Response to Comments
on
Draft Order No. R1-2019-0001
General Waste Discharge Requirements
For Dairies
Within the North Coast Region

Prepared by:
Staff of the North Coast Regional Water Quality Control Board

Procedure:
On November 1, 2018, Regional Water Board staff submitted the Draft Order No. R1-2019-0001, General Waste Discharge Requirements for Dairies in the North Coast Region (Draft Order) and supporting documentation (i.e., Initial Study) to the State Clearinghouse (SCH) for a 33-day California Environmental Quality Act (CEQA) review ending December 3, 2018 (SCH# 2018112016). A Public Notice was posted beginning and ending public review on those same dates. However, due to multiple requests at the November 14, 2018 Regional Water Board workshop, the Regional Water Board extended the public comment period to end on January 3, 2019.

During the public comment period from November 1, 2018, to January 3, 2019, the Regional Water Board received comments from 13 individuals, representing state or federal agencies, environmental groups, dairy operators, and other interested parties.

Substantive comments received during the public comment period were summarized and a Response to Comments document was issued. Revisions to the November 1, 2018, Draft Order were reflected in a Proposed Order. These items were posted to the Regional Water Board website on April 5, 2019. On April 16, 2019, a Change Sheet was posted to the Regional Water Board website and distributed to the Lyris interested parties list containing additional edits to the Proposed Order for Board member consideration. All the changes were considered for adoption by the Regional Water Board at the April 18, 2019 Regional Water Board hearing. At the conclusion of the hearing, Regional Water Board members directed Staff to provide another 30-day public comment period on all proposed changes to the Draft GWDR since November 1, 2018.

On May 14, 2019, a public notice was issued: all proposed changes to the Draft GWDR (since November 1, 2018) were distributed for public comment; public stakeholder meetings were held in Santa Rosa on May 31, 2019 and Fortuna on June 5, 2019; and the public comment period closed on June 14, 2019. Copies of all the written public comment letters received during this period are included in the board member agenda packages. Also, the letters have been posted to the Regional Water Board website since June 25, 2019. Here is that link:
The following individuals commented on the revision to the November 1, 2018 Draft Order during the May 14 to June 14, 2019 comment period:

Chris Howard, Alexandre Family Farm (Individual Dairy)
Kaitlyn Kalua, California Coastkeeper Alliance (CCKA)
Valerie Elder, Buckeye Conservancy (BC)
Theresa Dunham, Representative for Dairy Cares (DC)
Linda Crockett, Del Norte Resource Conservation District (DNRCD)
Jana McClelland, McClelland Dairy (Individual Dairy)
Jolynn McClelland, Robert McClelland Dairy (Individual Dairy)
Felice Pace, North Group, Redwood Chapter of the Sierra Club (RCSC)
Bob Legge, Russian Riverkeeper (RRK)
Frances Tjarnstrom, Six Rivers Dairy Association (SRDA)
Susan Bianchi, George Bianchi, Inc. (Individual Dairy)
Deanne Meyer, David Lewis, Randi Black, and Jeff Stackhouse, University of California Agriculture and Natural Resources (UCCE)
Paul Sousa, Western United Dairymen (WUD)

Overview:
The April 18th Proposed Order retained the same overall framework as the November 1, 2018 Draft Order. Regional Water Board staff revised the November 1, 2018, Draft Order in response to comments from interested stakeholders. Revisions include editorial changes; changes intended to improve clarity but do not change requirements; and some substantive changes.

Based on comments received, the following is a brief list of staff’s substantive revisions to the April 18, 2019 draft Order. The revised Order is referred to here as the Proposed GWDR or Order.

• Added allowances for group monitoring to be considered by the Executive Officer under certain conditions.
• Additional experts are now listed to develop Work Plans for dairies with greater than 5 mg/L nitrate in groundwater.
• Bacteria sampling requirements have been revised. Bacteria monitoring will now be required every year only within watersheds or subwatersheds that are listed on the Federal Clean Water Act section 303(d) List for indicator bacteria.
• Any dairies that have a breach of a manure pond and a discharge to surface waters must contact the Regional Water Board and is required to collect bacteria samples and other sampling parameters.
• Wording has been added to the Monitoring and Reporting Program (MRP) to explain the importance of collecting surface water samples on or near the rising limb of the stream hydrograph during storm events.
Changes to the MRP and Nutrient Management Plan (NMP) include removal of the requirement for dairies to submit their individual NMPs. In addition, subsequent revisions to the NMP are no longer required to be submitted to the Regional Water Board within 30 days. GWDR documents now state that the NMP must be submitted to the Regional Water Board upon request.

The Work Sheet previously located at the end of Appendix 2 – NMP has been removed. Current nutrient management planning information has been added to the Annual Report instead.

Questions regarding nutrient management have been added to Appendix 3 - Annual Report. Answers to the questions will help document current nutrient budgeting and assure that manure and fertilizers are protective of water quality.

The deadline for submittal of the Notice of Intent (NOI) has been changed from October 1, 2019 to November 30, 2019.

