STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Laurie Taul)
MEETING DATE: JUNE 10, 2015

ITEM: **6**

SUBJECT: **Conditional Waiver of Waste Discharge Requirements for Existing Dairies within the San Francisco Bay Region –** Renewal of Conditional Waiver

CHRONOLOGY: July 2003 - Conditional Waiver adopted

DISCUSSION: The Revised Tentative Resolution (Resolution) (Appendix A) would renew the Conditional Waiver of Waste Discharge Requirements for Existing Dairies. The Resolution implements Statewide Minimum Standards for confined animal facilities. It also implements the Tomales Bay pathogens (2005), Walker Creek mercury (2007), Sonoma Creek pathogens (2006), Sonoma Creek sediment (2008), and Tomales Bay mercury (2012) total maximum daily loads (TMDLs) and addresses other water quality impairments.

What the Resolution covers: The San Francisco Bay Region contains approximately 43 cow, 3 sheep, and 3 goat dairies, located primarily in the North Bay. Improperly managed dairy operations can cause degradation of surface and groundwater quality as a result of waste discharges and activities that result in soil erosion and degradation of riparian habitat. The Resolution covers the management of process water, manure, and other materials at dairy operations including the application of such materials to pasture and crop lands. In addition, the Resolution expands coverage to dairy animal types beyond traditional milk cows and includes requirements on dairy animal grazing operations and for the disposal of wastes generated from onsite animal production and food-processing activities. The Resolution does not cover facilities that expand beyond a dairy's maximum capacity, facilities not operating at the time of Resolution adoption, or dairies subject to NPDES permitting. A broader range of confined animal facilities (e.g., horse facilities) are planned for future coverage under general waste discharge requirements, which Board staff are currently preparing.

Public Outreach: Board staff acknowledges the unique and valuable character of our Region's dairies and has strived to develop a program that is protective of water quality, builds upon existing efforts to manage wastes, is practical to implement, is mindful of costs, and is compatible with the North Coast Regional Water Board's dairy program. Board staff enlisted a technical advisory group with agricultural interests and expertise to vet ideas and solicit input on the requirements of the Resolution, including its monitoring, waste, grazing, and nutrient management elements. During the public comment period, Board staff attended an Animal Resource Management Committee meeting sponsored by the

Sonoma County Farm Bureau at the Two Rock Fire Hall. Board staff explained the significant differences between the Resolution and the 2003 Conditional Waiver and answered questions.

Comments Received: We received nine comment letters and emails on the draft resolution during the comment period (Appendix B). Our responses, included in Appendix C, resulted in mostly minor revisions of the draft resolution. The only significant revision included moving the due date for a facility's Grazing Management Plan from 2018 to 2017.

Several commenters expressed support for the draft resolution and recognized staff's efforts to focus on issues relevant to the San Francisco Bay Region. Other commenters expressed concerns about the number of separate plans, out-year sequencing, and plan completion dates. To clarify expectations, we aligned plan and report deliverable dates and produced a compliance summary table of key milestones (Appendix 3 to Attachment A of the Resolution). Concerns were also expressed over the need, frequency, and the costs associated with water quality sampling. We revised the draft resolution to allow for a tiered surface water quality sampling approach and a performance-based option for reductions in water quality sampling.

Finally, a request was made for greater program performance transparency. In response, we committed to providing the Board with annual dairy program updates with summary compliance statistics.

A comment letter received after the close of the comment deadline introduced a new perspective that recommended that the Resolution be aligned with organic certifications to streamline and reduce redundant paperwork. We are committed to working with all dischargers and stakeholders to streamline the Conditional Waiver's requirements as part of implementing the Resolution.

RECOMEN-DATION: Adoption of the Revised Tentative Resolution

APPENDIX A: Revised Tentative Resolution
APPENDIX B: Comments Received
APPENDIX C: Response to Comments

APPENDIX A

REVISED TENTATIVE RESOLUTION

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REVISED TENTATIVE RESOLUTION NO. R2-2015-00XX

RENEWAL OF CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR EXISTING DAIRIES WITHIN THE SAN FRANCISCO BAY REGION

WHEREAS, the California Regional Water Quality Control Board, San Francisco Bay Region (Water Board), finds that:

Scope of Coverage

1. Resolution No. R2-2015-00xx serves as a conditional waiver of waste discharge requirements (WDRs) for discharges of waste from existing dairies (dairies are confined animal facilities [CAFs])[1] of all sizes and types that meet the terms and conditions of this conditional waiver (hereafter, Conditional Waiver). This Conditional Waiver also covers grazing operations on grazing lands associated with an existing dairy.

2. For purposes of this Conditional Waiver, "existing dairies" are dairies (cow, goat, sheep, etc.) that are constructed and operating as of the effective date of this Conditional Waiver and which have subsequently not expanded the size of their physical facilities beyond their maximum animal capacity. New or expanding dairies must file a report of waste discharge (ROWD) to the Water Board prior to discharging waste.

3. This Conditional Waiver covers the management of process water, manure, and other organic materials at existing dairies, including the application of such materials to land. Other wastes, such as medicines, pesticides, chemicals, and fertilizers must be disposed at appropriately permitted facilities.

4. Owners and operators of existing dairies (facilities) discharging, or proposing to discharge, waste in any manner that could affect the quality of the waters of the State within the San Francisco Bay Region (Region) and who have been designated by the Water Board are hereinafter referred to as "Dischargers" and are subject to the terms and conditions of this Conditional Waiver.

5. This Conditional Waiver applies to facilities that pose a low risk to surface water and/or groundwater; are in compliance with the Statewide Minimum Standards (Attachment G) as defined in Finding 32; and comply with the terms and conditions herein. Such facilities include the dairies previously covered under Water Board Resolution No. R2-2003-0094, dairies covered under General WDRs that can currently meet the terms and conditions of this Conditional Waiver, other existing dairies not previously regulated, and associated grazing operations.

[1] Title 27 of the California Code of Regulations, section 20164, defines a CAF as "*… any place where cattle, calves, sheep, swine, horses, mules, goats, fowl, or other domestic animals are corralled, penned, tethered, or otherwise enclosed or held and where feeding is by means other than grazing.*"

6. Owners or operators of dairies that discharge or propose to discharge pollutants[2] to the waters of the United States are required to obtain coverage under a National Pollutant Discharge Elimination System (NPDES) permit and are not required to seek coverage under the Conditional Waiver.

7. Dairies that are defined by federal regulations as a large concentrated animal feeding operation (CAFO)[3], not subject to NPDES permitting requirements, must separately address any stormwater-related discharges from land application areas. Such discharges can qualify as "agricultural stormwater discharges", not subject to NPDES permitting, if manure and wastewater are applied to the land in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater (40 CFR section 122.23(e)).

8. Large dairies that discharge stormwater from cropland where manure, litter, or process wastewater has been applied may enroll under this Conditional Waiver if they are implementing a Nutrient Management Plan upon enrollment. Large dairies that discharge such stormwater without a Nutrient Management Plan are in violation of the federal Clean Water Act (CWA) and may be fined for the discharge and/or be required to enroll under a NPDES permit.

9. This Conditional Waiver applies to the disposal of waste generated by onsite animal production and food-processing activities. Food-processing activities, such as cheese-making, which generate additional waste and/or wastewater that may be co-mingled with the animal production waste stream, must be included in the facility's Waste Management Plan, consistent with the technical standards specified in Attachment B.

10. This Conditional Waiver **does not apply** to other types of waste, including, but not limited to, wastes such as cannery waste, septage, municipal or industrial sludge, and/or biosolids or similar types of waste generated onsite or brought onto the facility for disposal or nutrient recycling. Dischargers must submit a separate ROWD and receive individual WDRs prior to receiving and/or discharging such wastes.

11. This Conditional Waiver does not address the cleanup of existing degraded surface water and groundwater from past dairy operations. Any required cleanup actions are handled under separate authority under the California Water Code (CWC).

Water Quality Concerns

12. Pursuant to the CWC, Division 7, the Water Board regulates the discharge of wastes that could affect the quality of the waters of the State to ensure protection of the beneficial uses of both surface water and groundwater and the prevention of nuisances. Dairies, as described herein, represent a significant source of waste discharges in the Region.

[2] 40 CFR section 122.23 (d)(1) requires only facilities that discharge to waters of the United States to seek NPDES permit coverage. A facility proposes to discharge if, based on an objective assessment, it is designed, constructed, operated, or maintained such that a pollutant discharge will occur.

[3] 40 CFR section 122.23 (b)(4) defines a large dairy as an operation that stables or confines as many as, or more than, 700 mature dairy cows, whether milked or dry or 10,000 sheep or lambs.

13. CAFs are operations where animals are confined and fed in an area that has a roof or is devoid of vegetation, generating solid and liquid manure wastes that are collected and disposed of on land (crops and pastures) or offsite. Within the Region, the primary types of CAFs are cow dairies, horse facilities, a few goat and sheep dairies, and a few egg, chicken, turkey, and/or swine production facilities. The majority of animal waste is produced by cow dairies within the counties of Marin and Sonoma. There are approximately 40 cow dairies currently operating within the Region, with total herd sizes ranging from 100 to 2200, averaging 200-300 head.

14. Dairies generate wastes that include, but are not limited to, manure, process wastewater, animal wash water, and any water, precipitation or rainfall runoff that contacts animal confinement areas and/or raw materials, products or byproducts such as manure, compost piles, feed, bedding materials, silage, eggs or milk. Wastewater may also contain certain chemicals such as detergents, disinfectants, and biocides. Wastes from such facilities can contain significant amounts of pathogens, oxygen-depleting organic matter, sediment, nitrogen compounds, and other suspended and dissolved solids that can impact both groundwater and surface water if not properly managed. Daily operations can cause degradation of water quality of surface water and groundwater as a result of waste discharges and activities that result in soil erosion and destruction of riparian habitat.

15. Dairy wastes are stored in retention ponds, in corrals, and/or in waste piles. These wastes are then applied to onsite cropland or pastures or transported offsite. The applied wastes are a source of water and nutrients to crops and pastures but, if improperly managed, can create nuisance conditions and cause pollution of surface water and groundwater. Adverse aquatic habitat impacts associated with improper waste management and application may include: nutrient enrichment resulting in algal blooms, organic waste loading resulting in lowered oxygen levels, siltation of gravel areas that can eliminate fish habitat, high levels of ammonia that are toxic to fish and aquatic invertebrates, and raised levels of nitrates and other salts in groundwater.

Background

16. In 2003, the Water Board adopted Resolution No. R2-2003-0094, Renewal of Waiver of Waste Discharge Requirements for Confined Animal Facilities (2003 Conditional Waiver) and Order No. R2-2003-0093, General Waste Discharge Requirements (2003 General WDRs) for Confined Animal Facilities. Resolution No. R2-2003-0094 was in effect for a five year-term and expired in 2008.

17. Forty-two dairies within the Region initially operated under the 2003 Conditional Waiver. Nine dairies did not meet the conditions of the 2003 Conditional Waiver and applied for coverage under the 2003 General WDRs.

18. Numerous watersheds throughout the Region are listed as impaired pursuant to CWA section 303(d). The CWA requires states to address these impairments by developing Total Maximum Daily Loads (TMDLs) that examine these water quality problems, identify sources of pollutants, and specify actions that create solutions and restore beneficial uses.

19. The renewal of the 2003 Conditional Waiver provides an opportunity to include implementation plan requirements identified in Chapter 7, Water Quality Attainment Strategies Including Total

Maximum Daily Loads of the Water Quality Control Plan for the San Francisco Basin (Basin Plan).

20. The Basin Plan specifies implementation measures for each categorical pollutant source identified as contributing to the water quality impairment. Livestock grazing lands and CAFs, including dairies, are identified as categorical pollutant sources that are required to implement site-specific management measures to control and reduce animal waste and sediment runoff. This Conditional Waiver implements the Basin Plan by requiring grazing land management.

21. The Water Board adopted Resolution No. R2-2011-0060, Conditional Waiver of Waste Discharge Requirements for Grazing Operations in the Napa River and Sonoma Creek Watersheds, and Resolution No. R2-2013-0039, Renewal of Conditional Waiver of Waste Discharge Requirements for Grazing Operations in the Tomales Bay Watershed. These conditional waivers require landowners or operators of grazing operations to implement specific management practices to minimize discharges of sediment, pathogens, and nutrients from their grazing operations to receiving waters, conduct compliance monitoring, and submit annual reports of progress made in controlling and minimizing discharges. Grazing operations associated with dairies are not covered under the 2011 and 2013 conditional waivers.

22. This Conditional Waiver includes consideration for potential impacts to groundwater associated with dairy operations. Since the adoption of the 2003 Conditional Waiver, California dairy groundwater data and various published studies related to dairies and groundwater impacts have been evaluated in order to determine the effectiveness of current confined animal State regulations in protecting groundwater quality. Findings from these studies indicate that effective groundwater protection depends on whether subsurface conditions were adequately assessed in the siting, design, and operation of each facility. Since impacts to groundwater depend on site-specific considerations, facility-specific data are necessary to assess compliance with groundwater water quality objectives. Therefore, this Conditional Waiver requires sampling of existing groundwater wells.

Regulatory Framework

23. CWC section 13260 (a) requires that any person discharging waste or proposing to discharge waste within any region that could affect the quality of the waters of the State, other than into a community sewer system, must file with the appropriate water board an ROWD containing such information and data as may be required by the water board, unless the requirement is waived pursuant to CWC section 13269.

24. The Water Board may waive WDRs when it finds, pursuant to CWC section 13269, that a waiver of submission of ROWDs and/or issuance of WDRs is in the public interest. CWC section 13269 authorizes the Water Board to waive WDRs for a specific discharge or type of discharges if the waiver is consistent with the Basin Plan and is in the public interest. Relevant factors in determining whether a waiver is in the public interest include the following: whether the discharger is implementing reasonable practices to minimize the deleterious effects of the discharge; whether a feasible treatment method or set of management practices exist to control the pollutants in the discharge; and whether waiving ROWDs and/or WDRs will adequately protect beneficial uses while allowing the Water Board to focus its limited resources to conduct field oversight, public outreach, and, where necessary, enforcement.

25. Pursuant to CWC section 13269, waivers of WDRs may not exceed five (5) years in duration but may be renewed by the Water Board after holding a public hearing. The Water Board may terminate a waiver at any time.

26. CWC section 13263 (i) authorizes the Water Board to prescribe general WDRs and/or waivers of WDRs for a category of discharges if the discharges are produced by the same or similar operations, involve the same or similar types of waste, require the same or similar treatment standards, and are more appropriately regulated under general WDRs or waivers than individual WDRs.

27. The Water Board, in compliance with CWC sections 13263 (i) and 13269, reviewed the 2003 Conditional Waiver and determined that it should be replaced by a new conditional waiver.

28. The adoption of this Conditional Waiver is in the public interest because it:

    a. Includes industry-specific conditions that are intended to reduce and prevent pollution and nuisance and protect beneficial uses of the waters of the State;

    b. Applies to those existing facilities that pose a low risk to surface water or groundwater and are currently in compliance with waiver terms and conditions, including the Statewide Minimum Standards for confined animal facilities;

    c. Provides a more efficient and timely mechanism of complying with water quality objectives than other regulatory options,

    d. Provides for an efficient and effective use of limited Water Board resources; and

    e. Provides flexibility for the Dischargers by providing an option of complying with water quality monitoring through a third-party entity.

29. CWC section 13269 includes the following provisions:

    a. The waiver of WDRs shall include the performance of individual, group, or watershed-based monitoring, unless the Water Board determines that the discharges do not pose a significant threat to water quality.

    b. Monitoring requirements shall be designed to support the development and implementation of the waiver program, including, but not limited to, verifying the adequacy and effectiveness of the waiver's conditions.

    This Conditional Waiver requires compliance with monitoring conditions consistent with CWC section 13269.

30. Pursuant to this Conditional Waiver and CWC section 13267, Dischargers will implement a Monitoring and Reporting Program (Attachment A). The Monitoring and Reporting Program is necessary to ensure compliance with this Conditional Waiver's terms and provisions and must be consistent with the facility's Waste Management Plan, Nutrient Management Plan, and Grazing Management Plan. The goal of the Monitoring and Reporting Program is to prevent or reduce uncontrolled waste discharges and to protect water quality; it requires regular visual inspections, surface and groundwater sampling, reporting, and record-keeping.

31. This Conditional Waiver satisfies the State Water Resources Control Board's 2004 Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy), which requires that nonpoint source discharges of waste be regulated by WDRs, waiver of WDRs, or prohibitions to ensure compliance with Regional Water Board Water Quality Control Plans.

32. This Conditional Waiver is consistent with the requirements of the Statewide Minimum Standards for confined animal facilities, California Code of Regulations, Title 27, sections 22560-22565, which are attached to this Conditional Waiver as Attachment G (hereafter, the "Statewide Minimum Standards"). These Statewide Minimum Standards require containment of manure, wash water, and stormwater runoff from animal confinement areas. The Statewide Minimum Standards are the *minimum* standards for discharges of animal waste at CAFs and must be implemented in WDRs.

Water Quality Control Plan for the San Francisco Bay Basin

33. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. Economics were considered as required by law during the development of these objectives. It also includes programs of implementation, prohibitions, provisions and policies to achieve and protect water quality objectives. The region's TMDLs and associated implementation plans are also part of the Basin Plan. The Basin Plan was duly adopted by the Water Board and approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law, and U.S. EPA, where required.

34. Pursuant to the Basin Plan, the existing and potential beneficial uses of waters in the San Francisco Bay Region that could be impacted by the discharge of the wastes described in Finding 14 include:

    a. Municipal and domestic water supply
    b. Agricultural water supply
    c. Groundwater recharge, estuarine habitat
    d. Marine habitat
    e. Preservation of rare and endangered species
    f. Water contact recreation
    g. Noncontact water recreation
    h. Shellfish harvesting
    i. Cold freshwater habitat
    j. Warm freshwater habitat
    k. Wildlife habitat
    l. Preservation of areas of special biological significance.

35. The Basin Plan directs the Executive Officer to work with the dairy industry through local dairy waste committees and local/State agencies in obtaining cooperative corrections of dairy waste problems. The Basin Plan also recommends adoption of WDRs in those cases where water quality objectives for waters within an agricultural watershed are consistently exceeded or where corrective action is not yet successful in eliminating either short- or long-term water quality problems or threats. It also states that WDRs may be waived where such a waiver is not against the

public interest and still assures the protection of beneficial uses of State waters. This Conditional Waiver is consistent with the Basin Plan since it applies to those facilities currently in compliance with the Statewide Minimum Standards.

Anti-Degradation

36. State Water Board Resolution 68-16 ("*Statement of Policy with Respect to Maintaining High Quality of Waters in California*") requires whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality must be maintained. Resolution 68-16 only allows change in the existing high quality if it has been demonstrated to the Water Board that the change is consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial uses of such water, and will not result in water quality less than that prescribed in the policies. Resolution 68-16 further requires that discharges meet WDRs that will result in the best practicable treatment or control of the discharge necessary to assure that (a) pollution or nuisance will not occur and (b) the highest water quality consistent with the maximum benefit to the people of the State will be maintained. Resolution 68-16 incorporates the federal "antidegradation" policy (Cal. Code Regs., tit. 40, § 131.12). This Conditional Waiver is consistent with these policies.

    This Conditional Waiver prohibits discharges of waste to surface waters except in specified circumstances that are consistent with federal regulations, requires Dischargers to manage waste and waste disposal in a manner that will prevent degradation of groundwater, and requires Dischargers to manage waste to minimize odors and prohibit nuisance conditions. The Water Board finds that under normal operating conditions:

    a. The discharge conditions and effluent limitations established in this Conditional Waiver will ensure that the existing beneficial uses and quality of waters of the State in the Region will be maintained and protected, and

    b. Discharges regulated by this Conditional Waiver will not degrade existing water quality if the terms and conditions of this Conditional Waiver are met.

37. This Conditional Waiver requires that discharges of waste, as defined in Finding 14, from existing dairies shall not cause surface water or groundwater to be further degraded, to exceed water quality objectives, to unreasonably affect beneficial uses, or to cause a condition of pollution or nuisance. This Conditional Waiver also requires monitoring of surface water and groundwater to demonstrate compliance with water quality objectives.

California Environmental Quality Act

38. The Water Board is the lead agency for purposes of complying with the California Environmental Quality Act (CEQA), Public Resources Code sections 21100-21177. Pursuant to CEQA Guidelines section 15301, this action to adopt a Conditional Waiver of WDRs for existing dairies is exempt from the provisions of CEQA under Exemption 1 for "Existing Facilities." CEQA Guidelines section 15301 applies to "…the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination…"

39. This Conditional Waiver involves the permitting of facilities, which are defined as dairies that are fully constructed and operating as of the effective date of this Conditional Waiver, and which have subsequently undergone no expansion in size of their physical facilities. Accordingly, because this Conditional Waiver allows for no expansion in use beyond the existing physical facilities, this Conditional Waiver is exempt from CEQA pursuant to CEQA Guidelines section 15301.

40. Each Discharger must demonstrate that it is operating an "existing facility" under CEQA Guidelines Exemption 1 for Existing Facilities (Cal. Code Regs., tit.14, § 15301) before obtaining coverage under this Conditional Waiver. New sources that do not qualify for the Existing Facilities categorical exemption will be required to submit an ROWD.

41. Two additional CEQA categorical exemptions may also be applicable to this action:

    a. CEQA Guidelines Exemption 2 for Replacement of Existing Structures (Cal. Code Regs., tit.14, § 15302) exempts "replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced." Consistent with the categorical exemption for Replacement of Existing Structures, covered facilities may replace or reconstruct retention ponds or other structures on the facility to ensure proper function in compliance with this Conditional Waiver.

    b. CEQA Guidelines Exemption 4 for Minor Alterations (Cal. Code Regs., tit.14, § 15304) exempts "minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry and agricultural purposes…" Consistent with the categorical exemption for Minor Alterations, covered facilities may make improvements to their facilities that will result in minor alterations to land, water, and/or vegetation.

42. Food and Agricultural Code section 33487 exempts State agencies from any requirement to prepare a CEQA environmental impact report for CAFOs under the following circumstances: (1) when the CAFO will be constructed and operated in accordance with the minimum standards in Chapter 5 of the Food and Agricultural Code; (2) where the applicable local agencies have completed all necessary reviews and approvals including that required by CEQA; and (3) where a permit for construction was issued by a local agency on or after the effective date of Food and Agricultural Code section 33487 and construction has begun.

Safe Drinking Water Act

43. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Conditional Waiver promotes that policy by requiring the Dischargers to meet water quality objectives, as applicable, designed to protect human health and ensure that water is safe for domestic use.

Public Notice

44. The Water Board has reviewed the contents of this Conditional Waiver and all evidence concerning this matter, written public comments, and testimony provided at the public hearing on June 10,

2015, in Oakland and hereby finds that the adoption of this Conditional Waiver is consistent with the Basin Plan and is in the public interest.

45. The Water Board has publicly notified interested agencies and persons of its intent to issue this Conditional Waiver for discharges of wastes from existing dairies (including associated grazing operations) and has provided them with an opportunity for a public meeting and an opportunity to submit comments.

THEREFORE BE IT RESOLVED that, the Water Board hereby approves and adopts the CEQA exemptions in this Conditional Waiver and directs the Executive Officer to file all appropriate notices; and

BE IT FURTHER RESOLVED that, pursuant to CWC section 13269 subdivision (a) and (e), WDRs are waived for existing dairies provided that conditions listed below are met; and

BE IT FURTHER RESOLVED that this Conditional Waiver is for a period of five years unless terminated sooner.

A. DISCHARGE PROHIBITIONS

1. The discharge of waste classified as hazardous (Cal. Code Regs., tit. 23, section 2521(a)), is prohibited.

2. The collection, treatment, storage, discharge, or disposal of waste at the facility shall not cause a condition of nuisance, contamination, pollution, or degradation of surface water or groundwater (as defined in CWC section 13050).

3. The discharge of waste from a facility that causes or contributes to an exceedance of any applicable water quality objective in the Basin Plan or any applicable State or federal water quality criteria or to a violation of any applicable State or federal policies or regulations is prohibited.

4. The direct and indirect discharge of waste, including stormwater contacting wastes, from the animal production or housing area to any surface water, or tributary thereof, is prohibited.

5. The application of manure or process water to a land application area in a manner that results in the discharge of wastes to surface water is prohibited.

6. The disposal of dead animals at the facility or in any liquid manure or wastewater retention pond is prohibited. The Discharger must dispose of dead animals in compliance with all applicable federal, State, county, and local laws and regulations.

7. The discharge of manure or process water to lands not owned, leased, or controlled by the Discharger without written permission from the landowner and in a manner not approved by Executive Officer is prohibited.

8. The direct discharge of wastewater into groundwater via backflow through water supply or irrigation supply wells is prohibited.

B. WASTE DISCHARGE SPECIFICATIONS BY FACILITY OPERATION

1. PRODUCTION/CONFINED AREA

a. All facilities shall be designed, constructed, operated and maintained to retain all waste, wastewater flow, and stormwater contacting manured areas that are likely to accumulate up to and during a 25-year, 24-hour storm event. Management of such facilities shall be in accordance with a site-specific Waste Management Plan, consistent with the technical standards specified in Attachment B. (Cal. Code Regs., tit. 27, §22562(a).)

b. In addition to manure waste, and wastewater generated from stormwater contacting manured areas, the Discharger must properly contain and manage all other wastes including, but not limited to, silage leachate, dead animals, waste milk, veterinary medical waste, solid and liquid waste from onsite slaughtering, solid and liquid waste from onsite food processing (such as cheese), spoiled feed, bedding, and any precipitation contacting these materials. Specific pollution prevention measures must be included in the facility's Waste Management Plan.

c. All precipitation and clean surface drainage outside of manured areas, including that from roofed areas and tributary drainages, shall be diverted away from confined and/or manured areas, unless such drainage is fully contained in a retention pond. (Cal. Code Regs., tit. 27, §22562(b).)

d. All animal confinement areas, and feed and waste storage areas, shall be managed to minimize standing water as of 72 hours after the last rainfall and the infiltration of water into underlying soils.

e. All confined animals shall be fenced or excluded from any surface water or perennial streams passing through the confined area. Creek crossings shall be bridged in a manner that prevents animal waste from entering the waterway.

2. RETENTION PONDS

a. Retention ponds and manured areas at dairies in operation on November 27, 1984, shall be protected from inundation or washout by overflow from any stream channel during 20-year peak flows. Dairies existing before November 27, 1984, and protected against 100-year peak stream flows must continue to provide such protection. Dairies, or portions thereof, that began operating after November 27, 1984, shall be protected against 100-year peak stream flows. (Cal. Code Regs., tit. 27, §22562(c).)

b. Existing retention ponds must, at a minimum, be lined with, or underlain by, soils which contain at least ten (10) percent clay and not more than ten (10) percent gravel or artificial materials or materials with equivalent impermeability or include additional lining materials necessary to comply with this Conditional Waiver's Discharge Prohibitions No. 2 and No. 3. (Cal. Code Regs., tit. 27, §22562(d).)

c. Retention ponds constructed after adoption of this Conditional Waiver must meet all applicable federal, State, and local laws and regulations. Waste storage facilities should be located outside of floodplains; however, if site restrictions require location within a floodplain, they shall be protected from inundation or damage from a 100-year flood event, or larger if required by laws, rules, and regulations.

d. Retention ponds (or expanded ponds) constructed after adoption of this Conditional Waiver must comply with Natural Resources Conservation Service (NRCS) Waste Storage Facility Code 313 including a maximum specific discharge (unit seepage rate) of 1×10^{-6} cm/sec. Such ponds may not be used until the Discharger submits a report verifying that the liner meets this requirement. Waste shall not be placed into the retention pond until after the Executive Officer notifies the Discharger in writing that the report is acceptable.

e. Retention ponds shall be managed to have sufficient freeboard, but in no case less than two feet in partially or completely aboveground ponds and one foot in pond structures that are completely in ground. Freeboard shall be measured vertically, from the water surface up to the point on the surrounding berm or dike having the lowest elevation, and shall be designed and constructed to prevent overtopping as a result of windy storm conditions. Lesser freeboard may be approved by the Executive Officer if documented by a registered civil engineer that structural integrity and required capacity will not be compromised with the proposed freeboard.

f. Following a storm event, the Discharger shall restore the wastewater holding capacity of retention ponds, if necessary to maintain required freeboard, in a timely manner and in a manner consistent with the Waste Management Plan and the Nutrient Management Plan.

g. Retention pond clean-out shall occur annually, at a minimum, and should be conducted prior to the start of the rainy season, but no later than November 30.

3. LAND APPLICATION AREAS (if applicable)

a. Discharges to land of solid and liquid waste shall be conducted in such areas that prevent the discharge of waste to surface waters or flood-prone areas and shall be managed to minimize percolation to groundwater.

b. Discharges to land of solid or liquid waste shall be at rates that are reasonable for crop, soil, climate, special local situations, management system, and type of manure. The total nutrient loading shall not exceed the amount needed to meet crop demand and shall be in accordance with the facility's Nutrient Management Plan, consistent with the technical standards specified in Attachment C.

c. Manure and wastewater discharges to land, including spray irrigation, shall be conducted during non-rainy or non-saturated conditions; must not result in runoff to surface waters; and must infiltrate completely within 72 hours after application.

d. Manure and wastewater shall not be applied closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural or domestic well heads, or other conduits to surface waters, unless a 35-foot wide vegetative buffer or

physical barrier is substituted for the 100-foot setback, or alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions achieved by the 100-foot setback.

e. Large CAFOs that are eligible to enroll under this Conditional Waiver must implement an adequate Nutrient Management Plan (in accordance to technical standards specified in Attachment C) prior to discharging and prior to obtaining coverage, if they will discharge stormwater from cropland where manure, litter, or process wastewater has been applied.

4. GRAZING OPERATIONS (if applicable)

a. Dischargers shall implement site-specific management practices that reduce water pollution due to grazing and protect water quality. In selecting management practices for the facility, the Discharger shall take into consideration the vegetation, terrain, type of livestock, and general facility operation procedures.

b. Dischargers with grazing operations on grazing lands that encompass an area of 50 acres or more, or encompass an area smaller than 50 acres and are identified by the Executive Officer as posing a threat to water quality, must develop and implement a Grazing Management Plan, consistent with the technical standards specified in Attachment D.

C. PROVISIONS

1. The Discharger shall comply with all applicable provisions of the CWC, Title 27, and the Basin Plan.

2. The Discharger shall comply with the attached Monitoring and Reporting Program, and also develop and implement a site-specific Waste Management Plan, Nutrient Management Plan, and Grazing Management Plan, as applicable, according to the waste discharge specifications B.1 through B.4. All existing plans must be updated and new plans developed in accordance to the technical standards specified in Attachments A, B, C and D. **Plans must be completed within the schedule outlined below in Section F. Required Reports and Notices.**

3. If the Discharger observes deficiencies, defects, and/or impending failures in any of the manure-contacted water conveyance, control, and/or retention structures, the Discharger shall take immediate action to correct and/or prevent any unauthorized release. Records of such actions shall be kept and maintained as required in the Monitoring and Reporting Program. The Waste Management Plan shall be updated to include corrective management measures needed to avoid a recurrence of the observed condition.

4. If onsite or offsite monitoring (visual or water quality testing) results indicate that the Discharger's facility (including land application areas) is causing a condition of nuisance, contamination, pollution, or degradation of surface water or groundwater, the Discharger shall take immediate corrective action to cease such pollutant discharges. The corrective action must be documented and submitted with a Noncompliance Report, as required by the Monitoring and Reporting Plan.

5. Manifests are required to be kept onsite to record transfer of waste to outside facilities and must be kept as part of the Waste Management Plan. The application of manure or process water to lands not owned, leased, or controlled by the Discharger without written permission from the landowner or in a manner that is not consistent with the conditions of this Conditional Waiver is prohibited. The requirements for such third party agreements are outlined in Attachment C.

