

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CENTRAL VALLEY REGION

ORDER R5-2016-0087-01

WASTE DISCHARGE REQUIREMENTS GENERAL ORDER FOR POULTRY OPERATIONS

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

SCOPE OF COVERAGE OF THIS ORDER

1. This Order serves as general waste discharge requirements for discharges of waste from Poultry Operations (hereafter referred to as the Poultry General Order, or Order). A poultry operation is a facility where animals such as chickens, turkeys, ducks, geese, guinea fowl, pheasants, pigeons, and/or ostriches are raised and which meets the criteria listed in Finding 2. A Poultry Operation can consist of a single facility or a group of immediately adjacent facilities. This Order incorporates provisions requiring the monitoring of surface water and groundwater to identify discharges resulting from runoff or leaching of irrigation water and/or storm water from cropland, and from drift of chemicals applied to cropland, associated with Poultry Operations. For Poultry Operations that include or propose to include a composting operation, the Notice of Applicability (NOA) issued by the Executive Officer pursuant to this Order will confirm the Discharger's tier and timeline for compliance for the composting operation.
2. Poultry Operations are subject to the Poultry General Order if they have the equivalent of 2 Animal Units (AU) worth of birds at any given time, where 1 AU equals 1,000 pounds of poultry. The Order shall not apply to facilities that operate only seasonally (less than 12 weeks in any 12 month period AND for no more than three consecutive weeks per event, such as fairs or annual farm events), or small backyard operations raising or keeping poultry for domestic use. Pasture raised poultry operations as defined in Attachment E are not required to obtain coverage under this Order.
3. This Order classifies facilities as "existing," "new," or "expanded." Existing facilities are those that were operating as of 23 September 2016. New facilities are those that were not operating as of 23 September 2016. Expanded facilities are those that have increased their poultry population size from the maximum number reported in a previous Notice of Intent (NOI). This Order applies to owners and operators (hereafter referred to as "Dischargers") of Poultry Operations that:
 - a. Either:

- i. qualify as “existing”; or
 - ii. qualify as “new” or “expanded” and demonstrate compliance with the provisions of the California Environmental Quality Act (CEQA) in the form of a certified Environmental Impact Report (EIR), Mitigated Negative Declaration, or Negative Declaration or justification for a CEQA exemption; and
 - b. Submitted a complete Notice of Intent (NOI) to the Central Valley Water Board; and the appropriate fee to the State Water Resources Control Board, and
 - c. Have received a formal Notice of Applicability (NOA) from the Central Valley Water Board indicating that they are required to comply with the terms and conditions of this Order.
4. This Order has two tiers: one for Low Threat Operations, and one for Full General Order Coverage Operations:
 - a. Facilities are deemed to pose a low threat to water quality and therefore qualify as Low Threat Operations if they provide documentation that they meet all of the following criteria:
 - i. The facility exports all manure/litter or, if applied to Discharger’s cropland, has coverage under the Irrigated Lands Regulatory Program.
 - ii. The only wastewater generated by the facility consists of storm water, and any storm water that may have contacted more than a de minimis amount of manure and may pose a threat to water quality, is retained in a pond in conformance to the requirements of Pond Specifications C.1 and C.10.b.¹
 - iii. The facility houses birds inside roofed structures with features to limit the entrance of precipitation into the poultry house.
 - iv. The facility either stores all waste in a roofed structure with features to limit the entrance of precipitation or, throughout the year, removes all waste within 14 days of removal from such a roofed structure. During the wet season (October through May), waste stored outside such a roofed structure must either be removed from the facility within 72 hours of being deposited outdoors or covered with a weatherproof covering, except for times when wind events remove the covering, not to exceed 24 hours per event.
 - v. Composting of manure, litter, or poultry carcasses is conducted under a roofed structure with features to limit the entrance of precipitation and on concrete or an equivalent low permeability surface and free liquids are not released during the composting process;
 - vi. Animals do not spend more than an aggregate of twenty percent of the time outdoors per year (i.e., the time-weighted average number of animals outdoors per day divided by the total number of animals at the

¹ Storm water ponds do not trigger the requirement to obtain coverage under this Order provided the storm water does not come in contact with or commingle with waste.

facility must be equal to or less than 0.20 over the course of a year)²; any outdoor animal access areas have runoff/runoff controls in place; any outdoor watering equipment must be maintained to minimize spillage or leakage; and any outdoor feeding area must be maintained to regularly remove spilled or wet feed. Maintenance schedules must be designed to minimize impacts of water leakage or spilled feed on water quality.

- b. Facilities are deemed to be Full Coverage Operations if the Operation has one or more of the following characteristics:
 - i. applies wastewater to cropland or applies manure/litter to cropland that does not have coverage under the Irrigated Lands Regulatory Program;
 - ii. has a wastewater pond that does not meet the requirements of Pond Specification C.10.b;
 - iii. has outdoor manure storage that does not meet the criteria in Finding 4.a.iv, above;
 - iv. wastewater generated by the facility includes waste streams other than storm water that has contacted manure; or
 - v. conducts an on-site composting operation that does not meet the requirements of Section 4.a.v, above; if the facility meets all other criteria to qualify as a Low-Threat Operation except Section 4.a.v, then it only needs to implement the Full Coverage Operation requirements that relate to composting.

The NOA will identify the classification tier for the Low Threat Operation or Full Coverage Operation. The classification will be based on staff review of the NOI and subsequent approval by the Executive Officer.

REASON FOR THE CENTRAL VALLEY WATER BOARD ISSUING THIS ORDER

5. Under the Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code), the Central Valley Water Board has the authority to regulate waste discharges that could affect the quality of the waters of the state. Under Water Code section 13050(e), "waters of the state" includes any surface or groundwater within the boundaries of the state.
6. Water Code Section 13260 requires that any person discharging waste, or proposing to discharge waste, within the Central Valley Region, that could affect the quality of the waters of the state to file a report of that discharge with the Central Valley Water Board.

² For example, if a facility has 1,000 animals that have access to outdoor areas for 12 hours per day, and the average number of animals that are outdoors at any given time is less than 400, it would qualify as a Low Threat Operation [$400 \text{ birds} \times (12 \text{ hr} / 24 \text{ hr}) / 1,000 \text{ birds} = 0.20$].

7. The Central Valley Water Board generally regulates waste discharges by prescribing waste discharge requirements, which must implement the relevant water quality control plan. Pursuant to Water Code Section 13263 (i), the Central Valley Water Board may prescribe general waste discharge requirements for a category of discharges if all the following criteria apply:
 - a. The discharges are produced by the same or similar operations;
 - b. The discharges involve the same or similar types of waste;
 - c. The discharges require the same or similar treatment standards; and
 - d. The discharges are more appropriately regulated under general requirements than individual requirements.
8. A facility that otherwise meets the definition of a Poultry Operation but which has fewer than 2 AUs on site may be required to comply with the provisions of this Order if the Executive Officer determines that the Operation poses a significant threat to water quality. At the direction of the Executive Officer, the Operation shall submit a Notice of Intent to the Central Valley Water Board and, based on Board staff's review of the data submitted, may be required by the Executive Officer to comply with this Order.
9. In regulating waste discharges, the Central Valley Water Board implements State laws and regulations. California regulations governing discharges from Poultry Operations are contained in Title 27 of the California Code of Regulations ("Title 27")³, at Sections 22560 et seq.
10. For "existing" facilities, the NOI shall document an existing flock size which is defined as the maximum number of birds (e.g. chickens, turkeys, ducks, geese, guinea fowl, pheasant, pigeons, and ostrich) housed at the facility in a single month period that occurred in the three years immediately prior to the issuance of the tentative Order (23 September 2016), or the maximum flock size identified in an approved CEQA document or other regulatory document that has gone through CEQA review or a CEQA-equivalent process. Any increase in the flock size beyond this number constitutes an expansion requiring a CEQA evaluation as outlined in Finding 11. The use of the three previous years' monthly poultry numbers for determining the maximum number of birds has been stipulated to account for normal fluctuations in the onsite animal numbers due to changes in economic conditions.
11. For "new" or "expanded" operations, the flock size for the General Order will be the flock size described in the CEQA document or other regulatory document that has gone through CEQA review or a CEQA-equivalent process and adopted by the lead agency for the new or expanded operation.

³ All subsequent references to "Title 27" shall refer to California Code of Regulations, Title 27

12. For the purpose of this Order, “waste” shall have the meaning provided under Water Code section 13050(d). Waste includes, but is not limited to, manure, leachate, wastewater, litter, and any water, precipitation or rainfall runoff that contacts raw materials, products, or byproducts such as manure, compost piles, feed, or bedding.
13. This Order implements the requirements of State Water Resources Control Board Resolution 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*, referred to hereafter as the *State Anti-Degradation Policy*), the sections of California Code of Regulations Title 27 related to confined animal facilities, the Central Valley Water Board’s Water Quality Control Plan for the Sacramento and San Joaquin River Basins (4th Ed., revised June 2015) and the Tulare Lake Basin (2nd Ed., revised January 2015) (collectively, the Basin Plans), and other applicable plans and policies of the State Water Resources Control Board (State Water Board) and the Central Valley Water Board described in the Information Sheet, which is attached to and hereby made part of this Order.
14. For Poultry Operations with on-site composting operations that do not meet 4.a.v, above, this Order incorporates by reference the requirements of the General Waste Discharge Requirements for Composting Operations, Order WQ 2015-0121-DWQ as applicable. Poultry Operations that satisfy said requirements do not require separate coverage under the Composting General Order.
15. This Order recognizes that some Dischargers will need to make improvements at their facilities to meet the Order’s requirements. The Discharger may be able to make some of these improvements relatively quickly while some improvements may require more time to implement. It is reasonable to allow Dischargers thirty months to phase in elements of the required Waste Management Plan and Nutrient Management Plan in order to adequately design and construct major infrastructure changes needed to comply with all the requirements of this Order.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

16. The Central Valley Water Board is the lead agency with respect to the issuance of this Order under applicable provisions of the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.).
17. In accordance with CEQA, the Central Valley Water Board adopted a Negative Declaration in 1982 concurrently with the adoption of Central Valley Water Board Resolution 82-036 (Waiving Waste Discharge Requirements for Specific Types of Discharge), which waived waste discharge requirements for confined animal facilities where the Discharger complies with Central Valley Water Board guidelines. That waiver program expired on 1 January 2003.
18. The benchmark for evaluating whether this Order will have impacts on the environment is the “environmental baseline.” The environmental baseline normally consists of “a description of the physical environmental conditions in the

vicinity of the project at the timeenvironmental analysis is commenced.” (Cal. Code Regs., tit. 14, § 15125 [a].). The receipt of a permit application is one event that can be used to mark the beginning of the environmental review process and therefore an appropriate date for the environmental baseline (Fat v. County of Sacramento (2002) 97 Cal.App.4th 1270, 1278.). The tentative Poultry General Order was issued for public comment by Central Valley Water Board staff on 23 September 2016. The information contained in the Notices of Intent for existing facilities, particularly flock size, shall be based on the Poultry Operations, as they existed during the three years prior to the date the tentative Order was issued, or the maximum flock size identified in an approved CEQA document or other regulatory document that has gone through CEQA or a CEQA-equivalent process.

19. This Order is designed to enhance the protection of surface and groundwater resources, and its application to existing facilities is exempt from the provisions of CEQA in accordance with the following categorical exemptions:
 - a. California Code of Regulations, Title 14, Section 15301, which exempts the “operation, repair, maintenance, [and] permitting ... of existing public or private structures, facilities, mechanical equipment, or topographical features” from environmental review. The restoration of, or improvements to, poultry waste management systems to ensure proper function in compliance with this Order is expected to involve only minor alterations of existing private facilities.
 - b. California Code of Regulations, Title 14, Section 15302, which exempts the “...replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced...” The Poultry General Order will likely require covered Poultry Operations to replace or reconstruct portions of their waste management systems to ensure compliance with the Order’s requirements.
 - c. California Code of Regulations, Title 14, Section 15304 exempts “... minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry and agricultural purposes...”. The Poultry General Order will require covered Poultry Operations to make improvements to their waste management systems that are expected to result in only minor alterations to land, water, and/or vegetation.
20. To qualify for coverage under this Order, operations meeting the definition of “new” or “expanded” must first submit to the Central Valley Water Board (a) proof of compliance with the provisions of the California Environmental Quality Act (CEQA) in the form of a certified Environmental Impact Report, Mitigated Negative Declaration, or Negative Declaration; and (b) an NOI. The submitted NOI must include all applicable components identified in Attachment 1. Payment of the applicable fee to the State Water Resources Control Board in accordance with the

State Water Resources Control Board's fee schedule⁴ is also a prerequisite to coverage under this Order. The NOI, proof of CEQA compliance and fee all must be submitted prior to the Discharger either populating a new poultry operation or expanding an existing poultry operation.

21. Poultry Operations regulated under this Order or its successor Orders and converted from one type of poultry to another type of poultry after the effective date of this Order are considered to be "existing facilities" as long as the flock size, in Animal Units (AU), is no larger than the previously permitted flock size, because the conversion is not expected to result in any new significant effect on the environment.