The deadline for submittal of the Water Quality Plan (WQP) has been changed from October 1, 2020 to November 30, 2020.

Non-substantive changes have been made to the Proposed Order and attachments including the addition of minor clarifying language and typographical error corrections.

Revisions made in response to comments received are noted in staff’s responses below which are grouped by subject. Changes are shown in the underline/strikeout version of the Proposed Order. Regional Water Board staff maintain that the Proposed Order is supported by the entire record and is necessary to support beneficial uses and meet water quality objectives.

**Responses to Specific Comments**

1. **National Pollutant Discharge Elimination System (NPDES) Comment:** CCKA requested that Regional Water Board require that “Large CAFOs, facilities that aggregately contribute to surface water and groundwater contamination, and those that spread manure to enroll in a NPDES permit.” RRK discussed Draft GWDR Finding 11 that states that: “This Order does not authorize discharges to surface water that would otherwise require an NPDES permit. Dairies that have a discharge requiring an NPDES permit must obtain coverage under NPDES Permit for Concentrated Animal-Feeding Operations Within the North Coast Region, Order No. R1-2012-0001, or a subsequently adopted NPDES permit.” Both CCKA and RRK request that dairies that have a point source discharge be covered under an NPDES permit. In addition, RCSC stated that dairies and other Concentrated Animal Feeding Operations (CAFOs) with a high risk of discharge to surface water and groundwater should be regulated by an NPDES permit.

**Response:** The Proposed GWDR is for coverage of pollutant discharges from dairies that are not point source discharges of pollutants to waters of the United States and do not require coverage under an NPDES permit. NPDES permit R1-2012-0001 is expired but is not rescinded and thus can be administratively extended or can be replaced with another NPDES permit. Dairies that meet the regulatory limits to be categorized as a concentrated animal feeding operation (CAFO) as defined in 40 C.F.R section 122.23, are point sources and subject to NPDES permitting requirements. In addition, any
animal feeding operation (AFO) that the Executive Officer determines is a significant contributor of pollutants to waters of the United States and discharges pollutants to waters of the United States will be required to submit a Report of Waste Discharge and seek coverage under a general or individual NPDES permit.

2. Non-Point Source and Antidegradation Policy Comment: CCKA stated that the GWDR does not comply with the Antidegradation Policy, it lacks effective monitoring, and must determine compliance and best management practice (BMP) effectiveness. RRK and CCKA state that Nutrient Management Plans must be subject to public review and the organizations recommend that large CAFOs be covered under NPDES permits to regulate the discharges. RRK states that limited degradation does not meet the Antidegradation Policy (GWDR Finding 46) and asserts that all dairies discharge.

Response: As detailed in the April 4, 2019 Response to Comments, the Proposed GWDR meets the requirements of the State Water Board’s 2004 Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy). This includes the 5 key elements that include: 1) addressing nonpoint source (NPS) pollution in a manner that achieves and maintains water quality objectives and beneficial uses, including any applicable antidegradation requirements; (2) description of the practices to be implemented and processes to be used to select and verify proper implementation of practices; (3) a time schedule where it is necessary to allow time to achieve water quality requirements and corresponding quantifiable milestones designed to measure progress toward reaching specified requirements; (4) feedback mechanisms to determine whether the program is achieving its purpose; and (5) the consequences of failure to achieve the stated purpose.

The GWDR addresses each of these elements as described below:

a. The purpose of the GWDR is to address wastes from dairy operations that may impact surface water and groundwater in the North Coast Region. Implementation of the measures required by the GWDR will address pollution in a manner that attains objectives, beneficial uses, and meet the requirements of State Water Board Resolution No. 68-16 (Antidegradation policy). Compliance with the Antidegradation Policy is also addressed in Response number 5. The GWDR prohibits any activity that results in the discharge of waste that will cause or contribute to the exceedance of any water quality objective or cause a condition of nuisance. The GWDR has specific measures and performance standards that dairies are required to implement to attain compliance with water quality objectives and the Basin Plan.

b. Water Code section 13360 generally prevents the Regional Water Board from requiring a discharger to employ a specific method of compliance. However, the Board may specify established performance standards in the GWDR and require dischargers to design, implement and report on methods and practices that meet those established performance standards. The Regional Water Board has set forth the practices, measures and performance standards in the GWDR that will meet the goals of the NPS Policy. The GWDR requires dischargers to comply with
requirements set forth in the Statewide Minimum Standards as described in Title 27, MRP provisions (for example requirements on pond lining in title 27 section 22562, and requirements on land application of manure in title 27 sections 22563 and 22564), Water Quality Protection Plan (WQP), Nutrient Management Plan (NMP), and Riparian Management Plan (RMP). In addition, discharges that cause or contribute to an exceedance of any applicable water quality objective is prohibited. The effectiveness of the practices will be assessed based on review of report submissions, including the annual reporting requirement. The GWDR requires practices to be modified if water quality objectives are not maintained.

