

Regional Water Quality Control Board
Central Valley Region

Response to Written Comments for
Reissued Waste Discharge Requirements General Order
for
Existing Milk Cow Dairies

This document contains the responses to written comments received from interested parties regarding the proposed tentative Reissued Waste Discharge Requirements for Existing Milk Cow Dairies (Tentative Order). The Tentative Order was prepared to propose revisions to the Waste Discharge Requirements General Order R5-2007-0035 (Dairy General Order) to comply with the Writ of Mandate issued by the Sacramento County Superior Court following the decision of the Third District Court of Appeal in *Asociación de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Bd. (AGUA)* (2012) 210 Cal.App.4th 1255. These revisions include modifications to the Waste Discharge Requirements (WDRs), the Revised Monitoring and Report Program, the Information Sheet, and readjustments made to attachments C, D, and E to reflect the modifications of the Dairy General Order.

The Tentative Order was circulated for 32 days for public comment, ending on 9 September 2013. Written Comments were received during this comment period from the following:

- A. Sweeney, James G. & Amelia M.
- B. Skelton, Chris
- C. Environmental Justice Groups¹
- D. Dairy Cares

The written comments on the Tentative Order are summarized below, followed by Central Valley Water Board staff responses.

Entity A – Sweeney, James G. & Amelia M.

Comment A.1: Inadequate notice

The commenter contends that the Central Valley Regional Water Quality Control Board (Central Valley Water Board or Board) did not provide the public with adequate notice that revisions to the Dairy General Order (Dairy General Order) were being made, or that the Central Valley Water Board was releasing the Tentative Order for public comment. The commenter was unaware of the Court's decisions regarding legal challenges to the 2007 General Order. A copy of the Tentative Order was difficult to locate on the Central Valley Water Boards website. The

¹ Phoebe Sarah Seaton with the Leadership Counsel for Justice and Accountability, Lynne Saxton with Saxton & Associates, James Wheaton with Environmental Law Foundation, Laurel Firestone with the Community Water Center, Jennifer Clary with Clean Water Action, and Amparo Cid with the California Rural Legal Assistance Foundation.

Central Valley Water Board has denied due process by not sending notice to all individual dairy owners and/or operators by mail.

Response A.1: The Board has been working in conjunction with representatives of the Dairy Industry throughout the development of the Tentative Order, and has provided notice of the Tentative Order by posting a draft on the Board's website and by providing individual notice to all persons who requested individual notice (such as the commenter) in order to fulfill the requirements of Water Code section 13167.5. The Board has also given notice of the hearing on the Tentative Order by providing notice of the October Board meeting in accordance with the requirements of the Bagley-Keene Open Meeting Act.

Water Code section 13167.5 specifies that the Board shall provide notice and a period of at least 30 days for public comment prior to the issuance of waste discharge requirements. The Tentative Order was prominently posted on the Central Valley Water Board web site <http://www.swrcb.ca.gov/rwqcb5/> under the announcements section on 9 August 2013. The comment period ran for 30 days ending on 9 September 2013. The issuance of the Tentative Order was also announced via the State Water Board Lyris listserv to all individuals/groups that had enrolled in the service.

In addition to the legally-required notices, the Board also provided additional opportunities for public input. Board staff presented a status report at the 25 July 2013 Board meeting, and this report was noticed on the Board's website. The staff report discussed what the Board was doing to comply with the *AGUA* decision and the Sacramento County Superior Court's Writ of Mandate, which compels the Board to, "[s]et aside the [Dairy General Order] and reissue the permit only after application of, and compliance with, the State's anti-degradation policy ... as interpreted by the Court of Appeal in its opinion." The commenter was also individually notified of the court's decision by Central Valley Water Board staff via e-mail on 12 August 2013.

The Water Code does not require individual noticing of all potentially affected parties. However, in this case, the commenter was individually noticed due to his repeated expressed interest in these matters.

Comment A.2: Denial of due process

The proposed revisions to the General Order are complex and additional time (60 days at a minimum) should be afforded to the public to prepare and submit comments. Refusal to grant this request would be unreasonable and a further denial of due process.

Response A.2: Though the requirements of the General Order are complex, the revisions to the General Order are relatively limited in scope. The revisions primarily deal with integrating the Board's 2011 updates to the monitoring and reporting program into the General Order, redoing the Board's Anti-Degradation analysis in light of the Third District Court of Appeal's *AGUA* decision, and incorporating a compliance time schedule into the General Order. In accordance with Water Code section 13167.5, the Board has provided a 30-day public comment period to provide the public, and has provided all regulated entities with an opportunity to be heard at meaningful time and in meaningful manner. The Board may consider continuing the hearing and

allowing an additional comment period at the October Board Meeting, should the Board deem that necessary.

Comment A.3: Economic burden on small dairies

Since the adoption of the General Order in 2007, over 25% of Central Valley dairies have closed. Of these dairies that closed, a disproportionate number of them have been small dairies. The reporting and compliance costs associated with the General Order are a much larger burden on small dairies.

Response A.3: It is the responsibility of all dischargers to comply with the provisions of the Water Code, regardless of the size of their operation. Furthermore, no information has been presented to the Central Valley Water Board regarding any studies that demonstrate that a small dairy operation poses any less of a risk to water quality than a large dairy facility. The Central Valley Water Board does, however, agree that there is an economy of scale with respect to compliance costs. This economy of scale is one of the reasons that Board's Executive Officer approved the development of a Dairy Representative Monitoring Program as a lower-cost alternative to individual monitoring. In addition, the Central Valley Water Board, through the State Water Resources Control Board, has funded Merced County to create and operate a system that allows owners and operators of dairies to prepare their annual reports, minimizing the dairyman's need to hire consultants to perform this work. This program is provided at no additional direct cost to dairy owners and operators.

Comment A.4: Wastewater retention ponds costs

The Tentative Order will eventually require all dairies to line their wastewater retention ponds. The cost of lining a wastewater retention pond at a small dairy is too great. The commenter states that this cost would be greater than the net worth of the entire dairy facility.

Response A.4: The Tentative Order (page 16), like the 2007 Dairy General Order, does not prescribe the method to be used by a Discharger to achieve compliance with the Order. If monitoring data indicate that a discharge of waste from a dairy has caused the underlying groundwater to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance, the Discharger is required to implement management practices/activities that will bring the facility into compliance on a timeline that is as short as practicable. The means by which the Discharger achieves compliance it is up to the individual Discharger. However, if the decision is made to construct a new pond, the Tentative Order requires that it be constructed to Tier 1 or Tier 2 pond specifications. A Tier 2 pond requires, “[a] pond designed in accordance with California Natural Resource Conservation Service (NRCS) Conservation Practice Standard 313 (as described in the Information Sheet) **or equivalent** [emphasis added] and which the Discharger must demonstrate through submittal of technical reports that the alternative design is protective of groundwater quality...”; it does not specify the construction of a lined pond. A Tier 1 pond is, “A pond designed to consist of a double liner constructed with 60- mil high density polyethylene or material of equivalent durability with a leachate collection and removal system (constructed in accordance with Section 20340 of title 27) between the two liners”

Comment A.5: Groundwater monitoring costs

The Tentative Order will eventually require that all dairies install individual groundwater monitoring networks. The costs associated with the installation of a groundwater monitoring network and the annual sampling/reporting costs are too great for small dairies. As these costs would likely be the same for both large and small dairies, this would place a larger economic burden on small dairies (e.g. costs per cow would be much greater at smaller dairies).

