



TMDL Implementation – Agricultural Program Updates 2015-2016

San Francisco Bay Area Water Quality Control Board

Grazing Program Update



The San Francisco Bay Regional Water Quality Control Board (Region 2 Water Board) is implementing two waivers of waste discharge requirements for grazing operations. Ranching operations in the Tomales Bay watershed are regulated under the 2013 Tomales Bay Waiver, while those in the Napa River and Sonoma Creek watersheds are regulated under the 2011 Napa/Sonoma Waiver.

Both waivers require discharges from grazing operations be managed, as required to implement sediment and pathogen total maximum daily loads (TMDLs). Ninety-nine (99) landowners, encompassing 258 land parcels that cover 76,940 ranching acres are enrolled under the Tomales Bay Waiver, which comprises approximately two-thirds of the land area of the Tomales Bay watershed. By contrast, the Napa/Sonoma Waiver is a much smaller program, consisting of 34 landowners that comprise 142 land parcels and 22,382 acres.

Both the recently adopted Dairy and Confined Animal Facility permits (described below) include grazing management requirements, as applicable.

In 2015-16, Waiver implementation efforts focused on agency/stakeholder coordination, developing a

communications and outreach strategy, and conducting wet and dry weather ranch inspections. Region 2 Water Board staff conducted 31 ranch inspections. The inspections found that ranchers, in response to the prolonged drought resulting in less available forage, reduced herds and modified grazing rotations. No major enforcement concerns were identified during the inspections.

Lastly, staff collaborated with the Tomales Bay Watershed Council to continue implementing the long-term water quality monitoring program in the Tomales Bay Watershed. Collaborative monitoring began in the 2015-16 wet season, and we will use results to inform next year's monitoring.

Dairy Program Update

In June of 2015, the Region 2 Water Board renewed a region-wide conditional waiver for existing dairies (Dairy Waiver). The Dairy Waiver implements Statewide Minimum Standards for confined animal facilities, and the California Code of Regulations, Title 27. It also implements the Tomales Bay pathogens, Walker Creek mercury, Sonoma Creek pathogens, Sonoma Creek sediment, and Tomales Bay mercury



TMDLs.

The Dairy Waiver covers the management of process water, manure, and other materials at 43 dairies, including the application of such materials to pasture and crop lands. In addition, the Dairy Waiver expands coverage to dairy animal types beyond traditional milk cows, and includes requirements for dairy animal grazing operations and for the disposal of wastes generated from onsite animal production and food-processing activities.

Acknowledging the unique and valuable character of our Region’s dairies, staff strived to develop a program that is protective of water quality, builds upon existing efforts to manage wastes, is practical to implement, mindful of costs, and is compatible with the North Coast Regional Board’s dairy program. Staff enlisted a technical advisory group with agricultural interests and expertise to vet ideas and solicit input on the requirements of the Dairy Waiver, including its monitoring, waste, grazing, and nutrient management elements.

facilitate enrollment and compliance with new waiver requirements. The Water Board is looking forward to the next significant permit milestone, submission of a monitoring and reporting program to assess impacts to water quality, and respond with actions to identify the source and correct the problem.

Confined Animal Facility Program Update

In June 2016, the Region 2 Water Board adopted region-wide general waste discharge requirements (WDRs) for the management of waste at confined animal facilities.



The WDRs regulate all types of confined animal facilities (CAFs) and implement federal and State regulations and TMDLs for impaired watersheds. The significance for TMDL implementation is that it addresses facilities, such as horse boarding operations that haven’t been permitted in the past. The permit replaces, and significantly improves upon, the existing general WDRs adopted in 2003.

The CAF WDRs establish three regulatory tiers based on facility type and threat to water quality.

- Tier I facilities are those that do not utilize liquid waste retention ponds to manage animal waste, such as horse-boarding facilities or small-scale sheep dairies.
- Tier II facilities include those that utilize waste retention ponds, such as cow dairies, or large scale poultry operations.
- Tier III is reserved for any facility that, due to its inherent complexity or threat to water quality, cannot meet the discharge prohibitions and should be regulated under an accelerated implementation schedule.

FREE HELP IS ON THE WAY!