6. The Discharger shall comply with all federal, State, county, and local laws and regulations pertaining to the discharge of wastes from the facility that are no less stringent than the requirements of this Conditional Waiver.

7. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the Discharger from liabilities under federal, State, or local laws, nor guarantee the Discharger a capacity right in receiving waters.

8. This Conditional Waiver does not convey any property rights or exclusive privileges. In accordance with CWC section 13263(g), "No discharge of waste into the waters of the State, whether or not the discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge. All discharges of waste into waters of the State are privileges, not rights."

9. This Conditional Waiver does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Wildlife Code §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531-1544). Dischargers shall be responsible for meeting all requirements of the applicable endangered species act. A discharge that is deleterious to fish, plant life, mammals, or bird life, or is otherwise in violation of California Fish and Wildlife Code section 5650 is not a discharge that is authorized nor in compliance with the terms and conditions of this Conditional Waiver. The Discharger shall obtain permits as necessary and comply with permit conditions and all other applicable federal, State, county, and local laws and regulations.

10. Upon presentation of credentials at reasonable hours or in response to a complaint or report of noncompliance, Water Board staff and other authorized representatives shall be allowed:
    a. Entry upon premises where a regulated facility or activity is located or conducted or where records are kept under the conditions of this Conditional Waiver;
    b. Access to copy any records that are kept under the conditions of this Conditional Waiver;
    c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Conditional Waiver; and
    d. To photograph, sample, and monitor for the purpose of assuring compliance with this Conditional Waiver.

11. The Discharger shall maintain a copy of this Conditional Waiver and each management plan (i.e., Waste, Grazing, and Nutrient) at the site so as to be available at all times to daily supervising personnel. The Discharger shall ensure that all daily supervising personnel are familiar with the content of this Conditional Waiver and each management plan.

12. The provisions of this Conditional Waiver are severable, and if any provision or the application of any provision of this Conditional Waiver to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this Conditional Waiver shall not be affected thereby. If there is any conflicting or contradictory language between this Conditional Waiver and the associated attachments that outline technical requirements for the Monitoring and Reporting Program, Waste Management Plan, Nutrient Management Plan, and Grazing Management Plan, the language in the Conditional Waiver shall govern over the other documents.

13. Compliance determination with the terms of this Conditional Waiver shall be based on the following:
    a. Periodic inspections by Water Board staff;
    b. Evaluation of the completed Annual Report and required information submitted according to the Monitoring and Reporting Program, including monitoring results, certificates of completion for the Waste Management Plan, the Nutrient Management Plan, and the Grazing Management Plan; and,
    c. Any other information deemed necessary by the Executive Officer.

D. PERMIT REOPENING, REVISION, REVOCATION, TERMINATION AND RE-ISSUANCE

1. The Water Board may modify or revoke and reissue this Conditional Waiver at any time.
2. An authorization to discharge wastes under this Conditional Waiver is not transferable to any person without written authorization from the Executive Officer. In the event of any change in operation, control, or ownership of land or waste discharge facilities, the Discharger shall notify any succeeding owner/operator of his/her responsibility to comply with this Conditional Waiver by letter at least 60 days in advance of such change. A copy of such letter shall be submitted to the Water Board, along with a Notice of Termination (NOT), in order for the original Discharger to be relieved of its responsibility to comply with this Conditional Waiver.

3. To assume operation under this Conditional Waiver, the succeeding owner/operator must submit a completed Notice of Intent to the Water Board within fifteen days of receipt of such notice and receive approval by the Executive Officer. The succeeding owner/operator is not authorized to discharge under the Conditional Waiver and may be subject to enforcement until written approval of the coverage transfer from the Executive Officer.

4. In the event of closure or change in land use of the Discharger's facility, the Discharger shall file an NOT in the form of a letter that explains the extent of the change in operation, measures taken to close and/or change the operation, and owner/operator contact information. Prior to NOT approval, all manure- and animal waste-impacted soil is to be disposed of in a manner that will not pose a threat to surface water or groundwater quality or create a condition of nuisance.

5. Water Board staff shall review the NOT and determine its appropriateness. The review may include a field staff inspection to verify project completion and water quality protection. The Executive Officer shall notify the Discharger regarding approval or disapproval of the NOT.

6. If more stringent requirements are necessary to implement or be consistent with any TMDL adopted by the Water Board to achieve applicable water quality standards pursuant to CWA section 303, or amendments thereto, the Water Board will revise and modify this Conditional Waiver.

7. This Conditional Waiver may be reopened to address any changes in State or federal plans, policies, or regulations that would affect the quality requirements for the discharges and as authorized by federal and State law.

8. The Executive Officer may at any time terminate coverage under this Conditional Waiver, as to a particular Discharger, where the Discharger fails to comply with this Conditional Waiver; such termination is in the public interest; the Discharger's activities could adversely affect beneficial uses of waters of the State; or the Executive Officer determines, based on changes to the Discharger's facility, that coverage under General WDRs, individual WDRs, or an NPDES permit is more appropriate.

E. ENFORCEMENT

1. A Discharger who fails to comply with the terms and conditions of this Conditional Waiver is subject to an enforcement action to the extent allowed by law, including but not limited to, administrative civil liabilities. Discharges that could affect the quality of the waters of the State may commence only in accordance with CWC section 13264(a).

2. Section 13387(e) of the CWC provides that any person who knowingly makes any false statement, representation, or report in any record, report, plan, notice to comply, or other document filed with a Regional Water Board or the State Water Board, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required under this division shall be punished by a fine of not more than $25,000, or by imprisonment in State prison for not more than 2 years, or by both.

3. Large CAFOs that discharge stormwater from land application areas without implementing an adequate Nutrient Management Plan are in violation of the CWA and may be fined for the discharge and/or required to enroll under an NPDES permit.

4. CWC section 13350 provides that any person who violates a waiver condition is subject to civil liability of up to $5,000 per day or $15,000 per day of violation or, when the violation involves the discharge of pollutants, is subject to civil liability for up to $10 per gallon, or $20 per gallon, or some combination thereof, depending on the violation or upon the combination of violations.

F. REQUIRED REPORTS AND NOTICES

1. The Discharger must complete the following tasks and submit a certification of completion. Facilities have the option to prepare the Waste Management Plan and the Nutrient Management

Plan through a technical education program, administrated by a qualified professional, as described in Attachment B, General Requirement 2.

a. **Facility Monitoring Program**

The facility's Monitoring and Reporting Program must be developed and implemented consistent with the technical standards specified in Attachment A, **by November 1, 2016**. This is an onsite operational plan to implement visual inspections and associated documentation and water quality monitoring. Preparations must be made in order to begin monitoring during the 2016-17 rainy season.

If the Discharger opts to participate in an Executive Officer approved watershed or group monitoring program in lieu of individual surface water quality testing, confirmation of such participation must be documented in the facility's 2016 Annual Report (Attachment A, Appendix 1) and the program must also be prepared to begin sampling by November 1, 2016, the start of the 2016-17 monitoring period.

b. **Waste Management Plan (WMP).**

A WMP must be updated and/or completed and implemented consistent with the technical standards specified in Attachment B, **by November 30, 2017**.

A copy of the WMP must be kept on the facility site and made available for review by Water Board staff during inspections and upon request by Water Board staff. The Discharger must certify that the WMP is complete, as required. If the WMP was prepared through completing a technical education program, a letter of completion shall be submitted either separately or attached to the facility's Annual Report.

c. **Grazing Management Plan (GMP).**

A GMP must be completed and implemented consistent with the technical standards specified in Attachment D, **by November 30, 2017**.

A copy of the GMP must be kept on the facility site and made available for review by Water Board staff during inspections and upon request by Water Board staff. The Discharger must certify that the GMP is complete, as required, by submitting a letter either separately or attached to the facility's Annual Report.

d. **Nutrient Management Plan (NMP)**

An NMP must be completed and implemented consistent with the technical standards specified in Attachment C, **by November 30, 2019**.

Large Concentrated Animal Feeding Operations (700 mature cows or more) must implement an NMP prior to enrolling under the Conditional Waiver.

A copy of the NMP must be kept on the dairy facility and made available for review by Water Board staff during inspections and upon request by Water Board staff. The Discharger must certify that the NMP is complete, as required. If the NMP was prepared through completing a technical education program, a letter of completion shall be submitted either separately or attached to the facility's Annual Report.

2. Annual Report

   The Discharger must submit an Annual Report to the Water Board by **November 30 each year,** in accordance to the Monitoring and Reporting Program requirements. The Annual Report shall assess if best management practices for waste containment, nutrient application to land at agronomic rates, and grazing management measures are effective in preventing discharges to surface water and groundwater for the past year (November 1 of the last year through October 31 of the current year). It shall also include documentation that rainy-season preparations have been completed and copies of analytical results for surface water and groundwater samples, if individual monitoring was completed. If participating in a watershed-based or group monitoring program, a statement identifying the group must be included.

3. Noncompliance Reports

   a. The Discharger shall report any noncompliance that endangers human health or the environment within 24 hours of becoming aware of its occurrence. **The incident shall be reported to the Water Board Spill Hotline at (510) 622-2369 and to the California Office of Emergency Services (OES) at (800) 852-7550.** During non-business hours, the Discharger shall leave a message on the Water Board's office voice mail. The message shall include the time, date, and place of the discharge. The OES is operational 24 hours a day. A written report shall be submitted to the Water Board office within five (5) business days of the Discharger becoming aware of the incident. The report shall include complete details of the steps that the Discharger has taken, or intends to take, in order to prevent recurrence. The written submission shall, at a minimum, contain:

      - The approximate date, time, and location of the discharge;
      - A description of the noncompliance and its cause;
      - The flow rate, volume, and duration of the discharge;
      - A description of the noncompliance, its causes, duration, if the noncompliance has been corrected and/or the actual or anticipated time for achieving compliance; and,
      - A time schedule and a plan to implement necessary corrective actions to prevent the recurrence of such discharges.

   b. The Discharger shall take all reasonable steps to minimize any adverse impact to the waters of the State resulting from noncompliance with this Conditional Waiver. Such steps shall include accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliance.

   c. The fact that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the Conditional Waiver shall not be a defense for violations.

4. Reporting Provisions:

   a. The Notice of Intent, all technical reports and/or monitoring program reports submitted to the Water Board shall be accompanied by a cover letter signed by the owner, operator, or duly authorized representative, with the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

b. Any Discharger authorized to discharge waste under this Conditional Waiver shall furnish, within a reasonable time, any information the Water Board may request, to determine whether cause exists for modifying, revoking, reissuing, or terminating its authorization for this Conditional Waiver. The Discharger shall also furnish to the Water Board, upon request, copies of records required to be kept by this Conditional Waiver.

c. Except for data determined to be exempt from disclosure under the Public Records Act (California Government Code sections 6275 to 6276), and data determined to be confidential under CWC section 13267(b)(2), all reports prepared in accordance with the terms of this Conditional Waiver and submitted to the Executive Officer shall be available for public inspection at the offices of the Water Board. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in CWC section 13387.

5. The Discharger shall submit an ROWD to the Water Board at least 140 days prior to any changes or proposed changes in:

   a. The character, location, volume, or disposal methods of waste discharges;

   b. The size and/or use of the facilities; and/or

   c. The size of the animal population, if it increases beyond the existing design capacity of the facility specified in the Waste Management Plan, the Nutrient Management Plan, and/or the Grazing Management Plan.

6. The filing of a request by the Discharger for modification, revocation, reissuance, or termination of this Conditional Waiver, or notification of planned changes or anticipated noncompliance, does not stay any condition of this Conditional Waiver.

7. The Discharger may be required to submit technical reports as directed by the Executive Officer in accordance with CWC section 13267.

8. **Extension Request -** The Discharger may request an extension to deadlines by written request to the Executive Officer at least 30 days prior to the deadlines. This request must include a description of incomplete plan elements, an alternative date of compliance, and assurance of water quality protection in the interim. Any requests for extension are subject to written approval by the Executive Officer.

G. APPLICATION REQUIREMENTS

1. Dairies that can certify compliance with the terms and conditions of this Conditional Waiver shall apply for coverage by submitting a completed Notice of Intent form (Attachment F) **on or before September 1, 2015.**

2. If the Discharger becomes aware that a relevant fact was omitted in a Notice of Intent, or incorrect information was submitted in a Notice of Intent or in any report to the Water Board, it shall promptly submit the correct facts or information. Completed forms shall be sent to the Water Board at the following address:

San Francisco Bay Regional Water Quality Control Board
ATTN: Confined Animal Facility Program
1515 Clay Street, Suite 1400
Oakland, CA 94612

3. Coverage under this Conditional Waiver is subject to fees as determined by the State Water Board. The application fee/annual fee schedule is developed by the State Water Board annually.

This Conditional Waiver expires on (date).

*I, BRUCE H. WOLFE Executive Officer, do hereby certify the foregoing is a full, true, and correct copy the Conditional Waiver of WDRs adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on **DATE**, 2015.*

_____
BRUCE H. WOLFE
Executive Officer

Attachment A: Monitoring and Reporting Program No. R2-2015-00XX
- Appendix 1 - Annual Report form (template to be provided to enrollees by September 30, 2015)
- Appendix 2 - Sampling and Analysis Reduction Certification form (template to be provided to enrollees by September 30, 2015)
- Appendix 3 - Schedule for Activities Required by Conditional Waiver of Waste Discharge Requirements for Existing Dairies

Attachment B - Waste Management Plan Minimum Requirements
Attachment C - Nutrient Management Plan Minimum Requirements
Attachment D - Grazing Management Plan Minimum Requirements
Attachment E - Definitions
Attachment F - Notice of Intent Form
Attachment G - Title 27 of the California Code of Regulations, sections 22560-22565

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ATTACHMENT A

MONITORING AND REPORTING PROGRAM

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ATTACHMENT A

California Regional Water Quality Control Board
San Francisco Bay Region

Conditional Waiver of Waste Discharge Requirements

MONITORING AND REPORTING PROGRAM NO. R2-2015-00XX FOR EXISTING DAIRIES

This Monitoring and Reporting Program (MRP) is issued pursuant to the Conditional Waiver (Resolution R2-2015-00XX) and California Water Code (CWC) section 13267. The Discharger shall not implement any changes to this MRP unless, and until, a revised MRP is approved by the Executive Officer.

To allow the Water Board to evaluate compliance with the terms and conditions of the Conditional Waiver, this MRP requires that regular monitoring, sampling, and record-keeping be conducted by dairy owners and operators (hereinafter, Dischargers). The required sampling and analyses are minimum parameters necessary to evaluate if facility operations are contributing to adverse water quality impacts. If sampling data indicate that concentrations are above the benchmarks (based on the Basin Plan), then the Discharger must take immediate action to identify pollutant sources and correct the problem.

This MRP requires preparation of an Annual Report of compliance, to be submitted to the Water Board by November 30 of each year (Appendix 1). The Annual Report shall document required pre-rainy season preparations, individual monitoring data (if not participating in a watershed-based monitoring program), an evaluation of the effectiveness of management practices, and records of any inspections where a water quality problem was identified, as well as the management practices taken to correct these problems.

I. MONITORING PROVISIONS

Visual inspections and sampling of surface and ground waters are required to assess compliance with conditions of the Conditional Waiver.

A. Visual Inspections

This MRP requires each Discharger to conduct periodic visual inspections to ensure its facility is operated and maintained in compliance with the Conditional Waiver. Visual inspections shall be done when conditions are safe to do so. Observations of any threats to water quality and corrective actions taken shall be documented and submitted in each Annual Report. All adverse conditions, including discharges that are a threat to human health or the environment, shall be reported to the Water Board within 24 hours. Corrective actions shall be implemented to stop the discharge as soon as possible.

1. **Production /Confined Areas**

   The Discharger shall conduct **daily** inspections of the production / confined areas, including all retention ponds, pumping equipment, water lines, outdoor animal wash racks, corrals, and nearby surface waters, and document any non-stormwater waste discharges from the property under the control of the Discharger.

2. **Retention Pond Freeboard and Integrity**

   The Discharger shall measure and document the freeboard in each retention pond **weekly**, during the rainy season (October through March), and **monthly**, during the dry season (April through September). Freeboard is the vertical distance from the pond surface to the lowest elevation of the surrounding berm or the bottom of the spillway. The size of ponds/containment structures needed to contain waste materials and rain water from a 25-year 24-hour storm event will vary from facility to facility. To maintain structural integrity and prevent a discharge, **two (2) feet of freeboard shall be maintained in partially or completely aboveground ponds and one (1) foot of freeboard shall be maintained in pond structures that are completely in ground.** Lesser freeboard may be approved by the Executive Officer if documented by a registered civil engineer that structural integrity and required capacity will not be compromised with the proposed freeboard.

   The Discharger shall conduct **weekly** inspections of the manure containment structures for effective capacity, berm integrity, cracking, slumping, excess vegetation, animal burrows, and/or seepage. Repairs shall be made to prevent discharges to surface water and/or groundwater and noted in the Annual Report.

3. **Cropland and/or Pasture**

   The Discharger(s) shall inspect any cropland on which solid manure or wastewater is applied. Inspections shall occur **at least once daily during each irrigation event and/or spreading event** and shall be documented. Any erosion, conditions of field saturation, runoff form the cropland containing pollutants, or violation of set-back requirements shall be remedied as necessary to protect water quality and prevent nuisance conditions. The following shall be documented:

   a. Descriptions of erosion, field saturation, runoff, set-back violation, or the presence of nuisance conditions in the cropland;

   b. Dates, location, and approximate volume of wastewater and/or solid waste applied to land, in accordance with the Nutrient Management Plan;

   c. Weather conditions at the time of and 24 hours prior to and following waste application; and

   d. Dates, occurrences, location, and estimated amounts of unauthorized releases from the ponds or cropland either off-property or to surface water drainage courses (such releases shall be reported in accordance with the reporting requirements below).

4. **Storm Event Preparations**

   The following inspections shall be conducted prior to anticipated storm events, during extended storm events, and after actual storm events:

   a. Inspect all retention ponds / structures. These structures shall be inspected for berm integrity, cracking, slumping, excess vegetation, burrowing animals, and seepage.

b. Inspect the closest receiving water, upstream and downstream of all facilities, and disposal areas to monitor any change in water quality resulting from facility operations. Any change in water quality shall be reported in accordance with the reporting requirements below.

c. Inspect confined areas to ensure that all pollution prevention measures, as specified in the facility's Waste Management Plan, are implemented and effective.

The Discharger shall document any discharges of stormwater that has commingled with wastewater, litter, or manure and the approximate duration and amount of wastes discharged to surface waters. Such discharges shall be reported in accordance with non-compliance reporting requirements below.

B. Grazing Operation Monitoring and Reporting (required for grazing lands of 50 acres or more)

1. The Discharger shall conduct visual inspections of the grazing lands to verify that chosen management practices are being implemented and that the Waste Discharge Specifications for grazing operations in the Conditional Waiver are being met.

2. The Discharger shall, in addition to inspecting the grazing lands, visually inspect the closest receiving water, upstream and downstream of the grazing facility, to monitor any change in water quality resulting from facility operations. These inspections are needed to determine the effectiveness of the management practices implemented at the grazing facility.

3. Inspections shall occur twice during the dry season and at least monthly during the rainy season, preferably before and after a forecasted storm event. One of the dry season inspections shall be conducted in the month of September, prior to the beginning of the rainy season, and shall encompass the entire grazing facility to ensure the facility's readiness for the rainy season. A Discharger is not required to perform inspections during dangerous weather conditions or when a storm begins after scheduled facility operating hours.

4. Pre-storm inspections of the entire grazing facility shall ensure that appropriate management practices are properly installed and maintained; post-storm inspections are to evaluate whether management practices have functioned adequately and whether additional measures or maintenance work is needed.

5. The Discharger shall annually measure and record measurements of residual dry matter (RDM[1]) as specified in the University of California 2002, California Guidelines for Residual Dry Matter Management on Coastal and Foothill Annual Rangelands, Rangeland Monitoring Series Publication 8092. These measurements shall be included in the Annual Report. If minimum RDM levels are not met, the Discharger shall provide an explanation for not meeting the recommendations in the Annual Report.

[1] As cited in Napa River Sediment TMDL and Sonoma Creek Sediment TMDL.

6. The Discharger shall maintain records of inspections, monitoring observations, and any response taken to eliminate potential sources of sediment, nutrients, and pathogens from the grazing facility. If a water quality problem is found during the inspection, the Discharger shall record the nature of the problem, and the management practices taken to correct it, and report it in the Annual Report.

C. Water Quality Testing

Water quality sampling and reporting is required to allow the Water Board to assess compliance with Basin Plan water quality objectives and to assess the effectiveness of facility management plans. Sampling results shall be used by the Discharger to assess water quality conditions and to make informed decisions regarding management practices. Short-term groundwater well sampling is required in order to assess whether the current management measure and design criteria are protective of groundwater quality. If the initial monitoring results are indicative of adverse water quality impacts, then management measures (contained in the Waste Management Plan and Nutrient Management Plan) must be redesigned accordingly and additional monitoring may be required.

1. Option to Participate in a Watershed or Group Monitoring Program

Dischargers may satisfy the individual surface water testing requirements by participating in a qualified watershed-based or group monitoring program that meets the standards set-forth below. This program must be developed and administered by a professionally qualified third-party entity approved by the Executive Officer. The program's content, parameters and sampling locations must provide substantially similar monitoring information (as outlined below) for each participant and must also be approved by the Executive Officer prior to implementation. The option to participate in a watershed-based or group monitoring program may be revoked if monitoring data and/or inspection findings indicate that a facility has an increased potential for adverse water quality impacts, thus requiring site-specific water quality monitoring.

2. Surface Water Sampling

Surface watercourses that flow through the facility, including the production area, cropland, or pastures, must be sampled using grab samples at the point where the watercourse leaves the lands used for the dairy operation. If multiple watercourses flow through the property, the Discharger may submit a written request to the Executive Officer asking for reduced representative sampling locations.

Alternatively, if surface waters flow adjacent to the dairy operation lands but not through it, and are located such that they could be impacted by the operation, the grab samples shall be collected downstream of the areas closest to the property, assuring legal access for Discharger or third party sampling. In the event downstream, representative grab samples show exceedances above benchmark values, the Discharger, or representative third party sampling group representative, will collect additional grab surface water samples upstream, or at other representative locations, to bracket and isolate the problem so that the Discharger can take corrective action.

Sampling shall take place during or directly following each of three major storm events after at least 1 inch of rain per 24 hours. Sampling will occur in the winter rainy season, which generally begins in October and ends in March, with the first samples to be collected starting October 2016. Sampling events shall be at least 14 days apart. Sampling shall be done when conditions are safe to do so. Visual observations, such as changes in surface water color or turbidity, must be recorded at the time of surface water sampling and reported in or submitted with the Annual Report.

a. **Sampling Parameters:**
Temperature, pH, and specific conductance shall be measured onsite with a handheld data sonde or comparable field equipment. Total ammonia nitrogen shall be measured either with a field test kit (colorimetric field kits are acceptable) or by a certified laboratory. These laboratory analyses shall be conducted in accordance with the Title 40 Code of Federal Regulations Part 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants) or other test methods approved by the Executive Officer. One (1) sample to be tested for total ammonia nitrogen, pH, specific conductance, and temperature shall be collected at each location. Data collection for pH, specific conductance, and temperature parameters must comply with the Surface Water Ambient Monitoring Program Quality Assurance Program Plan (QAPP) at http://www.waterboards.ca.gov/water_issues/programs/swamp/tools.shtml.

b. **Constituents and Benchmarks:**

Constituents	Units	Benchmarks
Specific conductance	µS/cm	Below 2000
Total ammonia nitrogen ($NH_3 + NH_{4+}$)	mg/L	Below 1 ppm and meets calculated unionized ammonia benchmark below
Unionized ammonia (NH_3) as calculated[2]	mg/l	0.025 mg/l
pH		6.5-8.5
Temperature	°C	none

3. **Groundwater Well Sampling**

a. **Sampling Parameters:**

Any existing representative wells located at the confined animal facility, including

[2] The toxicity level of unionized ammonia is directly affected by pH and temperature. The higher the pH and temperature of the water, the higher the proportion of total ammonia that exists in toxic form. The Central Valley Regional Water Board has developed clear procedures for using Total Ammonia field test kits and for using field sampling results to calculate unionized ammonia values. This guidance can be found at: http://www.waterboards.ca.gov/centralvalley/water_issues/dairies/general_order_guidance/sampling_analysis/field_analysis_final_rpt.pdf

domestic and agricultural supply wells, shall be sampled four (4) times total, approximately six (6) months apart. A sample must be collected in: (1) Fall 2016, (2) Spring 2017, (3) Fall 2017, and (4) Spring 2018. Results of groundwater samples collected consistently with the sampling protocols and within these time frames for another purpose (e.g., for a county health department or by the county milk inspector) may be submitted to the Executive Officer instead of collecting additional samples. The sample must be representative of groundwater well conditions (i.e., not disinfected).

Groundwater samples from domestic wells shall be collected from the tap before the pressure tank and after water has been pumped from this tap for 10 to 20 minutes. If the sample cannot be collected prior to a pressure tank, the well must be purged at least twice the volume of the pressure tank. Groundwater samples from agricultural supply wells shall be collected after the pump has run for a minimum of 30 minutes or after at least three well volumes have been purged from the well. Alternatives to this protocol may be approved by the Executive Officer. Groundwater samples shall be analyzed by a laboratory certified by the State Department of Public Health or a laboratory pre-approved by the Executive Officer.

b. **Constituents and Benchmarks:**

One (1) sample from each well shall be tested for the following parameters:

Constituents	Units	Benchmarks (municipal supply)
Nitrate	mg/l	45.0 mg/l
Total Coliform Bacteria	MPN/100ml	1.1 MPN/100ml[3]

4. **Sampling Protocol**

a. The Discharger shall use clean sample containers and sample handling, storage, and preservation methods that are accepted or recommended by the selected analytical laboratory or, as appropriate, in accordance with approved U.S. EPA analytical methods.

b. All samples collected shall be representative of the volume and nature of the material being sampled.

c. All sample containers shall be labeled and records maintained to show the time and date of collection as well as the person collecting the sample and the sample location.

[3] In groundwater with a beneficial use of municipal and domestic supply, the median of the most probable number of coliform organisms over any seven-day period shall be less than 1.1 most probable number per 100 milliliters (MPN/100 mL) (based on multiple tube fermentation technique; equivalent test results based on other analytical techniques as specified in the National Primary Drinking Water Regulation, 40 CFR, Part 141.21 (f), revised June 10, 1992, are acceptable).

d. All samples collected for laboratory analyses shall be preserved and submitted to the laboratory within the required holding time appropriate for the analytical method used and the constituents analyzed.

e. All samples submitted to a laboratory for analyses shall be identified in a properly completed and signed Chain of Custody form.

f. Field test instruments used for electrical conductivity, pH, temperature, and total ammonia nitrogen may be used provided:

- The operator is trained in the proper use and maintenance of the instruments;
- The instruments are field calibrated prior to each monitoring event; and
- Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency.

g. Alternative sampling protocols may be proposed and shall be approved by the Executive Officer.

5. Request for Sampling Reduction

Dischargers that conduct individual facility surface water quality sampling may request a reduction in the sample frequency and/or number of locations sampled. In order to be eligible for a sampling reduction each facility must submit a Sampling and Analysis Reduction Certification (Appendix 2) to the Water Board documenting the following:

a. Results from at least six consecutive sampling events at or below benchmarks; and

b. The Discharger is in full compliance with the requirements of the Conditional Waiver and has updated, certified, and submitted all documents, data, and reports required by the Conditional Waiver during the time period in which samples were collected.

II. REPORTING PROVISIONS

A. Documentation and Annual Reporting

The objective of the Annual Report (MRP Appendix 1) is to provide the Water Board updates (using photographs and narrative text) on new management practices and the effectiveness of existing management practices to control pathogen and nutrient sources at the CAF. Documentation of compliance with conditions of the Conditional Waiver must be submitted to the Water Board in an Annual Report due each **November 30** starting in 2015. The annual reporting period is November 1 through October 31. A copy of the Annual Report including photo documentation must be kept at the facility for Water Board review during inspections. The contents of the Annual Report shall include:

1. Photos shall be taken each year **by November 30** and submitted to the Water Board to confirm that:

   a. The liners of the retention ponds are protective of water quality (free of weeds and

cracks that may disturb the liner); and

b. The retention ponds have sufficient storage capacity prior to the rainy season.

2. Photos of other pollution prevention measures to protect surface and groundwater must also be submitted with the Annual Report. Examples of pollution prevention measures include:

   a. Cleaning up of pollutants from areas where stormwater runoff occurs,

   b. Covering of manure, compost, and feed storage areas,

   c. Installing impermeable ground covering in manure storage areas,

   d. Protecting watercourses from erosion and wastes, and

   e. Any other best management practices or control measures for water quality protection.

   Photos of permanent and/or structural pollution prevention measures only need to be submitted once as long as the measures remain operational and effective.

3. A narrative summary of measures taken to protect surface and groundwater and to meet conditions of the Conditional Waiver. Where appropriate, sketches of pollution prevention measures implemented since the previous Annual Report may also be submitted.

4. Analytical results of surface water and groundwater samples (if required). If participating in a watershed or group monitoring effort pre-approved by the Executive Officer, surface water sampling results can be included in the group monitoring report. If results of groundwater samples collected for another purpose are submitted to meet these MRP requirements, an explanation is required in the Annual Report.

   If sample results exceed Basin Plan water quality objectives or other public health standards, the Discharger shall note the noncompliance in the Annual Report and describe any corrective measures that were taken and/or needed. The Executive Officer may require additional corrective actions and additional monitoring.

B. **Noncompliance Reporting**

The Discharger shall report any spill, discharge, or other type of noncompliance that violates the conditions of the Conditional Waiver and/or endangers human health or the environment within 24 hours of becoming aware of its occurrence. The incident shall be reported to the **Water Board Spill Hotline at (510) 622-2369 and to the California Office of Emergency Services (OES) at (800) 852-7550.** During non-business hours, the Discharger shall leave a message on the Water Board's office voice mail. The OES is operational 24 hours a day. The message shall include the time, date, place, and description of the discharge.

A written Noncompliance Report shall be submitted to the Water Board office within fourteen (14) business days of the Discharger becoming aware of the incident. The report shall include complete details of the steps that the Discharger has taken, or intends to take, in order to prevent recurrence. The written submission shall, at a minimum, contain:

1. The approximate date, time, and location of the discharge;
2. A description of the noncompliance and its cause;
3. The flow rate, volume, and duration of the discharge;
4. Whether the noncompliance has been corrected and/or the actual or anticipated time for achieving compliance; and
5. A time schedule and a plan to implement necessary corrective actions to prevent the recurrence of such discharges.

The Discharger shall notify the Water Board by letter when it returns to compliance with the time schedule. Violations may result in enforcement action, including Water Board or court orders requiring corrective action or imposing civil monetary liability, or in terminating the applicability of the Conditional Waiver to a specific facility or Discharger.

If during the performance of Discharger and/or Water Board staff inspections, deficiencies, defects, and/or impending failures are observed in any of the manure-contacted water conveyance, control, and/or retention structures, the Discharger shall take immediate action to correct and/or prevent any unauthorized release. The corrective action(s) must be documented and these records attached to the Noncompliance Report.

C. Record-Keeping

The Discharger shall create, maintain for five years, and make available to the Water Board during inspections and upon request by the Water Board, any reports or records required by the Conditional Waiver including those required under this MRP.

D. **Signature and Submittal.**

Each Annual Report and Noncompliance Report shall be signed by the Discharger or a duly authorized representative and shall contain the following statement:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this report and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Reports shall be submitted to:

California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
Attention: Confined Animal Facility Program

E. Extension Request

The Discharger may request an extension to MRP deadlines by written request to the

Executive Officer at least 30 days prior to the deadlines. This request must include a description of incomplete plan elements, an alternative date of compliance, and assurance of water quality protection in the interim. A letter from the Water Board will be issued granting or denying the request. A staff inspection may be necessary.

