

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CEASE AND DESIST ORDER R5-2020-0030
FOR

DARIN LEMOS
LOCKWOOD III DAIRY
STANISLAUS COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (Central Valley Water Board) finds that:

1. Darin Lemos is the owner and operator of the Lockwood III Dairy, located at 15343 Tim Bell Road in Waterford, Stanislaus County. Darin Lemos is hereafter referred to as "Discharger" while the Lockwood III Dairy is hereafter referred to as "Dairy."
2. The Discharger is regulated by the *Reissued Waste Discharge Requirements General Order for Existing Milk Cow Dairies*, Order R5-2013-0122 (Reissued General Order) which was adopted by the Central Valley Water Board on 3 October 2013. As an enrolled facility, the Discharger is subject to the requirements of the Reissued General Order and its associated Monitoring and Reporting Program.

DESCRIPTION OF FACILITY

3. The Dairy has been in operation since 1974 (Source: 2017 Nutrient Management Plan). Based on the 2005 Report of Waste Discharge, the Dairy is authorized to house a maximum of 587 milk and dry cows. According to information submitted in the 2018 Annual Report, the Dairy currently houses 510 milk and dry cows, and 385 younger cows of varying sizes.
4. According to the 2017 and 2018 Annual Reports, approximately 7,200,000 gallons of process wastewater is generated yearly by the Dairy and applied to 71 acres of cropland owned and operated by the Discharger. Almost 18,000 tons of manure is excreted by the herd each year, some of which is exported.
5. As shown in Attachment 1 to this Order, there is one wastewater pond at this Dairy. Milk and dry cows are housed in freestall barns which are flushed twice per day, using wastewater from the pond. Wastewater is applied to fields 4 and 5 (a total of 71 acres). Stormwater from the corrals and the cropland drains to a low area in the pasture, from which it is pumped to the pond. (Source: 2013 Waste Management Plan, 2017 Annual Report, 2018 Annual Report).

HISTORY OF VIOLATIONS

6. Central Valley Water Board staff inspected the Dairy on 3 October 2012 and prepared an Inspection Report dated 5 December 2012. During the inspection, staff reviewed the Nutrient Management Plan (NMP) and found that the nitrogen applied-to-removed ratios for all fields were acceptable, as they were less than the 1.4, which is the maximum allowed by the Reissued General Order without additional explanation and testing. At the time of the inspection, corrals

were in good condition without excess manure. Because the mechanical manure separator was inoperable, all flushed manure entered the pond and staff noted excessive solids which were severely compromising the pond's storage capacity. Inaccuracies were found between details in the Waste Management Plan (WMP) and actual practices at the Dairy. As a result of the inspection, the Discharger was requested to submit a revised WMP and a plan for addressing the lack of storage capacity in the pond.

7. The Discharger responded on 23 January 2013 that the WMP was in progress and that in the future, he would like to have the pond dredged and have the solids exported to a neighboring farm. The Discharger also stated "However, the current economic state of our industry does not allow for this at this time. It is a priority when it becomes affordable."
8. On 12 April 2013, Central Valley Water Board staff issued a Notice of Violation (NOV) for the overdue WMP. It was subsequently submitted on 13 May 2013. As discussed in Findings below, Central Valley Water Board staff have concerns about the accuracy of the contents.
9. A video taken by Central Valley Water Board staff on 23 January 2017 shows wastewater flowing off the Dairy property and into Dry Creek. Three days later, Central Valley Water Board staff inspected the Dairy. Although a discharge was not occurring that day, photographs provide evidence that wastewater had overtopped the northern embankment of the pond, flowing into the adjacent cropland and then draining to the pasture. Photographs also show that the pasture was flooded with wastewater and stormwater, and that the wastewater/stormwater mixture had eroded the western berm of the pasture and then flowed into Dry Creek.
10. On 9 April 2017, Central Valley Water Board staff received an email complaint from a representative of the City of Waterford that the Dairy had been discharging wastewater into Dry Creek.
11. On 11 April 2017, Central Valley Water Board staff inspected the Dairy in response to the complaint. As documented in the 21 April 2017 Inspection Report, staff found that the pasture on the north side of the pond was flooded with stormwater runoff from Fields 4 and 5. Although wastewater from the pasture was not flowing into Dry Creek on the day of the inspection, evidence showed that there had been a previous discharge. In addition, a corral on the west side of the freestall barn was discharging water into the pasture. The pond had less than two feet of freeboard and excessive manure solids were present. The Inspection Report includes photographs of the pond taken in October 2012, August 2013, and January 2017, all of which show excessive manure solids in the pond that have compromised the required storage volume. In addition, staff reviewed the 2013 WMP and stated that "It seems...there is not enough capacity in the pond to hold all the wastewater generated at the dairy."
12. On 23 May 2017, a NOV was issued to the Discharger. As a result of the conditions observed on 11 April 2017, the Discharger had violated the following requirements of the Reissued General Order:
 - a) Prohibition A.4, which states "The collection, treatment, storage, discharge, or disposal of wastes at an existing milk cow dairy shall not result in the creation of a condition of pollution or nuisance."