POULTRY OPERATION IMPACTS ON WATER QUALITY

22. The United States Department of Agriculture estimated that in 2012 California had 7,536 Poultry Operations that housed a total of 70.4 million birds at any given time. Poultry wastes contain essential plant nutrients and have been documented to be excellent fertilizers. However, research in some states indicates improper management of poultry wastes has been shown to contribute to nitrate pollution of groundwater and eutrophication of surface waters⁵. Infants younger than 3 months of age that consume water contaminated with nitrate-nitrogen are at risk of developing methanoglobinemia, also referred as "blue-baby syndrome". Eutrophication is defined as an increase in the nutrient status of natural waters that cause accelerated growth of algae or water plants, depletion of dissolved oxygen, increased turbidity, and a general degradation of water quality. The enrichment of lakes, ponds, bays, and estuaries by nitrogen and phosphorus from surface runoff or groundwater discharge is known to be a contributing factor to eutrophication. Nutrients are not the only constituent of poultry wastes than can have an environmental impact. Pesticides used to control insects in poultry houses and heavy metals, antibiotics, and coccidiostats used as feed additives for nutritional or disease related purposes are also of concern.

STATE ANTI-DEGRADATION POLICY (RESOLUTION 68-16)

23. The State Anti-Degradation Policy prohibits the Central Valley Water Board from authorizing the degradation of high-quality groundwater unless it has been shown that:
 - a. The degradation is consistent with the maximum benefit to the people of the state.
 - b. The degradation will not unreasonably affect present and anticipated future beneficial uses.

⁴ Available at <http://www.waterboards.ca.gov/resources/fees/>.

⁵ Edward, D.R. and Daniel, T.C. 1992. Environmental impacts of on-farm poultry waste disposal- A review. Bio-resource Technology 41:9-33.

- c. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives, and
 - d. The discharger employs best practicable treatment or control to minimize degradation.
24. This Order places restrictions on the discharge of wastes from Poultry Operations that are intended to prevent pollution and nuisance conditions from occurring or persisting. Though the Board recognizes that degradation of high-quality groundwater may still occur pursuant to this Order, the implementation of Nutrient Management Plans, Waste Management Plans, enhanced management practices within the production area, and improved containment features for new and expanding poultry wastewater retention ponds will limit the amount of degradation that will occur under this Order. Degradation will be limited so that discharges from Poultry Operations will not cause long-term impacts to beneficial uses. Where immediate compliance with water quality objectives cannot be achieved, this Order allows time for the implementation or modification of waste management practices.
25. Consistent with the State Anti-Degradation Policy, this Order establishes requirements and standards that will result in the implementation of Best Practicable Treatment or Control (BPTC) measures to limit the degradation caused by poultry discharges. The following is a general description of what the Board considers to be BPTC for specified areas of a poultry operation:
 - a) Production area (includes housing, outdoor access areas, and manure/litter storage areas): surface water discharges from the production area are prohibited, and the production areas shall be managed to limit the extent to which wastewater can infiltrate into the underlying materials.
 - b) Land application areas (including cropland and vegetative filter strips): Dischargers must prepare and implement Nutrient Management Plans. Discharges from the land application areas must be sampled and must not cause or contribute to an exceedance of any applicable water quality objective or federal water quality criteria.
 - c) Existing Wastewater Retention Ponds: Existing wastewater retention ponds must be in compliance with design standards specified in Pond Specifications 8 and 9. However, these design standards have not been found to be protective of groundwater under all conditions, and the immediate replacement of these ponds is not a practicable option for many facilities. Therefore, though compliance with Title 27 design standards was once considered to be BPTC, the Board now considers BPTC for ponds to be an iterative process whereby the ponds are evaluated (either under an individual monitoring program or under an approved Representative Monitoring Program (RMP)) to determine whether or not they are protective of the underlying groundwater, and

upgraded or replaced on a time schedule that is as short as practicable if they are found not to be protective. This Order allows time schedules to bring any deficient management practices (including ponds) into compliance.

- d) New and Expanded Wastewater Retention Ponds: This Order establishes requirements for new and expanded ponds that are more stringent than the requirements in Title 27 in order to provide groundwater protection. New and expanded ponds must meet a strict performance standard that only allows for a conservative pond design unless there has been a demonstration that an alternative design meets the strict performance standard.
 - e) New and Existing Composting Operations: This Order incorporates the requirements of the General Waste Discharge Requirements for Composting Operations, Order WQ 2015-0121-DWQ, as appropriate to ensure implementation of BPTC measures, including limitations on the type of feedstocks, siting restrictions, and limitations on the permeability of the working surface of the composting operation.
26. This Order also contains closure requirements that specify that the Discharger must maintain coverage under this Order or a subsequent revision to this Order until all manure/litter, wastewater, and poultry waste-impacted soil (including soil within the pond(s)), is disposed of or utilized in a manner which does not pose a threat to surface water or groundwater quality or create a condition of nuisance.
27. This Order will assure that pollution or nuisance will not occur outside of any time schedule for improvements established pursuant to this Order. This Order addresses impacts from future discharges of waste, but does not address the cleanup of surface and groundwater that has been polluted due to historic poultry operations. Any required cleanup would be handled under separate authority in accordance with the Water Code.
28. The Central Valley Water Board recognizes that there is often site-specific, crop-specific, and regional variability which affects the selection of appropriate management measures, as well as the design constraints and pollution control effectiveness of various practices. In compliance with Water Code Section 13360, poultry owners/operators have the flexibility to choose management practices that best achieve a management measure's performance expectations given their own unique circumstances. It is expected that this will be an iterative process whereby the effectiveness of any set of practices in minimizing degradation will be periodically reevaluated as necessary as more current and detailed water quality data become available.
29. To assess compliance with the *State Anti-Degradation Policy*, this Order requires Dischargers with a Full Coverage Operation to monitor discharges to surface waters and groundwater. The requirements to monitor first encountered

groundwater (the point in the aquifer where changes to groundwater quality, caused by the facility, would typically be first detected) are met when the Dischargers with Full Coverage Operations perform individual groundwater monitoring or participate in an approved Representative Monitoring Program (RMP). The purpose of monitoring is to confirm that the discharges are effectively controlled by management practices and to evaluate compliance with this Order. Dischargers with a Low Threat Operation may be required to perform individual groundwater monitoring or participate in an approved RMP if directed by the Executive Officer.

30. When the Board prescribes waste discharge requirements that will result in the degradation of high-quality waters, the State Anti-Degradation Policy requires that the Board first make a determination that the authorized degradation is consistent with the maximum benefit to the people of the State. Consistent with the evaluation contained in the Information Sheet and considering the economic significance of the Central Valley poultry industry and the important role Central Valley facilities play in providing adequate poultry meat and egg supplies to the Central Valley and the nation, the Central Valley Water Board finds that maintaining the Central Valley poultry industry is consistent with the maximum benefit to the people of the state. To maintain the industry and to prevent the loss of jobs and the impacts to the local economy that might otherwise occur, some degradation to high quality waters should be allowed. However, this degradation will be limited by this Order so there will not be long-term impacts to beneficial uses, thereby allowing the full utilization of the aquifer.
31. This Order requires Low Threat Operations to:
 - a. submit a Notice of Intent (Attachment A) within 12 months of the adoption of this Order;
 - b. maintain records and submit annual reports, as specified in Monitoring and Reporting Program R5-2016-0087-01;
 - c. conduct groundwater monitoring if directed to do so by the Executive Officer;
 - d. submit an Operation and Maintenance Plan and install and maintain backflow prevention devices as specified in Section F of Attachment B; and
 - e. document the destinations of exported manure using manifests (Attachment D) or Bill of Sale. Solids content and/or density testing are not required.

GENERAL FINDINGS

32. This Order does not authorize violation of any federal, state, or local law or regulation.
33. As stated in Water Code Section 13263(g), the discharge of waste into waters of the state is a privilege, not a right, and this Order does not create a vested right to

continue the discharge of waste. Failure to prevent conditions that create or threaten to create pollution or nuisance will be sufficient reason to modify, revoke, or enforce this Order, as well as prohibit further discharge.

34. In compliance with Water Code Section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.
35. This Order is not a National Pollutant Discharge Elimination System Permit issued pursuant to the Federal Clean Water Act. Coverage under this Order does not exempt a facility from the Clean Water Act. Any facility required to obtain such a permit must notify the Central Valley Water Board.
36. The Findings of this Order, supplemental information and details in the attached Information Sheet, and the administrative record of the Central Valley Water Board relevant to Poultry Operations, were considered in establishing the conditions of discharge.
37. In 2006, the Central Valley Water Board, the State Water Board, and regional stakeholders began a joint effort to address salinity and nitrate problems in the region and adopt long-term solutions that will lead to enhanced water quality and economic sustainability. Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) is a collaborative basin planning effort aimed at developing and implementing a comprehensive salinity and nitrate management program. The CV-SALTS effort may effect changes to the Basin Plans that would necessitate the re-opening of this Order.
38. The Central Valley Water Board recognizes that some revisions to this Order may be necessary in the future to address issues that are not presently foreseen. The Executive Officer will provide periodic updates to the Central Valley Water Board on the overall compliance with the Order and make recommendations for revisions to the Order if necessary.
39. The Central Valley Water Board has notified interested agencies and persons of its intent to issue this Order for discharges of wastes from Poultry Operations, and has provided them with an opportunity for a public hearing and an opportunity to submit comments.
40. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the proposal to regulate discharges of wastes from Poultry Operations under this Order.

IT IS HEREBY ORDERED that, pursuant to Water Code Sections 13260, 13263, and 13267 and in order to meet the provisions contained in Division 7 of the California Water

Code and regulations and policies adopted thereunder, all Dischargers subject to this Order shall comply with the following:

A. PROHIBITIONS

1. The discharge of hazardous wastes, as that term is defined in California Code of Regulations, Title 22, Section 66261.1 *et seq.*, is prohibited.
2. Except when authorized by a National Pollutant Discharge Elimination System (NPDES) permit, the direct or indirect discharge of waste and/or storm water from the production area to surface waters is prohibited⁶.
3. The discharge of waste from Poultry Operations to surface waters in a manner causing or contributing to an exceedance of any applicable water quality objective in the Basin Plans or any applicable federal water quality criteria, or a violation of any applicable State or federal policies or regulations is prohibited.
4. The collection, treatment, storage, discharge or disposal of wastes at a poultry operation shall not result in the creation of a condition of pollution or nuisance⁷.
5. The disposal of waste not generated by on-site animal production activities is prohibited except where a Report of Waste Discharge for the disposal has been submitted to the Executive Officer and the Central Valley Water Board has issued or waived Waste Discharge Requirements for that discharge.
6. The disposal of dead animals in any liquid manure or wastewater retention ponds is prohibited. The disposal of dead animals at a poultry operation is prohibited except (a) if composted as described in Finding 4; or (b) when federal, State or local officials declare a State of Emergency, and where all other options for disposal have been exhausted, and the onsite disposal complies with all state and local policies for disposal of dead animals.⁸
7. The application of waste to lands not owned, leased, or controlled by the Discharger without written permission from the landowner or in a manner not approved by the Executive Officer is prohibited.
8. The application of manure, litter, or wastewater to cropland for purposes other than nutrient recycling is prohibited.
9. The discharge of wastewater from a land application area to surface waters is

⁶ Discharges of pollutants from the production area to waters of the United States may not lawfully occur except in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. NPDES permit coverage is not provided by this Order, but rather must be obtained separately.

⁷ A Discharger that is making improvements to waste management practices that have been found not to be protective of the underlying groundwater under a time schedule that is as short as practicable shall be deemed in compliance with this Prohibition A.4.

⁸ In an emergency, guidance is provided by the Conditional Waiver of Waste Discharge Requirements for Disaster Related Wastes during a State of Emergency within the Central Valley, Order R5-2013-0026.

prohibited. Irrigation supply water that comes into contact or is blended with waste or wastewater shall be considered wastewater under this prohibition

10. The application of wastewater to a land application area before, during, or after a storm event in a manner that may result in the discharge of commingled applied water and runoff to surface waters is prohibited.
11. The discharge of storm water or tailwater to surface water from a land application area where manure, litter, or wastewater has been applied is prohibited unless the land application area has been managed consistent with a certified Nutrient Management Plan.
12. The use of manure to construct containment structures or to repair, replace, improve, or raise containment structures is prohibited.
13. The direct discharge of wastewater or chemicals into groundwater via backflow through water supply or irrigation supply wells is prohibited.
14. Any feedstock, additive, amendment, or compost (active, curing, or final product) stored, processed, or composted outside of the designated composting operation areas, as those boundaries are specified in an NOI, and approved by the Executive Officer, is prohibited.
15. Any volume of any feedstock, additive, amendment, or compost (active, curing, or final product) exceeding those specified in the General Waste Discharge Requirements for Composting Operations, Order WQ 2015-0121-DWQ is prohibited.
16. Use of any feedstock, additive, amendment, or material, other than those described in the General Waste Discharge Requirements for Composting Operations, Order WQ 2015-0121-DWQ is prohibited, unless regulated under individual waste discharge requirements or a waiver of waste discharge requirements.
17. Bird slaughter at a facility regulated by this Order is prohibited, unless such activities are separately regulated under individual waste discharge requirements or a waiver of waste discharge requirements.