March sessions offer RB-2 Bay Area dairies help to comply with water-quality Waiver requirements

On June 10, 2015, the San Francisco Bay Regional Water Quality Control Board (RB-2) adopted a renewed Conditional Waiver (R2-2015-0031), which applies to all types of dairies constructed and operating as of that date within the region. Complete Waiver information can be found on the RB-2 website at http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/agriculture/CAF.shtml

CDQAP will provide "one-stop-shopping" producer-friendly workshops in March (see right) to assist producers in understanding monitoring requirements. **The workshop information topics will include:**

- What you should be doing now so you can successfully complete this year's annual report with the new annual reporting requirements;
- How to monitor Residual Dry-Matter (RDM);
- Waste Management Plan. Getting started on mapping and other plan details; and
- Updates on other water quality issues.

Attendees should bring:

- ⇒ CDQAP RB-2 Waiver Reference Binder;
- ⇒ APN numbers for ALL owned, leased or rented land, including lands used for grazing and manure management.

WORKSHOP SCHEDULE

Point Reyes Station location
1:00 - 4:00 p.m.
Wednesday, March 23
Marin County Farm Bureau Office
520 Mesa Road
Point Reyes Station, CA

Petaluma location
9:00 a.m. - 12:00 p.m.
Thursday, March 24
USDA/NRCS Conference Room
5401 Old Redwood Highway
Petaluma, CA
(In the SMART Train building, across from Reed's Trailer Sales)

CALIFORNIA DAIRY
RESEARCH FOUNDATION
Our Programs, Your Breakthroughs®

Since permit adoption, staff participated in two educational workshops that were hosted by the California Dairy Quality Assurance Program, a collaborative partnership between the dairy industry and government agencies. The workshops were intended to answer dairy producer questions and to



The WDRs anticipate the 2020 expiration of the Dairy Waiver, described above. Dairies that are in compliance

with the requirements of the Dairy Waiver will not be required to complete any additional paperwork or plans or undertake any new actions beyond the submittal of an updated notice of intent to enroll under Tier II of the WDRs in 2020.

The CAF WDRs represent the first time Region 2 would be actively enrolling equestrian facilities or poultry operations under a general permit, and we conducted outreach meetings and hosted a workshop to engage stakeholders.



As with the dairy program, short-term work will emphasize outreach and enrollment, and emphasize collaborating with local resource conservation districts and county programs to provide technical assistance for planning, implementation of best management practices, and water quality monitoring.

Grants Program Update

Marshall Community Wastewater Treatment System

On April 20, 2016, public health officials in Marin County celebrated the successful completion of the Marshall Community Wastewater Treatment System, a \$3.2 million, 2-phase project that serves about 50 properties on the eastern shore of Tomales Bay. Water Board staff played important roles in the design, upgrade and oversight of State Water Board assistance grants for this community wastewater system.



The impetus for this work was the 2005 Tomales Bay Bacteria TMDL, which called for actions to address onsite wastewater treatment systems (septic

Informational Public Workshop



Revisions to Water Quality Permitting Requirements for Confined Animal Facilities

The San Francisco Bay Regional Water Quality Control Board is currently accepting public comment on General Waste Discharge Requirements (General WDRs) for Confined Animal Facilities. These requirements implement federal and State regulations, and regional Total Maximum Dairy Loads for locally impaired watersheds. This water quality permit may apply to all types of confined animal facilities. During this workshop Water Board staff will review the proposed requirements, answer questions and receive public comments.






Date: Friday April 15, 2016
Time: 10:30am - 12:00 pm
Location: USDA/NRCS Conference Room
 5401 Old Redwood Highway
 Petaluma, CA (in the SMART train building)

For more information contact
 Laurie Taul at (510) 622-2508 or email: laurie.taul@waterboards.ca.gov

systems), because they were identified as a source of water quality impairment. Inspections had found that 40% of the septic systems along the shoreline were malfunctioning, and so shoreline systems were identified as a high priority.



Following adoption of the TMDL, Marin County initiated Phase 1 of the Marshall Community Wastewater Treatment Project by replacing or upgrading existing privately-owned septic systems and constructing a new community-scale and publicly owned wastewater collection, treatment, and land-discharge system.



In 2007, the property owners in the northern part of Marshall voted to form a Special Assessment District to help pay for Phase 1 of the project which addressed 30 parcels. With additional funding from the State Water Board, the U.S. Environmental

Protection Agency, and the County, construction began shortly thereafter. The project entailed the replacement or upgrade of septic tanks and the installation of pumping and control equipment on each property, construction of a new mile-long pressure sewer line, and installation of a common leachfield on a 6-acre site purchased by the County from a local landowner.

The second phase of the project began in June 2013, when the State Water Board awarded a \$750,000 319 grant to the County, with matching funds from the County and property owners, to design and construct additional wastewater facility improvements for approximately 20 residences and businesses located along the southern shoreline of Marshall. The celebration this past month marked the completion of both phases of the project.