Response A.5: While groundwater monitoring is required by the Tentative Order, individual groundwater monitoring is not. The Tentative Order's Monitoring and Reporting Program specifies that Dischargers have the option of either implementing individual groundwater monitoring or participating in a Representative Monitoring Program (RMP) to identify whether or not the management practices employed at their dairies are resulting in adverse impacts to groundwater (i.e., whether the discharge is in compliance with the groundwater limitations of the Order). Dischargers choosing to participate in a Representative Monitoring Program must notify the Central Valley Water Board and must include identification of the Representative Monitoring Program that the Discharger intends to join. Dischargers choosing not to participate in a Representative Monitoring Program, or those failing to notify the Central Valley Water Board of their decision to participate in a Representative Monitoring Program, will continue to be subject to the individual groundwater monitoring requirements of the Tentative Order.

Comment A.6: Water Code sections 13240, 13241, and 13263

The Tentative Order does not comply with Water Code sections 13240, 13241, and 13263 because current economic conditions were not taken into consideration. The commenter notes that the Board must periodically update the Basin Plans, and argues that the Board must modify water quality objectives to account for economic considerations during these updates. The commenter contends that the Tentative Order fails to implement water quality objectives and impose general waste discharge requirements that will be within the economic means of small dairies. The commenter also contends that the Tentative Order does not adequately evaluate the criteria identified in Water Code section 13263(i) for prescribing general waste discharge requirements, and that it is unreasonable to group all dairies under one general waste discharge requirements order.

Response A.6: Water Code section 13241 requires that the Board consider, *inter alia*, economic considerations "when establishing water quality objectives..."(Wat. Code, §13241.) Water Code section 13241 is not triggered by the tentative Order because the tentative Order does not *establish* water quality objectives. Instead, the tentative Order is a regulatory measure designed to ensure that discharges from Dairy facilities comply with the already-established water quality objectives that have been incorporated into the Board's Basin Plans. (see *San Joaquin River Exchange Contractors Water Authority v. State Water Resources Control Bd.* (2010) 183 Cal.App.4th 1110, 1119, in which the Third District Court of Appeal determined that "a program of implementation for achieving water quality objectives" was not subject to Water Code section 13241.) Furthermore, the periodic review of the Basin Plans does not require a re-consideration of economic factors for the same reasoning; the periodic reviews themselves do

not establish water quality objectives. Though Water Code section 13241 is applicable to the Board's permitting actions in certain instances, this is not the case here. In certain instances, the Board may establish "site-specific" water quality objectives through waste discharge requirements. ("while water quality objectives may be adopted as part of water quality control plans or state policy for water quality control, see Cal. Water Code §§ 13242, 13170, 13241, these are not the exclusive means for setting water quality objectives. Site-specific objectives may be established as part of individual permitting and enforcement actions." State Water Board Order No. WQ 86-13 at 15.) When the Board establishes site-specific objectives though the issuance of an Order, Water Code section 13263(i) is indeed triggered, but this tentative Order does not propose to establish site-specific objectives.

Despite the fact that the Board is not required to consider economic factors in the context of this permitting action, the Board has, in fact, considered the current economic situation faced by the Dairy industry. The Water Code requires that the Board ensure the *reasonable* protection of beneficial uses, and the tentative Order proposes that allowing dairies a time schedule to come into compliance with water quality objectives is reasonable, in light of the fact that it is economically impossible for many dairies to immediately install certain pollution control devices.

With respect to the decision of the Board to regulate the Dairy industry through a general order that includes both small dairies and large dairies, the Board has found that the criteria in Water Code section 13263(i) apply to all dairies, both large and small, due to the reasoning found in the Information Sheet that accompanies the draft General Order. However, the Board has the discretion to revisit that conclusion.

Comment A.7: Waiver of waste discharge requirements for small dairies

The commenter argues that small dairies are both less able to afford regulatory costs and pose a lesser threat to groundwater quality (particularly jersey cow dairies), and should therefore be issued a waiver of waste discharge requirements. This approach has been taken by other Regional Water Quality Control Boards within California.

Response A.7: The Central Valley Water Board will consider this suggestion. This Board is not barred from taking the approach of regulating smaller dairies under a separate General Order or under a Conditional Waiver. However, small dairies may still present a significant threat to water quality, and would therefore be required to comply with requirements that are substantially similar to the requirements imposed in the draft General Order. The actual amount of waste produced by a dairy operation is reported in the dairy's annual report and should be reflected in the implementation of the dairy's nutrient management plan. Monitoring of nutrient applications coupled with groundwater monitoring beneath the dairy allow for an evaluation of the dairy's management practices and an assessment of the dairy's impacts on groundwater quality.

Comment A.8: Inclusion of technical documents in the administrative record

The Commenter requests that four technical documents be included in the administrative record. The commenter states, in part, that these technical documents should be considered prior to adoption of the tentative revised General Order. The commenter argues that Central

Valley Water Board staff (Staff) did not rely upon up-to-date technical information when developing the Tentative Order.

Response A.8: The four reports will be accepted into the administrative record for this proceeding. The commenter suggests that the nitrate MCL should be adjusted based on new scientific information, and that the draft General Order should not require compliance with limitations that have been developed based on the MCL. However, the Board is legally obligated to impose requirements that ensure that groundwater designated as supporting the MUN beneficial use meet the MCL. The Board does not have the authority to unilaterally declare that this MCL is overly protective of human health, as this limit was developed and promulgated by both the US EPA (which developed the nitrate MCL under the authority of the federal Safe Drinking Water Act) and the California Department of Public Health (which promulgated the nitrate primary MCL under the authority of the California Safe Drinking Water Act).

It should be pointed out that the commenter's attachments F and G are documents prepared for or through the State Water Board's Groundwater Ambient Monitoring and Assessment Program (GAMA), which are contained on State Water Board's website, and have been previously reviewed by Central Valley Water Board staff. With regards to current technical information reviewed by Central Valley Water Board staff during the preparation the Tentative Order, the commenter is directed to the Representative Monitoring section of the Central Valley Water Board's website and to the footnotes in the Tentative Order's Information Sheet.