APPENDIX

1. Annual Report (template to be provided to enrollees by September 30, 2015)
2. Sampling and Analysis Reduction Certification (template to be provided to enrollees by September 30, 2015)
3. Schedule for Activities Required by the Conditional Waiver of Discharge Requirements for Existing Dairies

MONITORING AND REPORTING PROGRAM

APPENDIX 1
Annual Report Form

&

APPENDIX 2
Sampling and Analysis Reduction Certification Form

(Templates to be provided to enrollees by September 30, 2015)

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MONITORING AND REPORTING PROGRAM

APPENDIX 3

Schedule for Activities Required by Conditional Waiver of Waste Discharge Requirements for Existing Dairies

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MONITORING AND REPORTING PROGRAM - APPENDIX 3
Schedule for Activities Required by
Conditional Waiver of Waste Discharge Requirements for Existing Dairies

		Timeline of Requirements for the CAF Waiver			
Year	NOI	Facility Monitoring Plan	Waste Management Plan	Grazing Management Plan	Nutrient Management Plan
2015	**X***				
2016		**X****			
2017			**X**	**X**	
2018					
2019					**X**
			*** NOI Due September 1.**		
			**** Facility Monitoring Plan completed and implemented by November 1.**		
			All other requirements must be completed by November 30.		

	Repeating Requirements	
Activity	Frequency of Activity	
Production/Confined Area Inspection	Daily	
Retention Pond (Freeboard) Inspection & Measurement	Wet Season - Weekly	Dry Season - Monthy
Cropland/Pasture Inspection	Daily during irrigation/application of manure	
Storm Event Preparations	Conducted prior to anticipated storm events, and during extended storm events	
Grazing Operation Monitoring	Wet Season - Monthy	Dry Season - Twice (including once in September)
Surface water Sampling	At least three times during the wet season	
Groundwater Sampling	Four samples starting Fall 2016 seperated by aproximately six months	
Pre rainy Season Storm Event Preparation and photos	Before rainy season not later than November 30	
Retention Ponds Must be Clean	Before rainy season not later than November 30	
Uncovered Feeding/Confined Areas Must be Scraped	Before rainy season not later than November 30	
Annual Report	Due annually November 30	

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ATTACHMENT B

WASTE MANAGEMENT PLAN
MINIMUM REQUIREMENTS

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ATTACHMENT B

California Regional Water Quality Control Board
San Francisco Bay Region

Conditional Waiver of Waste Discharge Requirements

Waste Management Plan
Minimum Requirements

Resolution No. R2-2015-00xx (hereafter, Conditional Waiver) requires the preparation and implementation of a Waste Management Plan (WMP) for the confined animal facility (CAF) production areas including, but not limited to, the milk parlor, corrals, barns, feed storage area, compost piles, retention ponds, dry manure storage areas, animal wash areas, and onsite ancillary operations such as food processing.

The purpose of the WMP is to ensure that the CAF is designed, constructed, operated, and maintained so that wastes, nutrients, and contaminants generated by the facility are managed to prevent adverse impacts to surface water and groundwater quality.

The WMP must evaluate existing facilities and pollutant sources/problems and describe how these sources are controlled utilizing Best Management Practices (BMPs). Most existing dairies previously covered under expired Resolution No. R2-2003-0094, will continue to implement a site-specific WMP, which may need to be updated in accordance with the requirements below.

If it is determined that the existing facility does not meet the Conditional Waiver requirements and/or the Minimum State Standards (Title 27) due to inadequate structural facilities and/or a failure to implement effective pollution prevention management practices, a detailed improvement plan and schedule must be included within the WMP.

A. **General Requirements:**

1. The facility WMP must be kept on the CAF site and must be made available for review by Water Board staff during inspections. Temporary controls must be in place to prevent waste discharges to surface water and groundwater prior to implementation of the completed plan.

2. Dischargers have the option to prepare the entire WMP, including containment structure specifications, through a technical education program administrated by a qualified professional. Examples of these professionals include, but are not limited to, registered professional engineers (PE), or the qualified staff of the Natural Resource Conservation District (NRCS), Resource Conservation Districts (RCDs), the University California Cooperative Extension, or technical service providers (TSPs) certified by the NRCS. The Executive Officer may approve the use of alternative specialists.

3. The WMP must include a statement from the owner/operator or responsible professional that the WMP was developed in accordance with the requirements of the Conditional Waiver, that it includes all necessary documentation (including calculations), and that all

contents of the WMP (and NMP) were done consistent with requirements of the Conditional Waiver and Title 27. Within three years of submitting an NOI, this statement must be submitted to the Executive Officer by separate letter or as an attachment to the Annual Report.

4. Wellheads must be protected to prevent movement of contaminants to groundwater. The WMP must discuss the manner by which wellheads are protected. The WMP must contain documentation from a trained professional (i.e., a person certified by the American Backflow Prevention Association, an inspector from a State or local governmental agency who has experience and/or training in backflow prevention, or a consultant with such experience and/or training) that there are no cross-connections that would allow the backflow of waste into a well. The Executive Officer may approve the use of alternative specialists. If testing or modification of the well and/or associated piping is recommended by a responsible professional, then all testing and modifications are to be completed within 90 days from the time of the recommendation.

5. Water Wells, Section 8, Par II, in the *California Well Standards, Supplemental Bulletin 74-90 (June 1991)*, and *Bulletin 94-91 (December 1981)*, California Department of Water Resources (DWR), contains well setback standards. A setback of 100 feet is required between supply wells and animal enclosures in the production area. A minimum setback of 100 feet, or other control structures (such as housing, berming, grading), shall also be required for the protection of existing wells or new wells installed in the cropland. If a county or local agency adopts more stringent setback standards than that adopted by DWR, then these local standards shall carry precedence over the DWR Well Standards, and the Discharger shall comply with the more stringent standards.

The plan must contain the following site-specific information:

B. **Facility Description**

1. Facility Name and Address.

2. Assessor's Parcel Number, and Township, Range, Section(s), and Baseline Meridian of the property where the CAF is located.

3. The name(s), address(es), and telephone number(s) of the property owner(s), facility operator(s), and the contact person for the facility.

4. A description of all activities and operations on the facility (type of animals, where and how are the animals housed and/or confined, type of waste containment facilities used, other onsite food processing operations such as cheese-making).

5. Maximum animal population categories as listed in the Notice of Intent (Conditional Waiver Attachment F).

6. A site map (or maps) of appropriate scale to show property boundaries, all existing and proposed land-use designations (crops, grazed areas, dairy facilities, pastures, covered

and uncovered confined areas, feeding areas, etc.) and the following in sufficient detail:

a. Structures used for animal housing, milk production, food processing, and other buildings; corrals and ponds; solids separation facilities (settling basins or mechanical separators); other areas where animal wastes are deposited or stored; feed storage areas; drainage flow directions and nearby surface waters; all water supply wells (domestic, irrigation, and barn wells) and groundwater monitoring wells.

b. Process wastewater conveyance structures, discharge points, and discharge/mixing points with irrigation water supplies; pumping facilities and flow meter locations; upstream diversion structures, drainage ditches and canals, culverts, drainage controls (berms/levees, etc.), and drainage easements; and any additional components of the waste handling and storage system.

c. The basic location and features of all land application areas under the Discharger's control (total acres of each field, whether it is owned, rented, or leased) to which manure or process wastewater from the production area is or may be applied for nutrient recycling. A separate map with land application details is required in the Nutrient Management Plan (NMP, Conditional Waiver Attachment C).

d. The location of pasture lands and the pathways which animals travel to and from the production areas (if applicable).

C. **Waste Containment Capacity**

1. The WMP must contain an analysis of the existing facility's waste containment capacity. The report shall include calculations of average daily volumes of manure and waste water generated (liquids and solids), showing that the existing containment structures are capable of retaining all the process water generated by the facility, together with all precipitation on and drainage through manured areas or waste/feedstock storage areas that are likely to accumulate up to and during a 25-year, 24 hour storm event.

2. The determination of the necessary pond storage volume shall reflect:

   a. The maximum period of time (storage period) anticipated between land application events based on the NMP;

   b. The volume of manure and all process wastewater accumulated during the storage period;

   c. Normal precipitation or normal precipitation times a factor of one and a half (1.5), less evaporation on the surface area during the entire storage period. If normal precipitation is used in the calculation of necessary storage volume, the WMP shall include a Contingency Plan, as specified below;

   d. Runoff from production and manure storage areas resulting from normal precipitation (or runoff due to normal precipitation times a factor of one and a half) during the storage period. If normal precipitation runoff is used in the calculation of necessary storage volume, the WMP shall include a Contingency Plan, as specified below;

   e. 25-year, 24-hour precipitation on the facility's retention pond surface(s) (at the required design storage volume level);

f. 25-year, 24-hour runoff from the area of the facility draining to the retention pond;

g. Residual solids after liquids have been removed; and

h. To maintain structural integrity in all ponds and protect water quality, two feet of freeboard shall be maintained in partially or completely aboveground ponds and one (1) foot of freeboard shall be maintained in pond structures that are completely in ground. Freeboard shall be measured vertically, from the water surface up to the point on the surrounding berm or dike having the lowest elevation, and shall be designed and constructed to prevent overtopping as a result of windy storm conditions. Lesser freeboard may be approved by the Executive Officer for soil and clay lined ponds if documented by a registered civil engineer that structural integrity and required capacity will not be compromised with the proposed freeboard.

3. Existing retention ponds must, at a minimum, be lined with, or underlain by, soils which contain at least ten (10) percent clay and not more than ten (10) percent gravel or artificial materials or materials with equivalent impermeability or include additional lining materials necessary to comply with the Conditional Waiver's Discharge Prohibitions.

4. Retention ponds (or expanded ponds) constructed after adoption of this Resolution must comply with NRCS Waste Storage Facility Code 313 including a maximum specific discharge (unit seepage rate) of 1×10^{-6} cm/sec. Such ponds may not be used until the Discharger submits a report verifying that the liner meets this requirement. Waste shall not be placed into the retention pond until after Water Board staff notifies the Discharger in writing that the report is acceptable.

D. Facility Design

1. Animal confinement areas and storage areas for manure, feeds, soil amendments, and other potential sources of contaminants shall be designed, constructed, operated and maintained to retain all waste, wastewater, and stormwater contacting these areas that are likely to accumulate up to and during a 25-year, 24 hour storm event. The following features shall be included:

   a. The production facility is designed, constructed, and operated to minimize infiltration of manure into the underlying soils and to collect and divert all wastewater to the retention pond(s);

   b. Corrals and other animal housing is designed and constructed to divert all water that has contacted manure or wastewater to a retention pond(s) or other type of containment;

   c. Storage areas for manure, soil amendments, feed and other materials are designed and constructed to minimize infiltration of leachate and to divert clean stormwater runoff away from these areas unless all runoff from these areas is discharged to the retention pond(s). Where practicable, these areas should be covered to prevent storm water contact;

   d. All precipitation and clean surface drainage outside of manured and waste storage

areas, including that from roofed areas and tributary drainages, shall be diverted away from manured and waste storage areas, unless such drainage is fully contained in a retention pond and is included in the calculation of retention pond storage volume requirements. Covers shall be used where practical during precipitation to reduce leaching and runoff.

e. All animal confinement areas, and feed and waste storage areas, shall be managed to minimize standing water as of 72 hours after the last rainfall and the infiltration of water into underlying soils.

E. Flood Protection

1. The WMP shall contain documentation (engineering report or a copy of flood zone map) that the production area has adequate flood protection in accordance with the following Title 27 requirement:

   "Retention ponds and manured areas at CAFs in operation on November 27, 1984, shall be protected from inundation or washout by overflow from any stream channel during 20-year peak flows. CAFs existing before November 27, 1984, and that are protected against 100-year peak stream flows must continue to provide such protection. New CAFs, or portions thereof, that began operating after November 27, 1984, shall be protected against 100-year peak stream flows."

2. Retention ponds must be in conformance with NRCS Waste Storage Facility Code 313 which states that: "*Waste storage facilities must be planned, designed, and constructed to meet all federal, state, and local laws and regulations. To minimize the potential for contamination of streams, waste storage facilities should be located outside of floodplains, however, if site restriction require location within a floodplain, they shall be protected from inundation or damage from a 25-year flood event, or larger if required by laws, rules and regulations.*"

F. Operation and Maintenance

A detailed Operations and Management Plan shall be developed in order to comply with all Discharge Prohibitions, Waste Discharge Specifications, and Provisions of Resolution No. R2-2015-00xx. This plan shall also include, but not be limited to, the following:

1. A description of all erosion and sediment control measures implemented at the CAF to protect surface water. Such measures may include, but are not limited to, installation of bridges, culverts, or armored crossings, fencing, barriers, vegetative buffers, vegetative cover and/or other control measures to protect surface waters and water quality. Feeding and locating water troughs, shade, and salt/nutrient blocks away from the watercourses may also be appropriate and are encouraged wherever possible.

2. A description of pollution prevention measures for confined areas including heavily used areas devoid of vegetation, such as travel lanes and feed racks. Uncovered feeding and/or confined loafing areas must be scraped / cleaned prior to the start of the rainy season, but no later than November 30. These areas should not be used during the rainy season, unless all storm water contacting these areas is contained.

3. A determination of the facility's overall animal capacity with respect to existing facility design and which will prevent the discharge of animal waste or polluted stormwater to waters of the State.

4. An evaluation of any areas where animals may have access to creek channels and identification of pollution prevention measures both currently used and needed in the future to restrict animal access. All confined animals shall be fenced or excluded from any surface water or perennial streams passing through the confined area. Creek crossings shall be bridged in a manner that prevents animal waste from entering the waterway.

5. A description of pollution prevention measures for all non-manure waste or wastewater streams including, but not limited to, silage leachate, dead animals, waste milk, veterinary medical waste, solid and liquid waste from onsite slaughtering, solid and liquid waste from onsite food processing (such as cheese), spoiled feed, bedding, and any precipitation contacting these materials. The disposal of dead animals at the facility or in any liquid manure or wastewater retention pond is prohibited. The Discharger must dispose of dead animals in compliance with all applicable federal, State, county, and local laws and regulations.

6. A detailed description of any onsite activities or operations that may generate additional waste and/or wastewater that maybe co-mingled with the animal production waste stream (such as onsite cheese-making operations). Such a description must include, at a minimum, an analysis of all waste constituents and concentrations, estimates of daily volumes generated, pollution prevention management measures for such activities, and documentation that the existing waste containment system has the capacity to include such wastes.

7. The operation and maintenance for retention ponds must ensure that:
    a. Corrals and/or pens are designed and maintained to direct all process water and stormwater to the retention pond(s);
    b. The production facilities (e.g., barn, shed, milk parlor) are designed and maintained to direct all process wastewater and stormwater that has contacted manure, feedstocks, or soil amendments to the retention pond(s);
    c. All ponds must be managed to prevent nuisances (odors, breeding of mosquitoes, etc.), damage from burrowing animals, damage from equipment during removal of solids, embankment settlement, erosion, seepage, excess weeds, algae, and other vegetation;
    d. Retention ponds must provide necessary storage volume prior to winter storms, maintain capacity considering buildup of solids, and comply with the minimum freeboard. For ponds designated to contain the runoff from a 25 year /24 hour storm event, it is recommended that a depth marker be placed within the retention pond that clearly indicates the minimum capacity necessary to contain the runoff and

direct precipitation from a 25 year/ 24 hour storm;

e. The removal of solids from any lined pond must prevent damage to the pond liner; and

f. Retention pond inspections and clean-out shall be conducted prior to the start of the rainy season, but no later than **November 30** of each year to ensure design storage capacity.

8. A contingency plan is required if the necessary calculated storage volume is based on normal precipitation and/or runoff rather than precipitation or runoff from normal precipitation times a factor of one and a half. This plan shall describe how the excess precipitation will be managed and also shall outline emergency response options for situations such as loss of freeboard due to higher than normal precipitation, pipeline breaks, power outage, earthquake and/or flood. The contingency plan shall include names and numbers for emergency waste haulers and pump rental companies, and alternative waste disposal options, such as nearby waste ponds with adequate capacity or municipal waste treatment facilities willing to accept wastewater in an emergency situation.

9. Manifests are required to be kept onsite to record transfer of waste to outside facilities and must be kept as part of the WMP. The application of manure or process water to lands not owned, leased, or controlled by the Discharger without written permission from the landowner is prohibited. The requirements for such third party agreements are outlined in Attachment C. Nutrient Management Plan Minimum Requirements.

10. Chemicals, including, but not limited to pesticides, herbicides, fungicides, cleaning products, equipment/machinery fluids, fertilizers and other contaminants at the facilities must be used according to manufacturer's directions and in accordance with federal, State, county, and local regulations. Chemicals must not be disposed of in any manure or process water, or stormwater storage or treatment system, unless the unit is specifically designed to treat such chemicals and other contaminants. The use of disinfectants per label directions is allowed. <u>The WMP must identify which chemicals are used within the production facility, including the volume and frequency of use.</u>

11. The WMP must contain an emergency spill prevention plan (SPP) detailing measures to be taken in the case of a discharge or threatened discharge of manure, chemicals, sediment, nutrients, or pathogens to surface water or groundwater. Personnel training, first response actions, and emergency contacts must be described in the SPP. The SPP must be kept onsite and made accessible to CAF personnel. A copy of the SPP must be included in the WMP for review by Water Board staff during inspections.

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ATTACHMENT C

NUTRIENT MANAGEMENT PLAN
MINIMUM REQUIREMENTS

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ATTACHMENT C

California Regional Water Quality Control Board
San Francisco Bay Region

Conditional Waiver of Waste Discharge Requirements

Nutrient Management Plan
Minimum Requirements

Resolution No. R2-2015-00XX (hereafter, Conditional Waiver) requires the preparation and implementation of a Nutrient Management Plan (NMP) for those who apply manure and/or process water to land as a soil amendment or source of nutrients**.** Manure and process water cannot be applied to land for the purpose of disposal. Manure and process water that are wastes must be disposed at an appropriately permitted disposal facility.

In accordance with federal regulations, dairies with over 700 mature dairy cows (milked or dry) that discharge stormwater from cropland where manure, litter, or process wastewater has been applied may enroll under this Conditional Waiver if they are implementing a Nutrient Management Plan upon enrollment.

A. NMP Purpose and Implementation

The purpose of the NMP is to identify the management practices used at the facility to minimize adverse impacts to surface water and groundwater from runoff and leaching from land application areas. The NMP is specific for a particular facility and considers crops, soil types, climate, local conditions, sources of nutrients, and the non-nutrient salts applied to each field. All nutrient applications to land, including applications to pasture, must be made in accordance with an NMP. Implementation of the NMP is closely linked to each facility's waste management system, monitoring program, and environmental conditions. The NMP must be updated in response to changing conditions and the results of monitoring.

The NMP shall be developed by Dischargers with the assistance of specialists such as those that are appropriately certified or licensed such as a professional soil scientist, agronomist, crop advisor, University of California Cooperative Extension (UCCE) service advisor or technician, or a technical service provider certified by the Natural Resources Conservation Service (NRCS). In particular, Dischargers shall get assistance from these specialists in completing the nutrient budget calculations. The Executive Officer may approve the use of alternative specialists.

The most current version of the NMP must be kept at the facility and must be made available for review by Water Board staff during inspections. The NMP shall be submitted to the Water Board upon request.

The NMP shall be revised within 30 days when discharges from a land application area result in an exceedance of water quality objectives. The NMP shall be revised within 90 days when any of the following occur:

1. Site-specific information becomes available to replace default values used in the initial NMP,
2. Changes in operating practices result in the production of nutrients that are not addressed by the NMP,

3. Crops will be grown that are not covered by the NMP,
4. There is a change of 15% or more in the acreage used for land application, or
5. The NMP is not effective in preventing periodic discharges of manure or process water to waters of the United States (US).

The Discharger shall review the NMP annually and revise it if changes in conditions or practices at the facility require changes in the NMP. The review/revision date must be noted in the NMP. Records on the timing and amounts of manure and process water applied to land and information developed through a Monitoring and Reporting Program (MRP) for the facility must be considered when making decisions related to nutrient management.

B. Management of Manure and Process Water

During the development of a complete NMP, land application best management practices (BMPs – see Section E) must be in place to prevent discharges to surface waters and to comply with the Conditional Waiver's Discharge Prohibitions:

1. The collection, treatment, storage, or application of manure or process water shall not result in:
   a. Degradation of surface water or groundwater,
   b. Contamination or pollution of surface water or groundwater, or
   c. Condition of nuisance (as defined by the California Water Code section 13050).

   This requirement applies to any degradation products or any constituents of soil mobilized by the interactions between applied materials and soil or soil biota.

2. The application of manure and process water shall not violate any applicable local, State, or federal laws or regulations or contribute to an exceedance of any applicable water quality objective in the Basin Plan or of any applicable State or federal water quality criteria.

3. The discharge of process water to surface water is prohibited.

4. For large dairies (more than 700 mature cows) the discharge of stormwater to surface water from land where manure or process water has been applied is prohibited unless all applications to land are in accordance with an NMP.

C. Contents of NMP

The NMP must contain, at a minimum, the following components:

1. **Contact Information:** The name, mailing address, and phone number of (a) the owner, (b) the operator (if different), and (c) any specialist who participated in the development of the NMP.

2. **Specific dates:** The date that the NMP was completed and documentation of subsequent updates.

3. **Maps:** One or more United States Geological Survey quadrangle maps or equivalent showing the location of the facility and all areas under the Discharger's control, whether owned, rented, or leased, to which manure or process water may be applied. If suitable, an aerial photo with

appropriate notations may be utilized. The map(s), aerial photos, and/or drawings (see next section) should show the locations of all the following that exist at the facility:

a. Surface water courses and conveyances,
b. Pipelines (above or underground), where process water is mixed with irrigation water or discharged,
c. Drainage flows for the production area and each field,
d. Drainage ditches and drainage easements,
e. Drainage controls (berms, levees, etc.) for tailwater and stormwater,
f. Extent of subsurface (tile) drainage systems and associated discharge points,
g. Pumping facilities and flow meters,
h. Wells and type (domestic, industrial, agricultural, or monitoring),
i. Stormwater discharge points,
j. Any septic systems,
k. Total acreage of each field,
l. Crops grown and rotations, if any, for each application area,
m. Where types of waste are applied (solids, waste water, and/or both),
n. All water quality sampling points, and
o. A map legend.

4. **Nutrient Budget Calculations:** The NMP must include calculations showing all sources of nutrients used by the facility and demonstrating that nutrients are applied at rates that are protective of water quality. These calculations must be reviewed annually and updated if there are any significant changes in conditions or practices at the facility that necessitate changes in the NMP. These calculations may be reviewed by Water Board staff during inspections. The details of the nutrient budget are discussed below in Section D.

5. **Land application practices and water quality protection:** The NMP must describe the methods by which manure and process water are applied to land application areas and describe the BMPs that are implemented to protect surface water and groundwater.

6. **Sampling and analysis program:** The NMP must describe the associated sampling program including sampling locations, sampling frequency, and sample collection and preservation procedures.

D. Nutrient Budget Calculations

The Discharger shall develop a nutrient budget that establishes the nutrient application practices for each crop in each land application area. The initial nutrient budget may be based on default values if site-specific information is not available[1]. Subsequent nutrient budgets shall be based on site-

[1] Crop nutrient needs may be based on recommendations from the University of California or the Western

specific analytical data for soil, manure, process water, irrigation water, other sources of nutrients, and plant tissue. The nutrient budget for all sources of nutrients (nitrogen, phosphorus, potassium) shall include the following:

1. The rate of nutrient applications (e.g., pounds of nitrogen per acre) based on default values or site-specific analytical data in order to meet each crop's needs for nitrogen and phosphorus without exceeding the application rates that will protect water quality. The rate of nutrient applications shall be based on realistic yield goals for each crop in each land application area. For new crops or varieties, industry yield expectations may be used until site-specific yield information is available.

2. The quantity of manure, soil amendments, and/or process water to be applied shall be based on the nutrient content of the material, the characteristics of the material (e.g., the amount of organic nitrogen), and the site conditions (e.g., if a pasture is not grazed or mowed, the amount of residual nutrients in soil will be higher). In determining the quantity to apply, the Discharger shall consider all sources of nutrients including irrigation water, commercial fertilizers, and previous crops.

3. The timing of applications shall be based on seasonal and climatic conditions, the growth stage of the crop, and the availability of water. The anticipated maximum time between land application events (i.e., the storage period) shall be used to determine the needed storage capacity for manure and process water.

4. The method of manure, soil amendment, and process water application for each crop in each land application area shall be based on site-specific conditions and shall minimize the discharge of sediments, nutrients, and salts from the application area.

Nutrient application rates shall not approach a site's maximum ability to contain one or more nutrients through soil adsorption. If the nutrient budget shows that the nutrients generated by the facility exceed the amount needed by crops in the land application area, then the Discharger must implement management practices that will prevent impacts to surface water or groundwater due to application of excess nutrients. Such practices may include obtaining access to additional land for nutrient application, exporting manure, or reducing the number of animals at the facility.

Supplementary commercial fertilizers and/or soil amendments may be added when the application of nutrients contained in manure and process water alone is not sufficient to meet the crop needs. Specific nutrients are discussed below.

Nitrogen: Total Ammonia Nitrogen (NH_3 + NH_{4+}) and Total Nitrogen will be measured at the facility through water and soil sampling. Nitrogen application rates shall not result in total nitrogen applied to the land application areas exceeding the nitrogen application in each location as recommended by UCCE, NRCS, other local information, or 1.4 times the anticipated nitrogen removal in forage.

Fertilizer Handbook (9th Edition). Acceptable default values for the nutrient content of materials include values recognized by the American Society of Agricultural and Biological Engineers (ASABE), the Natural Resources Conservation Service (NRCS), and/or the University of California. The nutrient content of commercial fertilizers shall be California Department of Food and Agriculture published values.

If application of total nitrogen to a land application area exceeds the budgeted application rate for the specific land application area, the Discharger shall either revise the nutrient budget to prevent such exceedance in the future or demonstrate and record that the application rates have not contaminated surface or ground water. Applications of nitrogen exceeding the initial recommendations are allowable if the following conditions are met:

1. Soil Plant Available Nitrogen (PAN) testing or plant tissue testing has been conducted and indicates that additional nitrogen is required to obtain crop yield estimates typical for the soils and other local conditions;
2. The amount of additional nitrogen applied is based on the soil or tissue testing; and is consistent with UCCE or NRCS guidelines or written recommendations from a nutrient management specialist or Certified Crop Advisor;
3. The form, timing, and method of application facilitates timely nitrogen availability to the crop; and
4. Records are maintained documenting the need for the additional applications.

Phosphorus and Potassium: Application of these nutrients at agronomic levels, along with reasonable erosion control and runoff control measures, will normally prevent water quality problems. In some instances, other best management practices may need to be included in the NMP.

E. Land Application Practices

Discharges to land of solid or liquid waste shall be at rates that are reasonable for crop, soil, climate, special local situations, management system and type of manure. The total nutrient loading shall not exceed the amount needed to meet crop demand and shall be in accordance with the nutrient budget calculations. The timing of nutrient application must correspond as closely as possible with plant nutrient uptake characteristics, while considering cropping system limitations, weather and climatic conditions, and land application area accessibility.

The NMP must identify all surface water or potential conduits to surface water that are within 100 feet of any land application area and take appropriate actions to protect water quality. The following sections discuss practices that reduce the potential for pollutants from land application areas to reach surface water:

1. **Setbacks, vegetated buffers:** A setback is a specified distance that separates land application areas from surface water or a potential conduit to surface water, and where manure and process water may not be applied, but where crops may be grown. A vegetated buffer is a relatively narrow (approximately 35 feet), permanent strip of dense vegetation where no crops are grown and which is established perpendicular to the dominant slope of a land application area for the purposes of slowing water runoff, enhancing water infiltration, trapping pollutants bound to sediment, and minimizing the risk of pollutants reaching surface waters. A berm is another alternative to prevent runoff from reaching surface water.

   Manure and process water shall not be applied within a 100-foot setback to any down-gradient surface water unless a 35-foot wide vegetated buffer or physical barrier (i.e., a berm) is substituted for the 100-foot setback; or an alternative conservation practice or field-specific

condition that provides pollutant reductions equivalent to or better than achieved by the 100-foot setback. Any alternative practice utilized must be described in the NMP.

Practices for establishing and maintaining vegetated buffers include:

a. Limiting removal of vegetation within the buffers and promoting plant growth in the buffer;

b. Maintaining the recommended height for the plant species;

c. Establishing plant density for adequate filtering capacity;

d. Improving soil conditions to reduce erosion and increase infiltration; and

e. Preventing erosion channels and gullies from forming.

2. **Best Management Practices to protect surface water:**

   a. Manure and wastewater discharges to land, including spray irrigation, shall be conducted during non-rainy or non-saturated conditions, must not result in runoff to surface waters and must infiltrate completely within 72 hours after application.

   b. Land application areas that receive dry manure and/or process water shall be managed to minimize erosion.

   c. Spray irrigation applications must be accurately timed and consistently monitored in order to prevent discharges to surface waters and/or beyond the property line.

3. **Avoiding conduits that can transport pollutants:** Manure and process water shall not be applied closer than 100 feet to open tile line intake structures, sinkholes, or well heads unless the NMP contains a statement from a professional explaining that an alternative practice will be as protective as the 100-foot separation. This professional must be a registered or certified engineering geologist or hydrogeologist, or a responsible professional with experience in manure containment and structural facility specification. Documentation from initial wellhead construction may be acceptable upon review by Water Board staff.

4. **Wetland Protection**: Wetlands are waters of the State and are protected under State regulations by provisions of the California Water Code. Wetlands are also protected as waters of the U.S. under the federal Clean Water Act. The beneficial use of wetlands must be protected against water quality degradation. Discharges of manure and process water to wetlands with standing water must be addressed in the NMP. Wetlands containing standing water shall be protected through animal exclusion and the exclusion of manure or process water application.

F. Sampling, Analysis, and Calculations

Soil, manure, soil amendments, process water, irrigation water, and plant tissue shall be monitored, sampled, and analyzed, in accordance to U.S. Department of Agriculture, Natural Resource Conservation Service, 590-Practice Procedures for Nutrient Management, or an alternative sampling and analysis program developed by technical education administrator (as described above in Section A), and approved by the Executive Officer. The analytical results shall be used during the development, implementation, and revision of the NMP.

Samples of soils and crop tissues shall be analyzed for available phosphorus at least once every five years. Sampling results shall be reviewed to verify that phosphorus levels do not exceed limits needed to maintain acceptable crop yields and prevent adverse impacts to water quality. If this review determines that a buildup of phosphorus threatens water quality, application rates must be decreased until the situation is corrected.

Nutrient credit from previous legume crops shall be determined by methods acceptable to the UCCE, the NRCS, Resource Conservation District, or a technical service provider that is NRCS-certified in developing NMPs.

The NMP must identify the analytical laboratory utilized and the analyses to be conducted for soil, manure, soil amendments, process water, irrigation water, plant tissue, etc. If that information is in the MRP (Conditional Waiver, Attachment A), the NMP can reference that MRP. The laboratory utilized must be certified and use the analysis methods identified in California Analytical Methods Manual for Dairy General Order Compliance – Nutrient Management Plan Constituents:

http://anlab.ucdavis.edu/docs/uc_analytical_methods.pdf

G. Field Risk Assessment

Dischargers are required to sample discharges of stormwater from land application areas to surface water, as detailed in the MRP. The analytical results for those samples shall be used by the Discharger to assess water quality conditions and to inform management practices. If results indicate a potential for adverse impacts to receiving waters, the Discharger shall modify its NMP to reduce such movement and collect additional samples to assess the effectiveness of the modifications.