c. CCKA’s arguments that the GWDR has iterative practices with no quantifiable milestones is misplaced and appears to be based on an analysis of permits adopted by other regional water quality control boards or the State Water Board. This GWDR does not include explicit time schedules for compliance with applicable water quality standards because it requires dischargers to control their activities to attain immediate compliance with water quality objectives. Discharge Prohibition A.3 states: “The discharge of waste from a dairy that causes or contributes to an exceedance of any applicable water quality objective in the Basin Plan...is prohibited.” Through the development and submission of required reports and monitoring data, the GWDR sets forth quantifiable milestones and requirements that Dischargers must meet to ensure that the prohibitions and water quality objectives are met, and management practices are effective. As discussed under response b. above, the plans and reports Dischargers are required to submit will ensure facilities are designed, constructed, operated, and maintained to meet conditions of the Order and prevent adverse impacts to ground and surface water. Annual reporting that includes required surface and groundwater sampling will assess the effectiveness of the management measures in meeting objectives and addressing conditions in impaired waters.

d. As discussed above, to provide feedback on whether the GWDR is meeting program goals, the GWDR requires surface and groundwater monitoring, development of a WQP, RMP, and NMP as well as annual reporting to evaluate the effective implementation of those plans. Surface water monitoring during three storm events (at least of rain 1-inch in 24-hours) for total ammonia nitrogen, and electrical conductivity (EC) is required. In addition, surface water must be monitored for bacteria (see MRP section below). Groundwater monitoring for nitrate, total dissolved solids, and total coliform bacteria is required. Additional monitoring may be required by the Executive Officer on a site specific or watershed specific basis.

The GWDR provides for inspections by Regional Water Board staff, evaluation of the submitted reports and monitoring data, and implementation of additional management measures if practices do not sufficiently control discharges. Additionally, the GWDR requires dischargers to report noncompliance events. Within 24 hours of a spill, discharge, or other non-compliance event that poses a threat to human health or the environment, the discharger must report the incident to the Regional Water Board. Within 15 days of the incident, a discharger must file a written report with the Regional Water Board detailing the steps taken to correct
the condition and prevent recurrence. Dairies that have a breach of a manure pond and a discharge to surface waters must notify the Regional Water Board and collect samples to characterize water quality conditions. Finally, adjustments to the plans and reporting may be required if practices are not adequately controlling discharges.

e. The GWDR establishes the following consequence if requirements are not met:
   i. Accelerated or additional monitoring to address non-compliance.
   ii. Additional management practices or physical improvements to the facility, including a detailed improvement schedule if existing measures are not sufficient to meet GWDR conditions.
   iii. Immediate corrective action required where onsite or offsite monitoring shows the facility is causing a condition of pollution, nuisance, contamination, or degradation of surface or groundwater.
   iv. Enforcement action, including assessment of administrative civil liability under section 13350, 13268 for failure to meet GWDR conditions or submit required reports.

With respect to CCKA's and RRK's assertions that the Order does not comply with antidegradation requirements in Resolution 68-16, the purpose of the GWDR is to address wastes from dairy operations that may impact surface water and groundwater in the North Coast Region. Implementation of the measures required by the Proposed Order will control wastes in a manner that attains objectives, beneficial uses, and meets the requirements of State Water Board Resolution No. 68-16 (Antidegradation policy). As detailed in Order findings Nos. 42-45, the Regional Water Board staff finds the Proposed Order will meet antidegradation requirements.

As noted in the findings, while limited degradation in localized areas may occur, with the implementation of new requirements, gradual improvements are expected within the first two years as dairies implement new requirements such as the Riparian Management Plan, Nutrient Management Plan, and Work Plan for groundwater nitrate levels greater than or equal to 5 mg/L. Further, as stated under the “NPDES comments” response above, dairies that are determined to be point source dischargers of pollutants or discharge pollutants to surface waters that could exceed Basin Plan standards and are determined to be a threat to the quality of waters of the United States, are required to submit a Report of Waste Discharge, and seek coverage under an NPDES permit.

3. Riparian Area Comment: RCSC commented on protection of riparian areas and requested the addition of language to maintain the protection of Beneficial Uses and to ultimately exclude cows from riparian areas and wetlands. The RCSC concern pertain to lack of riparian and wetland protection, direct and stormwater discharges of animal waste to surface waters, and discharge of pollutants to groundwater. The commenter expressed disappointment and asserts that the Regional Water Board does not regulate non-dairy Concentrated Animal Feeding Operations (CAFOs), including feedlots on streams that deliver bovine waste to waters of the state. He asserts that this is a violation of the Basin Plan including basins that are nutrient impaired. Photos of beef cattle operations near streambanks were included. The commenter agreed with
previous comments by California Coastal Commission and California Department of Fish and Wildlife regarding additional riparian exclusion, enhanced protection zones, and limiting cattle crossings to existing road crossings. He stated that staff inspections will not be as effective at ensuring protection as the stricter requirements would. The commenter requested an explanation of compliance with the NPS policy requirement for measures and monitoring to determine effectiveness of the RMP approach with grazing allowed including the proper size of the riparian zones. He also asked that riparian protection provisions apply to wetlands.