Comment A.9: Manure sealing, denitrification, and cation exchange

The commenter states that the technical documents demonstrate that seepage from manure wastewater retention ponds is minor due to the sealing properties of manure and that bacteria below ground surface "denitrify nitrates in lagoon seepage water into inert, non-toxic nitrogen gas." The commenter also suggests that "ammonium and other undesirable constituents" found in manure lagoon seepage adhere to soil particles beneath the pond and do not migrate into lower groundwater tables.

Response A.9: The commenter does not cite any specific study regarding manure sealing of dairy wastewater ponds. Various studies such as Ham, 2002² indicate that some manure sealing of the pond bottoms will occur. However, all studies of unlined ponds that Board staff are aware of show some amount of seepage through pond bottoms. Additionally, pond seepage studies have typically been conducted only on pond bottoms (not side walls), do not evaluate mechanical separation of solids from the waste stream going into the pond, or track pond performance over an extended period of time or under different management practices (pond cleaning, pond waste levels, mixing of irrigation water within the pond, etc.). Recent data (Central Valley Dairy Representative Monitoring Program, 2012, Year 1 Annual Report) suggest that a portion of the monitored dairy ponds are leaking or have leaked. It should also be noted that the risk of groundwater pollution is not only dependent on the seepage rate, but is governed

² Ham, J.M., 2002 *Field Evaluation of Animal-Waste Lagoons: Seepage Rates and Subsurface Nitrogen Transport*.

by the chemical concentrations in the waste, geochemical reactive transport, depth to the water table, and under-basin soil properties (grain size, soil texture, etc.).

Denitrification requires very specific conditions, including: the presence of a facultative bacterial mass; the presence of nitrate and absence of dissolved oxygen (DO) in the mixed liquor (i.e. an anoxic environment); suitable environmental conditions for bacterial growth; and the presence of an electron donor (nitrate reductor). The predominant form of nitrogen in a dairy wastewater pond is ammonium not nitrate. Ammonium under the oxidizing conditions present throughout most of the Central Valley is transformed into nitrate. This nitrate can only undergo denitrification if oxygen reduced conditions are present. This is not the typical case in the Central Valley.

Cation exchange is dependent upon a variety chemical properties, including: the amount and type of clay present; the amount of organic matter present; the soil and pore water pH; and the presence or absence of hydrous oxides of iron (Fe) and aluminum (Al) (Sesquioxides). These properties vary significantly from site to site and are not static. Additionally, cation exchange capacity can be exhausted over time by continual leaching, and while it temporarily removes or restricts leaching of some waste constituents such as ammonium, it also releases cations such as calcium which increases the concentration of total dissolved solids and may lead to a water quality exceedance.

While processes such as manure sealing, denitrification, and cation exchange may occur to varying extent at an individual dairy, their effects regarding reducing or eliminating waste constituents from entering groundwater on can only be determined by groundwater monitoring.

Comment A.10: Groundwater analyses

The commenter discussed groundwater aging techniques and stated that these analyses could be used to evaluate if the operation of a dairy has actually impacted the tested water. The commenter suggested that simply testing for the presence of nitrates is inadequate to determine their source.

Response A.10: Typical groundwater age-dating techniques are only able to identify if a portion of the groundwater has been infiltrated within the last 50 years. This does not indicate the source of the groundwater; it only provides a relative age. Nitrogen source identification using stable nitrogen isotopes and oxygen isotopes may be done; however, differentiation between septic tank effluent and animal waste contamination may be difficult without additional testing (chloride/bromide ratios, or co-contaminant analysis). The Revised Dairy MRP Attachment A (page 20) requires that if the monitoring parameters required by this MRP are insufficient to identify whether site activities are impacting groundwater quality, the Discharger must employ all reasonable chemical analyses to differentiate the source of the particular constituent. This includes, but is not limited to, analyses for a wider array of constituents and chemical isotopes.

Comment A.11: Health risks of nitrate

The commenter suggests that the health threats posed by nitrate may be misplaced or overstated and that further research needs to be completed to determine if the current maximum contaminant level (MCL) should be relaxed.

Response A.11: *See comment A.8 above.*

Comment A.12: Reliance on “Review of Animal Waste Management Regulations”

The commenter takes issue with the use of a report titled *Review of Animal Waste Management Regulations, Task 2 Report: Evaluate Title 27 Effectiveness to protect Groundwater Quality*, prepared by Brown, Vence and Associates. The commenter suggests that the report is outdated and that the observations and recommendations contained in the report have been subsequently undermined, put into question, and/or otherwise debunked by the technical documents provided by the commenter.

Response A.12: *See comments A.8 and A.9 above.* Additionally, the Brown, Vence and Associates study contains a wide variety of data on dairy operations and their potential impacts to water quality. A significant portion of this data appears to have been validated by the Central Valley Dairy Representative Monitoring Program, 2012, Year 1 Annual Report (see above). The Central Valley Water Board staff is also aware that dairy construction, management practices, and site conditions vary throughout the Central Valley, and that the range of conditions and their effect on water quality cannot be captured by a single study. It is in part due to this range in existing dairy conditions that the Tentative Order requires groundwater monitoring to assess the effects of the Dischargers dairy operations.

Comment A.13: Availability of groundwater monitoring data

Finding 23 of the Tentative Order states, in part, that groundwater data collected at various dairies with groundwater monitoring well networks within the Central Valley have demonstrated that many dairies have impacted groundwater quality. The commenter contends that they are unable to adequately comment on this finding, and thus unable to adequately comment on the Tentative Order, until all the data from the referenced dairies has been made available for review.

Response A.14: The results of the Central Valley Dairy Representative Monitoring Program’s first year of sample collection are posted on the Central Valley Water Board’s web site, under Dairy Program, General Order Guidance, Representative Monitoring, 2012 Year 1 Annual Report. Additional groundwater data requested by the commenter for the past 12 years is the subject of a California Public Information Act request that is currently being processed by Central Valley Water Board staff.

Comment A.15: Burden of proof

The commenter requests that the Central Valley Water Board explain precisely and adequately why each management practice and reporting requirement set forth in the Tentative Order is

necessary, and demonstrate that each reflects the best and most cost-effective means based on the most recent research and technologies.

Response A.15: Though the Board is prohibited from specifying the manner in which Dischargers comply with the Board’s regulatory requirements, under State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California (*State Anti-Degradation Policy*), the Board must find that the regulatory requirements imposed by the Board will result in the implementation of “best practical treatment or control” of the wastes in the discharge. However, Dischargers may demonstrate that alternative cost-effective means of compliance would also achieve compliance with the Board’s requirements, and the Discharger would then be authorized to employ such methodologies. A process of evaluating current methodologies and alternate means of compliance is currently under way pursuant to requirements imposed by the RMP.

Comment A.16: The commenter states that after numerous years of collecting data and information from dairies, it is still unknown if the management practices that the Board has imposed upon dairies are effective.