Land application areas must be managed to prevent contamination of crops grown for human consumption. When crops grown for human consumption without processing (berries, nut trees, etc.) are grown near to land application areas, the Discharger shall take appropriate actions to prevent movement of pathogens that could cause adverse impacts to human health.

H. Manifests and Third-Party Agreements

Manifests are required to be kept onsite to record transfer of waste to outside facilities and must be kept as part of the NMP. The application of manure or process water to lands not owned, leased, or controlled by the Discharger without written permission from the landowner is prohibited. The Discharger shall have a written agreement with each third party that receives process wastewater from the Discharger for its own use. The written agreement(s) shall be effective until the third party is covered under waste discharge requirements or a waiver of waste discharge requirements. The written agreement shall:

1. Clearly identify:
    a. The Discharger and dairy facility from which the process wastewater originates,
    b. The third party that will control the application of the process wastewater to cropland,
    c. The Assessor's Parcel Number(s) and the acreage(s) of the cropland where the process wastewater will be applied, and

2. Include an agreement by the third party to:

    a. Use the process wastewater at agronomic rates appropriate for the crops to be grown, and

    b. Prevent the runoff to surface waters of wastewater, stormwater, or irrigation supply water that has come into contact with manure or is blended with wastewater.

I. Record-Keeping

The Discharger must maintain records for five years, for each land application area and use the records as a basis for revisions to the NMP. In addition to the manifest records described above, records shall include:

1. All analyses of manure, process wastewater, irrigation water, soil, plant tissue, discharges (including tailwater discharges), surface water, stormwater, subsurface (tile) drainage, and groundwater.

2. All records for nutrient management and land application areas including:

    a. Expected and actual crop yields (or estimated yields if crop is grazed);

    b. Identification of crop, acreage, and dates of planting and harvest for each field;

    c. Dates, locations, and approximate weight and moisture content of manure applied to each field;

    d. Dates, locations, and volume of process wastewater applied to each field;

    e. Whether precipitation occurred, or standing water was present, at the time of manure and process wastewater applications and for 24 hours prior to and following applications;

    f. Test methods and procedures for soil, manure, process wastewater, irrigation water, and plant tissue sampling;

    g. Results from manure, process wastewater, irrigation water, soil, plant tissue, discharge (including tailwater), and stormwater sampling;

    h. Explanation for the basis for determining manure or process wastewater application rates;

    i. Calculations showing the total nitrogen, total phosphorus, and potassium to be applied to each field, including sources other than manure or process wastewater (Nutrient Budget);

    j. Total amount of nitrogen, phosphorus, and potassium actually applied to each field, including documentation of calculations for the total amount applied (Nutrient Application Calculations);

    k. The method(s) used to apply manure and/or process wastewater; and

    l. Records documenting any corrective actions taken to correct deficiencies noted as a result of the inspections required in the Monitoring Requirements above. Deficiencies not corrected in 30 days must be accompanied by an explanation of the factors preventing immediate correction.

ATTACHMENT D

GRAZING MANAGEMENT PLAN
MINIMUM REQUIREMENTS

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ATTACHMENT D

California Regional Water Quality Control Board
San Francisco Bay Region

Conditional Waiver of Waste Discharge Requirements

Grazing Management Plan
Minimum Requirements

Resolution No. R2-2015-00xx requires the preparation and implementation of a Grazing Management Plan (GMP) for confined animal facilities (CAFs) with grazing operations on grazing lands that encompass an area of 50 acres or more or encompass an area smaller than 50 acres and are identified by the Executive Officer as posing a threat to water quality. The purpose of the GMP is to identify the necessary site-specific grazing management measures to reduce animal waste and sediment runoff. In selecting what management practices to use at the facility, the Discharger shall take in consideration the vegetation, terrain, kind of livestock, and general ranch facility operation procedures. Dischargers have the option to combine the GMP elements with the facility's Nutrient Management Plan.

A. **General Requirements:**

The Discharger is required to have a completed GMP kept onsite and available for review by Water Board staff during inspections. Elements of the GMP shall include:

1. A ranch facility map, or aerial photo on a 1:12,000 scale;
2. An inventory of grazing resources based on visual observations and/or existing reports;
3. An assessment of facility conditions, per the checklist titled *Checklist Form For Assessing Grazing Operations*(attached)*, identifying controllable discharge points for pathogens, nutrients, and sediment;
4. Identification of sediment legacy discharge points, if appropriate;
5. An annual assessment of residual dry matter (RDM) as specified in the University of California 2002, California Guidelines for Residual Dry Matter Management on Coastal and Foothill Annual Rangelands, Rangeland Monitoring Series Publication 8092; and
6. A description of the of the GMP's objectives.

* The checklist is intended to guide the Discharger in the inventory of resources and the preparation of the GMP. Alternative checklists may be used, provided the Executive Officer approves of them in writing.

B. Best Management Practices

1. The GMP must include pollution prevention measures and/or best management practices (BMPs) that reduce nonpoint source pollution due to grazing and protect water quality. In selecting what BMPs to use at the facility, the Discharger must take in consideration the vegetation, terrain, kind of livestock, and general facility operation procedures. A complete and effective GMP will accomplish the following:

a. Minimize delivery of sediment from ranching lands to surface waters.

b. Minimize delivery of pathogens and nutrients from ranching lands to surface waters.

c. Establish manure management operations designed to minimize runoff from entering watercourse.

d. Manage animal use areas to minimize sediment/pathogen/nutrient runoff to water course(s).

e. Construct and maintain access and ranch roads to minimize erosion.

f. Manage existing grazing operations to prevent additional erosion of legacy sediment delivery sites.

g. Manage and design animal crossings to minimize pathogen/sediment/nutrient runoff into watercourses.

h. Protect vegetation along flowing watercourses from overgrazing to maintain natural water temperatures and protect stream banks.

2. The GMP shall also include:

   a. A description of all management practices currently implemented at the facility;

   b. A schedule for implementation of newly-selected management practices to comply with the above BMPs;

   c. An implementation schedule for management of grazing activities, structural improvements, livestock management, and land treatments necessary to comply with the above BMPs; and

   d. An implementation schedule for road-erosion control and prevention actions and actions to avoid increases in erosion of existing unstable areas due to grazing practices to comply with the above BMPs.

3. The implementation schedules shall be included in the GMP and may be updated yearly thereafter.

4. A list of potential BMPs may be found in the Natural Resource Conservation Service Field Office Technical Guide or equivalent rangeland management guidance documents. The Conservation Service Field Office Technical Guide can be obtained at local offices of the USDA Natural Resources Conservation Service or the Conservation District office.

C. Special Requirements for Walker Creek Watershed

In selecting BMPs that reduce nonpoint source pollution due to grazing, Dischargers in the Walker Creek watershed, downstream of the Gambonini Mine, must choose BMPs that will minimize the discharge of mercury or the production of methylmercury. Any proposed BMPs that involve work within the floodplain, or any proposal to implement BMPs that may have the potential for increasing the discharge of mercury or the production methylmercury, must be reviewed by Water Board staff prior to implementation. This review is typically made as part of required review and approval for other relevant permits.

If Water Board staff determine that the proposed management practice/control measure does have the potential to increase the discharge of mercury or the production of methylmercury, then the management practice/control measure will not be covered by this waiver of WDRs, and a separate Report of Waste Discharge, pursuant to CWC section 13260 shall be submitted by the Discharger.

Checklist Form
For Assessing Grazing Operations

Date: _____Weather: _____

Name of Person Completing checklist:_____

Facility Information

Facility Name:	**Owner Name & Address (if different):**
Address:	**Nearest Water Body:**
Operator Name &Address:	**Number of Animals:**
Operator Telephone Number:	**Type of Animals:**
Facility's Assessor's Parcel Number:	

Erosion and Sediment Sources

Sediment from Sheet, Rill, and Gully Erosion: Sheet and rill erosion generally occurs on crop-fields or overgrazed pastures and corrals. Gullies can occur from these same conditions, or can be caused by natural occurrences, such as from burrowing animals.

Pastures	**Yes**	**No**
Upon close inspection, is bare soil visible in pastures?		
At a distance of 20 feet, can you distinguish small objects such as roots and cow pies?		
Are there gullies or headcuts in pastures?		
Crop Fields		
Do crop-fields have rill or other signs of surface erosion?		
Are crop-fields clean cultivated so that all plant residue is tilled under?		
Road Erosion		
Do ranch roads show signs of surface erosion such as rills or gullies?		
Are there any gullies caused by unprotected culverts?		
Are drainage ditches eroding?		
Do road surfaces consist of bare soil?		

Other types of erosion noted: _____
_____
_____

_____
_____

Suggestions for correcting problems indicated by yes answers above:_____
_____
_____
_____
_____
_____
_____

Nutrients and Pathogens

Pollution from animal waste: This generally occurs where animals congregate or are confined, or where animals have access to creeks. Nutrient pollution problems are best evaluated during the rainy season when water testing can be used to locate problems.

	Yes	**No**
Are there possible sources of nutrients and pathogens from direct animal access to creeks?		
Are feeding areas, water troughs, or salting areas near creeks?		
Are manure stock piles located where runoff could flow into creeks?		

Locations of problem areas:_____
_____
_____
_____
_____
_____

Other types of animal waste pollution noted:_____
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Suggestions for correcting problems indicated by yes answers above:_____
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Riparian Areas

Condition of Creek and Streams: Riparian areas are sensitive to damage from livestock. Livestock should be excluded from or carefully managed in riparian areas. Condition of riparian areas can be evaluated at any time of the year.

	Yes	**No**
Do creek banks lack good cover of grasses trees and shrubs?		
Are creeks exposed to full sun?		
Is there excessive growth of algae in creeks?		
Are creek banks actively eroding or trampled?		
Do livestock have access to riparian areas?		
Do livestock congregate in riparian areas?		
Are waterway crossings secure and bermed?		
Are water troughs located away from riparian areas?		

Location of problem areas:_____
_____
_____
_____
_____

Other types of riparian areas degradation noted:_____
_____
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Suggestions for correcting problems indicated by yes answers above:_____
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ATTACHMENT E

DEFINITIONS

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ATTACHMENT E

California Regional Water Quality Control Board
San Francisco Bay Region

Conditional Waiver of Waste Discharge Requirements

Definitions

25-year, 24-hour rainfall event: precipitation event with a probable recurrence interval of once in twenty five years as defined by the National Weather Service in Technical Paper No. 40, "Rainfall Frequency Atlas of the United States," May 1961, or equivalent regional or State rainfall probability information developed from this source.

Animal Feeding Operation (AFO): a lot or facility where the following conditions are met: 1. Animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and 2. Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility (Federal CAFO regulations).

Agricultural stormwater discharge: where the manure, litter or process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agriculture utilization of the nutrients in the manure, litter, or process wastewater, a precipitation-related discharge of manure, litter, or process wastewater from land application areas is an agricultural stormwater discharge **(40CFR 122.23(e)).**

Agronomic rates: the land application of irrigation water and nutrients (which may include animal manure, bedding, litter, or process wastewater) at rates of application in accordance with a nutrient management plan that will enhance soil productivity and provide the crop or forage with needed nutrients for optimum health and growth.

Aquifer: ground water that occurs in a saturated geologic unit that contains sufficient permeability and thickness to yield significant quantities of water to wells or springs.

Catastrophic rainfall event: a rainfall event greater than the 25-year, 24-hour rainfall event, and includes events like tornadoes, hurricanes or other catastrophic conditions that would cause an overflow.

Concentrated Animal Feeding Operation (CAFO), Large, Medium and Small: A facility is defined as a Concentrated Animal Feeding Operation (CAFO) if it is either large (e.g., 700 or more mature dairy cows, 500 or more horses, 10,000 or more sheep/lambs), medium (e.g., 200-699 mature dairy cows, 150-499 horses, 3000-9999 sheep/lambs, and which discharges pollutants to waters of the United States as specified), or small (e.g., less than 200 mature dairy cows, less than 150 horses, less than 3000 sheep/lambs and which has been specifically designated as discharging pollutants to waters of the United States). The size thresholds for all animal sectors are listed in CFR 122.23(b) and (c).

Confined area: the area where cows are confined within the production area.

Cropland: the land application area where dry or solid manure and/or process wastewater is recycled for the purpose of beneficially using the nutrient value of the manure and/or process wastewater for crop production.

Degradation: any measurable adverse change in water quality.

Design volume: includes allowances for the volume of manure, process wastewater, and other wastes accumulated during the storage period; volume of "normal precipitation" minus evaporation; volume of runoff from the facility's drainage area during normal rainfall events; volume of precipitation from the 25-yr, 24-hr storm event on the storage structure area; volume of runoff from the facility's drainage area for the 25-yr, 24-hr storm event; volume of solids; necessary freeboard requirements; and any additional storage requirements, such as to meet management goals, or the minimum treatment volume for anaerobic lagoons.

Discharge: the discharge or release of waste to land, surface water, or ground water. The Federal Pollution Control Act states that **"discharge"** includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping;

Discharger: the property owner and/or the operator of an existing milk cow dairy subject to Conditional Waiver or General Permit requirements.

Existing facility: a facility that is constructed and operating as of date of adoption, and which has subsequently undergone no expansion in size of its physical facilities. Physical facilities include the roofed structures, such as stall barns, that limit the size of the animal herd.

Fecal coliform: means the bacterial count (Parameter 1) at 40 CFR 136.3 in Table 1A which also cites the approved methods of analysis.

Field moisture capacity: the upper limit of storable water in the soil once free drainage has occurred after irrigation or precipitation.

Freeboard: the elevation difference between the process wastewater (liquid) level in a pond and the lowest point of the pond embankment before it can overflow.

Grazing Operation: are those ranches where animals are fed or maintained on irrigated vegetation or rangeland, animals forage for a total of 45 days or more in any 12-month period, and vegetation forage growth is sustained over the parcel or ranch during the normal growing season. A Grazing Operation includes auxiliary appurtenances such as roads, reservoirs, etc.

Grazing Lands: are lands encompassing an area of 50 acres or more, where Dischargers conduct grazing, such as ranchlands, riparian areas, and pasturelands.

Groundwater: water stored underground in rock crevices and in the pores of geologic materials that make up the earth's crust; and water that flows downward and saturates soil or rock, supplying wells and springs. The upper surface of the saturated zone is called the water table.

Incorporation into soil: the complete infiltration of process wastewater into the soil, the disking or rotary tiller mixing of manure into the soil, shank injection of slurries into soil, or other equally effective methods.

Irrigation return flow: has the same meaning as return flow from irrigated agriculture in Section 502 (14) of the federal Clean Water Act, and is defined as surface and subsurface water that leaves a field following application of irrigation water, where the irrigation water is not a wastewater and

when such irrigation water has been applied in accordance with a site specific nutrient management plan. "Tailwater" may be considered an irrigation return flow if it meets the conditions in this paragraph.

Irrigation water: water that is applied to fields to grow crops.

Land application: the application of manure, litter, or process wastewater onto or incorporated into the soil.

Land application area: land under control of the cow dairy owner or operator, whether it is owned, rented, or leased, to which manure or process wastewater from the production area is or may be applied for nutrient recycling.

Liquid manure handling system: a system that collects and transports or moves waste material with the use of water, such as in washing of pens and flushing of confinement facilities. This would include the use of water impoundments for manure and/or wastewater treatment.

Manure: the fecal and urinary excretion of livestock and other commingled materials. Manure may include litter, bedding, compost, raw materials, and waste feed.

Manured solids: manure that has sufficient solids content such that it will stack with little or no seepage.

Method Detection Limit (MDL): the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in: Title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML): is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

New Source: defined in the federal regulations as "*any building, structure, facility, or installation from which there is or may be a 'discharge of pollutants,' the construction of which commenced: (a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or (b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal*." (40 C.F.R. § 122.2) Further, a facility is a "new source" if (1) the facility is constructed at a site where no other facility is located, (2) the facility totally replaces the process or production equipment that causes the discharge of pollutants at the existing facility, or (3) the facility process is substantially independent of an existing facility at the same site. (40 C.F.R. §122.29 (b)).

Non-Point Source: Diffuse discharges of waste throughout the natural environment which are a major cause of water pollution. Difficult to pinpoint physically, but often classified by type: such as, urban runoff, agriculture, mining, septic tank leach fields, silviculture, construction, etc.

Not Detected (ND): are those sample results less than the laboratory's MDL.

Notice of Intent (NOI): is a form submitted by the owner/operator applying for coverage under a general permit. It requires the applicant to submit the information necessary for adequate program implementation, including, at a minimum, the legal name and address of the owner or operator, the facility name and address, type of facility or discharges, and the receiving stream(s). See Attachment A.

Notice of Termination: is a letter or email to the Regional Board stating that the facility is no longer operating as a confined animal facility. This notice must contain all information related to facility closure such as dates of closure, any changes in facility ownership or management, tasks performed to remediate manured areas and to prevent erosion, a schedule for animal removal, and a schedule for waste removal, treatment and/or storage. Regional Board staff will review the submittal and verify that all manure and animal waste impacted soil has been disposed of appropriately so as not to pose a threat to surface water or groundwater quality or create a condition of nuisance.

Normal Precipitation: the long-term average precipitation based on monthly averages over the time that data has been collected at a particular weather station. Normal precipitation is usually taken from data averaged over a 30-year period (e.g.1971 to 2000) if such data is available.

Nuisance: is defined in section 13050 of the Porter-Cologne Water Quality Control Act as "*…anything which meets all of the following requirements:*
(1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
(2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
(3) Occur during, or as a result of, the treatment or disposal of wastes."

Nutrient: is any element taken in by a plant which is essential to its growth and which is used by the plant in elaboration of its food and tissue.

Nutrient Management Plan (NMP): is a description of site-specific nutrient management practices that ensure appropriate agricultural utilization of manure, litter, or process water, as specified in MRP, Appendix 2, NMP.

Nutrient recycling: the application of nutrients at agronomic rates for crop production.

Off-property discharge: the discharge or release of waste beyond the boundaries of the property of the dairy's production area or the land application area or to water bodies that run through the production area or land application area.

Overflow: the discharge of manure or process wastewater resulting from the filling of wastewater or manure storage structures beyond the point at which no more manure, process wastewater, or storm water can be contained by the structure.

Persistent pollutants: are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Physical facility: is defined as the roofed structure, such as the stall barn, that limits the size of the animal herd. No expansion of the physical facility (roofed structure that houses the cows, such as the stall barn) is allowed under this permit. If roofed structures need replacing/repair during permit coverage, it must be similar size and location. Limited alterations are allowed, such as converting corrals to freestalls, as long as these alterations do not increase the capacity of the physical facilities.

Point-Source: discernible, confined and discrete conveyance such as a pipe, ditch or channel, tunnel, conduit, well container, concentrated animal feeding operation or vessel, from which pollutants are or may be discharged. Does not include agricultural stormwater discharges and return flows from irrigated agriculture.

Pollutant: is defined in Title 40 Code of Federal Regulations Section 122.2 as "*…dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.*"

Pollution: is defined in Section 13050(l)(1) of the Porter-Cologne Water Quality Control Act as *"…an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses. (B) Facilities which serve these beneficial uses."* "Pollution" may include "contamination".

Pollution Prevention: any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

Pond: retention ponds, storage ponds, settling ponds, or any structures used for the treatment, storage, disposal, and recycling of process wastewater. Ponds are differentiated from sumps, which are structures in a conveyance system used for the installation and operation of a pump.

Process water: water directly or indirectly used in the operation of a confined animal facility for any or all of the following: spillage or overflow from animal watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other facilities; washing or spray cooling of animals; on-site slaughtering; or dust control, and includes any water or precipitation and precipitation runoff which comes into contact with any raw materials, products, or byproducts including manure, feed, milk, or bedding. Process water may also include waste water streams from ancillary on-site operations such as cheese-making.

Propose to Discharge: is defined as a dairy facility being designed, constructed, operated, or maintained such that a discharge to waters of the United States will occur.

Production area: is that part of a confined animal facility that includes the animal confinement

area, the manure storage area, wastewater, litter, waste containment area, the raw materials storage area such as feed, silage, and bedding materials. The animal containment area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, animal wash areas and stables. The manure storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The waste containment area includes but is not limited to settling basins, and areas within berms and diversions which separate uncontaminated storm water. The raw materials storage area includes but is not limited to feed silos, silage bunkers, and bedding materials. Also included in the definition of production area is any area used in the storage, handling, treatment, or disposal of mortalities.

Residual Dry Matter (RDM): is a term referring to the accumulation of dead plant material and is used in rangelands as a monitoring tool to indicate watershed health and rangeland productivity.

Retention Pond: means a constructed holding pond for temporary storage of solid and liquid animal manure, prior to cropland application.

Salt: sodium chloride and any added minerals (such as calcium, phosphorus, potassium, sulfur, iron, selenium, copper, zinc, or manganese) in the animal ration. Salts commonly break up into cations (sodium, calcium, etc.) and anions (chloride, sulfate, etc.) when dissolved in water. Total dissolved solids is generally measured as an indication of the amount of salts in a water or wastewater.

Setback: a specified distance from waters of the United States or potential conduits to waters of the United States where manure, litter, and process wastewater may not be land applied. Examples of conduits to surface waters include but are not limited to: Open drainage ditches, tile drainage lines, intake structures, sinkholes, and agricultural well heads.

Significant quantity: the volume, concentrations, or mass of a pollutant that can cause or threaten to cause pollution, contamination, or nuisance; adversely impact human health or the environment; and/or cause or contribute to a violation of any applicable water quality standards for the receiving water.

Significant storm event: a precipitation event that results in continuous runoff of storm water for a minimum of one hour, or intermittent discharge of runoff for a minimum of three hours in a 12-hour period.

Source of Drinking Water: any water designated or potentially suitable as municipal or domestic supply (MUN) in the Water Quality Control Plan for the North Coast Basin (Basin Plan).

State: the State of California.

State Water Board: the State Water Resources Control Board.

Stormwater: stormwater runoff, snowmelt runoff, and storm water surface runoff and drainage.

Subsurface (tile) drainage: water generated by installing and operating drainage systems to lower the water table below irrigated lands. Subsurface drainage systems, deep open drainage ditches, or drainage wells can generate this drainage.

Surface water: includes essentially all water that is on the Earth's surface, such as in a stream, lake, river, reservoir, or ocean. Surface waters include waters of the United States and their tributaries such as interstate waters and their tributaries, intrastate waters, all impoundments of these waters, and all wetlands hydrologically connected to lakes, streams, or rivers. Manure ponds are not considered surface waters in the context of this Regional Water Board Order.

Tailwater: the runoff of irrigation water from an irrigated field.

Vegetated buffer: a narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching waters of the United States.

Waste: is set forth in Water Code Section 13050(d), and includes manure, leachate, process wastewater and any water, precipitation or rainfall runoff that came into contact with raw materials, products, or byproducts such as manure, compost piles, feed, silage, milk, or bedding. The Basin Plan states that "waste" includes sewage and any and all other substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature, including such waste placed within containers of whatever nature prior to, and for purposes of, disposal.

Wastewater: is the same as "process water" as defined above.

Waters of the State: is defined in Section 13050 of the California Water Code as "*…any surface water or groundwater, including saline waters, within the boundaries of the state*." Note this includes isolated wetlands.

Waters of the United States: is defined in 40 CFR § 122.2 as (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (b) All interstate waters, including interstate "wetlands;" (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as waters of the United States under this definition; (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition; (f) The territorial sea; and (g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR § 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland.

Wetland: For regulatory purposes under the Clean Water Act, the term wetlands means "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas."

ATTACHMENT F

NOTICE OF INTENT FORM

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CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

San Francisco Bay Regional Water Quality Control Board

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF
RESOLUTION NO. R2-2015-XXXX
WAIVER OF WASTE DISCHARGE REQUIREMENTS
FOR EXISTING DAIRIES

SECTION I. FACILITY OWNER INFORMATION (See instructions)

Name:		Contact E-mail:
Mailing Address:		
City:	State:	Zip Code:
Contact Person:		Contact Phone:

SECTION II. FACILITY INFORMATION

A. Facility Name: Former Facility Name (if applicable):		County:
Mailing Address:		Contact E-mail:
City:	State: **C A**	Zip Code:
Contact Person:		Contact Phone:

Provide Latitude and Longitude of production area only if facility does not have a valid street address	**Degree/minutes/seconds**	**Decimal Form**
	Latitude: ___ ° ___ ' ___ "	___ . ___
	Longitude: ___ ° ___ ' ___ "	___ . ___
Provide Assessor Parcel Number(s) for entire operation; indicate if owned or leased **(Grazing parcels provided separately in Section II L.)**		

B. Size of Herd:

|__|__|__|__|__|__| Mature Milked/Dry Cows
|__|__|__|__|__|__| Heifer/Calf
|__|__|__|__|__|__| Sheep and Lambs
|__|__|__|__|__|__| Goats
|__|__|__|__|__|__| Other
|__|__|__|__|__|__| Total

C. Operation Type: (check one)

1. [ ] Cow Dairy 2. [ ] Goat Dairy 3. [ ] Sheep Dairy

4. [ ] Other (list animal type) _____

D. Start Date of Current Operations:
____/____/____

E. Maximum design capacity of current confined facility. Report in # of animals:_____
_____
_____
_____

F. Do your facilities have 700 or more mature cows, or 10,000 or more sheep? Yes_____ No_____

Is a Nutrient Management Plan (NWP) complete? Yes_____ No_____ Date of completion: ____/____/____

G. Type of containment structure(s) for waste including: manure, litter, silage leachate, process waste or wastewater (including storm water contacting waste): _____

Total storage capacity of above structure(s): _____ tons/gallons (circle one)

H. Does the facility have any food processing activities that would contribute to the waste stream and volume?

Yes_____ No_____

I. Total acres under the control of the discharger available for land application of manure, litter, or process wastewater:

_____ Acres

J. Is the facility currently leased and/or operated by someone other than owner? Yes _____ No _____ If the answer is yes, who is the lessee and/or operator?_____

If not previously listed, provide lessee contact info: Address:_____

Phone number: |__|__|__| -- |__|__|__| -- |__|__|__|__| Email:

K. Is your dairy California Dairy Quality Assurance Program (CDQAP) certified? Yes _____ No _____

Date of most recent certification: _____/_____/_____

L. Does the Facility maintain a grazing operation on lands encompassing 50 acres or greater? Yes _____ No _____

If the answer is yes, please list the Assessor's Parcel Numbers for the grazing operation below (owned and/or leased):
_____
_____

SECTION III. ADDRESS FOR CORRESPONDENCE

Send Correspondence to : [ ] Facility Owner Address (Section I) [ ] Facility Address (Section II A) [ ] Lessee/Operator Address (Section II J)

SECTION IV. RECEIVING WATER INFORMATION

Does your facility's clean storm water flow directly and/or indirectly into waters of the State (a stream, river, lake, ocean, etc.)? (circle one)

If it is indirect explain: (for example, "storm water is diverted to ditch that travels 100 yards to offsite ditch that eventually drains to San Antonio Creek".)

Explanation:_____

Closest receiving waterbody is: |__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|__|

SECTION V. IMPLEMENTATION OF WAIVER CONDITIONS

A. STATEWIDE MINIMUM STANDARDS FOR CONFINED ANIMAL FACILITIES (*check if true*)

[ ] Facility is currently operating in compliance with Statewide Minimum Standards for Discharges of Animal Waste (Title 27, see Attachment G)

B. FACILITY / OPERATION MANAGEMENT (check if true)

[ ] Manure ponds and containment facilities are designed to accommodate the waste water flow and stormwater contacting manured areas, that is likely to accumulate in the wettest winter that may occur in a 25-year, 24-hour storm event.

[ ] Manure ponds and containment facilities are managed in accordance with the waste discharge specifications for the Waiver of WDRs.

[ ] All non-manure wastes such as silage leachate, dead animals, waste milk, veterinary medical waste, spoiled feed, bedding, etc., are contained and managed in accordance with the waste discharge specifications for the Waiver of WDRs.

[ ] All direct and indirect discharges of waste, including storm water contacting wastes, from the animal production or housing area are contained and prevented from entering any surface water, or tributary thereof.

[ ] All confined animals are fenced or excluded from any surface water or perennial streams passing through the confined area.

SECTION VI. MONITORING PROGRAM

[ ] The Monitoring and Reporting Program will be reviewed and all tasks will be conducted as required (check if true)

Please check one regarding required surface water sampling:

[ ] The dairy will participate in group surface water monitoring

[ ] The dairy will perform individual surface water monitoring

SECTION VII. CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the waiver, including the implementation of a Monitoring Program Plan, will be complied with."

Printed Name:_____ Signature:_____

Title: _____ Date: _____

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ATTACHMENT G

TITLE 27
STATEWIDE WATER QUALITY REGULATIONS FOR CONFINED ANIMAL FACILITIES

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ATTACHMENT G

California Regional Water Quality Control Board
San Francisco Bay Region

Conditional Waiver of Waste Discharge Requirements

Statewide Water Quality Regulations for Confined Animal Facilities

Title 27. Environmental Protection; Division 2 - Solid Waste
Subdivision 1. Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste
Chapter 7. Special Treatment, Storage, and Disposal Units
Subchapter 2. Confined Animals
Article 1. SWRCB - Confined Animal Facilities

*[Note: Regulations in this article were promulgated by the State Water Resources Control Board (**SWRCB**), are administered by the appropriate Regional Water Quality Control Board (**RWQCB**) through the issuance of waste discharge requirements (**WDRs**), and are applicable to the owner or operator of a waste management unit (**Unit**) for the treatment, storage, or disposal of animal waste at confined animal facilities.]*

22560. SWRCB - Applicability. (Ch-15: Section 2560)

(a) **General —** This article prescribes statewide minimum standards for discharges of animal waste at confined animal facilities. These standards shall either be implemented in any WDRs issued for a particular animal waste facility or shall be made a condition to the waiver of such requirements.

(b) **ROWD —** A discharger required to submit a report of waste discharge shall provide the following general information and shall report any material changes as defined in Section 2210 of Title 23 of this code:

(1) average daily volume of facility wastewater and volume or weight of manure;

(2) total animal population at the facility, and types of animals;

(3) location and size of use or disposal fields and retention ponds, including animal capacity; and

(4) animal capacity of the facility.

(c) **Regulations Are Minimum Standards —** The RWQCB shall impose additional requirements, if such additional requirements are necessary to prevent degradation of water quality or impairment of beneficial uses of waters of the state.

Note:

Authority cited:
Section 1058, Water Code.

Reference:
Sections 13140-13147, 13260 and 13263, Water Code; Section 43103, Public Resources Code.

22561. SWRCB - General Standard For Surface Water. (Ch-15: Section 2561)

The discharger shall prevent animals at a confined animal facility from entering any surface water within the confined area.

Note:

Authority cited:
Section 1058, Water Code.

Reference:
Sections 13140-13147, 13260 and 13263, Water Code; Section 43103, Public Resources Code.

22562. SWRCB - Wastewater Management. (Ch-15: Section 2562)

(a) **Design Storm (for Run-On/Run-Off Control) —** Confined animal facilities shall be designed and constructed to retain all facility wastewater generated, together with all precipitation on, and drainage through, manured areas during a 25-year, 24-hour storm.

(b) **Manured Area Run-On Exclusion —** All precipitation and surface drainage outside of manured areas, including that collected from roofed areas, and runoff from tributary areas during the storm events described in (a), shall be diverted away from manured areas, unless such drainage is fully retained. RWQCBs can waive application of such requirements only in specific instances where upstream land use changes have altered surface drainage patterns such that retention of flood flows is not feasible.

(c) **Design Storm (for Flood Protection).**

(1) Retention ponds and manured areas at confined animal facilities in operation on or after November 27, 1984, shall be protected from inundation or washout by overflow from any stream channel during 20-year peak stream flows.

(2) Existing facilities that were in operation on-or-before November 27, 1984, and that are protected against 100-year peak stream flows must continue to provide such protection. Facilities, or portions thereof, which begin operating after November 27, 1984, shall be protected against 100-year peak stream flows.

