

Regional Water Quality Control Board
North Coast Region

Executive Officer's Summary Report
Wednesday, March 8, 2017
Fortuna City Council Chambers
Fortuna, California

ITEM: 5

SUBJECT: Update on the status of the Agricultural Lands Discharge Program
*(Ben Zabinsky and Rebecca Fitzgerald, Regional Water Board,
and Mike Hiatt, Oregon Department of Environmental Quality)*

BOARD ACTION: This is an informational item only.

BACKGROUND: The purpose of this item is to update the North Coast Regional Water Quality Control Board (Regional Water Board) on the current status of the Regional Water Board's Agricultural Lands Discharge Program. Staff last updated the Regional Water Board on this subject in January 2015.

The Agricultural Lands Discharge Program includes existing permits, permits under development, watershed stewardship efforts, monitoring, as well as outreach, education, and compliance efforts. During the presentation, staff will focus on efforts to address agricultural waste discharges in the:

- I. Scott River and Shasta River watersheds;
- II. North Coast Region associated with vineyards and orchards;
- III. Tule Lake and Upper Klamath watersheds; and
- IV. Smith River Plain associated with Easter lily bulb cultivation.

There are approximately 360,000 acres of productive agricultural lands in the North Coast Region. The attached map shows the distribution of agriculture in the North Coast Region by crop type. Agricultural lands have the potential to discharge pollutants to surface water and groundwater through the application of fertilizers and pesticides, human-caused erosion of sediment, pollutants in irrigation tailwater return flows, and the removal and suppression of riparian vegetation. The Regional Water Board is required by law to control discharges of waste to waters of the state, to restore water quality in impaired waters, and to maintain water quality in high quality waters that are already meeting water quality standards. The State Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program requires the Regional Water Board to prescribe Waste Discharge Requirements (WDRs) or Waivers of WDRs for proposed, existing, or material changes in discharges of waste that could affect water quality. The Agricultural Lands Discharge Program is being developed and implemented to meet these requirements as well as the requirements of Total Maximum Daily Load (TMDL) action plans for the Klamath River, Lost River, Scott River, and Shasta River watersheds.

The development of the program began after the adoption of the Klamath River TMDLs in March 2010. By the fall of 2011, the scope expanded to consider development of a single regulatory program to cover all discharges associated with agriculture across the region to

be consistent with statewide policy directing the Region Water Boards to regulate all nonpoint sources of waste. Staff invited stakeholder representatives to participate in a Stakeholder Advisory Group (Advisory Group) to provide input on permit development and hosted the first Advisory Group meeting in December 2011. As staff worked through program concepts with the Advisory Group, staff realized the challenges associated with a single-permit regional approach. Regionwide requirements lack the flexibility to adequately and appropriately address the variety of agricultural operations and potential water quality risks in the North Coast Region.

In September 2013, the Board concurred with the staff recommendation to develop a series of commodity and area specific permits as opposed to one regionwide permit for all types of agriculture. Staff continues to work under this strategy. Also in 2013, the Board directed staff to develop a regulatory program to address the impacts associated with cultivation of cannabis and associated activities in the North Coast Region.

The Agricultural Lands Discharge Program includes several existing and planned commodity-specific or geographic-specific permits to address agricultural discharges in the Region.

Existing Permits

1. Scott River TMDL Conditional Waiver of WDRs
2. Shasta River TMDL Conditional Waiver of WDRs
3. Cow dairy general WDRs, Waiver of WDRs, and National Pollution Discharge Elimination System Permit
4. Cannabis and related activities Waiver of WDRs
5. USFS Waiver of WDRs, which includes discharges from grazing allotments in National Forests

Permits Currently Under Development or Planned for Development

Staff has prioritized permit development in the following order:

- Vineyards and Orchards Agricultural Discharge Permit
- Tule Lake Watershed Agricultural Lands Discharge Permit
- Lily Bulb Cultivation Agricultural Discharge Permit

Other Key Program Elements

The following are other agricultural lands program elements which either complement existing or planned regulatory permits or for which there are no current plans for permit development:

- Upper Klamath, Shasta River, and Scott River watershed stewardship
- Butte Valley agricultural lands discharges
- Grazing on private lands outside of Shasta River and Scott River watersheds

DISCUSSION: The following is a summary of staff efforts to address agricultural discharges of waste in the North Coast Region by commodity or area. Summaries of the Dairy Program and Cannabis Regulatory Program are not provided here.