B. GENERAL SPECIFICATIONS

1. Dischargers who are subject to this Order shall implement water quality management practices, as necessary, to protect water quality and to ensure attainment of applicable water quality objectives on a schedule that is as short as practicable as described in the Time Schedule for Compliance (Section N of this Order). The proposed time schedule must be supported with appropriate technical or economic justification as to why the proposed schedule is as short as practicable.

2. If groundwater monitoring demonstrates that discharge(s) from a poultry operation have caused or contributed to an exceedance of applicable water quality objectives in violation of Receiving Water Limitations, G.2 below, the Executive Officer may issue an order to the owner/operator of the poultry operation to identify and implement additional or revised management practices that are more protective of groundwater quality on a schedule that is as short as practicable.
3. All precipitation and surface drainage from outside of the poultry operation (i.e., "run on") shall be diverted away from any manured areas or areas where it could mobilize waste constituents unless such drainage is fully contained.
4. Manure/litter and wastewater shall not be applied, and composting operations shall not be located, 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 or groundwater, unless (i) a 35-foot wide vegetated buffer or physical barrier is substituted for the 100-foot setback, or (ii) alternative conservation practices or site-specific conditions are demonstrated to provide pollutant reductions equivalent to better than the reductions achieved by the 100-foot setback.

C. POND SPECIFICATIONS (WHERE APPLICABLE)

The requirements of this section only apply to Dischargers that have wastewater ponds.

1. The Poultry Operation shall have facilities that are designed, constructed, operated, and maintained to retain all wastewater generated during the storage period (maximum period of time anticipated between land applications of wastewater), together with all precipitation on and drainage through manured areas, up to and including during a 25-year, 24-hour storm (see item Section B of **Attachment B**, which is attached to and made part of this Order).
2. In the Sacramento and San Joaquin River Basins, wastewater retention ponds and manured areas at poultry facilities in operation on or before 27 November 1984 shall be protected from inundation or washout by overflow from any stream channel during 20-year peak stream flows. Poultry facilities that were in operation on or before 27 November 1984 and that are protected against 100-year peak stream flows must continue to provide such protection. Poultry facilities that were built or expanded after 27 November 1984 shall be protected against 100-year peak stream flows.
3. In the Tulare Lake Basin, Poultry Operations in operation on or before 25 July 1975 shall be protected from inundation or washout from overflow from any stream channel during 20-year peak stream flows and Poultry Operations constructed after 25 July 1975 shall be protected from 100-year peak stream flows. Poultry Operations that were expanded after 8 December 1984 shall be protected from 100-year peak stream flows.

4. For the purposes of this Order, the term “ponds” refers to wastewater retention ponds.
5. The level of waste in ponds shall be kept a minimum of two (2) feet from the top of each aboveground embankment and a minimum of one (1) foot from the ground surface of each belowground pond. Less freeboard may be approved by the Executive Officer when a Civil Engineer registered in California, or other person as may be permitted under the provisions of the California Business and Professions Code to assume responsible charge of such work, demonstrates that the structural integrity, including potential failure due to wave overtopping, of the pond will be maintained with the proposed freeboard.
6. Ponds shall be managed and maintained to prevent breeding of mosquitoes and other vectors. In particular,
 - a. Small coves and irregularities shall not be allowed around the perimeter of the water surface;
 - b. Weeds shall be minimized through control of water depth, harvesting, or other appropriate method;
 - c. Dead algae, vegetation, and debris shall not accumulate on the water surface; and
 - d. Management shall be in accordance with the requirements of the Mosquito Abatement District, Vector Control District, or other local requirements.
7. Ponds designated to contain the 25-year, 24-hour storm event runoff must have a depth marker that clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation from a 25-year, 24-hour storm event.
8. The invert (lowest point) in ponds shall be above the highest anticipated elevation of underlying groundwater. In the Tulare Lake Basin, the invert shall be five feet above the highest anticipated elevation of underlying groundwater. If there is reason to believe that the invert of a pond at an existing facility does not meet these criteria, the Discharger shall conduct an investigation within six months of the issuance of a Notice of Applicability by the Executive Officer to determine if this is the case. If the invert in a pond does not meet these criteria, the Discharger shall propose modifications, with a time schedule for implementation that is as short as practicable, that will ensure that the pond design is protective of water quality. The modifications must be reviewed and approved by the Executive Officer prior to construction pursuant to Pond Specification C.10.b of this Order. If an existing pond is filled in to increase the separation between the bottom of the pond and the highest anticipated elevation of underlying groundwater, this construction will not constitute a reconstruction requiring the installation of a liner pursuant to Section C.10.a provided that the

overall storage of the pond is not increased.

9. Existing Wastewater Ponds⁹

- a. **For Full Coverage Dischargers conducting an Individual Monitoring Program**: Dischargers conducting monitoring pursuant to an Individual Monitoring Program shall maintain existing pond conditions and operational controls throughout the development of the Summary Report that is required by **Monitoring and Reporting Program R5-2016-0087-01, Attachment A, Section B.10**. The Summary Report is subject to Executive Officer approval and due within six years of initiating individual monitoring activities unless required by the Executive Officer at an earlier date.

If the monitoring data in the Summary Report indicate that Receiving Water Limitation G.2 (Groundwater Limitations) of this Order has been violated, Dischargers are required to implement management practices/activities (BPTC for high quality waters or best efforts for waters that are not high quality) that will bring the facility into compliance with Receiving Water Limitation G.2 on a time schedule that is as short as practicable.

- b. **For Full Coverage Dischargers enrolled under an approved Representative Monitoring Program**: Dischargers enrolled under an approved Representative Monitoring Program (RMP) shall maintain existing pond conditions and operational controls throughout the development of the Summary Representative Monitoring Report (SRMR), which is due to the Central Valley Water Board within six years of initiating monitoring activities and is subject to Executive Officer approval.

If the SRMR indicates that the Discharger's existing ponds may have discharges that violate Receiving Water Limitation G.2 (Groundwater Limitations) of this Order or that such discharges from existing ponds may cause degradation to high quality waters, Dischargers are required to implement the approved SRMR's identified management practices/activities for existing ponds in a manner that will bring the facility into compliance with Receiving Water Limitation G.2. Such practices are considered to constitute best practical treatment or control or best efforts and are designed to achieve compliance with Receiving Water Limitation G.2 on a time schedule that is as short as practicable.

10. New and Reconstructed Wastewater Ponds

- a) New ponds installed in order to comply with the requirements of this Order

⁹ Existing Ponds are defined to mean those ponds in operation as of the date of adoption of this Order and are not new ponds that are designed to meet the Tier 1 or Tier 2 requirements set forth in Pond Specification C.10 of the Order.

or modifications of existing ponds shall be designed and constructed to comply with the groundwater limitations (G.2 below) in this Order.

- b) New and reconstructed pond designs must be reviewed and approved by the Executive Officer prior to construction. This Order provides a tiered approach to pond design requirements to provide an option that will significantly reduce the time required for approval by the Executive Officer as defined below:
 - i. Tier 1: 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 Title 27, Section 20340) between the two liners will be considered to be consistent with State Water Board Resolution 68-16. Review for ponds designed to this standard will be conducted in less than 30 days of receipt of a complete design plan package submitted to the Board.
 - ii. Tier 2: A pond lined so as to be protective of water quality as demonstrated by calculations of seepage amounts and the effect of that seepage on underlying groundwater as required in Pond Specification 10.c below. The pond design must include a pan lysimeter monitoring device under the lowest point on the pond, or an equivalent engineered alternative. The engineered alternative must provide equivalent assurance of the earliest possible detection or prevention of a release from the pond.
- c) Prior to the enlargement of an existing storage pond or the construction of such new pond, the Discharger shall submit to the Executive Officer:
 - i. For Tier 1 and 2 pond designs, a design report prepared by, or under the direct supervision of, and certified by, a Civil Engineer who is registered pursuant to California law or other person as may be permitted under the provisions of the California Business and Professions Code to assume responsible charge of such work. The design report shall include the following:
 1. Design calculations demonstrating that adequate containment will be achieved,
 2. Details on the liner, pan lysimeter, and leachate collection and removal system (if applicable) materials,
 3. A schedule for construction and certification of completion to comply with the Section M, Schedule of Tasks, of this Order,
 4. A construction quality assurance plan describing testing and observations needed to document construction of the pond

in accordance with the design and Title 27, Sections 20323 and 20324, and

5. An operation and maintenance plan for the pond.
 - ii. For Tier 2 pond design, the design report shall also include a technical report and groundwater model that demonstrates the proposed pond would be in compliance with the groundwater limitations (G.2 below) in this Order, including calculations that demonstrate the amount and quality of seepage from the proposed pond and its effect on groundwater quality, and include proposed groundwater monitoring to evaluate the impact of pond seepage on groundwater quality. The requirement for groundwater monitoring may be satisfied by an approved Representative Monitoring Program (RMP) membership at the discretion of the Executive Officer.

Enlargement of any existing pond or construction of any new pond shall not begin until the Executive Officer notifies the Discharger in writing that the design report is acceptable.

- d) Prior to the placement of waste in any enlarged existing pond or any such newly constructed pond, the Discharger shall submit a post construction report prepared by, or under the direct supervision of, and certified by, a Civil Engineer who is registered pursuant to California law or other person as may be permitted under the provisions of the California Business and Professions Code to assume responsible charge of such work.

Waste shall not be placed into the pond until the Executive Officer notifies the Discharger in writing that the post construction report is acceptable. The post construction report shall include: (i) verification that the pond meets the requirements of this Order as specified in Pond Specification C.10.b including documentation of the results of the construction quality assurance testing and observations; (ii) certification that the pond was constructed as designed; and (iii) as-built diagrams.

D. PRODUCTION AREA SPECIFICATIONS

The production area includes poultry houses, outdoor access areas, coops, barns, pens, manure/litter storage areas, dead bird collection areas, wastewater conveyances and any other area of the poultry operation that is not the land application area. Wastewater retention ponds are part of the production area; specifications for ponds are found in Section C of this Order.

1. All roofs, buildings, and non-manured areas located in the production area of the poultry operation shall be constructed or otherwise designed so that clean rainwater is diverted away from manured areas and waste containment facilities,

unless such drainage is fully contained in the wastewater management system.

2. The outdoor animal confinement area, and manure/litter storage areas that do not meet criteria in Finding 4.a.iv, shall be designed and maintained to minimize standing water as of 72 hours after the last rainfall and the infiltration of water into the underlying soils.
3. Unlined ditches, swales, and/or earthen-berm channels may not be used for storage of wastewater, manure, or tailwater and may only be used for the conveyance of wastewater collected in the production area to the wastewater retention pond, conveyance of wastewater from the pond to the land application area, irrigation return water management, or temporary control of accidental spills or rainfall-induced overflows at Poultry Operations designed, constructed, operated, and maintained in compliance with Pond Specification C.1 of this Order.
4. For Dischargers conducting individual groundwater monitoring, if the monitoring data in the Summary Report indicate that the Discharger's Production Area may have discharges that violate Receiving Water Limitation G.2 (Groundwater Limitations) of this Order or that such discharges may cause degradation to high quality waters, the Dischargers are required to implement management practices/activities (BPTC for high quality waters or best efforts for waters that are not high quality) that will bring the facility into compliance with Receiving Water Limitation G.2 on a time schedule that is as short as practicable.
5. For Dischargers enrolled under an approved RMP, if the SRMR indicates that the Discharger's production area may have discharges that violate Receiving Water Limitation G.2 (Groundwater Limitations) of this Order or that such discharges may cause degradation to high quality waters, the Dischargers are required to implement the approved SRMR's identified management practices/activities for production areas that will bring the facility into compliance with Receiving Water Limitation G.2. Such practices are considered to constitute best practical treatment or control or best efforts and are designed to achieve compliance with Receiving Water Limitation G.2 on a time schedule that is as short as practicable.

E. LAND APPLICATION AREA SPECIFICATIONS (WHERE APPLICABLE)

For the purposes of this Order, "land application area" is as defined in Attachment E, which is attached to and hereby made part of this Order.

The requirements of this section do not apply to Dischargers who do not own, rent, or lease cropland to which manure/litter or wastewater from the production area is or may be applied. Such Dischargers do not need to prepare a Nutrient Management Plan.

At the Discharger's discretion, cropland which is under the control of the poultry operation owner or operator, but which only receives solid manure/litter and never

receives wastewater, may be regulated under either this Order as part of the facility's land application area or separately under the Irrigated Lands Regulatory Program. All cropland regulated under this Order must be listed in the Annual Report.

Wastes and land application areas shall be managed to prevent contamination of crops grown for human consumption. The term "crops grown for human consumption" refers only to crops that will not undergo subsequent processing which adequately removes potential microbial danger to consumers.