(3) The determination of peak stream flows shall be from data provided by a recognized federal, state, local, or other agency.

(d) **Retention Pond Design —** Retention ponds shall be lined with, or underlain by, soils which contain at least 10 percent clay and not more than 10 percent gravel or artificial materials of equivalent impermeability.

(e) **Discharge To Disposal/Use Fields —** The RWQCB shall allow the discharge of facility wastewater and of collected precipitation and drainage waters to use or disposal fields only if such discharge is in accordance with section 22563. Absent an NPDES permit for discharge to surface waters, the only other allowable discharge is to wastewater treatment facilities approved by the RWQCB.

Note:

Authority cited:
Section 1058, Water Code.

Reference:
Sections 13172, Water Code; Section 43103, Public Resources Code.

22563. SWRCB - Use or Disposal Field Management. (Ch-15: Section 2563)

(a) **Reasonable Soil Amendment Rate —** Application of manure and wastewater to disposal fields or crop lands shall be at rates which are reasonable for the crop, soil, climate, special local situations, management system, and type of manure.

(b) **Run-Off & Percolation —** Discharges of facility wastewater to disposal fields shall not result in surface runoff from disposal fields and shall be managed to minimize percolation to ground water.

Note:

Authority cited:
Section 1058, Water Code.

Reference:
Section 13172, Water Code; Section 43103, Public Resources Code.

22564. SWRCB - Management of Manured Areas. (Ch-15: Section 2564)

Manured areas shall be managed to minimize infiltration of water into underlying soils.

Note:

Authority cited:
Section 1058, Water Code.

Reference:
Section 13172, Water Code; Section 43103, Public Resources Code.

22565. SWRCB - Monitoring. (Ch-15: Section 2565)

The RWQCB can require confined animal facility operations to undertake a monitoring program as a condition to the issuance or waiver of WDRs.

Note:

Authority cited:
Section 1058, Water Code.

Reference:
Sections 13172 and 13267, Water Code.

Source: http://www.calrecycle.ca.gov/laws/regulations/Title27/
8/17/11

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APPENDIX B

COMMENT LETTERS RECEIVED

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MARIN RESOURCE CONSERVATION DISTRICT

May 1, 2015

Ms. Laurie Taul
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Renewal of Conditional Waiver of Waste Discharge Requirements for Existing Cow Dairies

Dear Ms. Taul:

The Marin Resource Conservation District (Marin RCD) is pleased to have the opportunity to comment on the *Renewal of Conditional Waiver of Waste Discharge Requirements for Existing Cow Dairies* (Dairy Waiver). The Marin RCD has a long history in connecting dairy operators with the necessary technical and financial resources that are required to comply with state and federal water quality regulations, often with funding generously provided under the guidance of your agency. The Marin RCD therefore offers the following comments for your consideration as you revise your program:

Resolution, Section F. Required Reports and Notices, page 17/21
Four plans are required for each dairy: Facilities Monitoring Plan, Waste Management Plan, Grazing Management Plan, and Nutrient Management Plan. The distinction between the Waste Management and Nutrient Management Plans is confusing and should be consolidated. It may be difficult and cumbersome for dairy producers and third party certifiers to separate the differences in the planning process.

It is also important to note that prior to the State's adoption of the Dairy Waiver, the Marin RCD, upon request of local dairy producers, secured state and federal funding to assist producers in the identification and implementation of Best Management Practices to address water quality issues. In the years since adoption, producers have been in compliance and actively implementing hundreds of Best Management Practices to improve water quality. The Marin RCD and local USDA Natural Resources Conservation Service Field Office cannot keep up with demand associated with these needs and therefore the Marin RCD urges the RWQCB to support producers in meeting the demands of the new Dairy Waiver with the understanding that so much work has been done and continues to occur. A delay in third party certification or the completion of Best Management Practices could be the unfortunate result of backlog that is already occurring at the local level.

Attachment A, Conditional Waiver Monitoring and Reporting Program, Section C. Water Quality Testing, Surface Water Sampling, page 4/10

"Surface watercourses that flow through the facility, including the production area, cropland, or pastures, must be sampled using grab samples at the point where the watercourse enters and leaves the lands used for the dairy operation."

Consider a tiered water monitoring approach; first analyzing water quality data collected from downstream monitoring locations as a first level of reconnaissance that will then determine water quality monitoring compliance of upstream users. Many monitoring locations in our area, as reported by RWQCB, are consistently meeting water quality targets. This level of water quality testing should not apply to dairy producers who are consistently meeting targets.

Attachment A, Conditional Waiver Monitoring and Reporting Program, Section C/3. Groundwater Well, page 6/10

Is a Total Coliform benchmark of 1.1 MPN/100ml[2] an acceptable measure of water quality as it affects human health? How does this benchmark compare to other indicator bacteria? Please consider providing dairy producers with additional information regarding these parameters.

Attachment C, Nutrient Management Plan, Section E. Land Application Practices: 1. Setbacks, vegetated buffers, page 6/9

"Animals must be separated from surface waters by a 35-foot wide vegetated buffer unless an alternative practice demonstrating equal of better water quality protection is utilized and describe in the NMP."

This statement seemingly proposes that all animals are to be excluded from surface waters by a 35 ft. buffer and the one way to accommodate this requirement is with fencing. Is the intention to require the fencing of all stream corridors at dairy operations? Please clarify the above statement to provide clear guidance to dairy operators in the planning and implementation of Best Management Practices adjacent to stream corridors. Agricultural producers in Marin County have fenced and restored miles of stream in Marin County. Livestock exclusion in riparian systems has inadvertently presented challenges with the protection of native riparian ecosystem function by encouraging invasive nonnative plant species to take hold on the ranch and neighboring properties. Invasive plants such as woolly distaff thistle and other federally and state listed noxious species have overtaken thousands of acres resulting in enormous land management challenges for our dairy operations, a vast majority of which are certified organic producers who are relying on mechanical methods of control. While we recognize the importance of protecting riparian ecosystems, its is also important to note that careful management is the key to a well balanced riparian system and periodic grazing may be one consideration in achieving a successful outcome.

Thank you for the opportunity to comment on the Dairy Waiver and provide input in the protection of water quality on agricultural lands in the State of California. Please do not hesitate to contact us with questions.

Sincerely,

Nancy Scolari
Executive Director
Marin RCD

NORTH MARIN
WATER DISTRICT

Transmitted via email to laurie.taul@waterboards.ca.gov

999 Rush Creek Place
P.O. Box 146
Novato, CA 94948

PHONE
415.897.4133

FAX
415.892.8043

EMAIL
info@nmwd.com

WEB
www.nmwd.com

April 30, 2015

Laurie Taul
San Francisco Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Renewal of Conditional for Waiver of Waste Discharge Requirements Existing Dairies

Dear Ms. Taul:

The North Marin Water District (NMWD) owns and operates Stafford Lake for the production of potable water supplies to the community of Novato in northern Marin County. NMWD encourages property owners on the Stafford Lake watershed to use best management practices (BMP's) and ensure the highest level of water quality in the Stafford Lake water supply. Over the past 20 years NMWD has partnered with watershed ranchers and property owners to develop and implement projects to control, contain and manage waste from confined animal facilities (CAF). As part of NMWD's ongoing efforts, water quality samples are collected on the Stafford Lake watershed and used to focus project efforts on the highest nutrient sources. While NMWD has funded several projects to mitigate the nutrient in runoff from these sites we cannot fund all of the necessary work required to eliminate the runoff.

NMWD attended the March 13, 2015 stakeholder meeting in Petaluma, pertaining to CAF fees. NMWD is concerned that the proposed fees may not result in on-site project funding for improvement projects that these ranchers have identified and need. It does not appear that the proposed additional fees and Water Board over-sight will do anything to help resolve the known CAF waste control issues.

NMWD is interested in continuing to assist neighboring ranchers and property owners to plan and implement BMP's to reduce nutrient in runoff resulting from CAF, but recognizes that a funding source is necessary to help pay for the improvement projects. In a recent report in the Point Reyes Light

newspaper one of the ranchers on the Stafford Lake watershed stated: "he didn't anticipate doing things differently," which means we should not expect a reduction in nutrient loading from waters entering Stafford Lake from that location.

Please accept these comments, consider targeting the proposed fees for water quality improvements and advise of other potential funding strategies that NMWD and the Stafford Lake watershed property owners may utilize to reduce nutrient laden runoff.

Sincerely,

Chris DeGabriele
General Manager

Cc:
Dominic Grossi
Nancy Scolari, Marin RCD
Steve Kinsey, Marin County Supervisor

x:\maint sup\2015\proposed sfrwqcb caf waiver program comments r.docx

R & J McClelland Dairy
Robert and Jolynn McClelland
100 Pierce Point Rd. Inverness, CA 94937
Mailing Address: P.O. Box 37 Tomales, CA 94971
707-876-3292
jcmcows@yahoo.com

May 1, 2015

Laurie Taul
Confined Animal Facility Program Manager, Planning Division
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Dear Ms. Taul:

I appreciate the opportunity to provide comments on the San Francisco Bay Regional Water Quality Control Board's (Board) proposed Confined Animal Facilities (CAF) waiver for existing dairies. I am a fourth generation dairy producer to operate on the Point Reyes Peninsula. My great-grandfather emigrated from the Azores in the early 1900s and settled on Point Reyes. My family continued the dairying tradition which allowed my husband and I the opportunity to begin milking our own herd on the Historic L Ranch in the Point Reyes National Seashore.

I urge the Board to keep in mind when adopting the new regulations that the dairies in the region continue to struggle with milk prices that do not always keep up with the cost of production; our prices are dictated to us—we are price "takers" not price "setters". While keeping financial constraints in mind, remember the dairies in this region are all small family farms. All of the documentation requirements fall on the dairy farmer who already has a long chore list as it is. Our dairies are not large enough in size to afford to hire extra staff to keep up with additional paperwork. I am confident the Board will come up with a plan that protects water quality while at the same time is something that is reasonable and that producers can comply with.

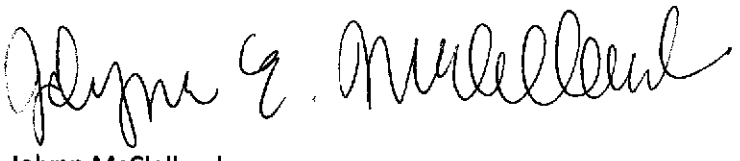
The San Francisco Bay Region has its own unique set of circumstances. I am encouraged to see that the revisions in the Waiver have focused the regulation to our region instead of burdening dairies with requirements that are not an issue here. There are still some requirements that need to be fine-tuned in order to protect water quality while at the same time providing producers with achievable guidelines. I fully support the comments submitted by Western United Dairymen on May 1, 2015 and I want the

Board to understand that their suggestions are ones that the producers will be able to comply with. As you look them over, remember these important points:

1. We are small family farms who care deeply about water quality. We only ask that the requirements are something that a small family farm can achieve.
2. Farming can be a volatile business due to prices and weather—do not burden producers with expensive requirements.
3. Most importantly, the producers in the San Francisco Bay Region have a long history of being proactive and cooperative when it comes to improving water quality and working with Control Board. Please recognize those efforts when making your decision.

Thank you again for the opportunity to make comments regarding the Confined Animal Facilities (CAF) waiver. I appreciate having the chance to be a part of the process and to share my point of view. I am confident that having producers be a part of the process will have positive effects on the San Francisco Bay Region—especially environmentally. Positive encouragement from regulators not only helps build relationships, but is a great motivator for producers to only want to do better. I encourage you to continue to work with Western United Dairymen closely to craft a regulation that protects the water quality of the region while still allowing dairy producers to successfully run their small family farms. If you have any further questions, please feel free to contact me.

Sincerely,



Jolynn McClelland
R & J McClelland Dairy

Dear Ms. Taul,

Thank you for giving us the opportunity to comment regarding the San Francisco Bay Regional Water Quality Control Board's (Board) proposed Confined Animal Facility (CAF) waiver for existing dairies. Our dairy- Spaletta Dairy (Point Reyes), fully supports Western United Dairymen's letter dated May 1, 2015 and submitted by Paul Sousa, Director of Environmental Affairs- WUD regarding proposed CAF dairy waiver.

We would also like to add that dairies that are certified through California Dairy Quality Assurance Program and or certified with a Comprehensive Nutrient Management Plan should be considered to receive reduced fees through your board if any expenses are subject to dairy farms for yearly renewal of CAF waivers.

Sincerely,

Spaletta Dairy 22000 Sir Francis Drake Blvd.\
Point Reyes,
California 94956

Save Our Seashore

A 501(c)(3) Charitable Organization (EIN 94-3221625)
Founded in 1993 to Protect Marin County's Ocean, Coasts, Estuaries, Watersheds and Creeks
PO Box 342, Pt. Reyes Station, CA 94956 gbatmuirb@aol.com 415-663-1881

May 1, 2015

Save Our Seashore thanks the Board staff for the overall excellent job in updating the Bay Region's Dairy Waiver Program. We do, however, offer several non-technical suggestions.

I. Transparency

We note that prior proposals have often been met with offers of cooperation from the dairy industry. While industry cooperation is always welcome, we also note that the Regional Boards have historically had limited to no funds available for inspection or enforcement. For example, the SF Region's Grazing Waiver Program has done virtually no inspections in the last 7 years.

Thus it may be reasonable to place offers of industry cooperation in the context of their expectation that there will be no independent monitoring of actual industry cooperation. We also note that monitoring done by the Tomales Bay Watershed Council shows little-to no improvement in water quality over the past decade despite the assumed compliance with Dairy and Grazing Waiver programs.

We understand that the Regional Board cannot manufacture funding to monitor these programs, but we urge that there be at least transparency on this issue. The public has a right to know whether the Board's Dairy and Grazing Waiver Programs are simply "more paperwork" or whether they encourage actual on-the ground changes. We thus request:

1) A Quarterly Report to the Board that includes:
   a) The number of sites visited in the quarter and cumulatively.
   b) The quarterly and cumulative percentage with the required paperwork.
   c) The quarterly and cumulative percentage of paperwork that accurately represented on-site conditions observed.
2) A sign requirement at the intersection of the main driveway and the public road, where we note that dairies often hang other signs for Postal, CDQAP participation or Organic certifications. Signs shall identify the status of the Dairy as or similar to the following:
   a) <u>This Dairy has been inspected and meets Clean Water Act standard</u>
   b) <u>This Dairy self-reports that it meets Clean Water Act standards</u>
   c) <u>This Dairy discharges waste under permit from the Regional Water Board</u>

II. Timing

This 2015 proposal mirrors the 2012 North Coast plan and thus cannot be unexpected:

> (Resolution Pg 17) *F . REQUIRED REPORTS AND NOTICES*
> 1. *c. Grazing Management Plan (GMP)…by September 1, ~~2018~~ <u>2016</u>….*
>   *d. Nutrient Management Plan (NMP)… by September 1, ~~2019~~ <u>2017</u>.*

III. Group Monitoring

We are concerned that the "group" and watershed-based" monitoring authorized under CWC section 13269 has been coopted by narrowly focused groups that exclude independent but interested stakeholders and include only stakeholders with a financial interest in advising or directly participating in the industry. We thus suggest the following:

(Pg 18) *F. Required reports and Notices 2. Annual Report*
"~~If participating in a~~ A group or watershed-based monitoring group~~,~~ must include independent stakeholders. If participating in such group, a statement identifying the group members and specifying the independent members must be included. Approval of the group monitoring plan by Regional Water Board staff is required. The group membership list and its monitoring program are open to public inspection.

IV. Reporting

We are concerned that photographs will not detect small cracks leaking continuously, thus:

*Attachment A (pg 8) . ~~Photos~~ A report by a qualified professional shall be ~~taken~~ completed each year **by November 30th** when the pond is empty and submitted to the Water Board to confirm that: a. The liners of the retention ponds are protective of water quality (free of weeds and cracks that may disturb the liner)*

V. Pond Integrity

We are concerned that there is no confirmation of pond integrity, thus we suggest:

Attachment B (pg 4) *Existing retention ponds must, at a minimum, be lined with, or underlain by, soils which contain at least ten (10) percent clay and not more than ten (10) percent gravel or artificial materials or materials with equivalent impermeability or include additional lining materials necessary to comply with the Conditional Waiver Discharge Prohibitions. Certification of such integrity by a qualified professional shall be on record with the Board*

VI. Default Values

We suggest that default values are likely to be the predominant choice and thus we suggest that the footnote be tightened, clarified and incorporated into the body of the document as per:

Attachment C (pg 4) *D. Nutrient Budget Calculations*
The initial nutrient budget may be based on default values if site-specific information is not available. Default ~~C~~crop nutrient needs ~~may~~ shall be based on recommendations from the University of California or the Western Fertilizer Handbook (9th Edition). ~~Acceptable d~~Default values for the nutrient content of materials ~~include~~ shall be based on values recognized by the American Society of Agricultural and Biological Engineers (ASABE), the Natural Resources Conservation Service (NRCS), and/or the University of California. The default nutrient content of commercial fertilizers shall be based on California Department of Food and Agriculture published values.

Both default and site-specific data will vary and a single "site" may exhibit "maximum ability" in one corner and less in others. Thus we suggest adding defacto standard deviation language:

(pg 4) Nutrient application rates shall not ~~approach~~ exceed a site's ~~maximum~~ ability to contain one or more nutrients through soil adsorption and shall not exceed 2/3rds of the default value or 2/3rds of the mean of the site-specific values measured.

We are concerned that "local information" could be just a local opinion. Thus we suggest:

(pg 5) *Nitrogen application rates shall not result in total nitrogen applied to the land application areas exceeding the nitrogen application in each location as recommended by UCCE, NRCS, other local information pre-approved by the Board…*

Thank you for the opportunity to comment, Gordon Gennett SOS President

SONOMA COUNTY FARM BUREAU

Affiliated with the California Farm Bureau Federation and the American Farm Bureau Federation

April 27th, 2015

Laurie Taul
San Francisco Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Dear Laurie,

The Sonoma County Farm Bureau (SCFB) would like to express our support for the San Francisco Region Water Quality Board's (Water Board) Renewal of Conditional Waiver of Waste Discharge Requirements for Existing Dairies.

SCFB is glad that the San Francisco Region has taken the area's needs and history into consideration and drafted this waiver to support the industry.

Sincerely,

John Azevedo, President
Sonoma County Farm Bureau

970 Piner Road • Santa Rosa, CA 95403 • Phone (707) 544-5575 • Fax (707) 544-7452 • Website: www.sonomacountyfarmbureau.com

United States Department of the Interior

NATIONAL PARK SERVICE
Point Reyes National Seashore
Point Reyes, California 94956

IN REPLY REFER TO:

L7617

MAY 01 2015

Bruce Wolfe, Executive Director
San Francisco Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Comments on Dairy Waiver Program R2-2015-00XX – Renewal of Conditional Waiver of Waste Discharge Requirements for Existing Dairies

Dear Mr. Wolfe:

Point Reyes National Seashore manages and supports active beef and dairy operations on more than 28,000 acres within Point Reyes National Seashore and the northern district of Golden Gate National Recreation Area. The authority to issue agricultural leases/special use permits (lease/permits) at Point Reyes National Seashore and Golden Gate National Recreation Area is specifically provided in the enabling legislation for these National Park Service (NPS) units.

In spring 2014, the park initiated the Comprehensive Management Plan for Ranching (Ranch CMP) and compliance to pursue issuance of long-term lease/permits (with terms up to 20 years) for dairy and beef cattle operations within the pastoral zone of Point Reyes National Seashore (PRNS) and Golden Gate National Recreation Area (GGNRA), consistent with the park enabling legislation, the Secretary's memorandum of November 29, 2012, and the Director's January 31, 2013 delegation of authority. The Secretary's memorandum demonstrates the support of the NPS and the Department of the Interior for the continued presence of dairy and beef ranching operations within these NPS lands. The Ranch CMP is an important step for the park and park ranchers for the long-term management of these operations in a manner consistent with the protection of park resources.

Six historic dairies operate on approximately 6,500 acres under lease/permit authorization. These dairies are integral to the historic Point Reyes Dairy District which dates back more than 150 years and many of the operating families have been a part of these dairies for generations. Each of the six dairies has converted from conventional dairy operations to organic practices within the last decade. These historic dairies encompass small coastal watersheds, each with unique site characteristics.

Point Reyes National Seashore has worked with individual dairy operators, supporting a variety of best management practices and improvements to infrastructure and nutrient management, including new loafing barns at two dairies. The dairy operators have also worked with the USDA Natural Resources Conservation Service to develop and implement conservation practices through the Environmental Quality Incentives Program, many of which have required nutrient management plans. Through the Ranch CMP the park will continue to identify ways to facilitate improvement of dairy infrastructure and management to meet evolving water quality protection goals.

The park has reviewed the Conditional Waiver of Waste Discharge Requirements for Existing Dairies (Dairy Waiver) and offers the following comments:

The proposed Dairy Waiver provides a framework for developing more robust nutrient, waste and grazing management guidelines, which the Seashore supports. However, the unique nature of each dairy in relation to small coastal watersheds does not lend itself well to a coordinated sampling effort, and may place undue burden on individual dairy operators. One concern is that the development of extensive water quality monitoring requirements may actually distract attention and investment from the operational and structural improvements that are documented to protect and improve water quality conditions. Similarly, the extent of proposed monitoring and reporting requirements, such as documentation of daily inspections, may overwhelm operators that are already making efforts to improve conditions.

Any requirements regarding the spatial proximity of grazing animals to surface waters should be carefully articulated. The park has worked closely with the ranch operators over the years to identify and protect the most sensitive resources within these ranched lands. It is important that the established grazed lands remain accessible to these operators to meet the organic pasture grazing requirements (e.g. 120 days minimum for access to pasture).

The focus of the Dairy Waiver should be on the development of plans, as well as the identification of and implementation of management practices to protect water quality, similar in scope to the established waiver for grazing operations in the Tomales Bay Watershed. Many of the proposed Waiver requirements lack specificity, which could lead to changing interpretations and failure to attain stated goals. Simplifying and clarifying the Waiver requirements would allow for more efficient and productive effort in meeting water quality goals for the region. We suggest the development of a streamlined table or checklist with due dates, and effort to combine multiple required management plans to reduce redundancy wherever possible.

The proposed Dairy Waiver also requires Residual Dry Matter (RDM) monitoring. RDM monitoring has been conducted by the park since 1987 and continues to present. UC Berkeley (UCB) is currently analyzing the park's monitoring results and RDM monitoring guidelines. The UCB review will interpret results of the past monitoring efforts and make recommendations regarding the best methods for monitoring into the future. The park would work with the dairy operators and the RWQCB to ensure that future monitoring efforts also meet the Dairy Waiver conditions. The park's Ranch CMP is in process, and is intended to help streamline procedures so that the park and operators can better identify and address structural needs within these historic ranch complexes to protect water quality.

We appreciate the opportunity to comment on the dairy waiver. If you have any questions on these comments, the park range management program, or the Ranch CMP please contact Dylan Voeller at 415-464-5216 or dylan_voeller@nps.gov.

Sincerely,

Cicely A. Muldoon
Superintendent

UNIVERSITY OF CALIFORNIA, DAVIS

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University of California
Agriculture and Natural Resources
Making a Difference for California

May 1, 2015

To: Laurie Taul, Jim Ponton

From: Deanne Meyer, Ph.D. Livestock Waste Management Specialist, UC Davis
David Lewis, Watershed Management Advisor, County Director
Stephanie Larson, Ph.D. Livestock and Natural Resources Advisor, County Director

General Comments

University of California Cooperative Extension Advisor and Specialist Meyer have provided input into the development of the Conditional Waiver of Waste Discharge Requirements and Revised Waste Discharge Requirements as well as the Grazing Conditional Waivers during the last five years. We appreciate the opportunity to provide technical information and work with Regional Board staff and interested stakeholders. The following comments are based on our best professional judgment, as well as the experience Specialist Meyer has gained through the adoption of the General Order (May, 2007) for Existing Milk Cow Dairies in the Central Valley (Region 5), and our respective involvement in adoption of the three permits for dairies in Region Board 1. We appreciate the comment period extension, given recent Calilfornia Coastal Commission hearings. We also appreciate the inclusion of on-site food processing activities in this permit as local dairies have shown tremendous interest in establishing on-farm artisan and farmsted cheese production facilities.

Implementation of these Orders will require intensive educational/outreach efforts. The University of California Cooperative Extension is a partner in the California Dairy Quality Assurance Program. We will work closely with our partners and staff from Region Board 2 to develop and disseminate timely, correct information so producers and their consultants are able to comply with new regulatory requirements.

It is not clear why separate WMP (Waste Management Plan), GMP (Grazing Management Plan) and NMP (Nutrient Management Plan) are required. The Regional Board has pre-defined dairies eligible for the Waiver to be low risk for contamination of water quality. The approach taken by Region 1 to have a Water Quality Plan (WQP) that addresses waste storage needs, compliance with Title 27, and best management practices to promote stewardship is a streamlined approach. The WQP is straight forward and understandable by operators. Region 5 has very detailed WMP and NMP due to intensive cropping/water management systems. Dairies in the San Francisco Bay Board jurisdiction more closely resemble those in Region 1 than Region 5. Modification of Region 1 WQP could be accomplished to have staged deliverables (documentation of progress) and integrate the needs of RB2 to comply with Conditional Waiver for Grazing Lands while incorporating the essense of the Waiver needs as they are stated in the draft document for WMP and GMP. This will likely lead to greater understanding of the potential impact of various management practices on water quality which will translate to improved management within watersheds. We are available to work with you and a stakeholder group to develop the staged documentation process and associated curriculum for producers. Our previous efforts in Region 1 (http://cdrf.org/home/checkoff-investments/cdqap/about-the-environmental-stewardship-program/north-coast-reference-binder/) and Region 5

(http://cdrf.org/home/checkoff-investments/cdqap/about-the-environmental-stewardship-program/wdr-general-order-reference-binder-materials/) have been helpful.

If the option to utilize a WQP is not available, establishing a staged approach for implementation of key required Plans is beneficial for both the regulated individuals, the Regional Board and those groups and individuals responsible for providing technical and financial assistance. This allows the entire regulated community to take similar steps/actions and prepare various components for management and submission purposes. We would recommend rearranging the deliverables with the GMP due first, followed by the WMP, and NMP in successive years. The GMP focusus on reducing soil erosion, a key water quality need within the Region. It is actually geared to water quality protection and not actual grazing management as described in the document. If it remains as part of the final Waiver it should be renamed. Preference would be for Plan due dates to be synchronized with Annual Report due dates to make efficient use of technical assistance, educational efforts, etc. The success of professional quality map development for Region 1 dairies resulted from dairy industry securing funds well ahead of adoption of the Orders to provide funding for Resource Conservation Districts to develop needed maps. It took approximately 9 months from when funding was procured until maps were developed for facilities in Region 1. There was an additional 6 months needed to procure the funds. The funding source used previously for Region 1 may not be available for Region 2. It is our understanding that industry is looking into this option. This was an aggressive timeline and required an iterative process between producers identifying structures and infrastructure during class time, the RCD mapping the hand drawn maps, and producers reviewing/revising developed maps before final products were completed.

By definition, dairies that qualify for the Conditional Waiver or are low risk for water quality contamination, are compliant with Title 27 and are not discharging waste to surface waters. For these facilities allowing NMP to be developed over time will likely result in greater implementation. The USDA Natural Resources Conservation Service (NRCS) provides cost share opportunities for NMPs. Limited funds are available for cost share and all requests are reviewed and prioritized. Once approved, proponents can proceed with their contracts. It will likely take years to get all facilities prioritized high enough for cost share funding for NMP and WMP assistance. One criteria considered in the ranking at the local level is the environmental improvement that each project will make. By definition, development of NMP and WMP on facilities that do not have existing, direct negative impacts and contributions to water quality may not rank as high as other projects and practices within watersheds that perhaps may result in greater erosion control or nutrient removal in waterways.

Inserting a table with a timeline at the end of the Waiver to identify deliverables will increase clarity in the waiver, allowing producers and assisting organizational representatives to clearly see when due dates are.

All dairies currently covered under the expired Waiver regularly submit Annual Report information to the Regional Board in November. It is suggested that the Notice of Intent be due in conjunction with the Annual Report. The California Dairy Quality Assurance Program and its partners are able to provide educational outreach related to Waiver contents. It is important to have adequate lead time to prepare curriculum in collaboration with Regional Board staff, provide sufficient advanced notice for meetings, deliver information and allow time for operators who don't attend the meeting to complete required paperwork. Four months lead time is important.

Streamlining the record keeping process to allow use of standard operating procedures (inspections or observations will be made daily, weekly, during/after storm events) and exceptions and associated corrective actions documented is preferred to generation of pages and pages of documents accomplishing the same summation of information.

Detailed Comments

Conditional Waiver

The following detailed comments are provided for the Renewal of Conditional Waiver of Waste Discharge Requirements for Existing Dairies (Waiver).

Scope of Coverage

Page 1 Item 2 Are current sheep or goat dairies permitted under the existing Dairy Waiver? If not, do they have experience with development of WMP or NMP? If they do not, there will be a steep learning curve for these operators. How many of these operations exist within the Region?

Page 2 Item 6 identifies that owners and operators of dairies that discharge or propose to discharge….implying that the NPDES permit allows the discharge is misleading. A legal discharge may occur when there is a 25 yr 24-hour storm event, the facility has been implementing a Nutrient Management Plan and the discharge is the storm water that is in excess of the 25 yr, 24-hr storm event.

Water Quality Concerns

Page 3 Item 13 appears to be a remnant of the previous version. Is it necessary to identify the primary types of CAFs in the region?

Page 3 Item 14 delete eggs

Page 3 Item 15 Have there been many nuisance conditions or has manure been a direct cause of pollution.

Background

Page 4 item 22 Similar studies have not been conducted for dairy regions in Region 2. It is important to recoginize that the referenced studies are in watersheds and parts of the state with different soils, geology, and hydrology forming different pathways and contributing to different fate and transport rates than in the areas this Waiver is addressing. Also identified in the studies is that inefficient irrigation water management can result in leaching of nitrate below the vadose zone. Language should be revised to remove the direct implication and inference that the same impacts to groundwater quality exist in Region 2 and that the only potential source for this impact is dairy management, based upon these studies from other parts of the California.

California Environmental Quality Act

Page 8 item 39 “no expansion in size” is unclear. Additional feed storage area, improvement manure handling/treatment/storage area, replacement of animal barns may alter physical facilities yet not increase animal housing capacity. If a notice of intent shall be required for coverage under the conditional waiver perhaps the maximum facility capacity could be defined in that document and used as the basis to identify expansion in size.

Waste Discharge Specifications

Page 11 1. e. How many dairies have creek crossings that do not prevent animal waste from entering the waterway? Such a prohibition should be specific to water quality needs. For those creeks without bridge installation how will this be accomplished – wet crossing?

Page 12 2.e. The 2’ freeboard identified here and in Attachment A Page 2 item 2 Retention pond freeboard and integrity should be corrected to be consistent with Page 4 of the WMP. The freeboard standard for in ground ponds is 1’ of freeboard and for partially or completely above ground is 2’ of freeboard as identified correctly on Page 4 of the WMP (Attachment B). The reference to freeboard should consistently be the volume of potential storage in a storage structure that must be maintained empty for structural integrity or water over topping purposes.

Provisions

Page 15. 11 Clarification may be needed for site operating personnel as owner/operator/manager and be understood this is not part time help or calf feeder, milker, feeder, etc.

Required Reports and Notices

Page 17. 1 a The section on Facility Monitoring Plan just appears. Perhaps a more descriptive term would be surface water monitoring. The second paragraph should be first and the first paragraph modificed to indicate that if an operator does not participate in the surface water monitoring then it will need to develop and have approved a facility monitoring plan.

Attachment A - Monitoring and Reporting Program (MRP)

It would be helpful to provide tabular information in the MRP to identify the benchmarks for water quality in the Basin Plan. Basin Plans are typically lengthy and difficult for a lay individual to follow.