- b) Prohibition A.10, which states “The discharge of wastewater to surface waters from the cropland is prohibited. Irrigation supply water that comes into contact or is blended with waste or wastewater shall be considered wastewater under this prohibition.”
- c) Prohibition A.12, which states “The discharge of stormwater to surface water from a land application area where manure or process wastewater has been applied is prohibited unless the land application area has been managed consistent with a certified Nutrient Management Plan.”
- d) General Specification B.1, which states “The existing milk cow dairy shall have facilities which are designed, constructed, operated, and maintained to retain all facility process wastewater generated during the storage period (maximum period of time anticipated between the land application of process wastewater), together with all precipitation on and drainage through manured areas, up to and including a 25-year, 24-hour storm.”
- e) Pond Specification C.1, which states: “The level of waste in process wastewater retention ponds shall be kept ...a minimum of one (1) foot from the ground surface of each belowground pond...”
- f) Production Area Specification D.6, which states “The animal confinement area (including corrals) and manure and feed storage areas shall be designed and maintained to convey all water that has contacted animal wastes or feed to the wastewater retention ponds and to minimize standing water as of 72 hours after the last rainfall and the infiltration of water into the underlying soils.”

The NOV required that the Discharger submit a specific plan, containing specific dates by which work would be completed, to ensure (1) process wastewater does not discharge offsite from the cropland, (2) process wastewater is directed to, and contained within, the pond, and (3) the pond is maintained such that the storage volume listed in the WMP is accurate and available. In addition, the Discharger was required to submit an updated WMP that reflects all components of the waste management system at the Dairy.

- 13. On 14 June, 2017, the Discharger responded with “a few ideas” that did not include specific dates by which to implement the actions. The ideas included (1) installing a pipeline to divert clean stormwater to Dry Creek, (2) installing a system to contain stormwater in the corrals and pump it back to the flush lane or pond, and (3) re-installing a manure settling basin. Although the Discharger stated that the revised WMP would be submitted by 30 September 2017, the document has never been received. As of the date of this Order, the Discharger has not yet implemented any of the three proposals.
- 14. A Central Valley Water Board staff inspection on 31 July 2017 found that there was a buildup of solids in the wastewater pond.
- 15. A Central Valley Water Board staff inspection on 14 November 2017 found that although the wastewater pond was empty of liquid, it contained excessive solids that amounted to (in staff’s opinion) about 25% of the pond’s storage capacity. Staff’s summary states “*The excessive manure solids impounded in the pond have been noted in all inspections since 2012. A specific*

plan for addressing the current lack of storage capacity in the pond was to be developed but to date nothing has been done.”

16. On 21 November 2017, a NOV was issued to the Discharger. The staff inspection conducted on 14 November 2017 found that the excessive manure solids in the wastewater pond resulted in a violation of the Reissued General Order's General Specification B.1, which states "*The existing milk cow dairy shall have facilities which are designed, constructed, operated, and maintained to retain all facility process wastewater generated during the storage period (maximum period of time anticipated between the land application of process wastewater), together with all precipitation on and drainage through manured areas, up to and including a 25-year, 24-hour storm.*" The Discharger was required to submit a specific plan outlining the steps that would be taken to ensure that the wastewater pond had enough storage volume. On 28 December 2017, the NOV was rescinded because an inspection on 22 December 2017 found that the excess manure solids had been removed.

2019 VIOLATIONS OF REISSUED GENERAL ORDER

17. On 11 February 2019, Central Valley Water Board staff received a complaint regarding the Discharger's heifer facility (east of the milk production area). The complainant provided pictures showing that runoff from the corrals had ponded in roadside ditch with a small amount on the roadway at the intersection of Tim Bell Road and Hazeldean Road during storm events. In addition, the complainant was concerned about excessive manure and flooded conditions within the corrals and provided pictures that document the flooded corrals.