1. 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 (required in Required Reports and Notices K.1.b below) consistent with the technical standards for nutrient management as specified in **Attachment C**. The Nutrient Management Plan shall be modified within 90 days if monitoring shows that discharge from the land application area fails to comply with the groundwater limitations (Receiving Water Limitations, G.2 below) of this Order or surface water quality objectives or criteria. The modifications must be designed to bring Dischargers into compliance with this Order. Cropland that receives wastewater from the poultry operation and is owned by the same Discharger that owns the production area must be managed in accordance with a certified Nutrient Management Plan as part of the facility's land application area, even if the cropland is leased to an entity other than the Discharger operating the poultry facility.
2. The Discharger shall have a written agreement with each third party that receives wastewater from the Discharger for its own use. Land owned, operated, or controlled completely or in part by Dischargers shall not be considered to be controlled by a third party. Each written agreement shall be included in the Discharger's Notice of Intent and Nutrient Management Plan, and each new written agreement, modified written agreement, or rescission of a written agreement shall be included in the Annual Report for the year in which the written agreement is either reached, modified, or rescinded. The written agreement(s) shall be effective until the third party is covered under waste discharge requirements or a waiver of waste discharge requirements that are adopted by the Central Valley Water Board. The written agreement shall:
 - a. Clearly identify:
 - i. The Discharger and poultry operation from which the wastewater originates,
 - ii. The third party that will control the application of the wastewater to cropland,

- iii. The Assessor's Parcel Number(s) and the acreage(s) of the cropland where the wastewater will be applied, and
 - iv. The types of crops to be fertilized with the wastewater.
 - b. Include an agreement by the third party to:
 - i. Use the wastewater at agronomic rates appropriate for the crops to be grown, and
 - ii. Prevent the runoff to surface waters of wastewater, storm water or irrigation supply water that has come into contact with manure or is blended with wastewater.
 - c. Include a certification statement, as specified in General Reporting Requirements C.7 of the Standard Provisions and Reporting Requirements (which is attached to and made part of this Order), which is signed by both the Discharger and third party.
3. Land application of wastes for nutrient recycling from Poultry Operations shall not cause the underlying groundwater to contain any waste constituent, degradation product, or any constituent of soil mobilized by the interactions between applied wastes and soil or soil biota, to exceed the groundwater limitations set forth in this Order.
4. The application of animal waste and other materials containing nutrients to any cropland under control of the Discharger shall meet the following conditions:
 - a. The application is in accordance with a certified Nutrient Management Plan developed and implemented in accordance with Required Reports and Notices K.1.b and **Attachment C** of this Order;
 - b. For operations where animals spend more than an aggregate of twenty percent of the time outdoors (i.e., the time-weighted average number of animals outdoors per day divided by the total number of animals at the facility is greater than 0.20), the stocking rate of birds shall not exceed one AU per one and one-half (1.5) acres of vegetative cover; if the stocking rate exceeds one AU per one and one half acres, preparation and implementation of a Nutrient Management Plan is required; and
 - c. Records are prepared and maintained as specified in the Record-Keeping Requirements of Monitoring and Reporting Program R5-2016-0087-01.

5. The wastewater management system shall be equipped with a calibrated flowmeter or an equivalent method to measure output for land application of wastewater and irrigation water.
6. The application of waste to cropland shall be at rates that preclude development of vectors or other nuisance conditions and meet the conditions of the certified Nutrient Management Plan.
7. Land application areas that receive manure shall be managed through implementation of erosion control measures to minimize erosion and must be consistent with a certified Nutrient Management Plan.
8. All wastewater applied to land application areas must infiltrate completely within 72 hours after application.
9. Wastewater shall not be applied to land application areas during periods when the soil is at or above field moisture capacity unless consistent with a certified Nutrient Management Plan (see **Attachment C**).
10. Off-property discharges of storm water or tailwater from land application areas shall not contain un-ionized ammonia in concentrations exceeding 0.04 mg/l; discharges of storm water or tailwater calculated to contain un-ionized ammonia in concentrations between 0.02 and 0.039 mg/L shall only be discharged off-property if mitigations to protect water quality are present.
11. For Dischargers conducting individual groundwater monitoring, if the monitoring data in the Summary Report indicate that the Discharger's land application area may have discharges that violate Receiving Water Limitation G.2 (Groundwater Limitations) of this Order, or that such discharges may cause degradation to high quality waters, the Dischargers are required to implement management practices/activities (BPTC for high quality waters or best efforts for waters that are not high quality) that will bring the facility into compliance with Receiving Water Limitation G.2 on a time schedule that is as short as practicable.
12. For Dischargers enrolled under an approved RMP, if the SRMR indicates that the Discharger's land application areas may have discharges that violate Receiving Water Limitation G.2 (Groundwater Limitations) of this Order or that such discharges from land application areas may cause degradation to high quality waters, Dischargers are required to implement the approved SRMR's identified management practices/activities for land application areas that will bring the facility into compliance with Receiving Water Limitation G.2. Such practices are considered to constitute best practicable treatment or control or best efforts and are designed to achieve compliance with Receiving Water Limitation G.2 on a time schedule that is as short as practicable.

F. COMPOSTING AREA SPECIFICATIONS (WHERE APPLICABLE)

For the purposes of this Order, a composting area located within the production area is deemed to be part of the poultry operation and does not need separate coverage under the General Waste Discharge Requirements for Composting Operations, State Water Board Order WQ 2015-0121-DWQ (Composting General Order), provided that the composting area is designed, constructed, operated, and maintained in accordance with the applicable provisions and specifications in the Composting General Order. The Discharger may obtain separate coverage under the Composting General Order at its discretion. The composting operation shall be classified according to the provisions of the Composting General Order and shall comply with the allowable feedstock and operational requirements in the Composting General Order. Under this Order, composting operations are exempt from the requirements that otherwise would apply under the Composting General Order if:

1. The composting area is as described in Finding 4.a.v, above; or
2. Less than 500 cubic yards of allowable compostable material are received, processed or stored at any given time; or
3. The composting operation meets the definition of "Agricultural Composting". Agricultural Composting means that:
 - a. feedstocks consist only of materials generated onsite by production of farm, ranch, agricultural, horticultural, silvicultural, floricultural, vermicultural, or viticultural products;
 - b. animal carcasses are not composted;
 - c. the resulting compost product is returned to that same agricultural site, or to an agricultural site owned by the owner of the composting activity, and is applied at an agronomic rate; and
 - d. no more than 1,000 cubic yards of compost product are given away or sold annually; or
4. Less than 5, 000 cubic yards per year of allowable feedstocks, additives, and amendments are received, processed, and stored, provided that:
 - a. Materials are completely covered during storm events as needed to reduce the generation of wastewater; and
 - b. Application of water to composting materials is managed to reduce the generation of wastewater.

G. RECEIVING WATER LIMITATIONS

1. Surface Water Limitations¹⁰

Discharges from poultry facilities shall not cause or contribute to an exceedance of applicable water quality objectives in surface water, unreasonably affect applicable beneficial uses, or cause or contribute to a condition of pollution or nuisance. The applicable water quality objectives are summarized in the Information Sheet, which is attached to and made part of this Order, and can be found in the Central Valley Water Board's Water Quality Control Plan for the Sacramento and San Joaquin River Basins (4th Ed.) and the Water Quality Control Plan for the Tulare Lake Basin (2nd Ed.).

2. Groundwater Limitations¹¹

Wastes discharged at Poultry Operations, including on-site composting operations, shall not cause or contribute to an exceedance of applicable water quality objectives in the underlying groundwater, unreasonably affect applicable beneficial uses, or cause or contribute to a condition of pollution or nuisance. The appropriate water quality objectives are summarized in the Information Sheet, which is attached to and made part of this Order, and can be found in the Central Valley Water Board's Water Quality Control Plan for the Sacramento and San Joaquin River Basins (4th Ed.) and the Water Quality Control Plan for the Tulare Lake Basin (2nd Ed.).

H. PROVISIONS

1. Poultry Operations shall incorporate protocols and practices to minimize salt as those protocols and practices are identified through the Central Valley Salinity Alternative for Long-Term Sustainability (CV-SALTS) process, or otherwise identified by the Executive Officer.
2. The Discharger shall comply with the Standard Provisions and Reporting Requirements for Waste Discharge Requirements General Order R5-2016-0087-01 for Poultry Operations (Standard Provisions) dated 6 December 2016, which is attached to and made part of this Order.
3. The Discharger shall comply with all applicable provisions of the California

¹⁰These limitations are effective immediately upon coverage under this Order except where Dischargers are in compliance with a time schedule pursuant to Section N of this Order and the requirements of Sections E or F of Monitoring and Reporting Program R5-2016-0087-01, **Attachment B**, and such Dischargers are implementing management practices/activities on a time schedule that is as short as practicable.

¹¹These limitations are effective immediately except where Dischargers are in compliance with Section N of this Order. For Dischargers participating in the RMP, the implementation of management practices/activities must be on a time schedule that is as short as practicable and that is consistent with any time schedule or schedule that is included in the SRMR approved by the Executive Officer.

Water Code, Title 27, and the applicable Water Quality Control Plans.

4. The Discharger shall comply with the attached Monitoring and Reporting Program R5-2016-0087-01 (MRP) which is part of this Order, and future revisions thereto or with an individual monitoring and reporting program, as specified by the Central Valley Water Board or the Executive Officer.
5. A discharger may propose an alternative method of compliance with a provision of this General Order provided that the Discharger demonstrates to the satisfaction of the Executive Officer, that the alternative method of compliance shall be at least as protective of ground and surface water as the relevant provision of the General Order.
6. The Discharger shall submit a complete NOI in accordance with the Water Code Section 13260 at least 140 days prior to any material change or proposed change in the character, location, or volume of the discharge, including any expansion of the facility or development of any treatment technology, or construction of an anaerobic digester.
7. This Order does not apply to facilities where wastes such as, but not limited to, cannery wastes, septage, municipal or industrial sludge, municipal or industrial biosolids, ash or similar types of waste are generated onsite or are proposed to be brought onto the production area or land application area of the poultry operation for the purpose of nutrient recycling or disposal. The Discharger shall submit a complete Report of Waste Discharge and shall not apply or dispose of such waste prior to receiving Waste Discharge Requirements or a waste-specific waiver of Waste Discharge Requirements from the Central Valley Water Board.
8. If site conditions threaten to violate Prohibition A.2 (discharge of waste and/or storm water from the production area in the absence of an NDPES permit) or Prohibition A.4 (creation of a condition of pollution or nuisance), the Discharger shall take immediate action to preclude the violation, documenting the condition and all corrective actions. Records of such actions shall be kept and maintained as required in Monitoring and Reporting Program R5-2016-0087-01. Alterations of the Waste Management Plan (see Required Reports and Notices K.1.c) for the production area to avoid a recurrence shall be submitted to the Central Valley Water Board as a modification to the Waste Management Plan.
9. If a discharge of waste creates, or threatens to create, significant objectionable odors or nuisance odor and vector conditions, enforcement and/or revocation of coverage under this Order may result.
10. The Discharger shall comply with all requirements of this Order and all terms, conditions, and limitations specified by the Executive Officer.

11. Any instance of noncompliance with this Order constitutes a violation of the Water Code and its regulations. Such noncompliance is grounds for enforcement action, and/or termination of the authorization to discharge.
12. The Discharger must maintain coverage under this Order or a subsequent revision to this Order until the Discharger demonstrates to the satisfaction of the Executive Officer that all manure/litter, wastewater, and animal waste impacted soil, including soil beneath the pond(s), is disposed of or utilized in a manner which does not pose a threat to surface water or groundwater quality or create a condition of nuisance. At least 90 days before desiring to terminate coverage under this Order, the Discharger shall submit to the Executive Officer a closure plan that ensures protection of surface water and groundwater. No more than 30 days after completion of site closure, the Discharger shall submit a closure report which documents that all closure activities were completed as proposed and approved in the closure plan. Coverage under this Order will not be terminated until cleanup is complete.
13. Pursuant to the State Water Board's Composting General Order, at least 90 days prior to ceasing composting operations, the Discharger shall submit a Site Closure Plan to the Central Valley Water Board for approval. The Discharger must jointly notify the Board and the Local Enforcement Agency in writing at the conclusion of the site closure activities in a document that describes closure in accordance with the Site Closure Plan and Central Valley Water Board requirements.
14. If a composting operation is eligible for an exemption due to changes in process or procedures, the Discharger may propose termination of coverage under this Order for the composting operation. Filing a request by the Discharger for an exemption or other change in Order coverage to the composting operation does not stay any requirement of this Order.
15. This Order shall become effective upon adoption by the Central Valley Water Board.
16. Upon obtaining coverage under this Order, the Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Accordingly, the Discharger shall submit to the Central Valley Water Board on or before each report due date the specified document or, if an action is specified, a written report detailing evidence of compliance with the task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in terminating

the applicability of this Order to a specific facility or Discharger.

17. Technical reports (e.g., Surface Water Monitoring Plan, Monitoring Well Installation and Sampling Plan, Monitoring Well Installation Completion Report, Groundwater Monitoring Report, Waste Management Plan Certification, and portions of the Waste Management Plan) required by this Order must be certified by an appropriately licensed professional as required in this Order and its Attachments (see Schedule of Tasks M.1 below). If the Executive Officer provides comments on any technical report, the Discharger is required to address those comments.
18. The Discharger shall maintain a copy of this Order (in paper or electronic format) at the site so as to be available at all times to site-operating personnel. The Discharger, landowner and his/her designee shall be familiar with the contents of this Order.

