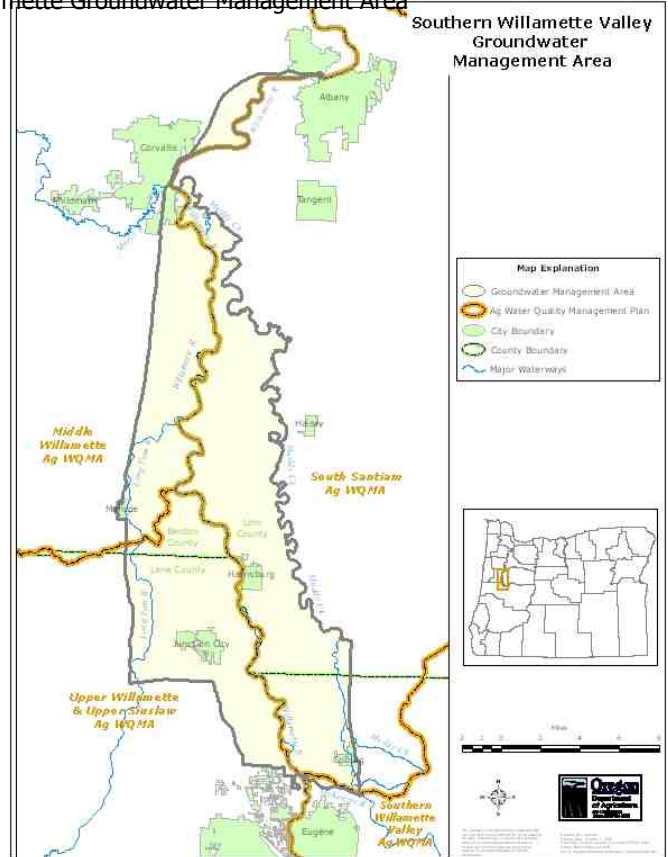
DEQ formed a stakeholder group consisting of a cross-section of land uses in the GWMA. The group developed nitrate reduction recommendations and a region-wide action plan. Implementation of this plan began in 2007. The plan is available at: oregonstate.edu/plan.

DEQ conducted 39 long-term groundwater monitoring stations in the summer of 2006. Since then, DEQ has tested nitrate levels in groundwater monitoring stations four times per year. Overall, there have been some downward trends in nitrate levels, although some areas still show elevated nitrate levels. In the spring of 2009, DEQ sampled approximately 100 domestic wells in the GWMA. The majority of wells had a nitrate concentration from this 5 mg/L, while the highest level of nitrate rose to 35 mg/L.

The GWMA action plan identifies goals, objectives, strategies, and actions for focus areas including agricultural, residential, public water supplies, and commercial, industrial, and municipal. A goal of the agricultural focus area is to research best management practice (BMP) effectiveness and BMP adoption. ODA, in cooperation with several partners, will be conducting a BMP survey of agricultural producers in the spring of 2011. The purpose of this survey is to document the level of BMP adoption, barriers to implementation of BMPs. The results of this survey will give partners a better understanding of the needs to protect water quality in the GWMA. Results of the survey should be analyzed and available by fall of 2011.

South Santiam Management Area

Map: Southern Willamette Groundwater Management Area



Background

The Committee advised the Department on development of the Area Plan and Rules. After review by the state Board of Agriculture, the director of the Department approved the Area Plan and Rules in December 2002.

The Area Plan encourages good stewardship of natural resources and depends upon landowners volunteering to use conservation measures and reduce pollution from agricultural lands. In addition, the Area Plan identifies optional management practices for:

- Riparian areas and streams.
- Nutrient and manure management.
- Erosion, sediment, and mercury control.
- Pest management.
- Nutrient and irrigation efficiencies.

The Committee identified a mission "to implement and evaluate an outcome-based plan that will promote and support agricultural activities, while preserving water quality."

The Committee identified the following goals in conjunction with the mission of the Area Plan.

- Limit water pollution from soil erosion and agricultural activities to achieve applicable water quality standards.
- Implement the Area Plan through the education and outreach efforts detailed in section 4 of the Area Plan.

In addition, the Committee developed several objectives to work towards the goals and mission of the Area Plan.

- Promote site appropriate riparian vegetation in order to minimize stream bank erosion and moderate solar heating.
- Limit irrigation runoff and leaching.
- Improve the watershed's ability to capture, store, and release moisture to limit runoff.
- Reduce contaminants in runoff and leaching from agricultural lands.

See Attachment A for a summary of progress toward targets.

The following is a summary of regulations that apply in the South Santiam Management Area:

1. Landowner actions may not cause pollution to waters of the state or place any wastes in a location where such wastes are likely to escape or be carried into waters of the state by any means.
2. Riparian vegetation along perennial streams must provide the water quality functions of shade, streambank stability, and promote infiltration of overland flow.