18. On 15 February 2019, Central Valley Water Board staff inspected the heifer corrals and confirmed that the corrals contained a significant amount of slurry and solid manure. A small amount of manure was ponded outside the corrals, along the roadway. Water Board staff also observed that the main dairy pond had no freeboard and that wastewater was overtopping the pond's northern embankment and flowing onto cropland near the pond. Staff met with the Discharger and arranged to complete a formal inspection on 26 February 2019. During the 26 February 2019 inspection, staff found that the dairy pond now had two feet of freeboard; however, there was standing wastewater in several of the adjacent fields. In addition, a portion of the lower pasture was inundated with wastewater and solid manure because the flush lane pump was inoperable. As described in Finding 19, below, Water Board staff determined that wastewater was applied to the Discharger's cropland in violation of the Reissued General Order, in particular, for purposes other than nutrient recycling.

19. A Notice of Violation was issued to the Discharger on 25 April 2019. The NOV required that the Discharger submit a workplan by 21 June 2019 describing the steps and a timeline for addressing the violations. The Discharger was also required to take soil samples from the two fields. The NOV stated that in response to conditions observed on 15 and 26 February 2019, the Discharger was determined to be in violation of the following requirements of the Reissued General Order:

Prohibition A.9, which states "The land application of manure or process water to cropland for purposes other than nutrient recycling is prohibited."

Pond Specification C.1, which states: “The level of waste in process wastewater retention ponds shall be kept... a minimum of one (1) foot from the ground surface of each belowground pond...”

Production Area Specification D.6, which states “The animal confinement area (including corrals) and manure and feed storage areas shall be designed and maintained to convey all water that has contacted animal wastes or feed to the wastewater retention ponds and to minimize standing water as of 72 hours after the last rainfall and the infiltration of water into the underlying soil.”

Land Application Specification E.2, which states “Land application of all waste from the facility to areas under the Discharger’s control shall be conducted in accordance with a certified Nutrient Management Plan consistent with the technical standards for nutrient management as specified in Attachment C....”

Attachment C, Technical Specification V.C.1, which states “Process wastewater application is not the same as irrigation. Process wastewater application scheduling should be based on the nutrient needs of the crop, the daily water use of the crop, the water holding capacity of the soil, and the lower limit of soil moisture for each crop and soil.”

Attachment C, Technical Specification V.C.2, which states “Wastewater shall not be applied when soils are saturated. During the rainy season rainfall can exceed crop water demand. However, the application of wastewater is allowable if tests show that there is an agronomic need and current conditions indicate that the threat of nitrate leaching is minimal.”

Land Application Specification E.8, which states “All process wastewater applied to land application areas must infiltrate completely within 72 hours after application.”

20. On 10 July 2019, the Discharger submitted the workplan required by the NOV. The Discharger stated that although he had been approved for funding to re-install a manure settling basin system, he had recently requested an extension of the grant due to the recent wet winter and the need to dry out the pasture before construction. The Discharger also stated that he was in the process of obtaining bids for the concrete that will line the manure settling basins, with construction anticipated to begin in late July or early August 2019. With respect to the flooded cropland, he stated that when it was obvious that his wastewater pond was overtopping, he made the decision to apply wastewater to his cropland. The Discharger also submitted the results from the soil samples. Samples contained between 15 and 49 ppm total nitrogen in the top three feet of soil.

21. A 12 September 2019 letter from the Discharger states that the heifer corrals have been permanently abandoned and the heifers moved to an area where runoff can be directed to the wastewater pond. The Discharger also stated that the manure settling basins would not be built in 2019 due to financial hardship and the previous wet winter.