Response A.16: The issuance of the 2007 Dairy General Order specified a variety of dairy management practice changes and a schedule for their implementation (Table 1 of the 2007 Dairy General Order). Major portions of the required modification have only recently been completed (e.g., certification of facility retrofit [July 2011], certification of nutrient management plan implementation [July 2012]). Evaluations of the effects of these new or modified practices are ongoing. Current groundwater monitoring, particularly in areas of deeper groundwater, may not fully reflect the effectiveness of the recently-implemented management practices for some extended period of time.

Entity B – Skelton, Chris

Comment B.1: Compliance inspections

The commenter contends that Water Code section 13267 provides the Central Valley Water Board the ability, not a mandate, to inspect facilities for compliance. The comment states in part that Section B.15 of the Standard Provisions and Reporting Requirements may be considered unlawful search and seizure of property as non-intrusive methods of investigation such as remote sensing and viewing from public roads exists. The commenter suggests through a rhetorical question that inspections by Staff require that a discharger “waive their inalienable rights to privacy and others protected by the State Constitution.”

Response B.1: The Board is not attempting to abrogate any constitutional right in the promulgation of the Tentative Order. The Board recognizes that there is a right to privacy for all structures at a dairy, and Board inspectors will not enter without either permission or a warrant. However, should a Dairy refuse entry to an inspector, this may be considered a permit violation.

Comment B.2: Supply well data

Water supply wells are inadequate for monitoring purposes and cannot be used as evidence for requiring investigation and cleanup under Water Code sections 13267 and 13304. The commenter requests that Staff provide rationale for including analytical result and relative distances from agricultural supply wells in Table 5 of Attachment A to the Monitoring and Reporting Program (MRP). The commenter also requests that Staff provide justification for the need to submit this data when existing data may be sufficient for nutrient management planning.

Response B.2: Central Valley Water Board staff utilized Table 5 as part of a screening technique to prioritize the order of implementation of groundwater monitoring at regulated dairies. Table 5 is no longer used, as its purpose has been superseded by the Revised Monitoring and Reporting Programs requirements for individual or representative groundwater monitoring. Neither Table 5 nor water supply well data has been used as the sole justification cited by any Water Code section 13267 or section 13304 actions taken under the dairy program. Central Valley Water Board staff is aware that the majority of water supply wells cannot be used to identify the source of a water quality exceedance. They can, however, be used to evaluate the quality of groundwater being supplied for drinking water, irrigation, or other use. Monitoring the groundwater quality of these wells over time provides data suitable for trend analysis; it may be used to determine whether water quality is getting better or worse. Water quality data from a portion of these wells (irrigation supply wells) is necessary to assess the nutrient content of the irrigation water, which is necessary for nutrient management planning.

Comment B.3: Well setbacks

The commenter requests that the criteria used to evaluate alternative conservation practices to the 100-foot setback be explained in greater detail.

Response B.3: Tentative Order General Specification B.7 requires,

“Manure and process 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 vegetated 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.”

Any proposed deviation from the prescribed 100-foot setback must be shown to be as protective of groundwater quality, be supported by site specific data, and must be signed by a registered civil engineer, professional geologist, or engineering geologist that is familiar with this type of evaluation and is licensed to practice by the State of California.

Comment B.4: The commenter questions if the Board's compliance officer has the discretion to require technical reports but not provide a review of the submitted document.

Response B.4: Central Valley Water Board staff strives to review all submitted reports in a timely manner. If the commenter is aware of a report that has not been reviewed within a reasonable period of time, the commenter is urged to bring this to the attention of Central Valley Water Board staff for resolution of the issue.

Comment B. 5: Legacy issues

The commenter requests that Staff describe how the Central Valley Water Board will identify current discharges from legacy and/or off-site discharges, how the Central Valley Water Board will modify the compliance schedule as nitrates concentrations are expected to continue to increase.

Response B.5: It is the Discharger's responsibility under the Tentative Order to monitor the effects of their operations on first encountered groundwater quality and to substantiate any claim that water quality impacts are the result of off-site discharges or are a legacy issue. The Revised Monitoring and Reporting Program allows a Discharger to choose to conduct individual groundwater monitoring or to elect to join a representative groundwater monitoring program. The first phase of the Central Valley Dairy Representative Monitoring Program specifically chose a group of dairies that overlies shallow groundwater (generally less than 20-feet below ground surface) in order to reduce legacy effects. The program also situated monitoring wells as close as possible to the waste management units under investigation, utilized nested monitoring wells with short well-screen intervals, and sampled first encountered groundwater to reduce the effects of offsite discharges.

The Tentative Order's Time Schedule for Compliance requires that, when groundwater monitoring demonstrates noncompliance with the groundwater limitation of the Order, the Discharger must implement management practices changes as soon as practicable, supported with appropriate technical or economic justification, and in no case may time schedules extend beyond 10 years from the date that the summary report (individual monitoring) or the summary representative monitoring report (representative monitoring) is approved by the Executive Officer. This schedule allows for the implementation of management practices that will result in discharges that will comply with applicable water quality objectives, not unreasonably affect beneficial uses, and that will not cause a condition of pollution or nuisance. In the case of nitrate, the discharge must be reduced to less than 10 milligrams per liter of nitrate as nitrogen.

Comment B.6: Wastewater retention ponds

The commenter requests that Staff justify the costs of updating wastewater retention ponds. The commenter states in part that reducing seepage from dairy wastewater retention ponds is not likely to significantly reduce overall the constituents of concern in groundwater.

Response B.6: The Tentative Order does not require the Discharger to reconstruct his/her wastewater ponds (see response A.4 above). It does, however, require that the Discharger comply with the groundwater limitations of the Order, and specifies that if groundwater monitoring demonstrates that discharge(s) from a dairy have caused an exceedance of the groundwater limitations, the Executive Officer may issue an order to the owner/operator of the

monitored dairy to identify and implement management practices that are protective of groundwater quality on a schedule that is as short as practicable.

The commenter's assertion that reducing seepage from dairy wastewater retention ponds is not likely to significantly reduce overall the constituents of concern in groundwater is not supported by any evidence or data.

Comment B.7: Qualified professionals role

The commenter requests that Staff discuss what assurances can the Central Valley Water Board make that enforcement actions that purport to investigate groundwater will require a qualified professional with experience hydrogeology.

Response B.7: -- Anyone offering professional services in California in the fields of Civil Engineering, Structural Engineering, Geotechnical/Soil/Soils Engineering, Land Surveying, Geology, or Geophysics must be licensed with the California Board for Professional Engineers, Land Surveyors, and Geologists (which is under the California Department of Consumer Affairs), regardless of whether the Board requires such professional licensing or not. When the Board discovers that such professions are being performed without a license, the Board may recommend that the matter be referred to the California Department of Consumer Affairs, which has the authority to take disciplinary action. In addition, if work completed and submitted to the Central Valley Water is required to be performed under the direct supervision of a registered professional, Board staff can reject the work and deem it non responsive to requirements of the Order.