Response: As stated in the April 4, 2019 Response to Comments, rather than set specific riparian buffer widths, the approach taken in the Proposed Order is to establish clear performance standards for riparian functions to be attained, to assess on the ground site specific riparian conditions, to identify where changes in practices are needed, and to implement new practices where necessary to appropriately protect riparian areas and water quality. Staff is committed to educating dairy operators on these requirements and inspecting such areas. In addition, the dairy operators are required to submit a Riparian Management Plan and all Annual Reports require photo documentation along with reporting on progress toward meeting the requirements. Regional Water Board staff will review all Riparian Management Plans, Annual Reports, annual photos of riparian areas, surface water monitoring results, and conduct inspections to confirm protection of these areas.

Most North Coast dairies are located in valleys along streams and rivers. Many dairy fields including pastures contain hydric soils. The Order’s Prohibitions and Waste Discharge Specifications discuss protection of surface waters including wetlands. Some cow pastures contain jurisdictional wetlands. The discharge of wastewater and solid manure spreading on wetlands with standing water is prohibited.

4. Surface Water Monitoring

a. **Bacteria Monitoring Comment:** Dairy representatives do not support bacteria sampling requirements in surface waters. They were concerned about the usefulness of results with possibly no actionable measure, the confusion of where high bacteria results may be originating, the high cost of the sampling, and the short hold time for lab delivery of bacteria samples. They were especially concerned about the short hold time because the samples would need to be collected at every rainy season sampling site and delivered to a certified lab that is open, within just a few hours of sample collection. Some labs are ELAP certified for E. coli analyses but not Enterococci analyses (example: North Coast Lab in Arcata). UCCE representatives asked if the intent was to sample for bacteria only when ammonia results were greater than or equal to 3 mg/L. Dairy representatives asked if outstanding issues could be resolved before requiring dairies to sample all watersheds. One dairy representative was concerned that bacteria results could be used as the basis for lawsuits.

CCKA (comments pages 4 to 5) and RRK (comments page 10) concerns regarding Regional Water Board samples collected within the past few years indicating the
presence of bovine bacteria markers in Humboldt and Sonoma counties during wet weather. Their concern was that elevated markers in these surface waters could be from dairies and could adversely impact REC-1 (Water Contact Recreation) and SHELL (Shellfish Harvesting) beneficial uses.

Response: Regional Water Board has considered all public comments regarding bacteria sampling and propose some revisions. Indicator bacteria are on the 2016 Clean Water Act section 303(d) list for portions of the Bodega, Eureka Plain, Mad River, Mendocino Coast, and Russian River Hydrologic Units in the North Coast Region:

The following shows proposed revisions to portions of MRP section I.B.1.a.:

“...If any total ammonia nitrogen sample result is greater than or equal to 3 mg/L, then results shall be reported to the discharger and the Regional Water Board immediately.

Dairies located within Hydrologic Areas (HA) or Hydrologic Subareas (HSA) which are included on the Clean Water Act Section 303(d) list as impaired for indicator bacteria must monitor for indicator bacteria once annually during a qualifying storm from at least two locations in the HA or HSA. Samples shall be collected from at least one location upstream and at least one location downstream of the dairy/dairies within the HA or HSA. Multiple dairies within a HA or HSA listed for indicator bacteria may comply with the bacteria monitoring requirement by participating in an approved group sampling program. As applicable, Regional Water Board staff will meet with group monitoring representatives within the first year after GWDR adoption to help design a representative monitoring program to collect bacteria samples within the section 303(d) listed watersheds.

Also at the identified monitoring locations, bacteria concentrations are to be sampled in accordance with the requirements as specified in Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Bacteria Provisions and Water Quality Standards Variance Policy, August 7, 2018 at https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/final_iswebe_bacteria_provisions.pdf. These provisions are enacted as statewide objectives by the State Water Resources Control Board to protect public health.

Bacteria samples shall be collected using clean hand procedures and analyzed at a certified laboratory for Escherichia (E. coli) in freshwaters or enterococci in waters where salinity is greater than 1 part per thousand more than 5 percent of the time in a calendar year.

Any dairies that have a breach of a manure pond and a discharge to surface waters must notify the Regional Water Board and collect samples at the discharge location
for analysis for indicator bacteria, total nitrogen (TN), ammonia, total phosphorus (TP), total dissolved solids (TDS), total suspended solids (TSS), and electrical conductivity. The samples of the discharge must be collected as soon as safely possible.

Inspection or water quality monitoring results, which indicate the potential that dairy discharges are impacting beneficial uses, water quality conditions, or causing nuisance, may result in the Executive Officer imposing additional monitoring requirements. Such additional monitoring may include, but is not limited to, suspended sediment, bovine-sourced Bacteroides monitoring or summer monitoring to assess biostimulatory conditions, including nutrients, dissolved oxygen, sediment oxygen demand, algae, and macroinvertebrates.

b. 18-hour Sampling Comment: SDRA representatives commented that it was not feasible or safe to sample surface water streams within 18 hours of 1 inch of precipitation due to the size of storms, the lack of light conditions in the winter season, the distance needed to travel between sites and to sites, and the length of storms. RRK commented that stormwater samples should be collected on the rising limb of the stream hydrograph and expressed concern that the 18 hour time limit is too long.