ADDITIONAL INFORMATION

Grant for Manure Settling Basins

22. On 11 June 2018, the Discharger was awarded a \$113,164 grant from the USDA Natural Resources Conservation Service (NRCS) to install manure settling basins. The total project was estimated to cost \$160,000 in 2018. The grant agreement extends through 30 September 2021. (Source: 11 June 2018 USDA letter to the Discharger with documentation of FY18 AFO CAFO Upper San Joaquin Contract #749104180VG).
23. The project includes installation of a settling basin that will be used to separate a portion of the manure solids from the liquid waste stream. A two-cell concrete basin with a combined storage volume of 20,000 cubic feet will collect flush water and separate solids from liquids. The liquid waste will be sent to the wastewater pond while the solids will be cleaned out and stacked on a concrete pad, with appropriate drainage, to dry. Each cell will have a 60-day capacity. A 20 hp pump will be used to move liquid waste from the concrete basin to the wastewater pond. (Source: NRCS "Revision of Plan/Schedule of Operations or Modification of a Contract, signed by the Discharger on 28 October 2019).
24. In a letter dated 30 April 2020, the Discharger requested the ability to modify the design of the manure settling basins, stating "we would like the opportunity to propose a solution...that is broader than just concrete settling basins." This Order does not restrict the Discharger to concrete basins; however, as stated in the Reissued General Order, construction shall not begin until the Executive Officer notifies the Discharger in writing that the design report is acceptable.

2013 Waste Management Plan

25. As described in the Reissued General Order, the purpose of the Waste Management Plan (WMP) is to ensure that the production area of the Dairy is designed, constructed, operated, and maintained so that dairy wastes are managed to prevent adverse impacts to groundwater and surface water quality.
26. Although the Discharger was required to submit an updated WMP per a 23 May 2017 Notice of Violation, he did not do so. Therefore, the most current WMP available to Water Board staff is dated 30 April 2013. A review of this document finds that the WMP does not contain the dimensions of the irregularly-shaped wastewater pond and does not reduce the pond's storage capacity due to the documented accumulation of manure solids, instead assuming no "dead storage loss" (no solids accumulation in the pond). The WMP does not contain site maps or an operations and maintenance (O&M) plan. Among other items, the O&M Plan is critical in that it informs the Discharger of the freeboard that must be achieved in the wastewater pond by November 1st each year, in order to ensure that adequate storage is available throughout the winter. Although the WMP states that there is adequate storage capacity in the wastewater pond, inspections conducted in 2012, 2013, 2017, and 2019 show that either (a) the wastewater pond has not been managed as envisioned by the WMP or (b) the WMP is deficient in its calculations and there is not enough storage capacity.

Nutrient Management Plan

27. As described in the Reissued General Order, the purpose of a NMP is to budget and manage the nutrients applied to the land application areas, considering all sources of nutrients, crop requirements, soil types, climate, and local conditions in order to prevent adverse impacts to surface water and groundwater quality. The NMP must take site-specific conditions into consideration in identifying steps that will minimize nutrient movement through surface runoff or leaching past the root zone. The Central Valley Water Board considers the implementation of an effective NMP to be best practicable treatment or control (BPTC) for land application areas.
28. The Discharger's most recent NMP was prepared in 2017. It states that 2.3 million gallons of liquid manure (i.e., process wastewater) and 1,888 tons of solid manure will be exported each year. The NMP is deficient in that it does not contain written agreement(s) with the third party or parties that will accept the process wastewater. The NMP states that corn and oats will be double cropped on 71 acres of cropland. Only process wastewater will be applied to the cropland (i.e., no solid manure or commercial fertilizer). For all four crops, the nitrogen applied-to-removed ratio is anticipated to be 1.4, which is the maximum allowed by the Reissued General Order without additional testing and explanation (Attachment C, Part B.2.a).

Annual Reports

29. The Reissued General Order requires that Dischargers submit Annual Monitoring Reports. A review of the Discharger's 2017 Annual Report finds that 17,874 tons of manure and 7,080,000 gallons of process wastewater were generated during the year. Although the NMP states that 2.3 million gallons of process wastewater will be exported yearly, none was exported in 2017. Of the solid manure, 4,100 tons, containing 59,000 pounds of nitrogen, were exported off site. Wastewater was applied to two fields totaling 71 acres. Both fields were double cropped with corn and oats. The nitrogen applied-to-removed ratio for each of the four crops was less than the Reissued General Order's limit of 1.4 (values of 0.68, 0.79, 1.38, and 1.39).
30. A review of the 2018 Annual Report shows that the same weight of solid manure was produced in 2018 as in 2017 (i.e., 17,874 tons). Of this, 1,397 tons, containing 37,000 pounds of nitrogen, was removed from the Dairy. Slightly more process wastewater was generated in 2018 than 2017. Although the NMP states that 2.3 million gallons of process wastewater will be exported yearly, none was exported in 2018. Wastewater was applied to the same two fields as in 2017, and both fields were double cropped with corn and oats. The nitrogen applied-to-removed ratio exceeded the Reissued General Order's limit of 1.4 for three of the four crops (values were 1.30, 1.49, 1.58, and 1.60). There is no indication that the Discharger complied with the requirements of Attachment C, Part B.2.a to allow a nitrogen applied-to-removed ratio greater than 1.4 under certain conditions.
31. The Tentative Cease and Desist Order contained a requirement that the Discharger submit updated, corrected, Annual Reports for 2017, 2018, and 2019. However, the Discharger requested that this requirement be removed and instead that the focus be on improved future annual reports. The requirement for updated Annual Reports has been removed; however, Water Board staff assert that the 2017 and 2018 Annual Reports contain incorrect information because they do not account for nutrient applications to the pasture (via tailwater runoff from Fields 4 and 5 or direct discharges from the pond or corrals) and they do not address the lack of wastewater