Monthly inspections of manure containment structures is reasonable during the dry season.

In different documents services of a professional are needed. In some locations the professional is identified as responsible, trained or qualified. Once the description of the professional is defined additional language of responsible, trained or qualified is not needed.

Water Quality Testing

Watershed monitoring program is in effect a surface water monitoring program. For some facilities within the Region the surface water sampling is a logistical challenge. All waterways within or adjacent to a facility are not necessarily accessible via vehicle during the rainy season. Sampling parameters section identified on Page 5 a. do not include unionized ammonia. Yet, it is listed in the Table provided in b. with a benchmark value. This is a calculated value based on total ammonia nitrogen, temperature, and pH. Surface water sampling has occurred in parts of the Region for years through the Animal Resource Management Committee. Futhermore, trend analysis of this water quality data through Conservation Effects Assessment Programs (Lewis et al. 2005) have confirmed that water quality conditions have improved since the 1980s. Sampling points used represent downstream locations by subwatershed. If a downstream location identifies contamination then it makes sense to have more intense sampling occur. Absent elevated concentrations the additional sampling will increase costs associated with the MRP and may not provide additional useful information.

Page 6. Groundwater well sampling. Unless there is identified groundwater nitrate contamination, the four required samples taken over a two year period are excessive. Requiring multiple samples without a risk base identification is not logical. If a first sample has elevated nitrate then it makes sense to take additional samples to identify if groundwater is contaminated. Clarification is needed for a facility with more than one irrigation well. For facilities with multiple wells, one domestic and a representative irrigation well should be sufficient for analytical purposes.

Total Coliform as a test for risks to human health and providing information about potential bacterial sources is very lilmited. Alternatively, this section requiring groundwater sampling and analsyis can be improved based upon the US EPA revisions to the Total Coliform rule - http://www.epa.gov/ogwdw/disinfection/tcr/pdfs/qrg_tcr_v10.pdf – including guidance on how Total Coliform analysis is to be used in conjunction with other indicator bacteria that are more informative regarding risks to human health.

Page 8. Documentation and annual reporting 2. C. Is the need to cover manure, compost, and feed storage areas just during winter months?

Attachment B – Waste Management Plan (WMP)

Page 1. Paragraph 3. For consistency purpose it is best to not introduce Ranch Plan in a WMP discussion.

Page 2. A. 4. CDQAP has provided training to professionals regarding backflow prevention options.

Page 2. A. 5. It is important to acknowledge that the Department of Food and Agriculture has a 50' setback from animal enclosures and supply wells in the production area. For cross agency consistency this 50' setback should be used.

Page 3. C. Waste Containment Capacity. 2. c. Why is a storage design of 1.5 times normal precipitation identified as a desirable storage capacity? This is not an NRCS design criteria. This is inconsistent with the requirement within the Order (Page 12 f. "Following a storm event, the Discharger shall restore the wastewater holding capacity of retention ponds, if necessary, in a timely anner and in a manner consistent with the WMP and NMP".

Page 7 F. Operation and Maintenance. Items 8 and 11. Delete Item 11 and revise Item 8. The contingency plan identfied here is a defacto emergency manure management plan. The latter name more succinctly describes the intent of the document. The content of item 11, the SPP, should be incorporated into the emergency plan. The development of a SPP is a very detailed document with very specific requirements and does not improve on the operational efficiency when a manure management plan is sufficiently completed.

Page 7 item 9. Manifests document the transfer of nutrients off-site and out of the managerial jurisdiction of the operator. As such, they logically are a component of an NMP and not a WMP.

Attachment C: Nutrient Management Plan

Dairies under the conditional waiver were previously identified as low risk for water quality contamination. As such, mandating a nutrient management plan may or may not provide benefit to water quality.

Page 1. A. NMP purpose and implementation paragraph 2. As described herein, the educational classes provided by the California Dairy Quality Assurance Program would be acceptable by the Regional Board as a method to provide assistance to operators when the operators are preparing their NMP. Although not intended, as written, staff at NRCS and local Resource Conservation Districts would not qualify to provide assistance to producers unless they independently are a certified agronomist or crop adviser. Perhaps inclusion of individuals working in the area of pasture nutrient management would expand the pool of non-producers to assist those who seek additional information.

Page 3. Item 6. Sampling and Analysis PLAN (not program). The NMP Sampling and Analysis Plan has to describe sampling locations, sampling frequency, and sample collection and preservation methods. The source of material being sampled is more important than the location. Locations are important if runoff or surface water sampling occurs. A sampling protocol should define sample collection methods. The MRP does not provide sufficient specificity to identify sampling frequency for the NMP. Sample collection containers and preservation methods are a function of the material being sampled and the desired analyses. Many sampling protocols have been developed and are available for standard dairy media.

Page 5. Nitrogen. Although soil may be a useful tool for agronomic purposes, it is unclear what analyte is to be evaluated. Total nitrogen concentration in soil is not indicative of what is available for plant use or potentially to be leached to groundwater. Soil nitrogen can be in many forms, change forms and alter ultimate fate based on form. Typical analyses for a nitrogen based budget include monitoring what is applied and what is removed. The

remainder is being stored in soil or potentially lost through gaseous emissions or leaching. Pasture based systems add complexity to understanding nitrogen management. There are insufficient data available for CA systems to identify if 1.4 is a reasonable value or if under the non irrigated conditions associated with dairy operations in the Region this number is too low and may impair pasture/crop production.

Pages 5 and 6. E. Land application Practices. 1. Setbacks, vegetated buffers: The efficacy of vegetated buffers to reduce the delivery of sediment, nutirents, and bacteria to waterways is related to the management of the vegetation in the buffer. In these annual grass dominated practices, infiltration and nutrient uptake are higher in vegetative buffers with routine annual removal of vegetation that allows for new growth than from those with no vegetation management. Requiring complete animal separation and allowing only "flash grazing" may lead to conditions within the buffers that do not support the functions of infiltration and filtering of runoff because the needed annual vegetation removal that supports these functions has been halted.

Page 7. 4. Wetland Protection. Similar to the maintenance requirement for vegetated buffers, wetlands as sinks and sources for nitrogen and other water quality constituents function optimally when the flow pathways are diffuse and the vegetation is managed. Wetlands with direct flow pathways and that have not had appropriate levels of vegetation removal have reduced capacity to remove nutrients and bacteria than those that are managed to optimize plant nutrient uptake and water residence time. One tool for managing these landscape features is appropriately timed and managed livestock grazing.

Page 7. F. Sampling, analysis and calculations. The NRCS 590 Standard does not provide information on sampling frequency, protocol for sample collection or analytical procedures used by laboratories. Laboratories can participate in proficiency testing programs for analyses of soils, manures and plant tissue. However, all of these do not have certification options. Furthermore, if the proficiency testing program has certification of methods not deemed appropriate for analysis, there is little to no value from an NMP perspective. More important in this process is that the laboratory have a well defined QA/QC process and that their methods produce repeatable and reliable results. This section as written is not achievable.

Page 8. Item H. 2. d. Documenting the APN receiving process wastewater should be usfficient. The dairy operator has no control over the decisions of which crops are grown on land owned or operated by another entity.

Page 8. Record-keeping. This is labelled as section H and is actually I. Identify required duration for maintaining records at the facility.

Attachment D: Grazing Management Plan

As discussed in our introductory remarks, this Plan as described is more of protecting water quality than an actual grazing plan. Logically, it makes more sense to comibine the elements of the identified GMP into a WQP along with WMP needs. The primary focus of WMP and GMP as defined is to protect surface water. The secondary focus of these is to protect groundwater resources.

Relevant resources

Atwill, E.R., K.W. Tate, M. Das Gracas C. Pereira, J.W. Bartolome, and G.A. Nader. 2006. Efficacy of Natural Grass Buffers for Removal of *Cryptosporidium parvum* in Rangeland Runoff. *J. Food Protection*. 69:177-184.

Bedard-Haughn, A., K.W. Tate, and C. van Kessel. 2005. Quantifying the Impact of Regular Cutting on Vegetative Buffer Efficacy for 15N sequestration. *J. Environmental Quality*. 34:1651-1664.

das Gracas C. Pereira, M., B.A. Byrne, T.B.H. Nguyen, D.J. Lewis, and E.R. Atwill. 2013. The occurrence of subtilase-cytotoxin-encoding genes in environmental Escherichia coli isolated from a Northern California estuary. Can. J. Microbiology. 55:437-441 dx.doi.org/10/1139/cjm-2012-0606.

Davy, J., M. Doran, B. Karle, and D. Meyer. 2008. Pasture Sampling Protocol. WDR Reference Binder Tab 5, Doc 7. http://cdrf.org/wp-content/uploads/2012/06/5_7_pasture-plant-tissue-Rev-March-2011.pdf

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May 1, 2015

Laurie Taul
Confined Animal Facility Program Manager, Planning Division
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Via e-mail: Laurie.Taul@waterboards.ca.gov

Dear Ms. Taul:

Western United Dairymen (WUD) appreciates the opportunity to provide comments on the San Francisco Bay Regional Water Quality Control Board's (Board) proposed Confined Animal Facilities (CAF) waiver for existing dairies. It is important that the Board adopt appropriate regulations as the dairies in the region struggle with a combination of increased costs of doing business and prices for milk that do not keep up with ever-increasing financial burdens. It is important that regulations provide the water quality protections that are necessary while allowing producers to efficiently use their limited resources to comply. WUD is supportive of the approach that the Board is pursuing with the waiver, but continues to emphasize that all land uses that may impact water quality should participate in the process to achieve that goal.

The revisions made to the Waiver have improved the regulation to focus on issues relevant to the San Francisco Bay Region without burdening dairies unnecessarily with requirements that are overly onerous and do not address real issues in the region. With that said, we have some additional comments that will reduce the negative impacts to dairies without giving up water quality protections:

1) **Section F: Required Reports and Documents**: We appreciate the staggered approach and extended timeline for producers to complete the specified plans. We do feel, however, that a change in the order of the deliverables would be appropriate. It would make the most sense for the Grazing Management Plan (GMP) to be submitted first, since how the pastures are utilized will in turn influence the Nutrient Management Plan (NMP) and Waste Management Plan (WMP) in subsequent years. In addition, as the WMP implementation is defined in Attachment B it requires information from the NMP for completion; therefore the NMP should be developed before the WMP. These plans

should also be as useful to the daily operation and management of the dairy as possible. We feel that as the plans are currently outlined they do not meet this criterion. We would be glad to continue to work with you to improve these or suggest that the board also accept a Comprehensive Nutrient Management Plan (CNMP) developed by a USDA-Natural Resources Conservation Service (NRCS) certified Technical Services Provider that meets the requirements of the waiver in lieu of the three required reports. A CNMP is required by NRCS before a producer can utilize NRCS funding for projects and there is no sense in requiring multiple reports that address the same issues. It would also limit confusion with producers if the plan deadlines fell at the same time as Annual Report deadlines; move the due dates for everything to November 30th of the required year.

2) **Section G: Application Requirements: Number 1:** As mentioned in our previous comment letter, anyone who meets the conditions of the waiver should qualify for coverage. This includes dairies that were previously covered under the GWDR, but have made the appropriate changes to their facility to now qualify for coverage under the waiver. Over the past 12 years dairies have made a significant investment in infrastructure, spent hours taking advantage of educational opportunities, and improved on-site BMP's; those efforts should be recognized with the opportunity to operate under the less burdensome waiver.
3) **Attachment A: Page 2, Section I: Monitoring Provisions, sub-section A: Visual inspections, Number 2:** Rather than require the overly-burdensome documentation of a weekly routine for dairy producers, we feel a better approach would be exclusion reporting. Dairy producers and water board staff would be better served by the collection of information documenting when freeboard measurements DO NOT meet requirements.
4) **Attachment A: Page 2, Section I: Monitoring Provisions, sub-section A: Visual inspections, Number 3:** Again**,** we feel that a requirement to daily document a routine event of the farm creates a workload requirement on-farm that cannot be met. Rather, a report of any abnormal irrigation event would provide better, more concise information to the water board during inspections. This section, and most of the visual inspections including the one above, can be addressed through a well-designed monthly checklist. WUD has examples of checklists used in other applications and would be happy to work with the Board to develop something for this application.
5) **Attachment A: Page 4, Section I: Monitoring Provisions, sub-section C: Water Quality Testing, Number 1 Options to participate in watershed monitoring:** We would like to underscore the necessity to allow for water-shed level group monitoring. Asking dairy producers to take individual samples would create a significant financial burden on producers, as well as produce data of questionable reliability. Water quality field sampling requires the proper equipment and that the equipment be properly used, calibrated, and maintained, that is best left to professionals.
6) **Attachment A: Page 6, Section I: Monitoring Provisions, sub-section C: Water Quality Testing, Number 3: Groundwater Monitoring:** We recommend that the number or frequency of groundwater samples be re-examined. The cost to sample wells ranges from $100-$160 each time. To ease the financial burden on dairy producers we recommend that the water board drop the number of required samples from 4 to 2 with the caveat that any producers with samples that show exceedances maintain the current

sample frequency. Alternatively, if the required number of samples cannot be reduced we recommend that the board change the frequency; instead of once each fall and spring beginning in fall 2016 we recommend that, to spread costs, samples be required: a) Fall 2016 b)Spring 2017 c) Fall 2018 & d) Spring 2019

7) **Attachment B: Waste Management Plan, Page 2, Section A: General Requirements, Number 5:** A minimum setback of 100 feet between supply wells and animal enclosures is appropriate for new wells, however, many existing wells were constructed before this standard was in place and do not meet the standard. We recommend that the language be changed to reflect that new wells must meet the standard and that any existing wells meet the standard under which they were constructed. In addition, if the enclosure is constructed of an impermeable material (i.e. concrete) the setback should not be necessary.
8) **Attachment B: Waste Management Plan, Page 3, Section C: Waste Containment Capacity, Number 2:, sub C:** It is not clear why normal precipitation is multiplied by the factor of 1.5. In order to calculate containment capacity, normal precipitation is added to the 25-year, 24-hour storm, which already creates a conservative factor. We recommend that the factor of 1.5 be removed.
9) **Attachment B: Waste Management Plan, Page 7, Section F: Operation and Maintenance, Number 8:** In the event of an emergency situation a producer should be expected to have a contingency plan, but trucking waste off-site to a wastewater facility is not a realistic option. Backup ponds, ability to apply to crop or pasture and agreements with neighboring facilities would be more appropriate.
10) **Attachment C: Nutrient Management Plan, Page 5, Section D: Nutrient Budget Calculations: Number 4: Nitrogen:** The requirement of nitrogen application rates to not exceed 1.4 times the anticipated removal in forage is impossible to calculate in a pasture based system where data for total forage removed by the cow and total manure deposited by the cow cannot be measured with certainty. This requirement may be more appropriate in regions where crops are mechanically harvested and manure applications can be quantified; it is however, inappropriate and should be avoided in an area where quantification of data required to calculate this ratio is not possible.
11) **Attachment C: Nutrient Management Plan, Page 8, Section H: Record Keeping: Number 1:** We recommend that record keeping documentation be held to exclusion documentation. When conditions are abnormal or do not meet requirements producers should be required to document them. When normal conditions exist it is an over-burdensome to require producers to keep such extensive documentation on-site.
12) **Attachment C: Nutrient Management Plan, Page 8, Section H: Record Keeping: Number 2, sub a:** In a pasture-based system it is not possible to accurately document total crop yields. They can be estimated and the waiver should reflect that.
13) **Notice of Intent:** Remove the lines designated to Latitude/longitude; this leads to confusion. Highlight the need to provide those coordinates only if an address is unavailable.

We feel that the opportunity for industry input during a robust stakeholder process fosters a producer-regulator relationship of trust and understanding which in turn leads to successful water

quality programs. We hope that our comments and engagement with water board staff has verified that the North Bay dairy structure is significantly different from what is found in other regions and that the regulatory parameters need to reflect that difference. Additionally, we strongly believe that a system oriented towards an "outcome-based" program is ultimately more effective in achieving positive water quality results, rather than a "product-based" system that relies overmuch on reports and plans that consume time, effort and finances that might be better employed with work on the ground.

Again, WUD appreciates the opportunity to make comments on behalf of our dairy producer members and look forward to continuing our work with you to implement a regulation that protects the water quality of the region while still allowing dairy producers to successfully run their family businesses. Please don't hesitate to contact us with any questions you may have regarding the above comments.

Sincerely,

Paul E. Martin

Paul Martin
Interim CEO

Paul Sousa

Paul Sousa
Director of Environmental Services

APPENDIX C

RESPONSE TO COMMENTS

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RESPONSE TO WRITTEN COMMENTS FOR ITEM 6

Renewal of Conditional Waiver of Waste Discharge Requirements
For Existing Dairies in the San Francisco Bay Region

Introduction

Our responses to comments (RTCs) on the tentative order (TO or Conditional Waiver) are provided below. This RTCs document is organized in two parts: 1) responses to key comments, and 2) responses to individual comments. Key comments are summaries of those comments that share recurring themes or voice similar concerns. Individual comments are sometimes directly quoted from the comment letter or summarized for clarity and brevity. Every effort was made to preserve the original meaning and context. Where comments are repeated, we refer back to the earlier responses.

The TO was circulated for public review beginning on March 18 and ending on May 1, 2015 (44 days). We had received nine comment letters dated on or before May 1. The comment letters are organized alphabetically by affiliation and copies are contained in Appendix B.

	Affiliation	Commenter's Name	Date Received
1.	Marin Resource Conservation District	Nancy Scolari, Executive Director	May 1, 2015
2.	North Marin Water District	Chris DeGabriele, General Manager	April 30, 2015
3.	R & J McClelland Dairy	Jolynn McClelland, Owner	May 5, 2015 (postmarked May 1, 2015)
4.	Spaletta Dairy	Nicola Spaletta, Owner	May 1, 2015
5.	Save our Seashore	Gordon Bennett, President	May 1, 2015
6.	Sonoma County Farm Bureau	John Azevedo, President	April 30, 2015
7.	United States Department of Interior, National Park Service, Point Reyes National Seashore	Cicely A. Muldoon, Superintendent	May 1, 2015
8.	University of California, Davis; School of Agriculture and Natural Resources & County Cooperative Extension Offices	Deanne Meyer, PhD David Lewis, Director Stephanie Larson, Director	May 1, 2015
9.	Western United Dairymen	Paul Martin, Interim CEO Paul Sousa, Director of Environmental Services	May 1, 2015

KEY COMMENTS

Key Comment No. 1
Several commenters raised concerns about the number of individual, separate plans being required and whether the plans could be consolidated into one master plan.

In addition, concerns were expressed about the ordering of the plans, the completion dates for the plans, and that the Board should use a staggered approach for producing and implementing the key elements of the required plans.

Response to Key Comment No. 1
No changes to the TO are proposed to consolidate the individual plans (Monitoring and Reporting Program, Waste Management, Grazing Management, and Nutrient Management plans) into one master plan. Combining the plans into one master plan is acceptable and is the prerogative of the discharger, provided each plan or module incorporates elements contained in the TO and is completed within by the timeframes identified in the TO.

The strategy to require individual, separate plans grows from our experience in managing the Board's Order No. R2-2003-094 Conditional Waiver for Existing Cow Dairies (2003 Waiver), our goal to align similar program requirements with the North Coast Water Board's 2011 Dairy Waiver Program, and to incorporate input solicited from a focused technical advisory group (TAG) that reviewed key elements of the TO prior to its release for public comment. The Grazing Management Plan and Nutrient Management Plan may be optional plans if grazing activities encompass less than 50 acres or if waste is not applied to land.

The 2016 Monitoring and Reporting Program plan deadline is the shortest of the deadlines for the four plans, yet still allows over 1 year to prepare and implement a plan for visual inspections and sampling in time for the 2016-2017 rainy season. Dischargers can choose to develop an individual plan or participate in a watershed and/or group monitoring plan. The 2016 deadline also gives adequate time for a group monitoring plan to be organized, prepared, and submitted for Executive Officer approval prior to the start of the 2016-17 rainy season. Furthermore, dairies located in the North Coast Water Board's jurisdiction utilize a sampling and reporting approach that the Monitoring and Reporting Program plan mirrors and expands upon. Staff intentionally crafted plan requirements to respond to stakeholder input that we provide regulatory consistency between dairies located in adjoining regions.

With respect to the ordering of the plans, staff revised the Conditional Waiver to shorten, by one year, from 2018 to 2017, the requirement to complete and begin implementation of the Grazing Management Plan. The timeline was shortened because several commenters suggested that the information contained in the Grazing Management Plan is necessary to inform the Waste Management and Nutrient Management plans.

The 2017 Waste Management Plan and Grazing Management Plan deadlines are the second shortest because we expect the Waste Management Plan to build and expand upon work (i.e., waste pond capacity calculations, facility mapping, waste management practices, wet-season preparedness) completed by dairies previously enrolled under the 2003 Waiver. The Waste Management Plan, along with the information submitted in the Notice of Intent and facility inspections, will help staff to determine whether a dairy qualifies as low risk and best suited for

regulation under the TO or more appropriately regulated under general or individual WDRs. Similarly, the Grazing Management Plan builds upon checklists and ranch planning templates and tools that were developed in support of our Grazing Program in 2008 and are readily available to the public.

The Nutrient Management Plan, which the TAG explained as potentially the most difficult, time consuming, and costly plan to prepare, is targeted for 2019. This longer timeline should provide regulated facilities sufficient time to plan and secure funding for Nutrient Management Plan development (if they choose to have a qualified professional, such as a technical service provider from the Natural Resources Conservation Service, complete the plan) and for third-party technical assistance groups (e.g., National Resource Conservation Service, California Dairy Quality Assurance Program) to develop educational materials and expand technical capacity, as needed, to assist dischargers who may choose to develop their plan through a technical education program.

Key Comment No. 2
Several commenters requested that a compliance summary table be created and attached to the TO would allow producers and assisting organization representatives to clearly see the required due dates.

Response to Key Comment No. 2
Staff agrees with the commenters and has revised the Conditional Waiver to include a compliance summary of key deliverables by year. Please see Appendix 3 of Attachment A, Monitoring and Reporting Program.

Key Comment No. 3
Concerns were expressed over the need, frequency, locations, and the logistical challenges associated with the proposed surface and groundwater sampling requirements contained in the TO.

Several commenters requested that a tiered approach to water quality monitoring be implemented, first analyzing water quality data collected from downstream monitoring locations as a first level of reconnaissance that could be used to determine water quality compliance of upstream users.

Response to Key Comment No. 3
Staff agrees with the recommendation to include a tiered surface water monitoring approach.

The Monitoring and Reporting Program (Attachment A) has been revised to require the collection and analysis of grab samples upstream of a dairy operation only in the event that downstream, representative grab samples show exceedances above benchmark values (Monitoring And Reporting Program, Section C.2.b.). Should a downstream (down-gradient of dairy operation) exceedance occur, the individual dairy, or representative third party sampling group representative, will collect additional grab surface water samples upstream (upgradient), or at other representative locations, to bracket and isolate the problem so that the discharger can take corrective action. For a properly functioning dairy operation, the proposed changes should cut the number of grab samples in half.

Furthermore, the Monitoring and Reporting Program has been revised to allow individual dischargers who are in full compliance with the requirements of the Conditional Waiver to request a reduction in surface water sampling provided the results of at least six (6) consecutive sampling events fall at or below benchmark values.

Staff proposes that no changes be made to the groundwater element of the program because:

a) The required well sampling is short-term (limited to four events),

b) The TO allows for alternative sampling protocol proposals, and

c) Groundwater samples that have been collected for another purpose (e.g., local health department, milk inspector) may be substituted and reported in lieu of collecting and analyzing a redundant set of samples.

Key Comment No. 4
Concern was raised regarding a requirement contained in Attachment C, Nutrient Management Plan, Section E.1, Setbacks, vegetated buffers, which requires that animals must be separated from surface waters by a 35-ft wide vegetated buffer unless an alternative practice demonstrating equal or better water quality protection is utilized.

Several commenters also expressed concerns regarding the practicality and need for setbacks, vegetated buffers, and the separation of animals in pasture lands from waterways.

Response to Key Comment No. 4
Staff agrees that each discharger should assess their own operation and identify the necessary site-specific grazing management measures to most effectively reduce pathogen, nutrient, and sediment discharges. The development and implementation of a site-specific Grazing Management Plan, as outlined in Attachment D, is the most appropriate process for managing animals that are pastured near riparian corridors.

The TO has been edited to remove the statement *"Animals must be separated from surface waters by a 35-foot wide vegetated buffer unless an alternative practice demonstrating equal of better water quality protection is utilized and describe in the Nutrient Management Plan".* In addition, the sentences that follow and which refer to grazing activities have been moved to Attachment D, Grazing Management Plan.

INDIVIDUAL COMMENTS

Comment Letter No. 1

Affiliation: Marin Resource Conservation District
Commenter: Nancy Scolari, Executive Director

Comment No. 1.1
Section F – Required Reports and Notices (pp 17-21)
Consolidate Plans - The distinction between the Waste Management Plan and Nutrient Management Plan is confusing and should be consolidated. It may be difficult and cumbersome for some dairy producers and third party certifiers to separate the differences in the planning process.

Response to Comment No. 1.1
Please see response to Key Comment No. 1.

Comment No. 1.2
It is also important to note that prior to the State's adoption of the Dairy Waiver, the Marin RCD, upon request of local dairy producers, secured state and federal funding to assist producers in the identification and implementation of Best Management Practices to address water quality issues. In the years since adoption, producers have been in compliance and actively implementing hundreds of Best Management Practices to improve water quality. The Marin RCD and local USDA Natural Resources Conservation Service Field Office cannot keep up with demand associated with these needs and therefore the Marin RCD urges the RWQCB to support producers in meeting the demands of the new Dairy Waiver with the understanding that so much work has been done and continues to occur. A delay in third party certification or the completion of Best Management Practices could be the unfortunate result of backlog that is already occurring at the local level.

Response to Comment No. 1.2
Comment noted.

Comment No. 1.3
Attachment A – Monitoring and Reporting Program, Water Quality Testing, Surface Water (pp 4/10) Water Quality Sampling - Consider using a tiered-approach to water quality monitoring; first analyzing water quality data collected from downstream monitoring locations as a first level of reconnaissance that will determined water quality monitoring compliance of upstream users. This level of water quality testing should not apply to dairy producers who are consistently meeting targets.

Response to Comment No. 1.3
Staff agrees. Please see Response to Key Comment No. 3.

Comment No. 1.4
Attachment A, Monitoring and Reporting Program pp 6/10
Is a Total Coliform benchmark of 1.1 MPN/100 ml an acceptable measure of water quality as it affects human health? How does this benchmark compare to other indicator bacteria?

Response to Comment No. 1.4
Coliform bacteria are microbes found in the digestive systems of warm-blooded animals, in soil, on plants, and in surface water. These microbes typically do not make you sick; however, because microbes that do cause disease are hard to test for in the water, "total coliforms" are tested instead. If the total coliform count is high, then it is very possible that harmful germs like viruses, bacteria, and parasites might also be found in the water. The benchmark of 1.1 MPN/100ml is a benchmark in the Basin Plan for groundwater with a beneficial use of municipal supply and domestic supply. The State Water Board recommends that domestic well owners initially test for total coliform, and, if results indicate levels are above benchmark values, repeat samples should be tested for fecal coliform.

Comment No. 1.5
Attachment C, Nutrient Management Plan, Section E. Land Application Practices: 1. Setbacks, vegetated buffers, page 6/9
"Animals must be separated from surface waters by a 35-foot wide vegetated buffer unless an alternative practice demonstrating equal of better water quality protection is utilized and describe in the Nutrient Management Plan."

This statement seemingly proposes that all animals are to be excluded from surface waters by a 35 ft. buffer and the one way to accommodate this requirement is with fencing. Is the intention to require the fencing of all stream corridors at dairy operations? Please clarify the above statement to provide clear guidance to dairy operators in the planning and implementation of Best Management Practices adjacent to stream corridors. Agricultural producers in Marin County have fenced and restored miles of stream in Marin County. Livestock exclusion in riparian systems has inadvertently presented challenges with the protection of native riparian ecosystem function by encouraging invasive nonnative plant species to take hold on the ranch and neighboring properties. Invasive plants such as woolly distaff thistle and other federally and state listed noxious species have overtaken thousands of acres resulting in enormous land management challenges for our dairy operations, a vast majority of which are certified organic producers who are relying on mechanical methods of control. While we recognize the importance of protecting riparian ecosystems, it is also important to note that careful management is the key to a well-balanced riparian system and periodic grazing may be one consideration in achieving a successful outcome.

Response to Comment No. 1.5
Staff agrees. Please see response to Key Comment No. 4.

Comment Letter No. 2

Affiliation: North Marin Water District
Commenter: Chris DeGabriele, General Manager

Comment No. 2.1
The commenter explains that NMWD owns and operates Stafford Lake for the production of potable water supplies to the community of Novato and that over the past 20 years, NMWD has partnered with watershed ranchers and property owners to develop and implement projects to control, contain and manage waste form confined animal facilities. Water quality testing is used

to focus efforts on the highest nutrient sources and, although NMWD has funded several projects to mitigate nutrient runoff, they are unable to fund all necessary work to eliminate runoff.

Response to Comment No. 2.1
Board staff acknowledges and appreciates the importance of the work done by NMWD to protect Stafford Lake from nutrient runoff. We note that it is each discharger's responsibility to implement appropriate nutrient management controls and support NMWD's efforts to assist with this endeavor.

Staff proposes to meet with NMWD to review available water quality data for the Stafford Lake watershed and to work with NMWD to help focus our collective efforts to identify facilities that may require corrective action. Grant funding may also be available to assist dischargers in implementing site operational and management improvements.

Comment No. 2.2
The commenter expressed concern over fees, specifically, concerns that the proposed fees may not result in onsite project funding of improvement projects that the ranchers have identified and need. The commenter further noted that it does not appear that the proposed additional fees and Water Board oversight will *do anything to help resolve the confined animal facility (CAF) waste control issues. NMWD would like to see CAF program fees targeted for water quality improvement projects.*

Response to Comment No. 2.2
Comment noted. It is our expectation that implementation of the requirements contained in the TO will result in water quality improvements through the preparation and implementation of facility Waste Management, Grazing Management, and Nutrient Management plans. In addition, the proposed groundwater and surface water sampling and reporting program will provide Board staff with information that can be used to identify facilities requiring corrective action.

With respect to fees, the Regional Water Board has little input on how fees are allocated or redirected. Although the TO proposes no annual fees; discharger fees, including any CAF-related fees, are established by the State Water Board's Fee Branch. Annual fees paid by dischargers are deposited into the Waste Discharge Permit Fund from which the Regional Water Board's fee-paying water quality programs are funded (e.g., land disposal, waste discharge requirements, NPDES, stormwater, confined animal facilities, irrigated lands, 401-certifications). In addition, fractions of the fees are redirected to support non-fee programs (e.g., basin planning, total maximum daily load, enforcement, and the surface water ambient monitoring program and groundwater ambient monitoring program).

Comment No. 2.3
The commenter expressed interest in continuing to assist ranchers to plan and to implement BMPs to reduce nutrients in runoff resulting from CAF, but a funding source is needed to pay for the improvement projects.

Response to Comment No. 2.3
As noted above in Response to Comment No. 2.1, Staff proposes to meet with NMWD to identify facilities requiring corrective action and to explore funding opportunities that may be

available to assist ranchers in complying with the proposed TO. In recent years, several grants have been awarded to grantees in the North Bay to assist ranchers in identifying and implementing BMPs to control nutrient and sediment discharges as required by the Grazing Waiver Program.