Response: MRP B.1. states that: “Sampling shall occur within 18 hours of the first inch of rainfall, as measured by the closest real-time publicly available rain gauge.” Regional Water Board staff agree that stormwater sampling must be collected as close as possible to the rising limb of the hydrograph. Potential group sampling strategies to accommodate sampling within 18 hours of the first inch of rainfall include minimizing the distance between representative sampling locations, collecting the total required number of samples over several storms, or collecting samples in bottles with proper storage and hold times, then analyzing them in the office to avoid being out during particularly hazardous conditions.

The Regional Water Board have considered all comments and propose the following revisions to the MRP Section I.B.1:

“Each year sampling shall take place during or directly following each of three (3) major storm events after at least one (1) inch of rain per 24 hours. Sampling shall occur within 18 hours of the first inch of rainfall, as measured by the closest real-time publicly available rain gauge. The purpose for the 18-hour sample collection time limit is to collect the samples during the rising limb on the stream hydrograph when pollutants (especially dissolved pollutants) are discharged during a precipitation event. The intent is to collect the sample after at least 1-inch of rain has fallen in 24 hours in order to capture the samples when the hydrograph is rising, at its peak, or immediately after the peak. Storms that result in greater than 1-inch of precipitation in 24 hours will be even more likely to have a sample collected on the rising limb if the field technicians collect the sample within 18 hours of the 1-inch minimum rainfall.”
Sampling will occur in the wet season, which generally begins in October and ends in April, with the first samples to be collected starting the first winter after dairy coverage under this Order. Sample events shall be at least 14 days apart. Sampling shall be done when conditions are safe to do so.”

c. **Phosphorus and Other Impairments Comments:** RRK commented that surface water should be sampled at the edge of the dairy for all pollutants causing impairment including phosphorus. RRK stated that they collected samples for phosphorus at the edge of six dairies on January 16, 2019 in the Laguna de Santa Rosa watershed. They stated that their results were 2.3 to 17 mg/L total phosphorus, far exceeding US EPA’s concentration (0.10 mg/L) used to determine Laguna impairment in 2006 (comment page 6). CCK stated (comment pages 5 and 6) that Sonoma County Water Agency (SCWA) and RRK staff have identified annual phosphorus exceedances in the lower Russian.

**Response:** The commenter is correct that the Laguna de Santa Rosa and portions of the Middle Russian River HA are impaired for phosphorus. As discussed in the April 5, 2019 Response to Comments there are no water quality objectives for total phosphorus (TP) in the North Coast Basin Plan. The surface water monitoring strategy of the Proposed Order relies on monitoring indicator parameters (EC and ammonia) that provide real time results to identify potential dairy discharges so that operators can implement immediate remediation measures. A new requirement to monitor for TP has been added to MRP section I.B.1.a when there is a breach of a manure pond leading to a surface water discharge. No additional changes are proposed to the MRP with respect to surface water sampling for TP. The Regional Water Board intends to implement a comprehensive monitoring strategy for phosphorus and/or surrogate parameters as part of future TMDL development efforts within phosphorus listed waterbodies.

d. **Other Surface Water Sampling Comments:** RRK commented that all monitoring programs should be reproducible and available to the public, and that the GWDR should include effluent limitations for large CAFOs to show that water quality standards and the Clean Water Act are met. They referenced the NPS policy and GWDR Findings 43, 44, 45, 47, and 48 and stated that some dairies may have had discharges in the past but that the MRP monitoring may not show it. RRK noted that MRP page 1 states that the required sampling and analyses are minimum parameters necessary to evaluate if dairy operations are violating prohibitions or contributing to adverse water quality impacts.

**Response:** Wording regarding quality assurance, sampling representative of water quality below dairies, and spill reporting was added to the Proposed GWDR MRP section on Group Sampling as presented at the April 18 Board hearing. Group Sampling Quality Assurance Plans (QAPs) and individual sampling must follow the requirements in the MRP. Final group monitoring QAPs are available to the public upon request.
Regarding the comment on the need for effluent limitations for large CAFOs, the benchmarks for surface water sampling in MRP Table 1 apply to all dairies including large CAFOs. The comment regarding discharges is addressed in MRP section I.B.1.a. and is discussed in this Response to Comments section 4.a. NPDES permitting is discussed in a separate section in this Response to Comments.

e. **Biostimulatory Inspections:** Regional Water Board staff initiated the following change to the MRP section I.A.4.e. regarding visual inspections for biostimulatory conditions. Regional Water Board staff determined that the value of the visual inspections was uncertain. The following two sentences are deleted:

> “Visual inspection during the dry season of upstream and downstream water quality conditions shall specifically include assessment of the presence of algae or other scums and foul odors. Such conditions could indicate biostimulatory conditions resulting from the discharge and deposition of nutrients, sediment, and/or organic waste materials.”