export which is part of the NMP. If the 2019 Annual Report does not include the 2019 soil sampling results (Finding 20) as “existing soil nutrient content,” or account for nutrient applications to the pasture, then nitrogen applied-to-removed ratios will be inaccurate and lower than expected.

REGULATORY CONSIDERATIONS

32. Groundwater beneath the Dairy is encountered at approximately 120 feet below ground surface (source: Department of Water Resources’ Groundwater Information Center Interactive Map). The age of the facility, as well as lack of information indicating otherwise, suggest that the wastewater pond was not constructed in a manner intended to prevent or minimize wastewater infiltration, consistent with the minimum retention pond design requirements of the California Code of Regulations, title 27, section 22562, subdivision (d). The 2018 Annual Report indicates that more nitrogen is being applied to the cropland than is being removed by crops. Together, these facts demonstrate that the Dairy poses a risk to water quality in the Central Valley.
33. The beneficial uses of the groundwater are defined in the [Water Quality Control Plan for the California Regional Water Quality Control Board, Central Valley Region \(Basin Plan\)](https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf) (https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf). The beneficial uses of groundwater beneath the Dairy are municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply. The failure to comply fully with the requirements of the Reissued General Order threatens these beneficial uses.
34. Water Code section 13301 states: “When a regional board finds that a discharge of waste is taking place or threatening to take place in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action.”
35. The Central Valley Water Board finds that a discharge of waste is taking place in violation of the requirements and discharge prohibitions of the Reissued General Order (Order R5-2013-0122), as described in the Findings of this Order. This Order requires the Discharger to take appropriate remedial action and to comply in accordance with the time schedule set forth below.
36. Water Code section 13267, subdivision (b) states, in part: “In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.”

37. The Discharger owns and operates the Lockwood III Dairy which is subject to the Reissued General Order and this Cease and Desist Order. The technical and monitoring reports required by this Order are necessary to determine compliance with the requirements in Order R5-2013-0122 and with this Order to ensure prevention of degradation to groundwater. Therefore, the burden of production of these reports is reasonable.
38. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code § 21000 et seq.), in accordance with California Code of Regulations, title 14, section 15321(a)(2).
39. After due notice to the Discharger, and all other affected persons, the Central Valley Water Board conducted a public hearing at which evidence was received to consider this Cease and Desist Order under Water Code section 13301 to establish a time schedule to achieve compliance with waste discharge requirements.

IT IS HEREBY ORDERED that, pursuant to sections 13301 and 13267 of the Water Code, Darin Lemos (Discharger) shall implement the following measures to comply with the Reissued General Order:

1. The Discharger shall comply with all aspects of the Reissued General Order, or subsequent revisions, including the Prohibition against discharges of wastewater to surface waters, the Prohibition against applying solid manure or wastewater to land for any purpose other than nutrient recycling, and the requirement that all process wastewater applied to land application areas infiltrate completely within 72 hours after application.
2. If the Discharger does not comply with the terms of this Cease and Desist Order, then pursuant to the Reissued General Order, Section I, Paragraph I, the Executive Officer may revoke coverage under the Reissued General Order at any time, and require the Discharger to submit a Report of Waste Discharge and obtain individual waste discharge requirements. In addition, the Executive Officer or his delegee may refer this matter to the Attorney General for judicial enforcement, including injunctive relief which may require the Discharger to cease discharge, may issue a complaint for administrative civil liability, or may take other enforcement action as authorized by law.
3. Prepare and Implement the Nutrient Management Plan (NMP).
 - a) By **1 January 2021**, the Discharger shall submit a *Nutrient Management Plan* that contains all items required by Attachment C of the Reissued General Order and is prepared by a specialist as described in Attachment C. In addition, the NMP shall:

Specifically address the overapplication of nitrogen documented in the 2018 Annual Report (and 2019 Annual Report, if applicable) and describe future practices to ensure that the nitrogen applied-to-removed ratio for any crop does not exceed 1.4 unless the additional testing and explanation required by the Reissued General Order is submitted;

Include steps to show that soil samples will be collected prior to planting the fall crop. Samples shall be collected from two locations each within Field #4, Field #5, and the pasture, and from two depths at each location (0-24" and 24-36"). For Fields #4 and #5, the samples shall be collected approximately 10% down and 90% down the run of the fields.

For the pasture, samples shall be collected from the northern and southern ends. Samples shall be analyzed for total nitrogen. The results shall be recorded in the "existing soil nutrient content" portion of the crop nutrient budget. Samples shall be collected once per year before planting of the fall crop, as long as this Order is in effect;

If process wastewater is to be exported, then include written agreements containing the information in Land Application Specification E.3 of the Reissued General Order;

Describe how all manure solids generated at the dairy will be recycled or exported; and

If the updated NMP includes nutrient applications to the pasture, then it must comply with Item 3c, below.

- b) Annual Reports shall be submitted as required by the Reissued General Order. In addition to including the information listed in the Reissued General Order, the reports shall clearly describe:

How and where all nitrogen in solid manure that was generated during that year was recycled or exported, and whether any solid manure was applied to the 71 acres of cropland.

The timing and volume of all nutrient applications to the pasture, including any wastewater or solid manure that was discharged to the pasture that was not part of an agronomic application (include the date, an estimate of the volume of wastewater or solid manure discharged, and the reason the discharge occurred).

The volume of process wastewater that was exported from the Dairy and written agreements with the third parties that accepted the process wastewater. If the 2021 Nutrient Management Plan does not include export of process wastewater, then this item is not necessary.

The Annual Reports shall clearly include the results of soil sampling as an "existing soil nutrient content" for the fall crop.

- c) The application of nutrients to the pasture (whether in irrigation tailwater from Fields 4 and 5 or directly from the wastewater pond or corrals) is prohibited unless (a) the application is described in, and follows, the Nutrient Management Plan and (b) complies with Item V.A.10 of the Technical Standards for Nutrient Management Plans of Attachment C of the Reissued General Order (i.e., if crop material is not removed from the pasture then nutrient applications are not allowed).
4. *Agronomic Need Report.* If the Discharger determines that wastewater must be applied to the cropland when it is saturated, then a specialist (as described in Attachment C of the Reissued General Order) must first conduct tissue and/or soil tests to show that there is an agronomic need for such application and that the threat of nitrate leaching is minimal. If such an application occurs, then **within 30 days of application**, the Discharger shall submit an *Agronomic Need Report*, prepared by the specialist, documenting the tests, the volume of wastewater applied, and the amount of nitrogen applied.