Comment B.8: Groundwater monitoring and identification of Best Management Practices

The commenter contends that the purpose of groundwater monitoring is to define the nature and extent of a discharge and not to evaluate the effectiveness of a management practice and identify best management practices (BMPs). The commenter requests that Staff explain how this monitoring strategy is consistent with the Water Code and the Basin Plans.

Response B.8: The Water Code, the Basin Plans, and the Third District Court of Appeal's decision in the *AGUA* case all require that the Board develop a monitoring program to ensure that the management practices employed at regulated facilities are protective of the underlying groundwater.

Entity C – Environmental Justice Groups

Comment C.1: The Tentative Order would violate the Anti-degradation Policy

The Tentative Order would violate the State Anti-Degradation Policy by allowing degradation of high quality waters without conducting the requisite analysis or requiring sufficient data to be collected to assess whether degradation is occurring or allowable. Specifically, with respect to the tentative revised General Order:

Comment C.1.a: The Tentative Order fails to accurately assess the existence of high quality water and the particular quality of that water.

Response C.1.a: The Commenter is correct that the Board did not conduct an exhaustive survey of all of the groundwater, as it existed in 1968, to determine whether this water should be considered high-quality waters. Instead, the Board relied on available information that showed that at least some waters beneath dairies are appropriately considered high-quality water, and applied the requirements associated with discharges that threaten to degrade high-quality waters to all regulated dairies.

Comment C.1.b: The Tentative Order fails require that existing unlined wastewater retention ponds be lined. The iterative process for evaluation of existing ponds is a process of perpetual study of a problem to which the answer is already known.

Response C.1.b: The commenter is correct that the Board is not requiring that all existing unlined wastewater retention ponds be lined. The analysis in the Information Sheet indicates that the Board has taken the position that immediately lining all existing dairy ponds is not practicable. Where either individual monitoring or monitoring conducted pursuant to the Representative Monitoring Program indicates that unlined ponds are creating impacts above applicable water quality objectives, the owners and operators of these ponds will be forced to upgrade their facilities, either by lining their ponds or by employing other means, in order to ensure that the discharges will meet water quality objectives.

Characterizing the Board's regulatory program as simply "perpetual study" is inaccurate. The Board is imposing requirements that have grown in both their scope and complexity since the Board began developing WDRs after the Board's waiver program, which had been in place since 1982, was set to expire in 2003.

Comment C.1.c: Section F.1 of the Tentative Order allows degradation beyond the water quality objective for an unspecified time. There is no rational basis for believing that allowing the activity to continue without substantial change will not also result in further degradation. Any delay of the implementation of management practices that will eliminate degradation allowed through this Order violates the anti-degradation policy.

Response C.1.c: The commenter is incorrect that the Tentative Order does not have a specified time schedule for compliance. Furthermore, this time schedule is authorized by law. The State Anti-Degradation Policy requires that the Board to ensure that discharges to high-quality waters will not unreasonably affect present and anticipated beneficial uses of such water and that these discharges will not result in water quality less than that prescribed in the policies. Both the Water Code and the policies of the State Water Board and the Central Valley Water Board, including both Basin Plans, do not require the immediate rectification of discharges that may be causing pollution. The Board is authorized to give dischargers time schedules to rectify compliance issues; however, they must be as short as practicable. This Order requires compliance as soon as practicable,

supported with appropriate technical or economic justification and in no case may time schedules extend beyond 10 years from the date that the summary report (individual monitoring) or the Summary Representative Monitoring Report (members of a representative monitoring program) is approved by the Executive Officer.

Comment C.1.d: The Tentative Order fails to adequately address all the factors that need to be considered when demonstrating that the change in water quality will be consistent with the maximum benefit to the people of the State.

Response C.1.d: The Central Valley Water Board staff contends that the analysis satisfies the requirements of the State Anti-Degradation Policy.

Comment C.1.e: The Tentative Order fails to demonstrate that degradation will not unreasonably affect present or probable future beneficial uses. By setting the effective level of degradation at the point just below the MCL, the Central Valley Water Board is essentially allocating to the dairy industry the entire capacity of groundwater degradation and ensuring impacts to domestic water users.

Response C.1.e: Discharges from dairy facilities regulated by the Tentative Order are likely to temporarily impact beneficial uses. However, because the Tentative Order requires that all dischargers take substantial and significant steps to rectify water quality impacts when they are discovered, these impacts are not unreasonable.

With respect to assimilative capacity, compliance with the Tentative Order will be measured by the *concentration* of pollutants in groundwater, not by the mass loading of pollutants to a groundwater basin. Therefore, this comment is inaccurate. Other dischargers can certainly discharge to groundwater that has passed beneath a dairy facility, as long as that discharger discharges wastewater that meets water quality objectives by the time their discharge reaches the receiving water – this requirement is identical to the requirements imposed on the dairy industry. Furthermore, none of the policies of the State Water Board or the Central Valley Water Board require the Board to include a margin of safety below a threshold that would be fully protective of all beneficial uses.

Comment C.1.f: The Tentative Order does not provide analysis on the costs incurred by individuals, water providers or the state for clean-up or treatment of contaminated water, or increased costs to water suppliers that may need to conduct more rigorous testing. In addition, the Tentative Order does not consider the long term environmental costs for allowing continued groundwater degradation. The Tentative Order must set a “goal for degradation” far enough below water quality objectives to ensure that high quality waters do not exceed water quality objectives and to ensure that beneficial uses are protected.

Response C.1.f: The Tentative Order, if approved, will ultimately result in the expenditure of large amounts of resources to ensure that communities will not need to rely on or replace polluted drinking water. In many cases, the pollutants that are impacting

community drinking water were released into the environment decades ago. Unfortunately, even if all water quality issues at every dairy were rectified today, water quality impacts would persist for years, if not decades. This Tentative Order is one step on a path towards ensuring the long-term viability of groundwater drinking water resources throughout the Central Valley Region. The Board contends that its analysis of the impacts of the Tentative Order is adequate to satisfy the requirements of the State Anti-Degradation Policy.

Comment C.1.g: Besides announcing the costs of adequately lining dairy ponds, the Tentative Order does not assess feasible alternatives too continued degradation.

Response C.1.g: There are no easy answers to the water quality issues caused my many types of agricultural and industrial practices, including some of those currently employed by the dairy industry. However, the Tentative Order is forcing the dairy industry to not only track down areas where current controls are inadequate, it is requiring the dairy industry to develop a suite of alternative practices that will ultimately ensure compliance with water quality objectives.

Comment C.1.h: By allowing continued activities that have and will continue to degrade water quality, the Tentative Order fails to not only require best practicable controls, but to impose any controls at all.