5. **Groundwater Monitoring Comment:** Dairy representatives requested MRP (Appendix D) groundwater sampling be reduced to once every four to five years rather than every three years to reduce expense, especially for sites where existing groundwater data has demonstrated that conditions are stable and below thresholds.

UCCE commented on the Water Quality Plan (Appendix 1-WQP) question 23 on page 5 regarding groundwater wells. The comment is that information on depth and construction of old groundwater wells may not be known. The last sentence under question 23 caused confusion to UCCE as to what information can and cannot be obtained about old wells.

UCCE also commented that groundwater nitrate results of 5 mg/L or greater requiring a specific professional for the work plan is excessive. UCCE suggested to allow RCD, UCCE, NRCS, and dairy trade association representatives as alternatives to the specific professional cited in the Draft GWDR, and to start the work plan requirement at nitrate levels of 8 mg/L or greater. Comments from RRK and CCKA concerned application levels of nutrients and the effects on water quality. Please note that nitrate application comments are addressed under the Nutrient Management Plan section of this Response to Comments document.

**Response:** The April 18, 2019 Proposed Order MRP contained redline wording to address the request for reducing groundwater monitoring (Section 2.a. page 8) and this language has been retained in the current Proposed Order. The Regional Water Board Executive Officer will respond to requests for reduced groundwater sampling based on past results from the dairy and location of groundwater wells.

Regarding old wells having no historical or construction information, the seal is not required to be broken on old wells to obtain required information. The dairy operator must fill out the Water Quality Plan to the best of his/her ability and state what is known.
and what is not known about the well. Where available, driller logs may have additional information.

The last sentence under WQP question 23 on page 5 has been revised to read:

“If any of this information is not known by the discharger and obtaining the information would harm the well or well seal, then the discharger may simply state information that can be obtained must explain why the information is not available.”

Regarding the request to allow additional professionals to prepare the groundwater Work Plan, language has been added to the MRP. Personnel from the RCD, NRCS, or UCCE may help the dairy evaluate BMPs on dairies that have groundwater quality results of nitrate greater than or equal to 5 mg/L if the staff has been adequately trained and has experience with current practices for evaluating NMPs, backflow prevention devices, and soil analysis. The Work Plan may be a working, evolving document that demonstrates how the dairy will study the potential sources of the high nitrate or coliform concentrations and document the actions to be implemented to ensure that the dairy is not contributing to future elevated levels. Please see the following edits to the MRP Section I.B.2.a.:

“The Work Plan shall be prepared and signed by a professional engineer, registered geologist, or qualified scientist including staff employed with RCD, NRCS, or UCCE. Individuals preparing the Work Plans must have adequate training and experience to address the components of the required Work Plan. The Work Plan must include an assessment of the extent of the impacted groundwater.”

6. Nutrient Management Plans Comment: Dairy representatives commented that NMPs are working documents and become quickly outdated. Rather, as new information (i.e. climate, etc.) are accounted for, nutrient management planning is re-adjusted seasonally. NRCS Comprehensive Nutrient Management Plans (CNMPs) are listed as containing confidential information and subjects unrelated to Regional Water Board requirements so dairy representatives commented that submittal of CNMPs should not be required. Dairy representatives commented that the NMP Worksheet (at the end of Draft GWDR Appendix 2) was not necessary or useful.

RRK and CCKA commented that the public has a right to information to determine whether a dairy is balancing their nutrients properly and possibly discharging excess waste to surface water and groundwater. RRK and CCKA commented that the NMP Worksheet was not helpful. RRK, CCKA, and RCSC representatives recommended the utilization of NPDES permits, that require mandatory NMP submittal, for dairies that discharge to surface waters. These representatives maintained the importance of submittal of a certified nutrient management plan document that contains sound data computing nutrient application at agronomic rates.

Response: The Regional Water Board has revised the GWDR and attachments to not require submittal of the NMP unless specifically requested on a case by case basis.
The GWDR and attachments have been edited to require that NMP information required in Appendix 2-Nutrient Management Plan be submitted to the Regional Water Board as requested on a case-by-case basis. If requested, only information required by the Appendix 2-Nutrient Management Plan needs to be submitted; the entire USDA NRCS CNMP does not need to be submitted.

The Annual Report has been revised to request specific NMP information to keep up with changing conditions on the dairy and ensure proper nutrient application and mass balance every year. The Proposed GWDR, MRP, NMP, and Annual Report have been edited as follows:

a. GWDR Conditions under J.3. Nutrient Management Plan (NMP)

“If solid or liquid manure or other fertilizer is applied to the dairy land, or dairy animals graze the dairy land for more than 30 days annually, then an NMP must be completed and implemented consistent with the technical standards specified in Attachment D - Appendix 2, by November 30, 2020. The NMP must be submitted to the Regional Water Board by December 31, 2020 or within 30 days of completion. Subsequent revisions to the NMP must be submitted to the Regional Water Board within 30 days of final revision. Dairies with a previous NMP may need to update the NMP by this date to address new NMP requirements of this Order. In the case of newly enrolling dairies, the NMP is due to be completed and implemented within two years of enrollment under this Order. Dischargers may develop their own NMP with the assistance of a qualified professional as defined in the NMP. Large CAFOs (700 mature cows or more, etc. see Definitions - Attachment C) must implement an NMP prior to enrolling under this Order. Appendix 2 contains a questionnaire to be filled out and submitted by dairies to the Regional Water Board by November 30, 2021 to show the dairy meets the NMP requirements.”

b. Attachment D – Monitoring and Reporting Program (MRP section III.C.)