I. EFFECTIVE DATE OF COVERAGE UNDER THIS ORDER

Coverage under this Order is effective upon issuance of a Notice of Applicability (NOA) by the Executive Officer to the Discharger.

J. PERMIT REOPENING, REVISION, AND REVOCATION

1. If more stringent applicable water quality standards are adopted in the Basin Plans, the Central Valley Water Board may revise and modify this Order in accordance with such standards.
2. This Order may be reopened to address any changes in state plans, policies, or regulations that would affect the water quality requirements for the discharges and as authorized by state law. This includes regulatory changes that may be brought about by the CV-SALTS planning efforts.
3. The Central Valley Water Board or the Executive Officer may revoke coverage under this Order at any time and require the Discharger to submit a Report of Waste Discharge and obtain individual waste discharge requirements.

K. REQUIRED REPORTS AND NOTICES

1. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Dischargers must prepare and maintain the following reports as instructed below, and shall submit or make available such reports to the Central Valley Water Board as identified below.
 - a. **Notice of Intent:** To apply for coverage under this Order, the Discharger shall submit a complete Notice of Intent (NOI) to comply with the conditions of this Order for the poultry operation, prepared in

accordance with **Attachment A**. For existing facilities, the completed NOI shall be submitted to the Central Valley Water Board within twelve (12) months of the date of the adoption of this Order. Coverage under this Order will commence upon the approval of the NOI and issuance of a Notice of Applicability (NOA) by the Executive Officer. The NOI shall provide facility-specific information on existing conditions at the poultry operation.

If the Poultry Operation has an on-site composting operation in existence as of the date the NOI is submitted, the Discharger shall also submit a complete NOI for the composting operation, prepared in accordance with **Attachment A-1**. New composting operations that propose to begin operating after an NOI for the poultry operation has been submitted are required to submit an NOI for the composting operation, prepared in accordance with **Attachment A-1**, not less than 90 days prior to commencement of the composting operation.

- b. **Low-Threat Tier Operation and Maintenance Plan:** A Discharger classified as a Low Threat Operation shall submit an Operation and Maintenance Plan as specified in Section F of Attachment B and install and maintain backflow prevention devices as specified in Section F of Attachment B. For existing Poultry Operations, the Operation and Maintenance Plan must be prepared and submitted within eighteen (18) months of the adoption of this Order. New and expanding Poultry Operations shall submit an Operation and Maintenance Plan with the NOI.
- c. **Waste Management Plan:** Within eighteen (18) months of adoption of this Order, a Discharger with an existing Full Coverage Operation shall submit a Waste Management Plan, including an Operation and Maintenance Plan, for the production area of the existing poultry operation, prepared in accordance with **Attachment B**. New and expanding Poultry Operations shall submit a Waste Management Plan, including an Operation and Maintenance Plan, with the NOI. The Waste Management Plan shall provide an evaluation of the poultry operation's design, construction, operation, and maintenance for flood protection and waste containment and whether the facility complies with Prohibition A.13 (backflow prevention on wells), Pond Specifications C.1 through C.3 (flood protection), and Pond Specifications C.5 through C.7 (freeboard, depth marker, and pond maintenance requirements). If the design, construction, operation, and/or maintenance of the poultry operation do not comply with these specifications and the prohibition, the Waste Management Plan must propose modifications and a schedule for completion of modifications that will bring the poultry operation into compliance within two years. Certification that the modifications have been implemented shall be submitted in accordance with the Schedule of Tasks M.

- d. **Nutrient Management Plan:** A Discharger with a Full Coverage Operation who applies nutrients to land not covered by the Central Valley Water Board's Irrigated Lands Regulatory Program (ILRP) must develop and implement management practices that control nutrient losses and describe such management practices in a Nutrient Management Plan. For existing Poultry Operations, the Nutrient Management Plan must be prepared within eighteen (18) months of the adoption of this Order. New and expanding Poultry Operations shall submit a Nutrient Management Plan with the NOI. The Nutrient Management Plan must be certified as specified in **Attachment C**, maintained at the poultry facility, submitted to the Executive Officer upon request and must ultimately provide for protection of both surface water and groundwater. Certification that the Nutrient Management Plan has been completed shall be included with the first Annual Report following the deadline for preparation of the Nutrient Management Plan. Certification that the Nutrient Management Plan has been implemented shall be submitted to the Executive Officer within thirty (30) months of the adoption of this Order, as part of the first Annual Report following the deadline for implementation of the Nutrient Management Plan. The Nutrient Management Plan shall be updated as specified in the Technical Standards for Nutrient Management in **Attachment C** or if the Executive Officer requests that additional information be included. Surface water and groundwater monitoring will be used to determine if implementation of the Nutrient Management Plan is protective of water quality.
- e. **Annual Report:** An annual monitoring report is due by 1 August of each year, beginning with 1 August 2018. For Full General Order Coverage Operation, it will consist of a General Section, a Groundwater Reporting Section (including an Annual Monitoring Report prepared in accordance with **Attachment A** of MRP R5-2016-0087-01), a Storm Water and Tailwater Reporting Section (including a Surface Water Monitoring Report prepared in accordance with **Attachment B** of the MRP), and, if a composting operation is on-site, an Annual Monitoring and Maintenance Report for the Composting Operation. For Low Threat Operations, the Annual Report shall contain the information listed in the MRP under Reporting Requirements Section B, second paragraph. Multiple Low Threat Operations managed by the same Discharger may submit one annual report.

Once the Summary Report (for individual Dischargers) or the Summary Representative Monitoring Report (for representative monitoring programs) has been approved, an Annual Implementation Report shall be part of the Annual Report. The contents of the Annual

Monitoring Report are described in Reporting Requirements, **Section B** of the MRP.

- f. **Surface Water Quality Management Plan (SWQMP):** If the Executive Officer determines that the results of surface water monitoring conducted by either an individual Discharger or a Joint Monitoring Program indicates a trend in degradation that may threaten applicable Basin Plan beneficial uses in surface waters, the Joint Monitoring Program or Discharger shall develop a SWQMP (see **MRP Attachment B**).

2. Reporting Provisions:

- a. All NOIs, applications, annual reports, or information submitted to the Central Valley Water Board shall be signed and certified in accordance with C.7 and C.8 of the Standard Provisions.
- b. The Discharger shall submit all reports as specified in the attached Monitoring and Reporting Program R5-2016-0087-01.
- c. Any Discharger authorized to discharge waste under this Order shall furnish, within thirty days, any information the Central Valley Water Board may request, to determine whether cause exists for modifying, revoking and reissuing, or terminating their authorization for coverage under this Order. The Executive Officer may specify a longer time schedule if it is determined that allowing more than 30 days is reasonable. The Discharger shall, upon request, also furnish to the Central Valley Water Board copies of records required to be kept by this Order.
- d. All reports prepared and submitted to the Executive Officer in accordance with the terms of this Order shall be available for public inspection at the offices of the Central Valley Water Board.

L. RECORD-KEEPING REQUIREMENTS

The Discharger shall create, maintain for five years, and make available to the Central Valley Water Board upon request by the Executive Officer any reports or records required by this Order including those required under Monitoring and Reporting Program R5-2016-0087-01.

M. SCHEDULE OF TASKS

1. Dischargers with either a Low Threat Operation or a Full Coverage Operation are required to submit an NOI. Dischargers with a Low Threat Operation are required to develop and submit an Operation and Maintenance Plan and install and maintain backflow prevention devices as

specified in Section F of Attachment B. Dischargers with a Full Coverage Operation are required to develop, submit, and implement a Waste Management Plan and, if applicable, a Nutrient Management Plan. All Dischargers must submit Annual Reports containing information as specified in the MRP. The deadlines for these are specified in Table 1. If applicable, Dischargers must submit a statement of completion and a statement of implementation to the Executive Officer for the Nutrient Management Plan by the deadlines specified in Table 1. The statements must be signed and certified by the Discharger as required in Required Reports and Notices K.2 and by the additional professional specified in Table 1.

2. Any Discharger with a Full Coverage Operation may be required to complete the Nutrient Management Plan and/or Waste Management Plan prior to the due date identified in Table 1 if the Executive Officer has determined the facility presents a significant risk to groundwater or surface water.

Table 1. Schedule for Submittal of Reports	
Due Date	Submittals Due
12 months after adoption of General Order	<ul style="list-style-type: none"> ○ Notice of Intent (NOI) for existing Poultry Operations
18 Months after adoption of the Order	<ul style="list-style-type: none"> ○ Waste Management Plan for Full Coverage Operations ○ Operation and Maintenance Plan for Low Threat Operations ○ Certification that Nutrient Management Plan has been completed (certification signed by both Discharger and Certified Nutrient Management Specialist) for all cropland not covered by the Irrigated Lands Regulatory Program (ILRP). ○ Annual Report ○ Notify Central Valley Water Board of formation of representative groundwater monitoring group. ○ Farm Evaluation Form (all cropland not covered by ILRP)

<p>24 months after adoption of the Order</p>	<ul style="list-style-type: none"> ○ Workplan for well installation for representative groundwater monitoring coalition (Full Coverage Operations) ○ Workplan for well installation for individual groundwater monitoring network (Full Coverage Operations) ○ Demonstration of No Potential to Discharge to Surface Water from land application areas (Full Coverage Operations) ○ Farm Water Quality Plan (Full Coverage Operations with potential to discharge to surface water) ○ Notify Central Valley Water Board of membership in an ILRP coalition ○ Request approval of the Executive Officer to form a Joint Monitoring Program for surface water (for all cropland not covered by ILRP and with a potential to discharge to surface water)
<p>30 months after adoption of the General Order</p>	<ul style="list-style-type: none"> ○ Certification that the Waste Management Plan has been implemented ○ Certification that the Nutrient Management Plan has been implemented ○ Annual Report ○ Certification that well installation is complete for representative groundwater monitoring coalition ○ Certification that well installation is complete for individual groundwater monitoring ○ Workplan for surface water monitoring for Joint Monitoring Program
<p>1 August 2019 through 1 August 2024</p>	<ul style="list-style-type: none"> ○ Annual Report (due each 1 August)
<p>6 years after commencement of representative or individual groundwater monitoring</p>	<ul style="list-style-type: none"> ○ Annual Report ○ Summary Representative Monitoring Report (SRMR) for representative groundwater monitoring group ○ Summary Report for groundwater monitoring for individual groundwater monitoring
<p>1 August 2025</p>	<ul style="list-style-type: none"> ○ Annual Report, including Annual Implementation Report identifying alternative management practices to be implemented and schedule for implementation

N. Time Schedule for Compliance

Dischargers with a Full Coverage Operation have the option of either implementing individual groundwater monitoring or participating in a group option such as a Representative Monitoring Program (RMP) to identify whether their specific management practices are resulting in adverse impacts to groundwater (i.e., whether the discharge is in compliance with the groundwater limitations (G.2, above) of this Order).

Dischargers with a Full Coverage Operation who have the potential to discharge to surface water from the land application areas associated with the poultry operation have the option of either implementing individual surface water monitoring, participating in a Joint Monitoring Program, or joining an Irrigated Lands Regulatory Program coalition, to identify whether their specific management practices are resulting in adverse impacts to surface water (i.e., whether the discharge is in compliance with the surface water limitations (G.1, above) of this Order).

This long-term monitoring of ground and surface water is needed to document which poultry operation waste management practices are protective of water quality, and what effect these management practices will have on water quality under a variety of different site conditions.

If data become available from other representative monitoring programs that identify practices that are not protective of groundwater quality, the Executive Officer may require modification of management practices by a date earlier than the dates specified in this section.

1. Groundwater – Time schedules for evaluating management practices and implementing changes
 - a. For Dischargers conducting individual groundwater monitoring programs:
 - i. Summary Report for Individual Groundwater Monitoring: Dischargers conducting an Individual groundwater monitoring program shall submit a summary report within six years of initiating sampling activities. The summary report must include identification of management practices that need to be implemented to achieve compliance with applicable water quality objectives, including the groundwater limitations (G.2, above) of the Order.
 - ii. Annual Implementation Reports for Individual Groundwater Monitoring: Following the Executive Officer's approval of the Summary Report, the Discharger shall submit Annual Implementation Reports which document actions taken to upgrade management practices that have been found not to be protective of water quality. The Annual Implementation Reports will be submitted as part of the Annual Reports. The first Annual Implementation Report must identify alternative management practices the Discharger intends to implement at its poultry operation along with a schedule for implementation. With

each subsequent Annual Implementation Report, the Discharger must provide an update on their implementation of additional or alternative management practices. Implementation of the identified management practices must be as soon as practicable and 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 is approved by the Executive Officer.