Response C.1.h: This comment seems to indicate that the Board is not requiring any controls on the Dairy Industry, and this is not the case. Even though the Dairy Industry is currently in an economic slump due to historically high feed prices and low milk prices, dairies are being compelled to evaluate and upgrade their facilities to ensure compliance with water quality objectives. Board staff proposes that the requirements imposed by the Tentative Order will result in the implementation of best practicable treatment or control of the wastes associated with the regulated dairies. Though the Tentative Order allows degradation of groundwater, it requires the implementation of practices to meet water quality objectives in accordance with a time schedule.

Comment C.2: The Tentative Order allows for unlawful pollution and nuisance

The Tentative Order permits unlawful pollution and/or nuisance to groundwater as defined in the Water Code. Specifically, the tentative revised General Order;

Comment C.2.a: By allowing degradation up to the point just below the MCL, the Tentative Order permits discharges that are both injurious to health and interferes with the enjoyment of property for communities whose domestic water quality will be impacted. The Tentative Order disregards public health goals and instead requires compliance with “less protective water quality objectives.”

Response C.2.a: The Tentative Order allows the Dairy Industry to degrade groundwater only until the point where it would interfere with beneficial uses. The entire goal of the Tentative Order is to ensure that dairies who wish to continue to operate in the Central Valley will not interfere with their neighbor’s use and enjoyment of their properties.

It is unclear what the commenter is referring to with respect to “less protective water quality objectives.” For nitrates, the constituent that presents the greatest threat to those who utilize groundwater as a source of drinking water, the public health goal and the MCL are identical. The Board is requiring dairies to comply with this standard.

Comment C.2.b: Continued pollution from existing ponds is strictly prohibited as discharges to high quality waters are not allowed to violate water quality standards under the Anti-degradation policy. The inclusion of an undefined time schedule in section F.1 of the Tentative Order does not change the fact that the Central Valley Water Board is not allowed to permit pollution or nuisance.

Response C.2.b: It is not the case that discharges to high quality waters are never allowed to violate water quality standards; the Water Code expressly authorizes the Board to impose time schedules that grant dischargers time to return to compliance if they are not immediately able to comply with their permits. (see Wat. Code §§ 13242, 13263(c), 13300, 13301.)

Comment C.2.c: As the Representative Monitoring Program (RMP) has been in place for several years, the due dates for reports should be based on the when the RMP was initiated and not when the Tentative Order would be adopted.

Response C.2.c: The due date for Dischargers conducting individual groundwater monitoring is based upon the date of the initial sampling activity. Due dates for Dischargers that are enrolled in an approved RMP are based upon the date of submittal of the first annual representative monitoring report. In the case of Dischargers enrolled with the Central Valley Dairy Representative Monitoring Program, this was 1 April 2013.

Comment C.2.d: The Tentative Order allows the discharger to exceed water quality objectives and create nuisance conditions for ten years. The discharge of waste at existing milk cow dairies should not cause the underlying groundwater to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance for any period of time.

Response C.2.d: The commenter is correct that the Tentative Order will allow for the exceedance of water quality objectives for a significant period of time. However, Board staff has proposed this compliance time schedule after taking into account the monumental effort, in both planning and in financing, that will be required to ensure that all discharges from dairy facilities are fully protective of all beneficial uses. In addition to a specified period of time in which to achieve compliance, the Tentative Order also requires that regulated dairies that are found not to be protective of underlying groundwater must upgrade their management practices on a timeline that is as short as practicable, supported with appropriate technical or economic justification. Therefore, implementation of some management practice changes, such as modification of nutrient application rates or timing of nutrient application, may occur almost immediately, while infrastructure

changes such as corral slope modification may require a somewhat longer period of time but not the entire length of time allotted to achieve compliance with the groundwater limitations of the Tentative Order.

Comment C.3: Monitoring and Reporting

The Tentative Order fails to require sufficient monitoring and reporting. Groundwater monitoring networks need to be robust and designed to reveal a problem quickly. Specifically, the tentative revised General Order;

Comment C.3.a: The Tentative Order allows the continued use of supply wells for monitoring, even though they have been determined to be inadequate for monitoring purposes. Both individual dischargers and members of the RMP should be required to monitor from monitoring wells, rather than supply wells.

Response C.3.a: The Tentative Order requires monitoring of first encountered groundwater, either on an individual basis or as part of a representative monitoring program, in order to evaluate a Discharger's compliance with the groundwater limitations of the Tentative Order. The purpose of monitoring of water supply wells is not to evaluate compliance with the groundwater limitation of the Tentative Order, but to evaluate the quality of groundwater being supplied for drinking water, irrigation, or other use. Monitoring the groundwater quality of these wells over time provides data suitable for trend analysis; it may be used to determine whether water quality is getting better or worse. Water quality data from a portion of these wells (irrigation supply wells) is necessary to assess the nutrient content of the irrigation water, which is necessary for nutrient management planning.

Comment C.3.b: Monitoring for only two constituents, nitrate and total dissolved solids, is insufficient. The list of constituents of concern to be monitored should be based on the complete list of significant wastes generated by dairies. It is unclear if the RMP is in fact adequately representative to ensure that all discharges from all participating dairies are adequately captured and assessed.

Response C.3.b: The commenter appears to be referring to the monitoring parameters required for samples collected from water supply wells; not monitoring wells. Groundwater monitoring wells are required to be sampled semi-annually for electrical conductivity, temperature, pH, nitrate and ammonia. Additionally, within six months of well construction and every two years thereafter, the wells are to be sampled for general minerals (calcium, magnesium, sodium, potassium, bicarbonate, carbonate, sulfate, and chloride). In addition to these requirements, the Revised Monitoring and Reporting Program specifies that Dischargers conducting individual groundwater monitoring submit an annual assessment of their water quality data. The assessment must include an evaluation of the groundwater monitoring program's adequacy to assess compliance with the Order, including whether the data provided are representative of conditions upgradient and downgradient wastewater management area, production area and land application area of the dairy facility. The assessment is also required to include an evaluation of the groundwater

monitoring data collected to date with a description of the statistical or non-statistical methods used. If the Discharger determines that the analytical methods required by the MRP are insufficient to identify whether site activities are impacting groundwater quality, the Discharger must propose and employ all reasonable chemical analyses to differentiate the source of the particular constituent. This includes, but is not limited to, analyses for a wider array of constituents and chemical isotopes.

With regards to the RMP, the Revised Monitoring and Reporting Program requires that the MRP submit a workplan which proposes constituents the Representative Monitoring Program will monitor and the frequency of monitoring for each constituent identified. The Monitoring and Reporting Workplan must propose a list of constituents that is sufficient to identify whether activities at facilities being monitored are impacting groundwater quality.

Comment C.3.c: It is unclear if the Tentative Order requires up gradient and down gradient monitoring which is necessary to determine whether degradation is occurring.