“Nutrient Management Plan (NMP) – see MRP Appendix 2. For existing dairies, the NMP must be completed by November 30, 2020, if the dairy doesn’t already have an NMP. The NMP must be submitted to the Regional Water Board by December 31, 2020 or within 30 days of completion. Subsequent revisions to the NMP must be submitted to the Regional Water Board within 30 days of final revision. If existing dairies already have an NMP from before adoption of this Order, then the NMP must be updated to meet the requirements in Appendix 2 by November 30, 2020. For re-opening, new, or expanding dairies, the NMP must be completed within two (2) years of dairy enrollment in the GWDR. The NMP must be kept at the dairy facility and made available to Regional Water Board staff during inspections, and submitted to the Regional Water Board if requested. Appendix 2 contains NMP worksheet questionnaire to be filled out and submitted by dairies to
c. Appendix 2 - Nutrient Management Plan under A. NMP Purpose and Implementation

The following paragraph shall be removed:

“A worksheet regarding dairy compliance with these NMP requirements is to be filled out and submitted to the Regional Water Board by November 30, 2021 (see enclosure worksheet located at the end of this Appendix 2).”

On that same page, the following paragraph shall be edited:

“The most current version of the NMP must be kept at the dairy and must be made available for review by Regional Water Board staff during inspections. The NMP shall be submitted to the Regional Water Board by December 31, 2020 or within 30 days of completion. Subsequent revisions to the NMP must be submitted to the Regional Water Board within 30 days of final revision.”

d. Worksheet located at the end of the NMP (MRP – Appendix 2)

The entire worksheet shall be deleted.

e. Annual Report (MRP Appendix 3, Section H)

The following Nutrient Management language shall be added to Annual Report section H to address current nutrient management planning over the past year. This section is under:

“For facilities with a prepared Nutrient Management Plan (NMP):
How has the dairy NMP been implemented within the past year?

Describe pasture or crop rotation practices and other management practices implemented during within the past year to ensure nutrients applied to pasture or croplands were applied at agronomic rates. Provide the nutrient (nitrogen and phosphorus) budget calculations for each applicable field/crop type for the past year to demonstrate whether how you accounted for nutrients applied were at agronomic rates. If sampling of manure, process water, soil, and/or plant tissue was completed in the past year, please demonstrate how these results were utilized in the nutrient budget calculations:
Is the dairy in compliance with NMP requirements for manure, soil, and plant tissue sampling? Yes: _____ No: ________

If so, provide the nutrient budget calculations to demonstrate do the results show that the is dairy applying nutrients at agronomic rates? Yes:___ No: ____

Please add any comments regarding soil sampling results such as plans to adjust nutrient application rates at specific locations to meet agronomic rates: __________

_____________________________________________________________________________________________

7. **Revisit GWDR Comment**: RCSC commented that the GWDR regulation effectiveness should be revisited at least every 5 years and considered for updating.

   **Response**: Waivers and NPDES permits expire every 5 years but can be renewed. GWDRs do not have automatic expiration dates. As new regulations come into effect and GWDRs become outdated, the Regional Water Board prioritizes writing new permits. The public or the board members can request periodic status reports on the effectiveness of GWDR regulation. The dairy program has had status presentations before the board about every two to three years due to interest. No changes to GWDR language are made with regard to this comment.

8. **Covering Manure Piles Comment**: RCSC objected to the GWDR revision from April 4 Response to Comments allowing manure piles to be uncovered.

   **Response**: This item was addressed in the April 2019 Response to Comments, paragraph 10 on page 10. The covering of manure piles language in the November 1, 2018 Draft GWDR was originally intended as a BMP to reduce manure odors such as at new dairies where existing neighbors might object to the new odor. However, multiple dairy representatives and UCCE commented that covering manure piles would actually increase the odor (See Response to Comments Item 14 dated April 2019). The November 2018 language was replaced with “Dairies must practice best available technology to reduce objectionable odors as needed to reduce complaints, especially new dairies in locations not previously occupied by a dairy.” In addition, the April Response to Comments states that: “Local, state, and federal agencies help dairies and other farms to construct projects to meet environmental goals. Dairy operators are encouraged to participate in farm assistance programs.” Existing regulations and prohibitions require proper treatment of manure during the winter rainy season. Most piles are situated near manure ponds for collection. Some dairies have covered manure storage areas or concrete lined areas away from surface waters. No changes are made to the GWDR in response to this comment.

9. **Summary of Sampling Changes Comment**: UCCE requested a summary of sampling changes.