I. Scott River and Shasta River TMDL Conditional Waivers

Discharges from agricultural operations, grazing operations, and other sources in the Scott River and Shasta River watersheds are regulated under TMDL Conditional Waivers of WDRs, one for each watershed. Both waivers were first adopted in 2006 and revised in October 2012. Staff is now working to renew the waivers for Board consideration in Siskiyou County in October 2017. Staff will present an overview of the major permit elements and renewal process as part of the informational item.

There will be opportunities for input to inform the renewal during the public review process. The estimated major milestones for renewal of the waivers are listed below:

Project Schedule	
<i>Process/Milestone</i>	<i>Completion Date or Range</i>
Public Review Period	May – July 2017
Staff and Board Workshops	June 2017
Board Hearing	October 2017

There are other ongoing initiatives within the Shasta and Scott River watersheds to restore supporting conditions for beneficial uses including, but not limited to the watershed stewardship coordination frameworks and grant funded restoration projects. Staff will highlight these initiatives during the waiver renewal process.

Grazing on Private Lands Outside of Shasta and Scott River Watersheds

Regional Water Board staff do not currently have plans to develop a permit for discharges from grazing lands outside of the Scott and Shasta watersheds. However, staff will continue to respond to complaints and initiate enforcement actions as needed.

II. Discharges Associated with Vineyards and Orchards

Regional Water Board staff is re-focusing resources on the development of a discharge permit for vineyards and orchards in the North Coast Region. Staff recently developed a new work plan and schedule that lays out the different phases of permit development, outlines a stakeholder involvement strategy, and includes steps to ensure compliance with statewide policies and legal requirements. Key elements of the work plan and schedule will be addressed in the staff presentation.

Permit Elements

The permit will likely be proposed as general WDRs. The permit will likely include a tiered structure based on categories of vineyards and orchards that share similar characteristics

or present a similar level of risk to water quality. The requirements, tiers, implementation process, and monitoring and reporting strategy will likely incorporate incentives for working with a third-party certification program or a qualified professional to develop a water quality management plan and implement water quality control practices. Regional Water Board staff will continue to work with existing third-party certification programs to assess compatibility with potential permit requirements.

Regional Water Board staff will continue to coordinate with local and state agencies that have regulatory authority over agricultural operations to ensure as much consistency as possible between regulatory programs. These include the San Francisco Bay Regional Water Board's vineyard WDRs proposed for the Napa River and Sonoma Creek watersheds, and Sonoma and Mendocino counties' efforts on vineyard development. In addition, the timing and regional scope of the vineyard and orchard permit development efforts have overlap and synergy with other ongoing efforts such as the Russian River Regional Monitoring Program and the Laguna de Santa Rosa Water Quality Credit Trading Program.

Stakeholder Involvement

Regional Water Board staff will provide many opportunities for public input and offer tribal consultations to inform development of the vineyard and orchard discharge permit. Staff is currently developing an initial administrative draft of the permit to share with the Advisory Group. The Advisory Group is an existing group comprised of representatives of different stakeholder interests that was formed as part of the previous public process to develop a regionwide agricultural permit. Group membership will be updated prior to the first Advisory Group meeting. Staff will engage the Advisory Group to provide input on the administrative draft permit. Concurrently, staff will also initiate consultation with tribes in the North Coast Region and begin to develop California Environmental Quality Act (CEQA) documents. Based on tribal consultation and Advisory Group input, staff will prepare and initiate the formal public review of the draft permit and the CEQA document. Staff will hold public workshops, respond to comments, and bring a proposed permit to the Regional Water Board for consideration in 2019.

Summary of the Permit Development Schedule

The following is a summary table with major milestones for permit development and represents the current best estimates of the time needed to complete each task.

Project Schedule	
<i>Process/Milestone</i>	<i>Completion Date or Range</i>
Administrative Draft of Permit	Nov 2017
1st Advisory Group Meeting	Nov/Dec 2017
Begin Tribal Consultations	Sept - Dec 2017
2nd Advisory Group Meeting	Sept 2018
Public Comment Period	April - May 2019
Public Workshops	April - May 2019
Adoption Hearing	Dec 2019

III. Upper Klamath Watershed Stewardship and Tule Lake Watershed Agricultural Lands Discharges

The Tule Lake watershed is in the lower part of the Lost River watershed, which spans the California/Oregon border. While the Lost River watershed is naturally a closed basin, distinct from the Klamath River watershed, the two watersheds were artificially connected during the construction of the Klamath Irrigation Project both to supply water to and drain water from agricultural lands in California and Oregon. The main water supply for the irrigation project is Upper Klamath Lake and several canals and drains facilitate the exchange of water to and from the Klamath River reach below Upper Klamath Lake. The water quality impairments in the Klamath and Lost River watersheds are in large part caused by the high nutrient and organic matter loads present in Upper Klamath Lake in Oregon, which is the primary water supply for the Klamath Irrigation Project.