- b. For Dischargers participating in Representative Groundwater Monitoring Programs:
 - i. Summary Representative Monitoring Report for Representative Groundwater Monitoring Programs: Six years following commencement of groundwater monitoring, the RMP must submit a Summary Representative Monitoring Report (SRMR) to the Board's Executive Officer. The SRMR must identify management practices that are protective of water quality for the range of conditions found at facilities participating in the representative monitoring program, and must identify in the SRMR time schedules that are as short as practicable, and supported with appropriate technical or economic justification, for implementation of the identified management practices. The Central Valley Water Board may modify these schedules based on evidence that meeting the compliance date is technically or economically infeasible, or when evidence shows that compliance by an earlier date is feasible. Any applicable time schedules for compliance established in the Basin Plans (e.g., time schedules for compliance with salinity standards that may be established in future Basin Plan amendments through the CV-SALTS process) supersede the schedules established in SRMR. In no case may time schedules extend beyond 10 years from the date that the SRMR is approved by the Executive Officer.
 - ii. Individual Annual Implementation Reports for participants in a Representative Monitoring Program: Dischargers who have participated in the RMP must submit Annual Implementation Reports as part of their Annual Report, following the Executive Officer's approval of the SRMR, which must document actions taken to upgrade management practices that have been found not to be protective of water quality. The Annual Implementation Reports will be submitted as part of the Annual Reports due every 1 August. The first Annual Implementation Report must identify alternative management practices the Discharger intends to implement at its Poultry Operation along with a schedule for implementation. With each subsequent Annual Implementation Report, the Discharger must provide an update on their implementation of additional or alternative management practices.
2. Surface water – Time schedules for evaluating management practices and implementing changes

- a. For Dischargers conducting individual surface water monitoring or participating in a Joint Monitoring Program for surface water:
 - i. Farm Water Quality Plan – Within twenty-four (24) months of adoption of the Order, all Dischargers who have a potential for discharges from their land application areas to reach surface water shall to develop a farm-specific water quality plan and submit the plan to the Executive Officer for review and approval, as outlined in **Attachment B** to MRP R5-2016-0087-01. The Plan shall include water quality management practices currently used or proposed to comply with the surface water monitoring provisions of the Order and reduce or eliminate discharge of waste to surface waters. The farm management performance standards that must be achieved are to minimize waste discharge offsite in surface water, prevent pollution and nuisance, and minimize or eliminate the discharge of sediment above background levels. If management practices are proposed in the Plan but not yet implemented, the Plan must include timetables for implementation that are as short as practicable and subject to modification and approval by the Executive Officer.
 - ii. Surface Water Quality Management Plan – If the Annual Surface Water Monitoring Report submitted to the Executive Officer either by an individual Discharger or by a Joint Monitoring Program indicates violations of the Surface Water Limitations of the Order, the Discharger or Joint Monitoring Program shall submit to the Executive Officer a Surface Water Quality Management Plan. The Plan shall include a description and justification for proposed management practices to be implemented to reduce the discharge of the constituent(s) of concern triggering preparation of the Plan. A time schedule for implementation of the management practices shall be included in the Plan and shall be as short as practicable.
- b. For Dischargers participating in an Irrigated Lands Regulatory Program (ILRP) coalition for surface water:
 - i. Dischargers participating in an ILRP coalition shall implement changes in management practices in accordance with schedules approved through the ILRP.

O. Enforcement

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer 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 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.

P. Petitions

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 of this Order, except that if the thirtieth day following the date of this Order 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 that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 6 December 2016, and amended by Order R5-2019-0034 on 05 April 2019.

Original signed by

PATRICK PULUPA, Executive Officer

ATTACHMENT A
ORDER R5-2016-0087-01

NOTICE OF INTENT
FOR
POULTRY OPERATIONS

Instructions:

1. Complete and submit to the appropriate Central Valley Board Office. Submittal information is located at the end of the Form. **Please include a map with a scale showing the production and land application areas.**

2. Mail the appropriate fee to the State Water Resources Control Board at:

SWRCB Accounting Office
ATTN: Annual Fees
P.O. Box 1888
Sacramento, CA 95812-1888

FACILITY TYPE: _____

CONTACT INFORMATION

A. FACILITY NAME: _____

1. FACILITY ADDRESS: _____

Number and Street City Zip Code

STREET AND NEAREST CROSS STREET (IF NO ADDRESS) _____

2. COUNTY: _____

i. COUNTY ASSESSOR PARCEL NUMBER(S) FOR FACILITY (Production Area):

ii. IS THERE CROPLAND ASSOCIATED WITH THIS FACILITY THAT MAY RECEIVE WASTE OR OTHER MATERIAL FROM THE FACILITY?

- NO
- YES; IF YES, ACREAGE _____

IF YES, HOW MUCH CROPLAND IS ENROLLED UNDER ILRP?

- ALL
- SOME
- NONE

iii. COUNTY ASSESSOR PARCEL NUMBERS FOR
CROPLAND: _____

B. OPERATOR NAME: _____

1. OPERATOR MAILING ADDRESS: _____

Number and Street City Zip Code

2. OPERATOR'S PHONE NUMBER: _____

3. EMAIL ADDRESS: _____

C. BUSINESS OWNER NAME: _____

1. OWNER MAILING ADDRESS: _____

Number and Street City Zip Code

2. OWNER'S PHONE NUMBER: _____

3. CONTACT PERSON, IF APPLICABLE _____

4. PHONE NUMBER: _____

5. EMAIL ADDRESS: _____

D. NAME OF LEGAL OWNER OF THE PROPERTY: _____

1. OWNER MAILING ADDRESS: _____

Number and Street City Zip Code

2. OWNER'S PHONE NUMBER: _____

3. CONTACT PERSON: _____

4. PHONE NUMBER: _____

5. EMAIL ADDRESS: _____

E. PERSON TO RECEIVE REGIONAL BOARD CORRESPONDENCE (OWNER OR OPERATOR OR BOTH)

1. OWNER: _____

2. OPERATOR: _____

3. BOTH: _____

TYPE OF BIRDS AND SIZE OF THE OPERATION
--

Type of poultry	Maximum number of birds housed at the facility in one month between 12/2013 and 12/2016 or the maximum flock size identified in an approved CEQA document)	Current number of birds housed at the facility (specify date of information) Date _____
a. Broilers (Meat Birds)		
b. Laying Hens		
c. Turkeys		
d. Other		

A. HOUSING

- INDOOR, solid sided houses only
- INDOOR, solid-sided houses with access to fenced outdoor area or houses with features to limit the entrance of precipitation and animals do not spend more than an aggregate of twenty percent of the time outdoors (i.e., the time-weighted average number of animals outdoors per day divided by the total number of animals at the facility is less than 0.20);
- OUTDOOR, animals spend more than an aggregate of twenty percent of the time outdoors (i.e., the time-weighted average number of animals outdoors per day divided by the total number of animals at the facility is greater than 0.20

WASTEWATER AND MANURE/LITTER PRODUCTION
--

A. NUMBER OF BIRD HOUSES: _____

B. NUMBER OF STORM WATER PONDS: _____

C. WASTEWATER GENERATION:

WASTEWATER GENERATED: _____ GALLONS/DAY

D. DO YOU HAVE A WASTEWATER STORAGE LAGOON?

YES

NO

IF YES, HOW MANY: _____

DESCRIBE CONSTRUCTION (e.g. EARTHEN, CONCRETE-LINED, SYNTHETIC LINER)

E. LAND APPLICATION:

1. DO YOU APPLY WASTEWATER TO CROPLAND THAT IS PART OF YOUR FACILITY

YES

NO

2. DO YOU APPLY SOLID MANURE/LITTER TO CROPLAND THAT IS PART OF YOUR FACILITY

YES

NO

IF YES, ACREAGE: _____

IF YES, DO YOU HAVE IRRIGATED LANDS REGULATORY COVERAGE?

YES

NO

F. MANURE STORED ON SITE?

NO

YES

IF YES,

COVERED

IN ROOFED STRUCTURE WITH WALLS

UNCOVERED

G. MANURE EXPORTED?

- WITHIN SEVENTY-TWO (72) HOURS AFTER REMOVAL FROM ROOFED STRUCTURE
- STAYS LONGER THAN SEVENTY-TWO (72) HOURS TO FOURTEEN (14) DAYS AFTER REMOVAL FROM ROOFED STRUCTURE
- STAYS LONGER THAN FOURTEEN (14) DAYS AFTER REMOVAL FROM ROOFED STRUCTURE
- DESCRIBE MANURE DESTINATION _____

H. COMPOSTING: - DO YOU HAVE ON SITE COMPOSTING?

- NO
- YES, IF YES, COMPLETE ATTACHMENT A-1

I. BACKFLOW PREVENTION - DO ALL CONNECTIONS TO WELLS HAVE BACK FLOW PREVENTION?

- YES
- NO
- UNDETERMINED

J. IS THERE ONSITE SLAUGHTER OF BIRDS?

- YES
- NO

K. DO YOU USE A WATER TREATMENT SYSTEM ONSITE (EXAMPLE: REVERSE OSMOSIS, WATER SOFTENER, etc.)?

- NO
- YES, TYPE: _____
- IF YES, DESCRIBE HOW BRINE IS HANDLED _____

POULTRY OPERATION TIER

A. DO YOU MEET THE LOW THREAT OPERATIONS TIER IDENTIFIED IN FINDING 4.a.i-vi OF THE POULTRY GENERAL ORDER?

- NO
- YES

IF YES, RESPOND TO THE FOLLOWING:

4.a.i

- ALL MANURE/LITTER IS EXPORTED

OR

- CROPLAND THAT HAS MANURE/LITTER APPLIED IS COVERED UNDER THE IRRIGATED LANDS REGULATORY PROGRAM

4.a.ii

- THE ONLY WASTEWATER GENERATED BY THE FACILITY CONSISTS OF STORM WATER THAT MAY HAVE CONTACTED MANURE AND THE WASTEWATER IS RETAINED IN A POND IN CONFORMANCE TO THE REQUIREMENTS OF POND SPECIFICATIONS C.1 AND C.10.b

4.a.iii

- BIRDS ARE HOUSED INSIDE ROOFED STRUCTURES WITH FEATURES TO LIMIT THE ENTRANCE OF PRECIPITATION INTO THE POULTRY HOUSE

4.a.iv

- ALL WASTE IS STORED IN A ROOFED STRUCTURE WITH FEATURES TO LIMIT THE ENTRANCE OF PRECIPITATION

OR

- THROUGHOUT THE YEAR ALL WASTE IS REMOVED WITHIN 14 DAYS OF REMOVAL FROM A ROOFED STRUCTURE; DURING THE WET SEASON, OCTOBER THROUGH MAY, WASTE STORED OUTSIDE SUCH A ROOFED STRUCTURE MUST EITHER BE REMOVED FROM THE FACILITY WITHIN 72 HOURS OR COVERED WITH A WEATHERPROOF COVERING, EXCEPT FOR TIMES WHEN WIND EVENTS REMOVE THE COVERING, NOT TO EXCEED 24 HOURS PER EVENT

4.a.v

- COMPOSTING OF MANURE, LITTER, OR POULTRY CARCASSES IS CONDUCTED UNDER A COVERED STRUCTURE AND ON CONCRETE OR AN EQUIVALENT LOW PERMEABILITY SURFACE AND FREE LIQUIDS ARE NOT RELEASED DURING THE COMPOSTING PROCESS

4.a.vi

- ANIMALS DO NOT SPEND MORE THAN AN AGGREGATE OF TWENTY PERCENT OF THE TIME OUTDOORS (I.E., THE TIME-WEIGHTED AVERAGE NUMBER OF ANIMALS OUTDOORS PER DAY DIVIDED BY THE TOTAL NUMBER OF ANIMALS AT THE FACILITY MUST BE EQUAL TO OR LESS THAN 0.20) ; ANY OUTDOOR ANIMAL ACCESS AREAS HAVE RUNON/RUNOFF CONTROLS IN PLACE; ANY OUTDOOR WATERING EQUIPMENT MUST BE MAINTAINED TO MINIMIZE SPILLAGE OR LEAKAGE; AND ANY OUTDOOR FEEDING AREA MUST BE MAINTAINED TO REGULARLY REMOVE SPILLED OR WET FEED. MAINTENANCE SCHEDULES MUST BE DESIGNED TO MINIMIZE IMPACTS OF WATER LEAKAGE OR SPILLED FEED ON WATER QUALITY.

CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF THE OWNER
OF THE FACILITY

SIGNATURE OF OPERATOR
OF THE FACILITY

PRINT OR TYPE NAME

PRINT OR TYPE NAME

DATE:

DATE:

NOI SUBMISSION INSTRUCTIONS

All regulatory documents, submissions, materials, data, monitoring reports, and correspondence shall be converted to a searchable Portable Document Format (PDF) and submitted electronically to the State Water Resources Control Board's Internet-accessible database system (Geotracker database).

Dischargers or their representatives need to create a Geotracker user account. Instructions for setting up an account and the process of claiming a site, formatting and uploading data, and other technical information can be found under the "ESI Overview" and "Getting Started" sections at http://www.swrcb.ca.gov/water_issues/programs/ust/electronic_submittal/.

Monitoring data and correspondence need to be in searchable Portable Document Format (PDF). Documents must be less than 400 MB to be uploaded to the Geotracker database. If not, PDF file size reduction tools should be used to reduce the size of files larger than 400 MB.

**ATTACHMENT A-1
ORDER R5-2016-0087-01
NOTICE OF INTENT (NOI)**

FOR COMPOSTING OPERATIONS AT POULTRY FACILITIES

Owners and operators of Poultry Operations (Dischargers) who have individual waste discharge requirements or a waiver of waste discharge requirements for their composting operations do not need to prepare this form.