   **Response**: No summary of sampling changes is listed in the GWDR and attachments, however, sampling requirements can be found in Section B of the MRP.
PowerPoint containing tables of sampling requirements for all past dairy board items can be found on the agenda web page under the item number. For instance, the Dairy Item 9 presentation at the April 2019 board hearing can be found at: https://www.waterboards.ca.gov/northcoast/board_info/board_meetings/04_2019/

If further tables are needed such as for dairy operator education materials, a table can be generated by staff upon request.

10. **Summary of Water Quality Plan Changes Comment:** UCCE requested a summary of Water Quality Plan changes.

**Response:** No summary of new GWDR Water Quality Plan changes has been generated as compared to the 2012 Waiver Water Quality Plan. The new Water Quality Plan will need to be filled out and signed by the current dairy operator for review of the GWDR requirements and to ensure current practices are protective of water quality. Information from an old WQP such as dairy maps may be copied and resubmitted if the information has not changed. Some information may need to be modified such as the addition of new wells or infrastructure.

11. **Information and Deadlines for NOI/WQP Comment:** UCCE requested modification of the due date for the Notice of Intent (NOI). They also requested information not be repeated in the various plans such as NOI and WQP.

**Response:** Due dates of required plans has been revised because of the continuation of the Board hearing for the Order from April to the August 2019 Board meeting. The NOI is now due by November 30, 2019 and the WQP is now due by November 30, 2020. Dairy operators that find information to be duplicative in the various plans may just add a note that the information has not changed. In order to keep informed regarding enrolled dairies, the Regional Water Board needs a minimum amount of information on each plan, such as dairy name, address, and contact information of the operator/landowners.

NOI submittal date has been changed from October 1, 2019 to **November 30, 2019** in the following locations:
- GWDR, Condition J.1.e.;
- NOI - Attachment A, section VI.; and
- MRP, section III.A.

WQP submittal date has been changed from October 1, 2020 to **November 30, 2020** in the following locations:
- GWDR, Condition J.2.
- MRP, section III.B.
- WQP, section IV.

12. **GeoTracker Comment:** UCCE commented that the requirement for groundwater monitoring results to be uploaded to GeoTracker will be a difficult barrier: some
producers do not have computers or the ability to scan documents or manage email attachments.

Response: This item was addressed in the April 2019 Response to Comments, paragraph 29. Section I.B.2.c. of the MRP requires groundwater monitoring results to be uploaded to the statewide groundwater database GeoTracker. This publicly searchable database allows the Regional Water Board to more efficiently evaluate the current status of groundwater quality and track trends over time. GeoTracker is the State Water Boards' data management system for all sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater and has become that standard tool used by the state to make groundwater information available to the public for drinking water concerns. Regional Water Board staff contacted several laboratories that will be analyzing groundwater quality samples for dairies. Most of these labs said they would input the groundwater data into GeoTracker for a fee if they had the individual dairy database number. Regional Water Board staff will help distribute information on how to upload groundwater quality data to GeoTracker. Below is the SWRCB link explaining the importance of GeoTracker and a list of the programs that use the database. This URL also contains the link for using GeoTracker: https://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/about.shtml

13. ELAP Lab Comment: UCCE requested a list of ELAP laboratories.

Response: Here is the link to SWRCB page for current Environmental Laboratory Accreditation Program:
https://www.waterboards.ca.gov/drinking_water/certlic/labs/

And here is the map of ELAP certified labs:
https://waterboards.maps.arcgis.com/apps/webappviewer/index.html?id=bd0bd8b42b1944058244337bd2a4ebfa

The name of these links will change in the near future due to recent American Disabilities Act (ADA) requirements. The current links can be searched on the World Wide Web at any time and will be added to the Regional Water Board web page when the link name becomes ADA compliant. In addition, the Proposed GWDR contains language regarding alternative laboratories. Dairies should contact the Regional Water Board to request alternative labs such as in Oregon near the California state line.


Response: Notices of Violation and Notices of Noncompliance are already posted to the Regional Water Board website when these notice letters are sent to the discharger. To access this information, go to the North Coast website, hover your mouse over the “Board Decisions” tab near the top, select “Notices of Violation” for
instance, then enter the name of the discharger or just choose an entire county from the scroll down. There are various sorting options.

There is significant variation in noncompliance, all requiring different actions. These actions by the Regional Water Board can range from compliance assistance to enforcement for egregious cases. There will not be notification to the public for all types of noncompliance, however, there very well may be notification for significant and eminent threats to the public. Regional Water Board staff responses to discharger noncompliance will be directed by the Executive Officer as necessary.

15. MRP Revisions Comment: RRK expressed concerns that the MRP can be revised by the Regional Water Board Executive Officer without public notification or input. RRK was particularly concerned about public input on future group monitoring plans (MRP section I.B.5.)

Response: Revisions to an MRP is an authority designated to the Executive Officer for all Orders issued pursuant to Water Code section 13267. On a case by case basis, the Executive Officer may opt to provide public review and comment on draft revisions to an MRP.

References

https://www.waterboards.ca.gov/water_issues/programs/biostimulatory_substances_biological_integrity/science_panel/


https://www.waterboards.ca.gov/laws_regulations/docs/portercologne.pdf