Because the major sources of impairment of the Upper Klamath River and the Lost River are located in Oregon, improving water quality in California requires improving water quality in Oregon. To support water quality improvement and restoration efforts in Oregon, Regional Water Board staff is participating in a collaborative effort called the watershed stewardship approach. The stewardship approach involves working with local landowners and stakeholders as well as agencies such as US Environmental Protection Agency (EPA) Regions 9 and 10, the Oregon Department of Environmental Quality (ODEQ), the US Bureau of Reclamation (USBR), local tribes, local irrigation districts, the Klamath Water Users Association, and the US Fish and Wildlife Service (USFWS), among others. Through this regional partnership, staff is able to support efforts to reduce nutrient and organic matter loading to the Klamath and Lost River watersheds and to increase the number, size and pace of restoration projects in Oregon. Staff has several on-going activities and is in the process of seeking funding for proposed contracts and grants supporting the development of the watershed stewardship coordination and implementation framework.

To formalize the stewardship approach, Regional Water Board staff plan to work with stakeholders and agencies to develop a Memorandum of Understanding (MOU) that will define signatories' roles and commitments. Staff also plans to work with EPA Regions 9 and 10 and ODEQ to revise the existing 2009 Klamath River and Lost River TMDL implementation MOU to reflect the most recent developments in approach and coordination.

Mike Hiatt, the Klamath Basin Coordinator for the ODEQ, will give a presentation at the Regional Water Board meeting explaining the collaboration between his agency, the North Coast Regional Water Board, and the other partners involved in restoration and water quality improvement in Oregon. Examples of stewardship initiatives in the Lost River and Upper Klamath watersheds include:

1. Transitioning from open canal and drainage ditches to underground pipes, which is expected to reduce water demand and irrigation return flows.

2. Improving agricultural practices, such as application of nutrients at agronomic rates.
3. Constructing diffuse source treatment wetlands, stream riparian restoration and restoration of lakeside wetlands.
4. Evaluating other innovative water quality improvement techniques as part of the Klamath Hydroelectric Settlement Agreement Interim Measure 11 (e.g., algal biomass removal, re-oxygenation of the Keno reach of the Klamath River).

Although staff are currently focusing on stewardship efforts in the Upper Klamath River and Lost River watersheds, including the development and implementation of the MOUs, staff maintain plans to develop a waste discharge permit for agricultural lands in the Tule Lake watershed as a future effort.

Butte Valley Watershed Agricultural Lands Discharges

Staff needs to gather data and further assess surface and groundwater conditions in Butte Valley prior to developing an approach to addressing agricultural discharges. In the near future, the implementation of the Sustainable Groundwater Management Act may provide some additional information on the connection between surface and groundwater quality in Butte Valley.

IV. Discharges Associated with Easter Lily Bulb Cultivation in the Smith River Plain

Staff conducted water quality sampling of surface and groundwater in the Smith River Plain to inform the development of a permit to address discharges associated with lily bulb cultivation. The sampling took place in 2013 and 2015 and was intended as an initial screening of water quality for potential risks and degradation associated with lily bulb cultivation. The preliminary results are presented in reports available on the Regional Water Board's website at:

http://www.waterboards.ca.gov/northcoast/water_issues/programs/agricultural_land/li/ly.shtml.

Staff is finalizing the monitoring reports for peer review and plans to publish the reports in the summer of 2017. The Report will be presented to the Board either as an article in the Executive Officer's Report or as an information item later this year. Pending the monitoring report findings and the availability of staff resources we will then define the next steps to address agricultural discharges from lily bulb cultivation.

Summary

Regional Water Board staff and staff from ODEQ will give an update on the development and implementation of the Agricultural Lands Discharge Program. The presentation will focus on efforts to address agricultural waste discharges in the Tule Lake and Upper Klamath watersheds, Scott River and Shasta River watersheds, the Smith River Plain associated with Easter lily bulb cultivation, and the vineyards and orchards within the region.

RECOMMENDATION: N/A

SUPPORTING DOCUMENTS: Map of Agricultural Areas in the North Coast Region