Comment Letter No. 3

Affiliation: R & J McClelland Dairy
Commenter: Jolynn McClelland, Owner

Comment No. 3.1
I urge the Board to keep in mind when adopting the new regulations that the dairies in the region continue to struggle with milk prices that do not always keep up with the cost of production; our prices are dictated to us - we are price "takers" not price "setters". While keeping financial constraints in mind, remember the dairies in this Region are small family farms. All of the documentation requirements fall on the dairy farmer who already has a long chore list as it is. Our dairies are not large enough in size to afford to hire extra staff to keep up with additional paperwork. I am confident the Board will come up with a plan that protects water quality while at the same time is something that is reasonable and that producers can comply with.

Response to Comment No. 3.1
Comment noted. Also see Response to Comment No. 3.2, below.

Comment No. 3.2
The San Francisco Bay Region has its own unique set of circumstances. I am encouraged to see that the revisions in the Waiver have focused the regulation to our region instead of burdening dairies with requirements that are not an issue here. There are still some requirements that need to be fine-tuned in order to protect water quality while at the same time providing producers with achievable guidelines. I fully support the comments submitted by Western United Dairymen on May 1, 2015, and I want the Board to understand that their suggestions are ones that the producers will be able to comply with. As you look them over, remember these important points:

a. *We are small family farms who care deeply about water quality. We ask that the requirements are something that a small family farm can achieve.*
b. *Farming can be a volatile business due to prices and weather – do not burden producers with expensive requirements.*
c. *Most importantly, producers in the San Francisco Bay Region have a long history of being proactive and cooperative when it comes to improving water quality and working with the Water Board. Please recognize these efforts when making a decision.*

Response to Comment No. 3.2
Board staff acknowledges the unique and valuable characteristics of the typical dairy in our Region and recognizes the local producer's long-term commitment to participating in coordinated efforts toward land stewardship and water quality protection.

We have strived to develop a dairy program that is protective of water quality, practical to implement, and cognizant of cost. In response to input from a technical advisory group

comprised of industry and environmental representatives, the TO allows for management plans to be developed under the supervision of educational programs. We have also adjusted report due dates to allow coordination with classes from technical assistance organizations. This should be a low-cost option for preparing the required management plans.

Board staff will continue to work with parties interested in developing more cost-effective tools and approaches for evaluating facility compliance. Elements of existing facility management plans that meet the requirements of the TO may be substituted and re-purposed, provided that the plans are current, complete, and prepared within the timeframes identified in the TO.

Comment Letter No. 4

Affiliation: Spaletta Dairy
Commenter: Nicola Spaletta, Owner

Comment No. 4.1:
Our dairy- Spaletta Dairy (Point Reyes), fully supports Western United Dairymen's letter dated May 1, 2015 and submitted by Paul Sousa, Director of Environmental Affairs- WUD regarding proposed CAF dairy waiver.

Response to Comment No. 4.1
Comment noted. Please see our Response to Western United Dairymen's comments below.

Comment No. 4.2
We would also like to add that dairies that are certified through California Dairy Quality Assurance Program and or certified with a Comprehensive Nutrient Management Plan should be considered to receive reduced fees through your board if any expenses are subject to dairy farms for yearly renewal of CAF waivers.

Response to Comment No. 4.2
Although the TO proposes no annual fees, discharger fees, including any CAF-related fees, are established by the State Water Board's Fee Branch. The current statewide fee schedule includes a 50% reduction in annual fees for dairies that are certified through a "Quality Assurance Program", such as the California Dairy Quality Assurance Program.

We strongly encourage individual dairies to work with their representatives to track the fee setting process and to advocate for fee reductions.

Comment Letter No. 5

Affiliation: Save our Seashore
Commenter: Gordon Bennett

Comment No. 5.1
The commenter thanks Board staff for the overall excellent job in updating the Region's Dairy Waiver Program.

Response to Comment No. 5.1
Comment noted.

Comment No. 5.2
General request for transparency: *"We note that prior proposals have often been met with offers of cooperation from the dairy industry. While industry cooperation is always welcome, we also note that the Regional Boards have historically had limited to no funds available for inspection or enforcement. For example, the SF Region's Grazing Waiver Program has done virtually no inspections in the last 7 years.*

Thus it may be reasonable to place offers of industry cooperation in the context of their expectation that there will be no independent monitoring of actual industry cooperation. We also note that monitoring done by the Tomales Bay Watershed Council shows little-to no improvement in water quality over the past decade despite the assumed compliance with Dairy and Grazing Waiver programs."

Response to Comment No. 5.2
Comment noted. The recent addition of new grazing program staff has allowed us to re-establish our watershed presence through facility inspections and outreach. In addition, significant efforts have been made to evaluate available water quality data to better understand trends and help focus our inspection efforts and to secure grant funding to promote third party technical groups to help ranchers complete and implement ranch water quality plans and onsite improvements.

Attachment A, the Monitoring and Reporting Program element of the TO, will further our understanding of watershed conditions and the information produced will be used by dischargers and staff to identify aspects of an operation that require additional attention and, possible, corrective action.

Comment No. 5.3
The public has a right to know whether the Board's Dairy and Grazing Waiver Programs are simply "more paperwork" or whether they encourage actual on-the ground changes. We thus request:
1) A Quarterly Report to the Board that includes:
- *a) The number of sites visited in the quarter and cumulatively.*
- *b) The quarterly and cumulative percentage with the required paperwork.*
- *c) The quarterly and cumulative percentage of paperwork that accurately represented on-site conditions observed.*

Response to Comment No. 5.3
Staff agrees. Summary statistics and key accomplishments associated with the implementation of the Dairy Waiver will be reported to the Water Board annually via Executive Officer's Report. More detailed and/or frequent program reporting will be made by staff at the direction of the Water Board. Executive Officer's reports are published monthly and are available to public.

Comment No. 5.4
The commenter requested that a signage requirement be added to the TO that would show the compliance-status of each dairy enrolled in the program. Signage would be located at the intersection of the main driveway and public road and show that:

- *The dairy was inspected and meets Clean Water Act standards*
- *The dairy self-reported that it meets the Clean Water Act standards*
- *The dairy discharges waste under permit from the Regional Board.*

Response to Comment No. 5.4
Staff disagrees with the request to require facility compliance signage. In lieu of signage, the Executive Officer's Dairy Program reporting should provide sufficient detail and information to the public on the status of the Dairy Waiver Program.

Comment No. 5.5
The commenter requests that the timing for the creation of the required grazing and nutrient management planning documents be shortened by a year, respectively, given that the TO closely mirrors the dairy program initiated by Region 1 and thus it's requirements were not unexpected.

Response to Comment No. 5.5
The Conditional Waiver has been revised to shorten, by one year, the development and implementation of the Grazing Management Plan, from 2018 to 2017. Please see our response to Key Comment No. 1 for further detail.

The completion and impletion date for the Nutrient Management Plan is not changed from the 2019 date. The reason for the lack of change is that although significant efforts were made to align the TO with the requirements of the North Coast's Dairy Program, there still remain significant differences between the two programs.

The TO requires all pasture-based dairies in our Region to develop and to implement a Grazing Management Plan and, for dairies that apply wastes to land, to develop and implement a Nutrient Management Plan. By contrast, the North Coast's conditional waiver does not require preparation and implementation of a grazing management plan, and dischargers with herd sizes less than 700 mature dairy cows are encouraged, but not required, to prepare nutrient management plans.

Staff solicited input from a technical advisory group (TAG) while developing the TO. The TAG commented that the Nutrient Management Plan would be costly and time intensive to prepare. Staff therefore structured the TO and sequencing of TO deliverables to account for this added complexity and cost.

Comment No. 5.6
"We are concerned that the "group" and watershed-based" monitoring authorized under CWC section 13269 has been coopted by narrowly focused groups that exclude independent but interested stakeholders and include only stakeholders with a financial interest in advising or directly participating in the industry." The commenter suggests modifying F. Required Reports and Notices 2. Annual Report (Pg. 18) to include the following:

- *Group or watershed-based monitoring groups to include independent stakeholders*

- *A statement identifying the group members and specifying independent members*
- *Approval of the group monitoring plan by Regional Board staff, and*
- *That the group inspection membership list and its monitoring program are open to public inspection.*

Response to Comment No. 5.6
No revision to Section F. Required Reports and Notices, 2. Annual Report is proposed.

Detailed requirements for monitoring and reporting, including the option to utilize discharger group sampling instead of individual sampling, are provided in Attachment A. The requirement to conduct surface and groundwater sampling for demonstrating compliance with the Conditional Waiver is new to the San Francisco Bay Region's dairy program. Local dairy producers, coordinated by the Sonoma Farm Bureau, have conducted their own independent sampling program for almost 20 years. This effort is independent of any regulatory sampling efforts, as outlined in Response to Comment No. 5.2, and has indeed been utilized for the benefit of the area's dairy industry.

Staff disagrees with the suggestion to require watershed-based monitoring groups to include independent members/stakeholders. As structured, the Monitoring and Reporting Program (Attachment A) will describe the water quality parameters, sampling locations, and its participants. The Monitoring and Reporting Program plan will be approved by the Executive Officer prior to its implementation. As noted in Response No. 5.3, the annual Dairy Program Executive Officer's Report will contain a summary of water quality results reported by individual dischargers or via Water Board-approved group sampling efforts.

Comment No. 5.7
*Reporting: We are concerned that photographs will not detect small cracks leaking continuously, thus(we suggest the following edits to Attachment A (pg 8: ~~Photos~~ A report by a qualified professional shall be ~~taken~~ completed each year **by November 30th** when the pond is empty and submitted to the Water Board to confirm that: a. The liners of the retention ponds are protective of water quality (free of weeds and cracks that may disturb the liner).*

Response to Comment No. 5.7
No changes to the TO are necessary. While the primary purpose of pre-rainy season retention pond photo documentation is to confirm sufficient storage capacity, it is our experience that producers include close-up photos of representative sections of the pond linings. In addition. retention pond operation and maintenance standards, contained in the Waste Management Plan (section F.7.a-f), require management measures regarding pond liner maintenance.

Comment No. 5.8
The commenter expressed concern that there is no confirmation of pond integrity and suggests existing retention ponds be certified by a qualified professional that the pond meets specs (i.e., that it be lined with, or underlain by soils which contain at least 10 percent clay, not more than 10 percent gravel or artificial materials with equivalent impermeability or include additional lining materials necessary to comply with the Condition Waiver Discharge Prohibitions. The commenter requested that such integrity be made by a qualified professional and be on record with the Board.

Response to Comment No. 5.8
No changes to the TO with respect to testing and reporting on the integrity of facility retention ponds are necessary. Each discharger must determine if their retention ponds meet the Title 27 minimum standard for permeability and certify compliance in the Notice of Intent and Annual Report. Should results or observations indicate a problem, or a potential problem, Board staff will work with the facility, on an individual basis, to further investigate and quantify any problems discovered.

Comment No. 5.9
The commenter expressed concerns over Attachment C, Section D., Nutrient Budget Calculations, and predicts that plan preparers will rely on default (crop nutrient values) rather than site-specific information and therefore recommends that the footnote on page 4 be tightened and clarified.

Response to Comment No. 5.9
No change to the TO is necessary. The use of default values in establishing a nutrient budget is allowed when site-specific information is not available. Each discharger is required to conduct an analysis of their soil, manure, process water, irrigation water, other sources of nutrients, and plant tissue. The Nutrient Management Plan must be updated within 90 days when site-specific information becomes available to replace default values. This practice is consistent with federal standards for the development of Nutrient Management Plans and with the requirements of the North Coast Regional Board.

Comment Letter No. 6

Affiliation: Sonoma County Farm Bureau
Commenter: Mr. John Azevedo, President

Comment No. 6.1:
"The Sonoma County Farm Bureau (SCFB) would like to express our support for the San Francisco Bay Region Water Board's (Water Board) Renewal of Conditional Waiver of Waste Discharge Requirements for Existing Dairies."

"SCFB is glad that the San Francisco Region has taken the area's needs and history into consideration and crafted this waiver to support the industry."

Response to Comment No. 6.1:
Board staff sincerely appreciate SCFB's support on the TO and look forward to working with the Farm Bureau and with dairies in the region in complying with the requirements of the Conditional Waiver.

Comment Letter No. 7

Affiliation: United States Department of Interior, National Park Service; Point Reyes National Seashore
Commenter: Cicely A. Muldoon, Superintendent

Comment No. 7.1:
The commenter expresses concern that the unique, small sub-coastal settings of the six historic dairies that operate within the Point Reyes National Seashore do not lend themselves to a coordinated sampling effort, and sampling may place undue burden on individual dairy operators.

Response to Comment No. 7.1
No changes to the TO are necessary. Staff acknowledges that small, sub-coastal watershed settings described above may make a group, watershed monitoring approach less feasible; however, the costs associated with testing the required water quality parameters and constituents are not excessive. For example, the surface water monitoring requirements may be satisfied through the use of field-test kits costing approximately $1 per test strip for determining total ammonia and/or nitrate. Similarly, the requirements to monitor specific conductance, pH, and temperature may be satisfied through the use of a properly-calibrated field multi-parameter meter that could be shared among the dairies that fall within the National Seashore boundary. Unionized ammonia is a calculated value from pH and temperature measurements.

In an effort to further contain costs, should multiple watercourses flow through a dairy facility, the Discharger may request a reduction in sampling locations via written request to the Water Board.

Comment No. 7.2
The commenter expresses concern that the requirement to develop a water quality monitoring program may distract attention and investment from operational and structural improvements that protect and improve water quality.

Response Comment No. 7.2
No changes to the TO are necessary. Although the development of a water quality monitoring program will take some time to initially plan and to properly execute, staff disagrees that such a program will distract attention from investment in water quality improvement projects.

By contrast, we expect that the results of the monitoring program will be used by the discharger to evaluate the effectiveness of its current management measures in protecting water quality and to inform decisions to adjust, modify, and/or redesign practices should water quality problems be identified.

Comment No. 7.3
Concern was expressed that the proposed monitoring and reporting requirements, such as documentation of daily inspections, may overwhelm operators that are making effort to improve conditions.

Response to Comment No. 7.3
The proposed monitoring and reporting requirements are consistent with the North Coast Water Board's requirements and have been drafted in coordination with industry representatives.

While it is expected that inspections take place daily, weekly, and monthly, documentation is limited to retention pond freeboard measurements (weekly during wet weather and monthly

during dry weather), land application inspections (once per event), discharge violations, and corrective actions. Please also see Response to Comment No. 9.5.

Comment No. 7.4
The commenter requests that that any requirements regarding the proximity of grazing animals to surface waters be carefully articulated and that it is important the established grazed lands remain accessible so that ranch operators can continue to meet organic grazing requirements (e.g., 120 day minimum for access to pasture).

Response to Comment No. 7.4
Staff agrees. Please see Response to Key Comment 4.

Comment No. 7.5
The commenter states that many of the Waiver requirements lack specificity, which could lead to changing interpretations and failure to attain stated goals. Simplifying and clarifying the Waiver requirements would allow for more efficient and productive effort in meeting water quality goals.

The commenter suggests that the TO include a streamlined table or checklist with due dates and that effort be made to reduce redundancy wherever possible by combining management plans.

Response to Comment No. 7.5
Staff respectfully disagrees with the general statement that many of the Waiver requirements lack specificity and may be subject to changing interpretations. Staff agrees that the TO would benefit from a checklist of required deliverables. Please see staff's response to Key Comment No.2.

Comment No. 7.6
The commenter notes that residual dry matter (RDM) monitoring has been conducted in the Park since 1987 and that the Park will work with the dairy operators and Water Board to ensure that future monitoring efforts meet the requirements of the TO.

Response to Comment No. 7.6
Comment noted.

Comment Letter No. 8

Affiliation: University of California, Davis; School of Agriculture and Natural Resources & County Cooperative Extension Offices
Commenters: Deanne Meyer, Ph.D. Livestock Waste Management Specialist, UC Davis
David Lewis, Watershed Management Advisor, County Director
Stephanie Larson, Livestock and Natural Resources Advisor, County Director

Comment No. 8.1:
Implementation of these Orders will require intensive educational/outreach efforts. The University of California Cooperative Extension is a partner in the California Dairy Quality Assurance Program. We will work closely with our partners and staff from Region Board 2 to develop and disseminate timely, correct information so producers and their consultants are able to comply with new regulatory requirements.

Response to Comment No. 8.1
Staff appreciates the efforts of the California Dairy Quality Assurance Program and each of their partners to educate dairy producers. We look forward to working together to develop practical tools and resources that assist producers in complying with regulatory requirements.

Comment No. 8.2
It is not clear why separate Waste Management Plan, Grazing Management Plan and Nutrient Management Plans are required. The Regional Board has pre-defined dairies eligible for the Waiver to be low risk for contamination of water quality. The approach taken by Region 1 to have a Water Quality Plan (WQP) that addresses waste storage needs, compliance with Title 27, and best management practices to promote stewardship is a streamlined approach. The WQP is straight forward and understandable by operators. Region 5 has very detailed Waste Management Plan and Nutrient Management Plan due to intensive cropping/water management systems. Dairies in the San Francisco Bay Board jurisdiction more closely resemble those in Region 1 than Region 5. Modification of Region 1 WQP could be accomplished to have staged deliverables (documentation of progress) and integrate the needs of RB2 to comply with Conditional Waiver for Grazing Lands while incorporating the essence of the Waiver needs as they are stated in the draft document for Waste Management Plan and Grazing Management Plan. This will likely lead to greater understanding of the potential impact of various management practices on water quality which will translate to improved management within watersheds. We are available to work with you and a stakeholder group to develop the staged documentation process and associated curriculum for producers. Our previous efforts in Region 1 (http://cdrf.org/home/checkoff- investments/ cdqap/about-the-environmental-stewardship-program/north-coast-reference-binder/) and Region 5 (http://cdrf.org/home/checkoff-investments/cdqap/about-the-environmental-stewardship-program/wdr-genera1-order-reference-binder-materials/) have been helpful.

Response to Comment No. 8.2
Please see Response to Key Comment No. 1 for our rational for requiring separate plans.

Furthermore, we believe that the dairy producers in in the San Francisco Bay Region will not need as extensive an education program as was involved with the rollout of the North Coast Water Board's dairy program, which, at that time, was a new regulatory program for their dairy industry. Dairy producers in our region have been successfully implementing a similar waiver/WDRs dairy program since 2003. We believe that most will be eligible to apply for coverage under the Conditional Waiver because of their experience, knowledge, and their work to manage dairy wastes over the last 12 years. We anticipate that most facilities will only need to build upon, or update, existing plans, maps, waste storage calculations, and improve upon production area BMPS to complete their Waste Management Plans. Board staff will continue to work with parties interested in developing practical technical education programs to assist our producers in the planning process.

Comment No. 8.3
a. If the option to utilize a WQP is not available, establishing a staged approach for implementation of key required Plans is beneficial for both, the regulated individuals, the Regional Board and those groups and individuals responsible for providing technical and

financial assistance. This allows the entire regulated community to take similar steps/actions and prepare various components for management and submission purposes.

b. We would recommend rearranging the deliverables with the Grazing Management Plan due first, followed by the Waste Management Plan, and Nutrient Management Plan in successive years. The Grazing Management Plan focusus on reducing soil erosion, a key water quality need within the Region. It is actually geared for water quality protection and not actual grazing management as described in the document. If it remains as part of the final Waiver it should be renamed.

c. Preference would be for Plan due dates to be synchronized with Annual Report due dates to make efficient use of technical assistance, educational efforts, etc.

d. The success of professional quality map development for Region 1 dairies resulted from dairy industry securing funds well ahead of adoption of the Orders to provide funding for Resource Conservation Districts to develop needed maps. It took approximately 9 months from when funding was procured until maps were developed for facilities in Region 1.There was an additional 6 months needed to procure the funds. The funding source used previously for Region 1may not be available for Region 2. It is our understanding that industry is looking into this option. This was an aggressive timeline and required an iterative process between producers identifying structures and infrastructure during class time, the RCD mapping the hand drawn maps, and producers reviewing / revising developed maps before final products were completed.

Response to Comment No. 8.3

a. Staff agrees. The current schedule for completing plans and reports establishes a staged approach.

b. See Key Comment No. 1 regarding the structure of plans and their due dates. No change will be made to the name of the Grazing Management Plan so that it is clear that this plan implements the requirements of the associated Conditional Grazing Waivers for the Tomales Bay, Sonoma Creek and Napa River watersheds.

c. Staff agrees. The due dates in the TO have been changed to November 30 for each respective year.

d. The map requirements should not require the producers to attend a special class. They are intended to be used by the producers in making management decisions, for identifying potential pollutant sources and controls, and for illustrating onsite activities in order to assess compliance. The 2003 Waiver required each producer to provide a scaled map including most of the same details listed in the Waste Management Plan minimum requirements. Most producers should only need to update existing maps to account for changes in their operation since 2003 or to include additional requirements such as those specified in the Nutrient Management Plan minimum requirements.

Comment No. 8.4

By definition, dairies that qualify for the Conditional Waiver or are low risk for water quality contamination, are compliant with Title 27 and are not discharging waste to surface waters. For these facilities allowing Nutrient Management Plan to be developed over time will likely result in greater implementation. The USDA Natural Resources Conservation Service (NRCS) provides

cost share opportunities for Nutrient Management Plans. Limited funds are available for cost share and all requests are reviewed and prioritized. Once approved, proponents can proceed with their contracts. It will likely take years to get all facilities prioritized high enough for cost share funding for Nutrient Management Plan and Waste Management Plan assistance. One criteria considered in the ranking at the local level is the environmental improvement that each project will make. By definition, development of Nutrient Management Plan and Waste Management Plan on facilities that do not have existing, direct negative impacts and contributions to water quality may not rank as high as other projects and practices within watersheds that perhaps may result in greater erosion control or nutrient removal in waterways.

Response to Comment No. 8.4
Several participants in our Technical Advisory Group (TAG) expressed concerns when we initially required all Nutrient Management Plans to be completed by a technical professional (i.e., a consultant or a Technical Service Provider from the NRCS). The TAG cited some of the same concerns as the commenter, including the limited number of qualified professionals available to complete plans for every dairy in the Region and the upfront costs associated with plans developed through the NRCS.

In response to these concerns, staff revised the Conditional Waiver to allow for management plans to be developed under the supervision of a technical educational program. We also extended the Nutrient Management Plan completion date to provide four years for coordination with classes from technical assistance organizations. This should be a low-cost and easily accessible option for producers to prepare the required management plans, and should provide third-party, technical assistance groups (e.g., National Resource Conservation Service, California Dairy Quality Assurance Program) time to develop educational materials and expand technical capacity, as needed.

Comment No. 8.5
Inserting a table with a timeline at the end of the Waiver to identify deliverables will increase clarity in the waiver, allowing producers and assisting organizational representatives to clearly see when due dates are.

Response to Comment No. 8.5
Board Staff agrees, a table has been added.

Comment No. 8.6
All dairies currently covered under the expired Waiver regularly submit Annual Report information to the Regional Board in November. It is suggested that the Notice of Intent be due in conjunction with the Annual Report. The California Dairy Quality Assurance Program and its partners are able to provide educational outreach related to Waiver contents. It is important to have adequate lead time to prepare curriculum in collaboration with Regional Board staff, provide sufficient advanced notice for meetings, deliver information and allow time for operators who don't attend the meeting to complete required paperwork. Four months lead time is important.

Response to Comment No. 8.6
The Notice of Intent is a short form that requires basic information each producer should be able to provide on its own. The September 1, 2015, due date provides sufficient time to complete the form and allows Board staff to account for all submittals prior to the rainy season.

Comment No. 8.7
Streamlining the record keeping process to allow use of standard operating procedures (inspections or observations will be made daily, weekly, during/after storm events) and exceptions and associated corrective actions documented is preferred to generation of pages and pages of documents accomplishing the same summation of information.

Response to Comment No. 8.7
We acknowledge that small farms have limited personnel to conduct and document compliance inspections; thus we have limited the requirement for documentation to retention pond freeboard measurements, land application inspections, discharge violations, and corrective actions. The commenter suggested in Comment No. 8.20 that monthly documentation of freeboard would be adequate during the dry season. We agree and have made the necessary changes in the Monitoring and Reporting Program for visual inspections (Attachment A) to include weekly measurements of retention pond freeboard during the wet season and monthly measurements during the dry season.

We disagree that the best approach to visual monitoring should include only exclusion reporting. Reporting only those inspection findings with compliance problems, does not distinguish whether a producer is proactively implementing pollution prevention measures in order to ensure compliance or simply reacting to a problem that is potentially already causing adverse water quality impacts.

Detailed Comments for Conditional Waiver:

Comment No. 8.8
Scope of Coverage: Page 1 Item 2 Are current sheep or goat dairies permitted under the existing Dairy Waiver? If not, do they have experience with development of Waste Management Plan or Nutrient Management Plan? If they do not, there will be a steep learning curve for these operators. How many of these operations exist within the Region?

Response to Comment No. 8.8
The existing Conditional Waiver is expired; but we have 1 sheep dairy and 1 goat dairy that are currently active in our database system. We understand that there are approximately 8 other dairy facilities (not cows) that may require coverage under either the Conditional Waiver or General WDRs, depending on their compliance status. It is our hope that these producers will attend and benefit from your future educational classes.

Comment No. 8.9
Scope of Coverage: Page 2 Item 6 identifies that owners and operators of dairies that discharge or propose to discharge….implying that the NPDES permit allows the discharge is misleading. A legal discharge may occur when there is a 25 yr 24-hour storm event, the facility has been implementing a Nutrient Management Plan and the discharge is the storm water that is in excess of the 25 yr, 24-hr storm event.

Response to Comment No. 8.9
The criteria language "discharge or propose to discharge" is found in the federal regulations for Concentrated Animal Feeding Operations (CAFO) at 40 CFR section 122.23 (d)(1). This is referenced in the TO in footnote 2 on Page 2 of 21.

For an NPDES permit to be required, a facility must first be defined as a CAFO (40 CFR section 122.23 (e)) and either have a point-source discharge or "propose to discharge" based on an objective assessment that it is designed, constructed, operated, or maintained such that a discharge will occur, not simply such that it might occur.

Contrary to the commenter's statements, NPDES permits are issued for point-source discharges and allow such discharges under permit conditions and thereby are lawful. While NPDES permits for CAFOs prohibit the discharge of waste and process waste water unless it is a result of a 25-yr 24 hours storm event, it does not prohibit industrial stormwater discharges that comply with applicable technology-based effluent limitations. Such discharges include stormwater that contacts manure within the confined area. For an overview of the federal regulatory requirements and guidance on how to determine if a CAFO discharges or proposes to discharge, please see U.S. EPA's Implementation Guidance on CAFO Regulations (EPA-833-R-10-006): http://water.epa.gov/polwaste/npdes/afo/upload/cafo_implementation_guidance.pdf.

Comment No. 8.10
Water Quality Concerns: Page 3 Item 13 appears to be a remnant of the previous version. Is it necessary to identify the primary types of CAFs in the region?

Response to Comment No. 8.10
The Conditional Waiver implements the statewide regulations for all types of confined animal facilities (CAFs). The primary types of CAFs within the region are described for background information and identify dairies as one type of CAF within the region.

Comment No. 8.11
Water Quality Concerns: Page 3 Item 14 - delete eggs.

Response to Comment No. 8.11
No change to the TO is recommended. The region has both egg production and poultry production facilities.

Comment No. 8.12
Water Quality Concerns: Page 3 Item 15 Have there been many nuisance conditions or has manure been a direct cause of pollution.

Response to Comment No. 8.12
Board staff has observed both nuisance (odors, excess mosquito breeding, etc.) and direct causes of pollution as a result of unmanaged solid and/or liquid waste. "Nuisance" is defined in section 13050 of the Porter-Cologne Water Quality Control Act as "*…anything which meets all of the following requirements:(1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.(2) Affects at the same time an entire community or neighborhood, or any considerable*

number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.(3) Occur during, or as a result of, the treatment or disposal of wastes."

Comment No. 8.13

Background: Page 4 item 22 Similar studies have not been conducted for dairy regions in Region 2. It is important to recoginize that the referenced studies are in watersheds and parts of the state with different soils, geology, and hydrology forming different pathways and contributing to different fate and transport rates than in the areas this Waiver is addressing. Also identified in the studies is that inefficient irrigation water management can result in leaching of nitrate below the vadose zone. Language should be revised to remove the direct implication and inference that the same impacts to groundwater quality exist in Region 2 and that the only potential source for this impact is dairy management, based upon these studies from other parts of the California.

Response to Comment No. 8.13

As Finding 22 states, the Conditional Waiver includes the consideration for potential impacts to groundwater associated with dairy operations. The Conditional Waiver requires that groundwater wells be screened, through the sampling and analysis for total coliforms and nitrate, over four discreet time periods. Additionally, the Conditional Waiver requires the preparation and implementation of Waste Management Plans that consider site-specific conditions to protect against groundwater impacts from facility operations.

In 1979, a case of methemoglobinemia (blue baby) was attributed to a water supply well in rural Petaluma. As a result, Sonoma County asked the State Department of Water Resources to investigate the distribution of nitrates (the cause of the illness) in the groundwater in the area (Study of nitrates in groundwater in the Petaluma Area, Sonoma County, May 1982). The study concluded that nitrates in the study area do not occur naturally and that the local geology and soils did not provide sufficient retardation to the movement of nitrate to the underlying groundwater. The study found that the nitrate groundwater contamination was primarily the result of past agricultural practices, notably poultry operations, and that the lack of proper or sufficiently deep sanitary seals in wells was contributing to the spread of nitrates in the groundwater.

Comment No. 8.14

CEQA: Page 8 item 39 "no expansion in size" is unclear. Additional feed storage area, improvement manure handling/treatment/storage area, replacement of animal barns may alter physical facilities yet not increase animal housing capacity. If a notice of intent shall be required for coverage under the conditional waiver perhaps the maximum facility capacity could be defined in that document and used as the basis to identify expansion in size.

Response to Comment No. 8.14

"No expansion is size" involves no expansion of the physical facilities from the date of adoption of the Conditional Waiver. Physical facilities include roofed structures, such as stall barns, that limit the size of the dairy cow herd. The Notice of Intent has been modified to include the distinction between current animal population and the maximum capacity of the existing facilities.

Comment No. 8.15
Waste Discharge Specifications: Page 11 1. e. How many dairies have creek crossings that do not prevent animal waste from entering the waterway? Such a prohibition should be specific to water quality needs. For those creeks without bridge installation how will this be accomplished – wet crossing?

Response to Comment No. 8.15
The prohibition, "All confined animals shall be fenced or excluded from any surface water or perennial streams passing through the confined area" is included in Title 27, Statewide Water Quality Regulations for Confined Animal Facilities. Creeks without a bridge installation, within the confined area of a facility, must not be accessible to animals. Board staff has observed many creek crossings that allow manure to fall over the sides of the crossing, especially during storm events. Hence, the clarification statement, "Creek crossings shall be bridged in a manner that prevents animal waste from entering the waterway", is included in this prohibition.

Comment No. 8.16
Waste Discharge Specifications: Page 12 2.e. The 2' freeboard identified here and in Attachment A Page 2 item 2 Retention pond freeboard and integrity should be corrected to be consistent with Page 4 of the Waste Management Plan. The freeboard standard for in ground ponds is 1' of freeboard and for partially or completely above ground is 2' of freeboard as identified correctly on Page 4 of the Waste Management Plan (Attachment B). The reference to freeboard should consistently be the volume of potential storage in a storage structure that must be maintained empty for structural integrity or water over topping purposes.

Response to Comment No. 8.16
Board staff agrees. The TO has been edited as suggested.

Comment No. 8.17
Provisions: Page 15. 11 Clarification may be needed for site operating personnel as owner/operator/manager and be understood this is not part time help or calf feeder, milker, feeder, etc.

Response to Comment No. 8.17
Board staff agrees that clarification is needed. The term "site operating personnel" has been changed to "daily supervising personnel".

Comment No. 8.18
Required Reports and Notices: Page 17. 1 a The section on Facility Monitoring Plan just appears. Perhaps a more descriptive term would be surface water monitoring. The second paragraph should be first and the first paragraph modificed to indicate that if an operator does not participate in the surface water monitoring then it will need to develop and have approved a facility monitoring plan.