Conserving our Watersheds Phase III (COW III)

Grazing Waiver Implementation, Grant Agreement 11-092-552

The COW III 319 (h) grant was completed this year. It implemented the Tomales Bay pathogen TMDL and the Grazing Waiver. The Conserving Our Watersheds program (COW) was created by the Marin Resource Conservation District (MRCD) to assist ranchers with the planning and implementation of conservation practices to improve water quality and wildlife habitat. MRCD was able

to continue the COW program with a third round of contract funding. Agricultural producers within the Tomales Bay and Walker Creek watersheds participated in earlier grants, COW I and II, and continued to show interest in undertaking restoration and enhancement projects at eroded and degraded water quality sites by participating in COW III. The COW III program encouraged participation from ranchers in implementing pro-active conservation solutions to improving water quality through developing and implementing ranch plans. This program enabled MRCD to offer assistance, both financial and cooperative, to ranchers in West Marin. The COW III grant funds included \$625,092 (319(h)) and \$512, 585 match for total of \$1,137,677. COW III had considerable construction match provided by the State Coastal Conservancy (SCC) and United States Department of Agriculture's Natural Resources Conservation Services' Environmental Incentives Program (NRCS EQIP).

COW III implemented 34 Best Management Practices (BMP) to improve water quality and habitat at eight project sites located on seven different ranches located within Tomales Bay's East Shore and Walker Creek's subwatershed, Keys Creek. The COW III program installed over 32,362 linear feet of fencing and developed five alternative water sources because installed riparian fence excluded livestock from accessing their original water source (the creek). Additionally, MRCD constructed: one lined waterway, two stream crossings, sixteen grade stabilization structures (stabilizing 2 large gullies and numerous smaller ones), numerous troughs, tanks, solar pumps, and two acres of riparian areas were revegetated/planted. The addition of this funding brings the cumulative number of BMPs completed for the COW program, Phases I-III to 115. The practices implemented within the Keys Creek watershed were selected with the intention of reducing pathogen loading into Keys Creek, a watershed that repeatedly exceeds fecal coliform targets. In addition to reducing pathogen loading, the completed practices will reduce sediment runoff and nutrient loading.



Pre-construction Photo 01/2012
Upstream view before riparian fence and grade stabilization repairs were installed.



Post-construction Photo 01/2015
Upstream view after construction of the following practices: riparian, fence, grade stabilization repairs and revegetation.

Projects were selected through a Technical Advisory Committee (TAC) process that has proven highly successful for several MRCD grant programs. The TAC was comprised of professionals with backgrounds in: rangeland management, fisheries biology, engineering, watershed advisory, water quality, revegetation, planning, design, permitting, and hydrology. Leslie Ferguson, Water Board staff engineer with a background in fisheries biology, has

participated on all of the COW TACs. The various expertise of the TAC members enabled them to collectively review and evaluate design solutions and allow agency staff to participate in the design of projects to ensure permit requirements were met. The project selection process includes; 1)MRCD advertises through numerous media forms to the ranchers of the availability of funds; 2)MRCD vets the applications and selects those that meet the pre-determined selection criteria; 3) TAC tours and ranks all sites based on selection criteria; 4) MRCD Board reviews TAC recommendations and makes final selection of projects/sites.

their appreciation for the assistance and that they were satisfied with their project.

COW III Notable Achievements:

- 34 best management practices implemented
- Seven ranches assisted
- Over 32,362 linear feet of riparian fencing installed
- 14,189 linear feet riparian stream protected
- 1,946 linear feet of streambank repaired
- 1,097 plants installed
- 2 large gullies and numerous small gullies stabilized
- 21 species of native grasses, shrubs and trees planted
- 60 - 90% reduction in pathogen loading due to installed practices

Overall, projects completed through the COW III program are estimated to reduce project site pathogen loads by 60-95% and prevented 226 tons per year of sediment from entering the Tomales Bay watershed. On-going long-term Water Board and Tomales Bay Watershed Council pathogen monitoring in Keyes and Walker Creek will demonstrate how effective these projects have been. This project also has provided an important education component to the landowners involved. When landowners who participated in the project were asked to reflect on their experience in the COW III program and to describe their opinion of their project, majority of the landowners expressed



Pre-construction Photo 02/2013
View of livestock culvert crossing and active side gully headcutting before construction.



Post-construction Photo 06/2015
Project site after construction showing the riparian fence encompassing the gully headcut and bordering a livestock culvert crossing repair