1. DISCHARGER INFORMATION:

Owners Name: (if other than operator of the poultry operation):				
Street Address:				
City/Locale:	County	State	Zip	Telephone Number:
Facsimile Number:			Email Address:	

2. COMPOSTING OPERATION

Type (Check one):	Facility Acreage (acres):
<input type="checkbox"/> Existing Composting Operation	Total Facility Capacity (cubic yards):
<input type="checkbox"/> New Composting Operation	Average Weekly Throughput (cubic yards per week):

3. REASONS FOR FILING

<input type="checkbox"/> New Discharge	<input type="checkbox"/> Existing Discharge	<input type="checkbox"/> Expansion or Change in Operations
Changes in Owner/Operator:		<input type="checkbox"/> Other:

4. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Has a CEQA determination been made by an Agency? <input type="checkbox"/> YES <input type="checkbox"/> NO	Name of Agency:
Type and date of Determination	State Clearing House Number

5. PROCESS

Allowable Materials (Check all that apply, and specify the largest quantity at any time over past 3 years):	
Agricultural material cu. yards:	Anaerobic digestate cu yards:
Green material cu. yards:	Manure cu. yards
Current Processing Capacity	
Months during which compostable materials will be on-site:	
Additives/Amendments and maximum dry weight percentage used (list)	

6. SITE CONDITIONS FOR TIER 1 COMPOSTING OPERATIONS

For earthen-surfaced composting areas, anticipated highest groundwater elevation (feet mean sea level): _____
Average ground surface material percolation rate (minutes per inch) or attach results of percolation testing: _____
<p>Is composting area roofed?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Is composting area walled?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Is composting area on concrete or similar flooring?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No

7. TECHNICAL REPORT

Unless composting operation meets the exemption criteria under Section F of the Poultry General Order, provide a Technical Report for the composting operation containing the information specified in **Attachment D** to the Composting General Order, State Water Board Order WQ 2015-0121-DWQ.

8. CERTIFICATION

<p>“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”</p>	
Signature (Owner or Authorized Representative):	Date:
Print Name:	Time:
Telephone Number:	Email:

ATTACHMENT B
ORDER R5-2016-0087-01

Waste Management Plan for the Production Area
For
Poultry Operations

A Waste Management Plan (WMP) for the production area is required for all poultry operations placed in the Full General Order Coverage Tier of Waste Discharge Requirements General Order No. R5-2016-0087-01 (Poultry General Order) and shall address all of the items below.

Poultry Operations which are regulated as Low Threat Operations need to prepare and submit to the Central Valley Water Board an Operation and Maintenance Plan containing the information described in Sections F and H of this Attachment.

The portions of the WMP that are related to facility and design specifications (Sections B and C of this attachment) must be prepared by, or under the responsible charge of, and certified by a civil engineer who is registered pursuant to California law or other person as may be permitted under the provisions of the California Business and Professions Code to assume responsible charge of such work. The WMP shall be revised when conditions in the production area change.

The purpose of the WMP is to ensure that the production area of the Poultry Operation is designed, constructed, operated and maintained so that poultry wastes generated at the Poultry Operation are managed in compliance with the Poultry General Order in order to prevent adverse impacts to groundwater and surface water quality.

Contents of the WMP:

- A. A description of the facility that includes:
1. The name of the facility and the county in which it is located;
 2. The address and Assessor's Parcel Number;
 3. The name(s), address(es), and telephone number(s) of the property owner(s), facility operator(s), and the contact person for the facility;
 4. Present and maximum animal population as indicated below (this information is in the Notice of Intent submitted as application for coverage under the Poultry General Order):

Type of poultry	Maximum number of animals housed at the facility in one month between 12/2013 & 12/2016 or the maximum flock size identified in an approved CEQA document (specify month, and year used).	Current number of animals housed at the facility (specify date of information)
	<u>DATE</u> / /	<u>DATE</u> / /
a. Broilers (Meat Birds)		
b. Laying Hens		
c. Turkeys		
d. Other		

5. Total volume (gallons) of wastewater generated daily and how this volume was determined; and
6. A Site Map (or Maps) of appropriate scale to show property boundaries and the following in sufficient detail:
 - a. The location of the features of the production area including:
 - i. Structures used for animal housing, other buildings; ponds; areas where animal wastes are deposited or stored; feed storage structures; drainage flow directions and nearby surface waters; all water supply wells (domestic, irrigation, and animal water supply) and groundwater monitoring wells; and,
 - ii. Wastewater conveyance structures, discharge points, and discharge/mixing points with irrigation water supplies; pumping facilities and flow meter locations; upstream diversion structures, drainage ditches and canals, culverts, drainage controls (berms/levees, etc.), and drainage easements; and any additional components of the waste handling and storage system.
 - b. The location and features of all land application areas (land under the Discharger's control, whether it is owned, rented, or leased, to which manure or wastewater from the production area is or may be applied for nutrient recycling) including:

Waste Discharge Requirements General Order No. R5-2016-0087-01
Poultry Operations

- i. A field identification system (Assessor's Parcel Number; field by name or number; total acreage of each field; crops grown; indication if each field is owned, leased, or used pursuant to a formal agreement); indication what type of waste is applied (solid manure only, wastewater only, or both solid manure and wastewater); drainage flow direction in each field, nearby surface waters, and storm water discharge points; tailwater and storm water drainage controls; subsurface (tile) drainage systems (including discharge points and lateral extent); irrigation supply wells and groundwater monitoring wells; sampling locations for discharges of storm water and tailwater to surface water from the field; and
 - ii. Wastewater conveyance structures, discharge points and discharge. mixing points with irrigation water supplies; pumping facilities; flow meter locations; drainage ditches and canals, culverts, drainage controls (berms, levees, etc.), and drainage easements.
 - c. The location of all cropland that is part of the poultry operation but is not used for poultry waste application including the Assessor's Parcel Number(s), total acreage, crops grown, and information on who owns or leases the field. The Waste Management Plan shall indicate if such cropland is registered under the Irrigated Lands Regulatory Program coalition instead of the Poultry General Order;
 - d. The location of all off-property domestic wells within 600 feet of the production area or land application area(s) associated with the Poultry Operation and the location of all public water system wells within 1,500 feet of the production area or land application area(s) associated with the Poultry Operation; and
 - e. A map scale, vicinity map, north arrow, and the date the map was prepared. The map shall be drawn on a published base map (e.g., a topographic map or aerial photo) using an appropriate scale that shows sufficient details of all facilities.
- B. An engineering report demonstrating that the Poultry Operation has adequate containment capacity. The report shall include calculations showing if the existing containment structures are able to retain all facility wastewater generated, together with all precipitation on and drainage through manured areas, up to and including during a 25-year, 24-hour storm.

As part of the description of the containment capacity of the facility, the description of the dimensions of the ponds in the wastewater management system shall include the height of the pond embankment relative to the land surface and the depth of the pond below the top of the embankment.

1. The determination of the necessary storage volume shall reflect:
 - a. The maximum period of time, as defined in the Nutrient Management Plan (Section C.2 under Contents of the “Nutrient Management Plan” in **Attachment C**), anticipated between land application events (storage period), which shall consider application of wastewater or manure to the land application area as allowed by the Poultry General Order using proper timing and rate of applications;
 - b. Manure, wastewater, and other wastes accumulated during the storage period;
 - c. Normal precipitation or normal precipitation times a factor of one and a half, less evaporation on the surface area during the entire storage period. If normal precipitation is used in the calculation of necessary storage volume, the Waste Management Plan shall include a Contingency Plan as specified in B.3 of this attachment;
 - d. Normal runoff (runoff from normal precipitation), or runoff due to normal precipitation times a factor of one and a half, from the production area during the storage period. If normal runoff is used in the calculation of necessary storage volume, the Waste Management Plan shall include a Contingency Plan as specified in B.3 of this attachment (Note: clean storm water that is diverted to a storm water pond or otherwise appropriately managed does not need to be included in the necessary storage volume);
 - e. 25-year, 24-hour precipitation on the surface (at the required design storage volume level) of the facility;
 - f. 25-year, 24-hour runoff from the facility’s drainage area;
 - g. Necessary freeboard (one foot of freeboard for belowground retention ponds and two feet of freeboard for aboveground retention ponds). If there is a pipe through a pond embankment that is not or cannot be effectively sealed with a valve or by some other method, all measurements of freeboard and all storage calculations need to treat the bottom of the pipe as the top of the embankment. Where ponds are connected by a pipe that is not/cannot be effectively sealed with a valve or by some other method, storage calculations shall not include any storage where the use of that storage in one lagoon will cause the other lagoon to have less freeboard than required under the Poultry General Order.

2. If the poultry facility's storage capacity is inadequate, the WMP shall include proposed modifications or improvements. Any proposed modifications or improvements must be prepared by, or under the responsible charge of, and certified by a civil engineer who is registered pursuant to California law or other person as may be permitted under the provisions of the California Business and Professions Code to assume responsible charge of such work; and include:
 - a. Design calculations demonstrating that adequate containment will be achieved;
 - b. Details on the liner, pan lysimeter and leachate collection and removal system (if appropriate) materials;
 - c. A schedule for construction and certification of completion to comply with the Schedule of Tasks M.1 of the Poultry General Order;
 - d. Pursuant to California Code of Regulations, Title 27, Sections 20323 and 20324, a construction quality assurance plan describing testing and observations needed to document construction of the pond; and,
 - e. An operation and maintenance plan for the pond.
 3. Contingency Plan: If the necessary storage volume calculated in B.1 or B.2 of this attachment is based on normal precipitation and/or runoff rather than precipitation or runoff from normal precipitation times a factor of one and a half (see B.1.c and B.1.d of this attachment), then the engineering report shall include a Contingency Plan that includes a plan on how the excess precipitation and/or runoff that is generated during higher than normal precipitation will be managed. If the Contingency Plan includes plans to discharge the excess runoff and/or precipitation to land without being in conformance with the NMP, then the Contingency Plan shall include a Monitoring Well Installation and Sampling Plan (MWISP) with a schedule for implementation that proposes monitoring wells to determine the impacts of such disposal on groundwater quality.
- C. An engineering report showing if the facility has adequate flood protection. If the Discharger can provide to the Executive Officer an appropriate published flood zone map that shows the facility is outside the relevant flood zone, an engineering report showing adequate flood protection is not required for that facility. The engineering report shall include a map and cross-sections to scale, calculations, and specifications as necessary. The engineering report shall also describe the size, elevation, and location of all features present to protect the facility from inundation or washout as follows:

1. For facilities in the Sacramento River and San Joaquin River Basins showing if:
 - a. The ponds and manured areas at facilities in operation on or before November 27, 1984 are protected from inundation or washout by overflow from any stream channel during 20-year peak storm flow; or,
 - b. Existing facilities in operation on or before November 27, 1984 that are protected against 100-year peak storm flows will continue such protection; or,
 - c. Facilities, or portions thereof, which began operation after November 27, 1984, are protected against 100-year peak storm flows.
 2. For facilities in the Tulare Lake Basin showing if the facility is protected from overflow from stream channels during 20-year peak stream flows for facilities that existed as of 25 July 1975 and protected from 100-year peak stream flows for facilities constructed after 25 July 1975.
 3. If the facility's flood protection does not meet these minimum requirements, the WMP shall include proposed modifications or improvements with the corresponding design to achieve the necessary flood protection and a schedule for construction and certification of completion to comply with the Schedule of Tasks M.1 of the Poultry General Order.
- D. A report assessing if the outdoor animal housing and manure storage areas are designed and constructed properly.
1. The report shall assess if the following design and construction criteria are met:
 - a. Production area is designed and constructed to collect and divert all wastewater to the retention pond;
 - b. The outdoor animal housing area is designed and constructed to divert all water that has contacted animal wastes to the retention pond; and
 - c. Manure storage areas are designed and constructed to collect and divert runoff and leachate from these areas to the retention pond.
 2. If the facility does not meet the above design and construction criteria, the WMP shall include proposed modifications or improvements to achieve the criteria and a schedule for construction and certification of completion to comply with the Schedule of Tasks M.1 of the Poultry General Order.