Response to Comment No. 8.18
The title will remain unchanged since this plan includes visual inspections, surface water testing, and groundwater testing. However, language has been added to this section to clarify the intent

of this plan and the option to substitute the individual surface water quality sampling component with participation in a watershed or group monitoring program.

Detailed Comments for Attachment A - Monitoring and Reporting Program (MRP)

Comment No. 8.19
It would be helpful to provide tabular information in the MRP to identify the benchmarks for water quality in the Basin Plan. Basin Plans are typically lengthy and difficult for a lay individual to follow.

Response to Comment No. 8.19
Applicable benchmarks for surface and groundwater are clearly listed on pages 5 and 6, respectively.

Comment No. 8.20
Monthly inspections of manure containment structures is reasonable during the dry season.

Response to Comment No. 8.20
We agree and have made the necessary changes in the Monitoring Provisions for visual inspections (Attachment A) to include weekly measurements of retention pond freeboard during the wet season and monthly measurements during the dry season.

Comment No. 8.21
In different documents services of a professional are needed. In some locations the professional is identified as responsible, trained or qualified. Once the description of the professional is defined additional language of responsible, trained or qualified is not needed.

Response to Comment No. 8.21
Conditional Waiver, Provision F.1. states, "Facilities have the option to prepare the Waste Management Plan and Nutrient Management Plan through a technical education program, administrated by a qualified professional, as described in Attachment B, General Requirement 2." The listing of examples of qualified professionals is also provided in Attachment C (Nutrient Management Plan) for clarity since these are stand-alone documents.

Comment No. 8.22
Water Quality Testing:

a. *Watershed monitoring program is in effect a surface water monitoring program. For some facilities within the Region the surface water sampling is a logistical challenge. All waterways within or adjacent to a facility are not necessarily accessible via vehicle during the rainy season.*
b. *Sampling parameters section identified on Page 5 a. do not include unionized ammonia. Yet, it is listed in the Table provided in b. with a benchmark value. This is a calculated value based on total ammonia nitrogen, temperature, and pH.*
c. *Surface water sampling has occurred in parts of the Region for years through the Animal Resource Management Committee. Furthermore, trend analysis of this water quality data through Conservation Effects Assessment Programs (Lewis et al. 2005) have*

confirmed that water quality conditions have improved since the 1980s. Sampling points used represent downstream locations by sub watershed. If a downstream location identifies contamination then it makes sense to have more intense sampling occur. Absent elevated concentrations the additional sampling will increase costs associated with the MRP and may not provide additional useful information.

Response to Comment No. 8.22

a. Board staff expects to work with administrators of each watershed or group monitoring program to develop a representative sampling strategy. Refer also to Key Comment No. 3 for further discussion.

b. Comment noted. Footnote added to explain how unionized ammonia is calculated. The constituent and benchmark table in Monitoring and Reporting Program section C.2.b., also states that the benchmark for unionized ammonia nitrogen is a calculated value.

c. Staff agrees. Please see Response to Key Comment No. 3.

Comment No. 8.23

Water Quality Testing: Page 6. Groundwater well sampling. Unless there is identified groundwater nitrate contamination, the four required samples taken over a two year period are excessive. Requiring multiple samples without a risk base identification is not logical. If a first sample has elevated nitrate then it makes sense to take additional samples to identify if groundwater is contaminated. Clarification is needed for a facility with more than one irrigation well. For facilities with multiple wells, one domestic and a representative irrigation well should be sufficient for analytical purposes.

Response to Comment No. 8.23

No change to the TO is necessary. Groundwater testing requirements are consistent with the North Coast Water Board requirements. The groundwater monitoring requirements are already limited in scope to a total of four samples for each existing well. In an effort to reduce unnecessary monitoring, if these samples do not indicate adverse groundwater impacts, then no further testing is required. Samples must be taken both in spring and fall to show differences in parameter results based on fluctuating groundwater levels. Taking samples two years in a row may not show a trend but may confirm the results. Also note that the Monitoring and Reporting Program (Attachment A. Water Quality Testing, 4. Sampling Protocol) also states "Alternative sampling protocols may be proposed and shall be approved by the Executive Officer ."

Comment No. 8.24

Water Quality Testing: Total Coliform as a test for risks to human health and providing information about potential bacterial sources is very limited. Alternatively, this section requiring groundwater sampling and analsyis can be improved based upon the US EPA revisions to the Total Coliform rule - http://www.epa.gov/ogwdw/disinfection/tcr/pdfs/qrg_tcr_v10.pdf including guidance on how Total Coliform analysis is to be used in conjunction with other indicator bacteria that are more informative regarding risks to human health.

Response to Comment No. 8.24

No changes to the TO is necessary. See similar discussion in Response to Comment No. 1.4. The sampling protocols contained in the U.S. EPA's Total Coliform rule are focused on the

management of public drinking water systems, not private wells. The document called "A Guide for Private Domestic Well Owners", drafted by the State Water Board's, Groundwater Ambient Monitoring and Assessment (GAMA) Program, can be found at http://www.waterboards.ca.gov/gama/docs/wellowner_guide.pdf. In an effort to reduce monitoring costs and to remain consistency with North Coast Regional Water Board requirements, our sampling protocols for groundwater are minimal and are intended to only screen existing wells for potential contamination. Any indication of potential groundwater impacts will be investigated further with additional testing.

Comment No. 8.25
Water Quality Testing: Page 8. Documentation and annual reporting 2. C. Is the need to cover manure, compost, and feed storage areas just during winter months?

Response to Comment No. 8.25
This section includes a list of pollution prevention examples. Each discharger should assess their own operation and identify the necessary site-specific pollution prevention measures to most effectively protect surface and groundwater.

Detailed Comments for Attachment B – Waste Management Plan

Comment No. 8.26
Page 1. Paragraph 3. For consistency purpose it is best to not introduce Ranch Plan in a Waste Management Plan discussion.

Response to Comment No. 8.26
Board staff agrees. The term "Ranch Plan" has been deleted.

Comment No. 8.27
Page 2. A. 4. CDQAP has provided training to professionals regarding backflow prevention options.

Response to Comment No. 8.27
Comment noted.

Comment No. 8.28
Page 2. A. 5. It is important to acknowledge that the Department of Food and Agriculture has a 50' setback from animal enclosures and supply wells in the production area. For cross agency consistency this 50' setback should be used.

Response to Comment No. 8.28
Comment is acknowledged. The TO imposes no new requirements involving the installation or decommissioning of groundwater supply or monitoring wells, nor does it impose any new rules for wells as they may apply to the Department of Food and Agriculture requirements. The permitting of groundwater wells is the responsibility of the local permitting authorities, which need to be consistent with State standards.

Comment No. 8.29
Page 3. C. Waste Containment Capacity. 2. c. Why is a storage design of 1.5 times normal

precipitation identified as a desirable storage capacity? This is not an NRCS design criteria. This is inconsistent with the requirement within the Order (Page 12 f. "Following a storm event, the Discharger shall restore the wastewater holding capacity of retention ponds, if necessary, in a timely anner and in a manner consistent with the Waste Management Plan and Nutrient Management Plan".

Response to Comment No. 8.29
No changes are proposed to Section C; however, language has been added to Attachment B, Waste Management Plan Section F.8, that clarifies the purpose of a contingency plan.

The criterion a discharger shall consider when calculating the necessary pond storage volume, is minimum standards and is consistent with those required by the North Coast Water Board. The discharger is not required to maintain storage for normal precipitation multiplied by 1.5; this is only an option. This option relieves dischargers that maintain above-average storage capacity from the obligation to prepare a contingency plan.

Comment No. 8.30
Page 7 F. Operation and Maintenance. Items 8 and 11. Delete Item 11 and revise Item 8. The contingency plan identfied here is a defacto emergency manure management plan. The latter name more succinctly describes the intent of the document. The content of item 11, the SPP, should be incorporated into the emergency plan. The development of a SPP is a very detailed document with very specific requirements and does not improve on the operational efficiency when a manure management plan is sufficiently completed.

Response to Comment No. 8.30
As stated above, language has been added to Attachment B, Waste Management Plan Section F.8, that clarifies the purpose of a contingency plan. The contingency plan and emergency spill prevention plan are separate plans with different functions; therefore, both plans are required.

The contingency plan is specifically for situations where retention pond capacity is compromised. It includes emergency response options for situations such as loss of freeboard due to higher than normal precipitation, pipeline breaks, power outage, earthquake and/or flood.

The emergency spill prevention plan details measures to be taken in the case of a discharge or threatened discharge of any pollutant (non-stormwater related or stormwater related) including manure, chemicals, sediment, nutrients, or pathogens to surface water or groundwater.

Comment No. 8.31
Page 7 item 9. Manifests document the transfer of nutrients off-site and out of the managerial jurisdiction of the operator. As such, they logically are a component of an Nutrient Management Plan and not a Waste Management Plan.

Response to Comment No. 8.31
The requirement for manifests and third party agreements prior to transferring waste to outside facilities is located in the Conditional Waiver provisions and the technical standards for the Waste Management and the Nutrient Management plans. Producers must meet this requirement prior to the transfer, even if the Waste Management Plan (due date in two years) or Nutrient

Management Plan (due date in four years) is not yet completed. The requirement is repeated to ensure that it is not overlooked.

Detailed Comments for Attachment C: Nutrient Management Plan

Comment No. 8.32
Dairies under the conditional waiver were previously identified as low risk for water quality contamination. As such, mandating a Nutrient Management Plan may or may not provide benefit to water quality.

Response to Comment No. 8.32
Board staff respectfully disagrees with this statement. In our experience, facilities that are currently in compliance with minimum statewide water quality standards and regulations have the potential to adversely impact water quality if not actively managed and maintained into the future. Dairies located within our Region are generally located within sensitive watersheds and in close proximity to streams and/or wetlands. In addition, these dairies are typically small family farms with limited personnel to oversee daily operations. Absent extensive surface and groundwater monitoring programs, it is difficult for each operator to demonstrate if it has the storage capacity and available resources to meet the State standards for applying nutrients to the land. Therefore, it is imperative for producers to understand the nutrient content of their manure and soil nutrient reserves, so that they can make informed decisions regarding forage specie selection, timing and rate of manure application, stormwater management practices, and grazing-land best management practices.

Comment No. 8.33
Page 1. A. Nutrient Management Plan purpose and implementation paragraph 2. As described herein, the educational classes provided by the California Dairy Quality Assurance Program would be acceptable by the Regional Board as a method to provide assistance to operators when the operators are preparing their Nutrient Management Plan. Although not intended, as written, staff at NRCS and local Resource Conservation Districts would not qualify to provide assistance to producers unless they independently are a certified agronomist or crop adviser. Perhaps inclusion of individuals working in the area of pasture nutrient management would expand the pool of non-producers to assist those who seek additional information.

Response to Comment No. 8.33
This paragraph includes the statement "The Executive Officer may approve the use of alternative specialists." No change to the section is needed.

Comment No. 8.34
Page 3. Item 6. Sampling and Analysis PLAN (not program). The Nutrient Management Plan Sampling and Analysis Plan has to describe sampling locations, sampling frequency, and sample collection and preservation methods. The source of material being sampled is more important than the location. Locations are important if runoff or surface water sampling occurs. A sampling protocol should define sample collection methods. The MRP does not provide sufficient specificity to identify sampling frequency for the Nutrient Management Plan. Sample collection containers and preservation methods are a function of the material being sampled and the desired analyses. Many sampling protocols have been developed and are available for standard dairy media.

Response to Comment No. 8.34
Sampling, Analysis, and Calculation guidelines are provided on Page 7, Section F. Since dischargers are required to obtain professional assistance for completing the nutrient budget calculations, it is expected that assistance will be provided to develop the sampling plan.

Comment No. 8.35
Page 5. Nitrogen. Although soil may be a useful tool for agronomic purposes, it is unclear what analyte is to be evaluated. Total nitrogen concentration in soil is not indicative of what is available for plant use or potentially to be leached to groundwater. Soil nitrogen can be in many forms, change forms and alter ultimate fate based on form. Typical analyses for a nitrogen based budget include monitoring what is applied and what is removed. The remainder is being stored in soil or potentially lost through gaseous emissions or leaching. Pasture based systems add complexity to understanding nitrogen management. There are insufficient data available for CA systems to identify if 1.4 is a reasonable value or if under the non irrigated conditions associated with dairy operations in the Region this number is too low and may impair pasture/crop production.

Response to Comment No. 8.35
The minimum requirements for preparing a Nutrient Management Plan, as outlined in Attachment C, mirrors the North Coast Water Board's Nutrient Management Plan requirements. Since both regions contain similar small pasture-based dairy operations, it makes sense to utilize nutrient management standards already agreed upon by professionals with such experience and that are already in place. The specific section that is referenced above is the exact language that was suggested by the commenter (University of California at Davis - Cooperative Extension), during the North Coast Water Board's public comment period. North Coast Water Board staff agreed with the suggestion and revised their Nutrient Management Plan requirements to include this language. No change to the TO is recommended.

Comment No. 8.36
Pages 5 and 6. E. Land application Practices. 1. Setbacks, vegetated buffers: The efficacy of vegetated buffers to reduce the delivery of sediment, nutirents, and bacteria to waterways is related to the management of the vegetation in the buffer. In these annual grass dominated practices, infiltration and nutrient uptake are higher in vegetative buffers with routine annual removal of vegetation that allows for new growth than from those with no vegetation management. Requiring complete animal separation and allowing only "flash grazing" may lead to conditions within the buffers that do not support the functions of infiltration and filtering of runoff because the needed annual vegetation removal that supports these functions has been halted.

Response to Comment No. 8.36
Staff agrees with the assertion that grasslands are capable of greater rates of nutrient uptake through the removal or harvesting of annual grasses. However, the primary goal of Section E. 1 is to protect surface water and groundwater from unmanaged grazing and/or unmanaged manure and/or process water applications to land. The development and implementation of a site-specific Grazing Management Plan, as outlined in Attachment D, is the most appropriate process for managing animals that are pastured near riparian corridors.

With respect to animal separation and flash grazing, please refer back to our response on Key Comment No. 4.

Comment No. 8.37
Page 7. 4. Wetland Protection. Similar to the maintenance requirement for vegetated buffers, wetlands as sinks and sources for nitrogen and other water quality constituents function optimally when the flow pathways are diffuse and the vegetation is managed. Wetlands with direct flow pathways and that have not had appropriate levels of vegetation removal have reduced capacity to remove nutrients and bacteria than those that are managed to optimize plant nutrient uptake and water residence time. One tool for managing these landscape features is appropriately timed and managed livestock grazing.

Response to Comment No. 8.37
Please refer to our response to Key Comment No. 4.

Staff agrees that nutrient uptake in wetlands can be optimized with careful vegetation management, including managed livestock grazing; however, this section provides for the protection of the additional functions and beneficial uses wetlands provide by restricting cattle access and the discharge of manure and process water into wetlands with standing water.

Comment No. 8.38
Page 7. F. Sampling, analysis and calculations. The NRCS 590 Standard does not provide information on sampling frequency, protocol for sample collection or analytical procedures used by laboratories. Laboratories can participate in proficiency testing programs for analyses of soils, manures and plant tissue. However, all of these do not have certification options. Furthermore, if the proficiency testing program has certification of methods not deemed appropriate for analysis, there is little to no value from an Nutrient Management Plan perspective. More important in this process is that the laboratory have a well defined QA/QC process and that their methods produce repeatable and reliable results. This section as written is not achievable.

Response to Comment No. 8.38
No change to the TO is necessary. The California NRCS Conservation Practice Standards for Nutrient Management, Code 590, dated March 2013, contain sampling guidance and laboratory standards under the heading, "Soil, Manure, Amendment, and Tissue Sampling and Laboratory Analyses". Nutrient Management Plan Section F also states that dischargers may use an alternative sampling and analysis program developed by technical education administrator (as described above in Section A), and approved by the Executive Officer.

Furthermore, the Gold Ridge Resource Conservation District, located in Sebastopol, CA, has developed guidance for preparing such a plan, titled "Nutrient Management Planning Guidance for Small Coastal Dairies".

Comment No. 8.39
Page 8. Item H. 2. d. Documenting the APN receiving process wastewater should be sufficient. The dairy operator has no control over the decisions of which crops are grown on land owned or

operated by another entity.

Response to Comment No. 8.39
Board staff agrees. Provision H.1.d. "The types of crops to be fertilized with the process wastewater" has been deleted.

Comment No. 8.40
Page 8. Record-keeping. This is labelled as section H and is actually I. Identify required duration for maintaining records at the facility.

Response to Comment No. 8.40
The TO has been corrected to label this section as I. Consistent with the Monitoring and Reporting Program, section II. C. the duration of "5 years" for maintaining records was added to the Nutrient Management Plan.

Comment No. 8.41
Grazing Management Plan: As discussed in our introductory remarks, this Plan as described is more of protecting water quality than an actual grazing plan. Logically, it makes more sense to comibine the elements of the identified Grazing Management Plan into a WQP along with Waste Management Plan needs. The primary focus of Waste Management Plan and Grazing Management Plan as defined is to protect surface water. The secondary focus of these is to protect groundwater resources.

Response to Comment No. 8.41
It is the prerogative of the discharger to combine the Grazing Management Plan into one master Water Quality Plan provided that the required elements for the Grazing Management Plan, Waste Management Plan, and Nutrient Management Plan, as applicable to their dairy, are protective of water quality (surface and groundwater), and are completed within the timeframes (for each management plane element) specified in the TO.

We structured this Waiver to provide flexibility for a variety of different dairy operations. Staff views the Waste Management Plan as a common denominator for all dairy operations. All dairies produce waste of some kind that must be managed, stored, and disposed of in a manner that does not impact surface and groundwater. Some dairies, because of the animal type(s) milked, may generate different types and volumes of waste and thus may employ different containment and disposal practices. The required planning documents are intended to account for these operational differences.

The commenters are correct that the focus of the Grazing Management Plan is the protection of surface water. The Grazing Management Plan requires the implementation of site-specific grazing management measures to reduce animal waste and sediment runoff to surface waters. The Water Board is equally concerned with protecting both surface water or groundwater quality.. The TO accounts for the importance of groundwater resources through the imposition of groundwater well testing and reporting, waste management planning, and Nutrient Management Planning and implementation.

Attachment C, Nutrient Management Plan, section B.1 explicitly states that the collection, treatment, storage, or application of manure or process water shall not result in the degradation of surface water or groundwater or the contamination or pollution of surface water or groundwater. Section C.5 of the Nutrient Management Plan requires the discharger to describe the BMPs that are implemented to protect surface water and groundwater.

Similarly, the purpose of the Waste Management Plan is to ensure that the CAF is designed, constructed, operated, and maintained so that wastes, nutrients, and contaminants generated by the facility are managed to prevent adverse impacts to surface water and groundwater quality.

Comment Letter No. 9

Affiliation: Western United Dairymen
Commenters: Paul Martin, Interim CEO
Paul Sousa, Director of Environmental Services

Comment No. 9.1
Western United Dairymen (WUD) appreciates the opportunity to provide comments on the San Francisco Bay Regional Water Quality Control Board's (Board) proposed Confined Animal Facilities (CAF) waiver for existing dairies. It is important that the Board adopt appropriate regulations as the dairies in the region struggle with a combination of increased costs of doing business and prices for milk that do not keep up with ever-increasing financial burdens. It is important that regulations provide the water quality protections that are necessary while allowing producers to efficiently use their limited resources to comply. WUD is supportive of the approach that the Board is pursuing with the waiver, but continues to emphasize that all land uses that may impact water quality should participate in the process to achieve that goal.

Response to Comment No. 9.1
Comment noted. Board staff is dedicated to working with producers and compliance assistance organizations, such as the Western United Dairymen, to promote environmental stewardship and protect water quality, while sustaining a viable dairy industry.

We have completed several total maximum daily loads (TMDLs) for impaired waters within our region that allocate responsibility and loads to land uses that contribute to the identified impairments. Board staff is working on multiple fronts to implement the TMDLs through a variety of permitting efforts. In the agricultural arena, staff is working to inspect facilities enrolled under our Grazing Program, and is working to revise Order No. R2-2003-0093, General Waste Discharge Requirements for Confined Animal Facilities.

Comment No. 9.2
The revisions made to the Waiver have improved the regulation to focus on issues relevant to the San Francisco Bay Region without burdening dairies unnecessarily with requirements that are overly onerous and do not address real issues in the region.

Response to Comment No. 9.2
Comment noted.

Comment No. 9.3
Section F: Required Reports and Documents:

a. We appreciate the staggered approach and extended timeline for producers to complete the specified plans. We do feel, however, that a change in the order of the deliverables would be appropriate. It would make the most sense for the Grazing Management Plan to be submitted first, since how the pastures are utilized will in turn influence the Nutrient Management Plan and Waste Management Plan in subsequent years. In addition, as the Waste Management Plan implementation is defined in Attachment B it requires information from the Nutrient Management Plan for completion; therefore the Nutrient Management Plan should be developed before the Waste Management Plan.

b. These plans should also be as useful to the daily operation and management of the dairy as possible. We feel that as the plans are currently outlined they do not meet this criterion.

c. We would be glad to continue to work with you to improve these or suggest that the board also accept a Comprehensive Nutrient Management Plan developed by a USDA-Natural Resources Conservation Service (NRCS) certified Technical Services Provider that meets the requirements of the waiver in lieu of the three required reports. A Comprehensive Nutrient Management Plan is required by NRCS before a producer can utilize NRCS funding for projects and there is no sense in requiring multiple reports that address the same issues.

d. It would also limit confusion with producers if the plan deadlines fell at the same time as Annual Report deadlines; move the due dates for everything to November 30th of the required year.

Response to Comment No. 9.3

a. Please see Response to Key Comment No. 1.

b. We agree that plans should be useful and practical; however, the minimum standards outlined for each management plan are necessary to demonstrate compliance with federal, State, and regional requirements. Since the TO gives the option for producers to develop their own plans through technical education programs, we are optimistic that such programs will help each producer tailor their plans so that they can be confident in their compliance status and identify potential problems before water quality impacts occur. Board staff will continue to work with parties interested in developing innovative tools to ease the workload associated with implementation of site-specific management practices identified during the planning process.

c. In contrast, Commenter No. 8 has described the difficulties involved in utilizing the NRCS to develop Nutrient Management Plans or Comprehensive Nutrient Management Plans in comment 8.4. See our Response to 8.4 for further information.

d. Staff agrees. The due dates in the TO have been changed to November 30 for each respective year.

Comment No. 9.4
Section G: Application Requirements: Number 1: As mentioned in our previous comment letter, anyone who meets the conditions of the waiver should qualify for coverage. This includes dairies that were previously covered under the GWDR, but have made the appropriate changes to their facility to now qualify for coverage under the waiver. Over the past 12 years dairies have made a

significant investment in infrastructure, spent hours taking advantage of educational opportunities, and improved onsite BMP's; those efforts should be recognized with the opportunity to operate under the less burdensome waiver.

Response to Comment No. 9.4
Staff agrees. The TO has been updated in "Application Requirements" to reflect the change. However, if a facility is currently covered under General WDRs, a request for termination must be submitted by the discharger and approved by the Executive Officer.

Comment No. 9.5
Attachment A: Page 2, Section I: Monitoring Provisions, sub-section A: Visual inspections, Number 2: Exclusion reporting - Rather than require the overly-burdensome documentation of a weekly routine for dairy producers, we feel a better approach would be exclusion reporting. Dairy producers and water board staff would be better served by the collection of information documenting when freeboard measurements DO NOT meet requirements.

Response to Comment No. 9.5
We acknowledge that small farms have limited personnel to conduct and document compliance inspections; thus we have limited the requirement for documentation to retention pond freeboard measurements, land application inspections, discharge violations, and corrective actions. Other commenters have suggested that monthly documentation of freeboard would be adequate during the dry season. We agree and have made the necessary changes in the Monitoring Provisions for visual inspections (Attachment A) to include weekly measurements of retention pond freeboard during the wet season and monthly measurements during the dry season.

We disagree that the best approach to visual monitoring should include only exclusion reporting. Reporting only those inspection findings with compliance problems does not distinguish whether a producer is proactively implementing pollution prevention measures in order to ensure compliance, or simply reacting to a problem that is potentially already causing adverse water quality impacts.

Comment No. 9.6
Attachment A: Page 2, Section I: Monitoring Provisions, sub-section A: Visual inspections, Number 3: Exclusion reporting - Again, we feel that a requirement to daily document a routine event of the farm creates a workload requirement on-farm that cannot be met. Rather, a report of any abnormal irrigation event would provide better, more concise information to the water board during inspections. This section, and most of the visual inspections including the one above, can be addressed through a well-designed monthly checklist. WUD has examples of checklists used in other applications and would be happy to work with the Board to develop something for this application.

Response to Comment No. 9.6
Please see Response to Comment No. 9.5, above. No change to TO regarding land application inspections is proposed. While each operation is different, it is our general understanding that solid manure spreading and wastewater irrigation are not daily occurrences. In addition, information obtained from staff inspections and reports of violations indicate that when land application activities are not actively supervised, the potential for discharge violations is high.

Also, when a Nutrient Management Plan is completed and implemented, each application of wastewater and/or manure should be done in a manner that meets certain conditions of a nutrient budget and should be documented as such.

Board staff agrees that there is a need for practical methods to document inspection findings. We welcome suggestions and/or innovations for helping producers meet this requirement.

Comment No. 9.7
Attachment A: Page 4, Section I: Monitoring Provisions, sub-section C: Water Quality Testing, Number 1 Options to participate in watershed monitoring: We would like to underscore the necessity to allow for water-shed level group monitoring. Asking dairy producers to take individual samples would create a significant financial burden on producers, as well as produce data of questionable reliability. Water quality field sampling requires the proper equipment and that the equipment be properly used, calibrated, and maintained, that is best left to professionals.

Response to Comment No. 9.7
Comment noted.

Comment No. 9.8
Attachment A: Page 6, Section I: Monitoring Provisions, sub-section C: Water Quality Testing, Number 3: Groundwater Monitoring: Number and frequency of groundwater samples - We recommend that the number or frequency of groundwater samples be re-examined. The cost to sample wells ranges from $100-$160 each time. To ease the financial burden on dairy producers we recommend that the water board drop the number of required samples from 4 to 2 with the caveat that any producers with samples that show exceedances maintain the current sample frequency. Alternatively, if the required number of samples cannot be reduced we recommend that the board change the frequency; instead of once each fall and spring beginning in fall 2016 we recommend that, to spread costs, samples be required: a) Fall 2016 b) Spring 2017 c) Fall 2018 & d) Spring 2019.

Response to Comment No. 9.8
Groundwater testing requirements are consistent with the North Coast Water Board's requirements. The groundwater monitoring requirements are already limited in scope to a total of four samples for each existing well. In an effort to reduce unnecessary monitoring, if these samples do not indicate adverse groundwater impacts, then no further testing is required. Samples must be taken both in spring and fall to show differences in parameter results based on fluctuating groundwater levels. Taking samples two years in a row may not show a trend but may confirm the results. While analytical laboratory fees may vary, online research confirms that testing one sample for nitrate and coliform bacteria can cost as low as $34. In addition, each lab usually will provide the necessary sampling containers free of charge. No change was made to the TO.

Comment No. 9.9
Attachment B: Waste Management Plan, Page 2, Section A: General Requirements, Number 5: Well setbacks - A minimum setback of 100 feet between supply wells and animal enclosures is appropriate for new wells, however, many existing wells were constructed before this standard was in place and do not meet the standard. We recommend that the language be changed to

reflect that new wells must meet the standard and that any existing wells meet the standard under which they were constructed. In addition, if the enclosure is constructed of an impermeable material (i.e., concrete) the setback should not be necessary.

Response to Comment No.9.9
Comment noted. Please see response to Comment No. 8.28.

Comment No. 9.10
Attachment B: Waste Management Plan, Page 3, Section C: Waste Containment Capacity, Number 2.c.: Remove containment pond capacity multiplier of 1.5X - It is not clear why normal precipitation is multiplied by the factor of 1.5. In order to calculate containment capacity, normal precipitation is added to the 25-year, 24-hour storm, which already creates a conservative factor. We recommend that the factor of 1.5 be removed.

Response to Comment No. 9.10
No changes were made to Section C; however, language has been added to Attachment B, Waste Management Plan Section F.8 that clarifies the purpose of a contingency plan.

The criterion a discharger shall consider when calculating the necessary pond storage volume are minimum standards and are consistent with those required by the North Coast Water Board. The discharger is not required to maintain storage for normal precipitation multiplied by 1.5; this is only an option. This option relieves dischargers that maintain above-average storage capacity from the obligation to prepare a contingency plan.

Comment No. 9.11
Attachment B: Waste Management Plan, Page 7, Section F: Operation and Maintenance, Number 8: Contingency and waste hauling; In the event of an emergency situation a producer should be expected to have a contingency plan, but trucking waste off-site to a wastewater facility is not a realistic option. Backup ponds, ability to apply to crop or pasture and agreements with neighboring facilities would be more appropriate.

Response to Comment No. 9.11
It is Board staff's intent to offer the trucking of waste to an offsite wastewater facility as an option for preparing a wastewater storage contingency plan. To clarify our intent, the word "or" has been added to the list of contingency plan alternatives.

Comment No. 9.12
Attachment C: Nutrient Management Plan, Page 5, Section D: Nutrient Budget Calculations: Number 4: Nitrogen: The requirement of nitrogen application rates to not exceed 1.4 times the anticipated removal in forage is impossible to calculate in a pasture based system where data for total forage removed by the cow and total manure deposited by the cow cannot be measured with certainty. This requirement may be more appropriate in regions where crops are mechanically harvested and manure applications can be quantified; it is however, inappropriate and should be avoided in an area where quantification of data required to calculate this ratio is not possible.

Response to Comment No. 9.12
The minimum requirements for preparing a Nutrient Management Plan, as outlined in Attachment C, mirrors the North Coast Water Board's Nutrient Management Plan requirements. Since both regions contain similar small pasture-based dairy operations, it makes sense to utilize nutrient management standards already agreed upon by professionals with such experience and that are already in place. The specific section that is referenced above is the exact language that was suggested by the commenter (Western United Dairymen) and the University of California at Davis - Cooperative Extension during the North Coast Water Board's public comment period. North Coast Water Board staff agreed with the suggestion and revised their Nutrient Management Plan to include this language. No change to the TO is necessary.

Comment No. 9.13
Attachment C: Nutrient Management Plan, Page 8, Section H: Record Keeping: Number 1: Exclusion documentation only: We recommend that record keeping documentation be held to exclusion documentation. When conditions are abnormal or do not meet requirements producers should be required to document them. When normal conditions exist it is an over-burdensome to require producers to keep such extensive documentation on-site.

Response to Comment No. 9.13
The section of the Nutrient Management Plan that is cited above requires records to be maintained for any analyses completed for the purpose of developing a nutrient budget. Board staff contends that maintaining such records is reasonable. Please see Response to Comment No. 9.5, regarding exclusion documentation. No change to the TO is necessary.

Comment No. 9.14
Attachment C: Nutrient Management Plan, Page 8, Section H: Record Keeping: Number 2, sub Total Crop Yield - In a pasture-based system it is not possible to accurately document total crop yields. They can be estimated and the waiver should reflect that.

Response to Comment No. 9.14
Staff agrees to add "or estimated yields if crop is grazed".

Comment No. 9.15
Notice of Intent: Longitude and Latitude; Remove the lines designated to Latitude/longitude; this leads to confusion. Highlight the need to provide those coordinates only if an address is unavailable.

Response to Comment No. 9.15:
We agree. The Notice of Intent has been changed as recommended.

CHANGES MADE BY WATER BOARD STAFF
During the public comment period for the Conditional Waiver, Board staff made changes to the Conditional Waiver and the supporting documents in order to add clarity, correct minor editorial and formatting errors, and to make language in each document consistent.