Response C.3.c: The Individual Monitoring Program Requirements specify that the Discharger install sufficient monitoring wells to: characterize groundwater flow direction and gradient beneath the site; characterize natural background (unaffected by the Discharger or others) groundwater quality upgradient of the facility; and characterize groundwater quality downgradient of the corrals, downgradient of the retention ponds, and downgradient of the land application areas. The Individual Monitoring Program also contains the caveat that it may be necessary to install more than one upgradient monitoring well (i.e., for the production area and the land application area), and that the Executive Officer may order more extensive monitoring based on site-specific conditions.

The RMP must include in its workplan sufficient information for the Executive Officer to evaluate the adequacy of the proposed groundwater monitoring program to serve as an alternative to the installation of individual groundwater monitoring wells at dairies. The Monitoring and Reporting Workplan must explain how data collected at facilities that are monitored will be used to assess impacts to groundwater at facilities that are not part of the Representative Monitoring Program's network of monitoring wells.

Comment C.4: Timeline

The long timeline for implantation ensures that more communities will be impacted by groundwater degradation or pollution. Under this timeline, the earliest results from trend monitoring won't be seen before 2019. Practices known to cause groundwater degradation should not be allowed to continue to degrade water quality. Basic groundwater protections, including pond liners, would protect "hundreds of thousands of Central Valley residents" from harm.

Response C.4: The Tentative Order does not specifically require trend monitoring of groundwater, although trends will be evaluated. It does, however, require individual or

representative groundwater monitoring and the annual submittal of monitoring data. The Tentative Order also specifies that if groundwater monitoring data demonstrate that discharge(s) from a dairy have caused an exceedence of the groundwater limitations set forth in the Order, the Executive Officer may issue an order to the owner/operator of the monitored dairy to identify and implement management practices that are protective of groundwater quality on a schedule that is as short as practicable.

The time schedule for compliance specifies, in part, that implementation of the identified management practices must be as soon as practicable, supported with appropriate technical or economic justification. The amount of time necessary to implement a management practice change is dependent upon the cost and complexity of the change required (see response to comment **C.2.d**) and is subject to Executive Office review and approval.

With respect to the commenter's emphasis on lining of dairy wastewater ponds, it should be noted that groundwater monitoring conducted to date does not demonstrate that all unlined wastewater pond have caused a condition of pollution in the underlying groundwater (see the Valley Dairy Representative Monitoring Program, 2012, Year 1 Annual Report posted on the Central Valley Water Board's website). Additionally, modifications to unlined dairy ponds, such as the addition of bentonite clay or reducing the depth of wastewater in the pond may be shown to be protective of groundwater quality under certain site conditions (soil types, soil textures, depth to groundwater etc.).

Should it be determined that a wastewater pond needs reconstruction or replacement, the Tentative Order requires that it be constructed to Tier 1 or Tier 2 pond specifications. A Tier 2 pond requires, "[a] pond designed in accordance with California Natural Resource Conservation Service (NRCS) Conservation Practice Standard 313 (as described in the Information Sheet) **or equivalent** [emphasis added] and which the Discharger must demonstrate through submittal of technical reports that the alternative design is protective of groundwater quality..."; it does not specify the construction of a lined pond.

Comment C.5: Executive Officer authority

The Tentative Order inappropriately delegates discretion to the Executive Officer.

Response C.5: It is reasonable to state in the Tentative Order that the Executive Officer retains the authority to take enforcement actions in the name of the Board, or to impose additional requirements on facilities that are disproportionately impacting water quality. This is not an improper delegation. It is also appropriate for the Executive Officer to approve certain technical reports as opposed to having these approved by the Board. In addition, technical reports from representative monitoring programs will be posted on the Central Valley Water Board's website and comments received from interested stakeholders will be reviewed.

Comment C.6: Human Right to Water Act

The Tentative Order fails to comply with the Human Right to Water Act that directs the Central Valley Water Board to prioritize human consumption of groundwater. Public participation in the

Central Valley Water Boards administrative decisions should be encouraged and interested parties should have an opportunity to provide written input and oral testimony.

Response C.6: The Tentative Order is designed to ensure the long-term protection of groundwater as a source of drinking water. The Board is committed to providing a transparent program with full accountability.

Comment C.7: Impacts to disadvantaged communities and communities of color

The revised tentative General Order, if implemented, would disproportionately impact low income communities and communities of color by failing to protect groundwater from continued degradation. Latino and low-income communities are more likely to have nitrate-contaminated drinking water in the Central Valley, and the allowance of further degradation would likely increase levels of nitrate in groundwater. Latino and low-income communities are more likely to be disproportionately impacted. Continued degradation and/or exceedances of groundwater objectives will cause less water availability for domestic use, therefore resulting in fewer will-serve letters and the inability to develop housing in the region, which violates Government Code section 11135. If the Order fails to protect drinking water for California's most vulnerable communities, Government Code section 65008 renders the Boards decision null and void.

Response C.7: The Board recognizes that Government Code section 11135 prohibits discrimination under any program or activity that is conducted, operated, or administered by the state or by any state agency. However, the Tentative Order has been developed to bring an industry that has historically caused water quality impacts into compliance with water quality standards that will ensure the long-term viability of the groundwater of the Central Valley as a drinking water source for all communities.

With respect to Government Code section 65008, the Board adamantly rejects the contention that it is denying any individual or group the enjoyment of residence, landownership, tenancy, or any other land use because of any characteristic of that group.

Entity D – Dairy Cares

Comment D.1: Industry progress since 2007

Since the original adoption of the General Order in 2007, Central Valley dairies have implemented many measures to protect and improve surface water and groundwater quality, investing millions of dollars in doing so.

Response D.1: Comment noted

Comment D.2: Compliance with court decision

The Tentative Order complies with the Superior Court of Sacramento County's Writ of Mandate issued in *AGUA* and the Anti-degradation Policy.

Response D.2: Comment noted

Comment D.3: Representative monitoring

The Tentative Order appropriately identifies representative groundwater monitoring programs and individual groundwater monitoring programs as critical pathways for identifying whether management practices are protective of groundwater quality and identifying additional or more effective practices where needed.

Response D.3: Comment noted

Comment D.4: Timeframe for compliance

The Tentative Order recognizes that time is needed to properly collect and evaluate monitoring data, to assess the effectiveness of existing practices in terms of their ability to protect water quality, and to identify new, improved or additional practices where needed. The Tentative Order allows for time necessary to perform these tasks but on a schedule that is as short as practicable.

Response D.4: Comment noted

Comment D.5: Suggested reference

The commenter recommends Staff include a reference to the definition of expansion in Attachment E in Finding 2(2) of the tentative revised General Order.

Response D.5: Document modified to reflect suggested change in language.

Comment D.6: Suggested language revision

The commenter proposed modifying the language in Finding 15 to recognize that operators have made significant changes and facility improvements since adoption of the original Order in 2007.

Response D.6 Document modified to reflect suggested change in language.

Comment D.7: Suggested language revision

The Commenter proposed modifying the language of Finding 23 to clarify the source of the data referenced in the Finding and additional detail on the status of the RMP.