5. By **1 May 2021**, the Discharger shall document that it has installed a flow meter on the wastewater pond, such that the volume of wastewater used to irrigate the fields can be accurately measured. The wastewater flows to each field shall be documented and used to support the calculations in the *Enhanced Annual Reports*.
6. As described in Prohibition A.12 of the Reissued General Order, stormwater from the land application areas (pasture and cropland) may not be discharged to Dry Creek unless the land application areas have been managed consistent with a certified Nutrient Management Plan. As documented in the Findings of this Order, the Discharger is not currently following the 2017 NMP. Therefore, the **discharge of stormwater to Dry Creek is prohibited** until the Discharger submits documentation that the NMP has been complied with, and the Executive Officer responds in writing that stormwater may be discharged consistent with the Reissued General Order.
7. By **1 July 2021 and each subsequent 1 July (as long as this Order is in effect)**, the Discharger shall submit an *Enhanced Annual Report*. The document shall contain all the information required by the Reissued General Order for an Annual Report. In addition, the *Enhanced Annual Report* shall:
 - Reflect the measured volumes of wastewater discharged to each field.
 - Document the volume and destination of all solid manure produced during the year.
 - Describe any deviations from the 2020 NMP.
 - If any field, for any crop, had a nitrogen applied to removed ratio greater than 1.4, then the Enhanced Annual Report shall contain the information described in Attachment C, Technical Standard V. B.2.i-iv of the Reissued General Order.
 - If the Discharger cannot meet the conditions listed in Attachment C, Technical Standard V.B.2.i-iv, or if any field, for any crop, had a nitrogen applied to removed ratio greater than 1.65, then the Discharger shall include an explanation as to why the 1.65 ratio was exceeded and shall also submit an Updated Nutrient Management Plan that describes different practices to prevent such exceedance.
8. Manure Settling Basins
 - a) **By 15 March 2021**, the Discharger shall submit a conceptual description of the new manure settling basins. If the Discharger believes that the basins meet the definition of "existing ponds" per Pond Specification C.4 of Reissued General Order, then the conceptual description shall include maps, photos, and/or written information to document this claim. Based on the conceptual design and supporting documentation, a determination will be made by the Executive Officer as to whether the new basins are considered "existing" or "new and reconstructed" as described in the Reissued General Order.
 - b) **Prior to the start of construction, but no later than 1 June 2021**, the Discharger shall submit the *Design Report* required by the Reissued General Order (i.e., Pond Specification C.5.c). As stated in the Reissued General Order, construction shall not begin until the Executive Officer notifies the Discharger in writing that the design report is acceptable.

Failure to provide a design report that is acceptable to the Executive Officer is a violation of this Cease and Desist Order and subjects the Discharger to enforcement action.

- c) **Prior to use of the manure settling basins, but no later than 15 October 2021**, the Discharger shall submit the *Post Construction Report* required by the Reissued General Order (i.e., Pond Specification C.5.d). As stated in the Reissued General Order, waste shall not be placed into the settling basins until the Executive Officer notifies the Discharger in writing that the Post Construction Report is acceptable
9. Implementing and Updating the Waste Management Plan (WMP)
- a) By **1 October 2021**, the Discharger shall submit a *Pond Sizing and Freeboard Marker Report*, prepared by an appropriate professional and containing the following three items:
 - (1) A California licensed surveyor shall document the length, width and depth (from the lowest point of the berm to native soil at the bottom) of the wastewater pond. The report shall clearly describe the methods used to measure each dimension; these methods must be defensible and reproducible.
 - (2) The report shall document that a freeboard marker has been installed into the pond. The freeboard marker shall have one-foot measurements from the lowest point on the berm to native soil at the bottom of the pond and shall be placed in a location and be large enough that the measurement marks are visible in the monitoring photographs.
 - (3) The report shall document the practical minimum freeboard (i.e., depth to which the pond can be emptied, given physical constraints such as pump elevation and recirculation of wastewater to flush the freestalls).
 - b) By **1 December 2021**, the Discharger shall submit an *Updated Waste Management Plan* and associated *Operations and Maintenance Plan* that contains the information listed in Attachment B to the Reissued General Order. In particular, the Updated WMP shall consider wastewater flows for the maximum allowed herd (587 milk and dry cows), the volume of the wastewater pond as documented in the *Pond Sizing and Freeboard Marker Report*, the practical minimum freeboard, the removal of solids by the settling basin, and any constraints placed by the 2020 Nutrient Management Plan and the Reissued General Order's requirements regarding the application of dairy waste to cropland for nutrient recycling.
 - c) By **15 July 2020**, the Discharger shall submit a Contingency Plan to be implemented both prior to and after construction of the manure settling basins.
 - i. For the period prior to the construction and use of the settling basins, the Contingency Plan shall include removal of solids from the wastewater pond (with specific details described in the O&M Plan, below) and/or a reduction in herd size such that the Discharger will comply with all aspects of the Reissued General Order.
 - ii. For the period after the settling basins are in use, the Contingency Plan shall be implemented in the event that the freeboard targets are not met by 1 November of any year. The Contingency Plan will describe how the Discharger will immediately reduce

wastewater production (which could include a reduction in herd size or increased wastewater exports) until physical improvements can be made such that the Dairy has either reduced its wastewater generation or increased its capacity to store wastewater to ensure that it has adequate capacity (as defined in the Reissued General Order). The contingency plan shall include short-term and long-term improvements. If the Discharger proposes to expand or construct a wastewater pond, then the Plan must include the information in Attachment B, Part II.B of the Reissued General Order.