Compliance investigations

Department staff investigated three compliance cases since the last biennial review in June of 2008. The following are the compliance cases and resulting actions.



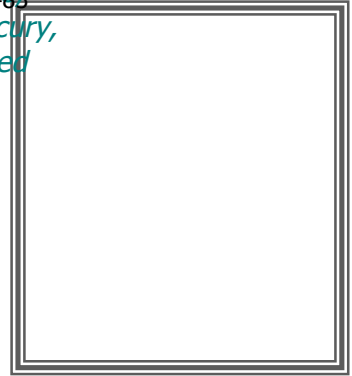
	Issue	Resulting Action
1	Livestock access impacting surface water	Site Visit 1: Water Quality Advisory Site Visit 2: Letter of Compliance
2	Livestock access to creek	Letter of Compliance
3	Manure pile contamination	No site visit; determined not to be an agricultural operation



including Oregon State University (OSU) Extension, OSU Fish and Wildlife Department, USDA, and Linn SWCD have identified management practices compatible with grass seed production that protect water quality and habitat. The identified management practices are a result of study vertebrate populations, and water quality in Southern Willamette drainages. Concerns related to the potential impact of water quality related species from farming practices lead to these recommendations. Identified the following management practices:

- filter strips in place of bare ground on field borders and ditches, especially high flow ditches prone to erosion.
- crop rotation using small grain or other crops to reduce the frequency of tillage and erosion from new plantings on cultivated land.
- waterway use within fields using creeping red fescue/native wild grasses in areas subject to runoff and erosion.
- vegetated roadside ditches to reduce herbicide runoff and the spread of noxious weeds.
- riparian stabilization on stream banks to control erosion.
- vegetated riparian buffers or Wetland Reserve Program (WRP) on less productive ground, such as poorly drained, small and hard to farm fields along streams.
- alternate year no-till and volunteer systems in annual ryegrass production.
- install livestock exclosures along streams or winter field drainage in grass seed fields that are grazed during the winter months.
- place the full straw load in place on perennial grass seed fields.

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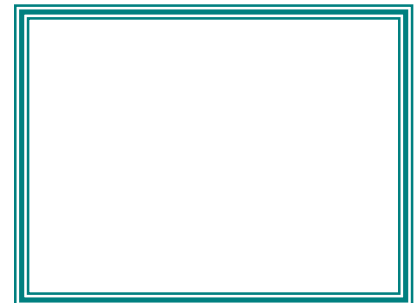
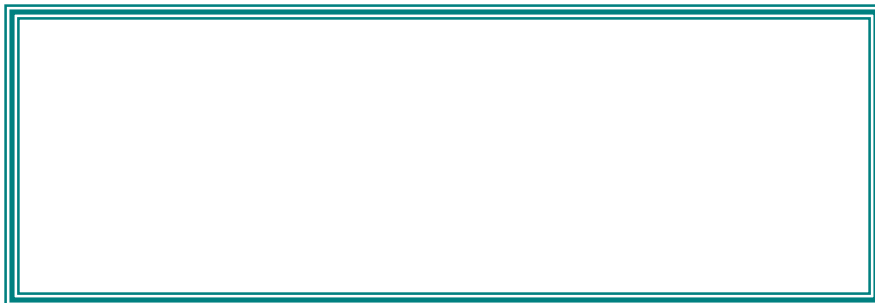
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Grassed Waterway



No Till Planting



Attachment A. Summary of Area Plan Objectives and Strategies and Progress of Area Plan Implementation

The South Santiam LAC has one primary goal:

Limit water pollution from soil erosion and agricultural activities to achieve applicable water quality standards.

The following is a summary of how the LAC, Linn SWCD, NRCS and other agricultural partners have addressed the Objective and Strategies.