Response D.7: Document modified to reflect suggested change in language.

Comment D.8: Suggested language revision

The commenter proposes that Finding 27 be revised to include reference to the time schedules that are included in the Tentative Order. Specifically, the commenter recommends adding the following sentence to the end of this finding: "This Order includes time schedules for compliance for dairy operators to implement improvements if groundwater data indicate that certain types of facilities/practices are not protective of groundwater quality."

Response D.8: Document modified to reflect suggested change in language.

Comment D.9: Suggested language revision

The commenter recommends that the last sentence of Finding 29 be revised to read “Where immediate compliance with water quality objectives cannot be achieved, this Order includes a time schedule for compliance for the implementation or modification of waste management practices.”

Response D.9: Document modified to reflect suggested change in language.

Comment D.10: Suggested language revision

To clarify the water quality objectives being referenced in Finding 30.b, the finding should be modified to read “Discharges to surface waters from the land application areas must not cause or contribute to an exceedance of any applicable water quality objective or federal water quality criteria.”

Response D.10: Comment noted

Comment D.11: Suggested language revision

The term “timeline” in Finding 30.c should be replaced with “time schedule.”

Response D.11: Document modified to reflect suggested change in language.

Comment D.12: Suggested language revision

The commenter proposes modifying the language of Finding 30.d to read “This Order establishes requirements for new and expanded wastewater retention ponds that are more stringent than the requirements in Title 27 in order to provide groundwater protection. New and expanded wastewater retention ponds must meet a strict performance standard that only allows for a very conservative pond design unless there has been a demonstration that an alternative design meets the same strict performance standard.”

Response D.12: Document modified to reflect suggested change in language.

Comment D.13: Suggested language revision

The commenter recommends that the term exceed should be replaced with “exceedance” in General Specification B.5. of the tentative revised General Order.

Response D.13: Document modified to reflect suggested change in language.

Comment D.14: Missing reference

Pond Specification C.4 footnote 5 is missing a reference to the appropriate Provision of the Order, which should be Provision C.5.

Response D.14: Document modified to reflect suggested change in language.

Comment D.15: Suggested language revision

The term “timeline” in Pond Specification C.4.a should be replaced with “time schedule.”

Response D.15: Document modified to reflect suggested change in language.

Comment D.16: Suggested language revision

The word “in” preceding reference to 1 April 2019 should be “on.” in Pond Specification C.4.b

Response D.16: Document modified to reflect suggested change in language.

Comment D.17: Suggested language revision

The term “timeline” in Pond Specification C.4.c should be replaced with “time schedule.”

Response D.17: Document modified to reflect suggested change in language.

Comment D.18: Suggested language revision

The commenter recommends that the following be added to the beginning of the first sentence of Production Area Specifications D.7 “For Dischargers conducting individual groundwater monitoring,”

Response D.18: Document modified to reflect suggested change in language.

Comment D.19: Suggested language revision

The term “timeline” in Production Area Specifications D.8 should be replaced with “time schedule.”

Response D.19: Document modified to reflect suggested change in language.

Comment D.20: suggest reference and language revision

The commenter recommends including a reference to Provision M of the Tentative Order in Groundwater Limitation F.1, footnote 6 and replacing the term “timeline” with “time schedule” within the footnote.

Response D.20: Document modified to reflect suggested change in language.

Comment D.21: Suggested removal of due date

The requirement for an Annual Dairy Facility Assessment was removed when the MRP was revised in February of 2011, therefore the last sentence in Section J.1.a of the Tentative Order should be removed from this paragraph.

Response D.21: Document modified to reflect suggested change.

Comment D.22: Incorrect reference

The reference to General Specifications B.5 at Section J.1.b of the Tentative Order should instead be referencing General Specifications B.1 - B.3.

Response D.22: Document modified to reflect suggested change.

Comment D.23: Incorrect reference

The paragraph on page 29 discussing enforcement incorrectly references Water Code section 13385 as an applicable provision. This Water Code section applies only to those subject to federal national pollutant discharge elimination system permits. Accordingly, reference to section 13385 should be deleted from this paragraph.

Response D.23: Water Code section 13385 is cited here because the Board may use this statute to assess administrative civil liability if there is an unauthorized discharge from a Dairy facility that would otherwise require a national pollutant discharge elimination system permit to be considered legal.

Comment D.24: Incorrect reference

Page 4 of the Tentative Information Sheet references the State Water Board's Industrial Stormwater Permit. It should reference the Central Valley Region's NPDES CAFO permit instead.

Response D.24: Document modified to reflect suggested change.

Comment D.25: Baseline considerations

The language on page 11 of the Tentative Information Sheet needs to be revised. With respect to determining baseline, the Regional Board needs to determine baseline from the date that the policy in question became effective, which may not be 1968. For example, if a water quality objective was adopted after 1968, and thus became effective after such date, that would be the starting date for determining baseline. It is incorrect to state that 1968 is the date from which baseline should be determined.

Response D.25: The suggested change has been made, though this nuance does not affect the Board's analysis.

Comment D.26: Suggests that clarification language is needed

With respect to the Regional Board's determination and comparison of data on page 11 of the Information Sheet, the language implies that the Regional Board only looks at a Dischargers' report of waste discharge to make such evaluations. We believe this to be an incorrect statement in that the Regional Board looks to other data as well, and in situations such as this where there is a General Order, there is likely to be much more other data that may be evaluated.

Response D.26: The suggested change has been made.

Comment D.27: Incorrect reference

The reference to §662 on page 14 of the Tentative Information Sheet appears to be incorrect because this provision applies only to milk parlors and not feed storage areas in general.

Response D.27: Reference has been deleted

Comment D.28: Suggested language revision

The term “timeline” on page 18 of the Tentative Information Sheet should be replaced with “time schedule.”

Response D.28: Document modified to reflect suggested change in language.

Comment D.29: Beneficial uses and sensitive populations

Page 19 of the Tentative Information Sheet references “sensitive populations.” Sensitive populations are not a recognized beneficial use onto themselves. The beneficial use in question here is the municipal (i.e., MUN) beneficial use. Thus, rather than using an undefined term such as “sensitive populations” in the Tentative Information Sheet, we recommend that it be modified to refer to the municipal beneficial use.

Response D.29: Comment noted

Comment D.30: Suggested language revision

Page 19 of the Tentative Information Sheet states that groundwater monitoring at existing dairies is necessary for a number of different reasons. The commenter believes that the Tentative Information Sheet intended to state that “Groundwater monitoring at existing dairies (either through individual monitoring or a representative monitoring program) is necessary to...”

Response D.30: Comment noted

Comment D.31: Missing time schedule value

The last sentence in the paragraph that starts “Production Area Specifications” on page 27 of the Tentative Information Sheet has a place holder for a number that should be replaced by the number “10.”

Response D.31: Document modified to reflect suggested change.