- d) By **15 July 2020**, the Discharger shall submit an *Operation and Maintenance Plan*. The O&M Plan must specify the minimum freeboard necessary for the wastewater pond on 1 November of each year and provide information as to how that freeboard will be achieved. The plan shall include information describing how the pond will be lowered, the corrals cleaned out, and the settling basins (once constructed) will be managed prior to the winter, including how the semi-solid manure will be removed from the pond, where it will be staged and dried, how the manure leachate will be collected and directed to the wastewater pond, and where/when the nitrogen in the solid manure will be ultimately recycled or exported. All work shall be completed in accordance with the conditions of the Reissued General Order. The O&M Plan shall also describe how the dairy corrals will be modified so that stormwater runoff is captured and directed to the wastewater pond. The O&M Plan shall describe how the Discharger will comply with Prohibition A.12 of the Reissued General Order (cease discharge of stormwater to Dry Creek, as described in Item 6, above). In addition, the O&M Plan shall describe how the Discharger will cease the discharge of tailwater from Fields 4 and 5 to the pasture (as described in Item 3c, above) until the NMP has been revised to account for the nutrient applications and crop material is removed from the pasture on a regular basis.
- e) By **15 November 2021, and each subsequent 15 November (as long as this Order is in effect)** the Discharger shall submit an *Implementation of Operations and Maintenance Plan Report*. The report shall document that the wastewater pond was drawn down to the level shown in the Updated WMP by 1 November. The Report shall also document that the manure solids were dried and disposed of as described in the O & M Plan. It shall also document that excess solid manure was removed from all the corrals and that the corrals were re-graded to drain to the pond. The report shall include text and dated photographs as documentation. If the pond does not have the freeboard levels required in the O&M Plan as of 1 November, then the report shall describe how the Discharger will implement the *Contingency Plan* in the WMP to manage wastewater during the winter in conformance with the Reissued General Order.
10. In a letter dated 12 September 2019, the Discharger stated that the heifer corrals east of the milk production area had been permanently closed. These corrals shall remain closed and shall not be used to hold cattle unless (a) the Discharger first submits a *Corral Management Plan* that describes how the corrals will be managed to comply with Production Area Specification D.6 of the Reissued General Order, and (b) the Executive Officer responds in writing that the corrals may be re-opened.
11. **At any time after 30 June 2023**, the Discharger may request that Water Board staff review the Discharger's compliance with this Cease and Desist Order and the reissued General Order. If

the Discharger has been in significant compliance with both Orders, then Water Board staff will request that the Central Valley Water Board rescind the Cease and Desist Order.

12. The Central Valley Water Board has transitioned to a paperless office. Therefore, all technical reports required by this Order must be converted to a searchable pdf file and submitted to the [Geotracker database](https://www.waterboards.ca.gov/ust/electronic_submittal/index.html) (https://www.waterboards.ca.gov/ust/electronic_submittal/index.html). In addition, an email shall be sent to Charlene Herbst at Charlene.Herbst @waterboards.ca.gov stating that a document pertaining to this Order has been uploaded into Geotracker.
13. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.
14. Any person signing a document submitted under this Order shall make 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 knowledge and 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."

The Executive Officer or his delegee may extend the deadlines contained in this Order if the Discharger demonstrates that circumstances beyond the Discharger's control have created delays, provided that the Discharger continues to undertake all appropriate measures to meet the deadlines. The Discharger shall make any deadline extension request in writing at least 30 days prior to the deadline. The Discharger must obtain written approval from the Executive Officer or his delegee for any departure from the time schedule shown above. Failure to obtain written approval for any departures may result in enforcement action.

If, in the opinion of the Executive Officer or his delegee, the Discharger fails to comply with the provisions of this Order, the Executive Officer or his delegee may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order or with the Reissued General Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date that this Order becomes final, except that if the thirtieth day following the date that this Order becomes final falls on a Saturday, Sunday, or state holiday, the petition must

be received by the State Water Board by 5:00 p.m. on the next business day. Copies of [the law and regulations applicable to filing petitions](#) may be found on the Internet at: (http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

I, PATRICK PULUPA, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order issued by the California Regional Water Quality Control Board, Central Valley Region, on 4 June 2020.

PATRICK PULUPA, Executive Officer

Attachment 1: Facility Map



Attachment 1: Lockwood III Dairy