Objectives and Strategies	Progress and Partners
<p>Objectives Address temperature and near stream area issues:</p> <ul style="list-style-type: none"> • Promote site-appropriate vegetation in order to minimize stream bank erosion and moderate solar heating. • Limit irrigation runoff. • Improve the watershed’s ability to capture, store, and release moisture to limit runoff. • Address bacteria and nutrient issues: • Reduce contaminants in runoff from agricultural lands. 	<p>Progress Linn Soil and Water Conservation District in co-operation with USDA NRCS has implemented 35 conservation plans to cover 10,362 acres in Linn County. Following is a summary: <u>Temperature & Near stream Area</u></p> <ul style="list-style-type: none"> • 31,037 feet of streambank fencing. • 2,057 acres of irrigation management to promote timely and proper application of water to crops. • 10,363 acres of nutrient management to properly apply nitrogen potash and phosphorous • 245 acres of riparian establishment through the Conservation Reserve Enhancement Program (CREP) <u>Bacteria & Nutrients</u> • 125 acres of cover crop • 4,850 feet of installed grass waterways and the construction of five waste management facilities to reduce contaminants from running off agricultural lands. <p><u>Specific projects & efforts include:</u></p> <ul style="list-style-type: none"> • Two waste management facilities (NRCS) • 3,850 feet stream bank protection (NRCS, Linn SWCD aided in 2,000 feet of the total) • 835 acres crop rotation (NRCS) • 1,744 acres of irrigation management (NRCS with EQIP funding, Linn SWCD helped on 950 acres of the total) • 6,585 acres residue management (NRCS with EQIP funding) • 36,720 feet water transference pipeline installed (Linn SWCD and NRCS) • 855 acres of prescribed grazing (NRCS with EQIP funding, Linn SWCD aided in 47 acres of the total) • 60 acres of tree/shrub planting (NRCS with EQIP funding of 55 acres and Linn SWCD with OWEB Small Grant funding of 5 acres) • 2,057 acres of irrigation water management (NRCS with EQIP funding, Linn SWCD aided in 800 acres of the total) • 31,037 ft of stream bank fencing (NRCS with EQIP funding and Linn SWCD contributed 5960 feet of total with OWEB Small Grants funding)
<p>Strategies: Education & Outreach</p> <ul style="list-style-type: none"> • Host public information sessions 	<p>Progress: Education & Outreach</p> <ul style="list-style-type: none"> • Linn SWCD held local landowner workshops in 2008.

Objectives and Strategies	Progress and Partners
<p>about the Area Plan and Rules.</p> <ul style="list-style-type: none"> • Contact county livestock association, the South Santiam and Calapooia Watershed Councils, county Farm Bureau, Oregon State Grange and other organizations. • Host meetings about water quality issues and optional management practices. • Maintain a current version of the Area Plan and Rules on the ODA website. • Compile a list of existing demonstration project sites around the South Santiam/Calapooia area. Evaluate existing sites to determine if some high priority practices, management systems, or geographic locations are not covered. Establish any additional needed demonstration sites and use existing demonstration sites to showcase Optional Management Practices for agricultural commodities specific to the South Santiam/Calapooia area. • Conduct tours of demonstration sites and typical agricultural operations to discuss what might be typical water quality concerns and some options for addressing each concern in cooperation with OSU Extension. • Host booths, or put information at someone else's booth, at the Linn county fair or other events with typical water quality concerns for different operations and ways to address water quality concerns. • Provide information to realtors in the South Santiam/Calapooia area and if possible, deliver presentations at realtor meetings. • Submit articles about water quality issues and optional management practices to local livestock associations, Small Farmer Magazine etc, Farm Bureau chapters, and other commodity groups, Extension newspapers, watershed council and SWCD newsletters, Farm Services 	<p>2009, and 2010 with help from ODA and held local farmer meeting with USDA and NRCS.</p> <ul style="list-style-type: none"> • Linn SWCD contacted county livestock association and local Watershed Councils. Linn SWCD has a working agreement with both Watershed councils to monitor water quality in both Watersheds. • Linn SWCD sponsored several meetings and attended agriculture events to present information about water quality issues and optional management practices to further help water quality. • Linn SWCD worked with ODA to put Area Plan and Rules documents on the ODA website. • Linn SWCD worked with OSU Extension to develop several practices that would fit with local landowner's need, such as no-till, strip till and intensive pasture management. Also worked with USDA Agricultural Research Service (ARS) to study amphibian habitat and the effects on agriculture in the Calapooia Watershed. Cooperated with OSU to develop BMPs in grass seed farming. • Linn SWCD worked with OSU Extension to co-sponsor a South Valley Farm Tour to feature demonstration sites of practices that help water quality in agricultural production while maintaining production viability. • Linn SWCD held a water quality informational presentation at Linn County Agriculture Expo. Provided information on state and federal programs that help finance implementation of on-farm practices. • Linn SWCD provided several realtors with information on soils, streams, and educational tools. • Published monthly articles to Update, an OSU Extension and Albany Democrat Herald publication, that reaches 60,000 people monthly.

Objectives and Strategies	Progress and Partners
<p>Agency newsletters, and other publications.</p> <ul style="list-style-type: none"> • Provide one-on-one technical assistance to landowners, letting them know about the Area Plan and Rules. • Provide information on federal and local cost-sharing programs to landowners. • Disseminate information to schools about agriculture and water quality and the plan and rules. • Disseminate information to county commissioners and other elected officials about the plan and rules and work of the LAC. 	<ul style="list-style-type: none"> • Linn SWCD worked with 433 landowners to provide technical assistance and to make them aware of the Area Plans and Rules. • Linn SWCD worked with 12 landowners on local cost share, OWEB Small Grants programs. The district worked with 18 landowners on federal programs such as EQIP and CREP. • Linn SWCD worked with Ag in the Classroom to develop a “Teach the Teachers” program that can be distributed and used throughout the state. • Local county commissioners attend Linn SWCD monthly meetings 1-2 times per year and are informed of LAC work and Area Plan and Rules implementation.