- E. For Full Coverage Poultry Operations, an Operation and Maintenance Plan that includes:
1. Mortality Management Plan describing the procedure for disposal of dead animals, both under routine conditions and emergency disposal, and including name and contact information on any outside entity involved in carcass disposal for the Poultry Operation.
 2. Standard Operating Procedures for manure/litter storage and removal, including the frequency of complete cleanouts of manure/litter from inside bird housing, cleaning of manure and litter from outdoor bird enclosures, timing of manure removal relative to anticipated rainfall events, duration of time that stacked manure remains on site, runoff/runoff controls for any stacked manure or outdoor bird enclosures, and protocols for covering manure prior to removal.
 3. Location of, maintenance procedures for, and testing frequencies for mechanical Backflow Prevention Devices.
 4. For Poultry Operations using a Reverse Osmosis unit on site, a description of the quantity of brine generated per specific time period, method and duration of on-site brine storage, and method of brine disposal
 5. A plan to ensure that gutters, downspouts, or other runoff controls divert water away from manure or other containments within the production area.
 6. For Poultry Operations having a wastewater pond, a plan describing the dates when freeboard will be monitored in wastewater ponds and what the target freeboard needs to be (and by what date) to ensure adequate winter storage capacity. The plan should include a schedule for lowering the pond so that the target freeboard will be met each fall, and ensure that the point on the depth marker that represents the needed storage is clearly posted at the facility. The plan should include a schedule for visual inspections to identify and remediate problems related to odor, breeding of mosquitoes, damage from burrowing animals, damage from equipment during removal of solids, embankment settlement, erosion, seepage, excess weeds, algae, and vegetation. The plan should include a schedule and procedures for the periodic removal of solids from the wastewater pond to ensure that pond capacity is maintained.
 7. A Chemical Management Plan to ensure that chemicals and other contaminants handled at the facility are properly collected and disposed of when used or no longer needed.
 8. A schedule for periodic review of the combined amount of salt in animal drinking water and feed to verify that salt is limited to the animal requirements.
 9. A schedule for regular inspections to ensure that the animal housing area is maintained to collect and divert all water that has contacted animal wastes to a retention pond and to minimize the infiltration of water into the underlying soils.

- F. For Low Threat Poultry Operations, an Operation and Maintenance Plan that includes:
1. Mortality Management Plan describing the procedure for disposal of dead animals, both under routine conditions and emergency disposal, and including name and contact information on any outside entity involved in carcass disposal for the Poultry Operation
 2. Standard Operating Procedures for manure/litter storage and removal, including the frequency of complete cleanouts of manure/litter, timing of manure removal relative to anticipated rainfall events, duration of time that stacked manure remains on site, runoff/runoff controls for any stacked manure, and protocols for covering manure prior to removal.
 3. Location of, maintenance procedures for, and testing frequencies for mechanical Backflow Prevention Devices.
 4. For Poultry Operations using a Reverse Osmosis unit on site, a description of the quantity of brine generated per specific time period, method and duration of on-site brine storage, and method of brine disposal.
- G. Documentation from a trained professional (i.e., a person certified by the American Backflow Prevention Association, an inspector from a State or local governmental agency who has experience and/or training in backflow prevention, or a consultant with such experience and/or training) that there are no cross-connections that would allow the backflow of wastewater into a water supply well, irrigation well, or surface water as identified on the Site Map required in A.6 of this attachment.
- H. The certification required in Required Reports and Notices K.2.a of the Poultry General Order.

ATTACHMENT C
ORDER-R5-2016-0087-01

**Contents of A Nutrient Management Plan
and
Technical Standards For Nutrient Management
For
Poultry Operations**

Waste Discharge Requirements General Order R5-2016-0087-01 (hereinafter referred to as the Poultry General Order, or Order) requires owners and operators of Poultry Operations (Dischargers) who operate a “land application area” where manure, litter, or wastewater may be applied to land or pasture for nutrient recycling to develop and implement management practices that control nutrient losses and that are described in a Nutrient Management Plan (NMP). The purpose of the NMP is to budget and manage the nutrients applied to the land application area(s) 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 the site-specific conditions into consideration in identifying steps that will minimize nutrient movement through surface runoff or leaching past the root zone.

The NMP must contain, at a minimum, all of the elements listed below under Contents of a Nutrient Management Plan and must be in conformance with the applicable Technical Standards for Nutrient Management (Technical Standards), also listed below. Note that the NMP must be updated in response to changing conditions, monitoring results and other factors.

A specialist who is certified in developing nutrient management plans shall develop the NMP. A certified specialist is a Professional Soil Scientist, Professional Agronomist, or Crop Advisor certified by the American Society of Agronomy or a Technical Service Provider certified in nutrient management in California by the Natural Resources Conservation Service (NRCS). The Executive Officer may approve alternative proposed specialists. Only NMPs prepared and signed by these parties will be considered certified.

The NMP is linked to other sections of the Poultry General Order. The Monitoring and Reporting Program specifies minimum amounts of monitoring that must be conducted at the poultry facility. As indicated below, this information must be used to make management decisions related to nutrient management. Likewise, the timing and amounts of wastewater applications to crops must be known to correctly calculate the amount of storage needed in retention ponds.

Wastes and land application areas shall be managed to prevent contamination of crops grown for human consumption. The term “crops grown for human consumption” refers only to crops that will not undergo subsequent processing which adequately removes potential microbial danger to consumers.

Contents of a Nutrient Management Plan

The NMP will include the Notice of Intent (**Attachment A** to this Order) and the annual reports required by Monitoring and Reporting Program R5-2016-0087-01. Copies of these reports shall be maintained on the facility for 5 years.

The NMP shall identify the name and address of the Poultry Operation, and the name and mailing address of the operator and of the legal owner of the poultry property and shall contain all of the following elements to demonstrate that the Discharger can control nutrient losses that may impact surface water or groundwater quality and comply with the requirements of the Order and the Technical Standards for Nutrient Management (Technical Standards).

A. Land Application Area Information

1. Identify each land application area including pasture land (under the Discharger's control, whether it is owned, rented, or leased, to which manure, litter, or wastewater from the Production Area is or may be applied for nutrient recycling) on a single published base map (topographic map or aerial photo) at an appropriate scale which includes:
 - a. A field identification system (Assessor's Parcel Number; land application area by name or number; total acreage of each land application area; crops grown; indication if each land application area is owned, rented, or leased by the Discharger; indication of the type of waste applied (solid manure or litter only, wastewater only, or both solid manure and wastewater); drainage flow direction in each field, nearby surface waters, and storm water discharge points; tailwater and storm water drainage controls; subsurface (tile) drainage systems (including discharge points and lateral extent); irrigation supply wells and groundwater monitoring wells; sampling locations for discharges of storm water and tailwater to surface water from the field; and,
 - b. Wastewater conveyance structures, discharge points and discharge mixing points with irrigation water supplies; pumping facilities; flow meter locations; drainage ditches and canals, culverts, drainage controls (berms, levees, etc.), and drainage easements.
2. Provide the following information for each land application area identified in A.1 of this attachment:
 - a. Field's common name (name used when keeping records of waste applications).
 - b. Assessor's Parcel Number.
 - c. Total acreage.

- d. Crops grown and crop rotation.
 - e. Information on who owns and/or leases the field.
 - f. Proposed sampling locations for discharges of storm water and tailwater to surface water.
3. Provide copies of written agreements with third parties that receive wastewater for their own use from the Discharger's poultry operation (Technical Standards E.1.a. and E.1.c of this attachment).
 4. Identify each field under the control of the Discharger and within five miles of the poultry operation where neither wastewater nor manure is applied. Each field shall be identified on a single published base map at an appropriate scale by the following:
 - a. Assessor's Parcel Number.
 - b. Field's common name (name used when keeping records of nutrient and waste applications)
 - c. Total acreage.
 - d. Whether the field is registered under the Irrigated Lands Regulatory Program.

Note: The NMP must be updated and the Central Valley Water Board notified in writing before waste is applied to the lands identified in this section.

B. Sampling and Analysis (see Technical Standard I below)

Identify the sampling methods, sampling frequency, and analyses to be conducted for soil, manure, litter, wastewater, irrigation water, and plant tissue analysis (Technical Standard A of this attachment).

C. Nutrient Budget (see Technical Standard E of this attachment)

The Discharger shall develop a nutrient budget for each land application area. The nutrient budget shall establish planned rates of nutrient applications for each crop based on soil test results, manure, litter, and wastewater analyses, irrigation water analyses, crop nutrient requirements and patterns, seasonal and climatic conditions, the use and timing of irrigation water, and the nutrient application restrictions listed in Technical Standards E. 1 through E.4 of this attachment. The Nutrient Budget shall include the following:

1. The planned rate of application of manure, litter and wastewater for each crop in each land application area (also considering sources of nutrients other than manure or wastewater) to meet each crop's needs without exceeding the application rates specified in Technical Standard E.2 of this attachment. The basis for the planned application rates must be provided.

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2. The timing of applications for each crop in each land application area and the basis for the timing (Technical Standard E.3 of this attachment). The maximum period of time anticipated between land application events (storage period) based on proper timing and compliance with Technical Standard E.3 of this attachment. This will be referenced in the Waste Management Plan (item B.1 of **Attachment B**) to determine the storage capacity needs.
 3. The method of manure, litter, and wastewater application for each crop in each land application area (Technical Standard E.4 of this attachment).
 4. If phosphorus and/or potassium applications exceed the amount of these elements removed from the land application area in the harvested portion of the crop, the soil and crop tissue analyses shall be reviewed by an agronomist at least every five years. If this review determines that the buildup of phosphorus or potassium threatens to reduce the long-term productivity of the soil or the yield, quality or use of the crops grown, application rates will be decreased to prevent or correct the problem.
- D. Setbacks, Buffers, and Other Alternatives to Protect Surface Water (see Technical Standard G of this attachment)
1. Identify all potential surface waters or conduits to surface water that are within 100 feet of any land application area.
 2. For each land application area that is within 100 feet of surface water or a conduit to surface water, identify the setback, vegetated buffer, or other alternative practice that will be implemented to protect surface water (Technical Standard G of this attachment).
- E. Record-Keeping (see Technical Standard I of this attachment)
1. Identify the records that will be maintained for each land application area identified in A.1 of this attachment.
- F. Nutrient Management Plan Review (see Technical Standard J of this attachment)
1. Identify the schedule for review and revisions to the NMP.
 2. Identify the person who will conduct the NMP review and revisions.

Technical Standards for Nutrient Management

The Discharger shall comply with the following Technical Standards for Nutrient Management in the development and implementation of the Nutrient Management Plan (NMP).

A. Sampling and Analysis

1. Soil, manure, litter, wastewater, irrigation water, and plant tissue shall be monitored, sampled, and analyzed as required in Monitoring and Reporting Program R5-2016-0087-01, and any future revisions thereto. The results of these analyses shall be used during the development and implementation of the NMP.

B. Crop Requirements

1. Realistic yield goals for each crop in each land application area shall be established. For new crops or varieties, industry yield recommendations may be used until documented yield information is available.
2. Each crop's nutrient requirements for nitrogen, phosphorus, and potassium shall be determined based on recommendations from the University of California, *Western Fertilizer Handbook* (9th Edition) for the first year only, during preparation of the NMP, or for the first year of a new crop, or from historic crop nutrient removal (as determined by harvest yields, nutrient requirements, and tissue sample analyses).

C. Available Nutrients

1. All sources of nutrients (nitrogen, phosphorus, and potassium) available for each crop in each land application area shall be identified prior to land applications. Potential nutrient sources include, but are not limited to, manure, wastewater, irrigation water, commercial fertilizers, existing nutrients in the soil, and residual biomass from previous crops.
2. Nutrient values of soil, manure, litter, wastewater, and irrigation water shall be determined based on laboratory analysis. "Book values" for manure and wastewater may be used for planning of waste applications during the first years during initial development of the NMP if necessary. Acceptable book values are those values recognized by American Society of Agricultural and Biological Engineers (ASABE), the Natural Resources Conservation Service (NRCS), and/or the University of California that accurately estimate the nutrient content of the material. The nutrient content of commercial fertilizers shall be derived from California Department of Food and Agriculture published values.

3. Nutrient credit from previous legume crops shall be determined by methods acceptable to the University of California Cooperative Extension, the NRCS, or a specialist certified in developing nutrient management plans.

D. Overall Nutrient Balance

If the NMP shows that the nutrients generated by the poultry exceed the amount needed for crop production in the land application area, the Discharger must implement management practices (such as offsite removal of the excess nutrients, treatment, or storage) that will prevent impacts to surface water or groundwater quality due to excess nutrients.

E. Nutrient Budget

The NMP shall include a nutrient budget which includes planned rates of nutrient applications for each crop that do not exceed the crop's requirements for total nitrogen considering the stage of crop growth and that also consider all nutrient sources, climatic conditions, the irrigation schedule, and the application limitations in 1 through 4 below.

1. General Standards for Nutrient Applications

- a. Prohibition A.7 of the Order: *"The application of waste to lands not owned, leased, or controlled by the Discharger without written permission from the landowner or in a manner not approved by the Executive Officer, is prohibited."*
- b. Prohibition A.8 of the Order: *"The land application of manure, litter, or wastewater to cropland for other than nutrient recycling is prohibited."*
- c. Land Application Specification E.2 of the Order: *"The Discharger shall have a written agreement with each third party that receives wastewater from the Discharger for its own use. Land owned, operated, or controlled completely or in part by Dischargers shall not be considered to be controlled by a third party. Each written agreement shall be included in the Discharger's Notices of Intent, and Nutrient Management Plan, and each new written agreement, modified written agreement, or rescission of a written agreement shall be included in the Annual Report for the year in which the written agreement is either reached, modified, or rescinded. The written agreement(s) shall be effective until the third party is covered under waste discharge requirements or a waiver of waste discharge requirements that are adopted by the Central Valley Water Board. The written agreement shall:*
 - a. *Clearly identify:*
 - i. *The Discharger and poultry operations from which the*

- wastewater originates;*
 - ii. The third party that will control the application of wastewater to cropland;*
 - iii. The Assessor's Parcel Number(s) and the acreage(s) of the cropland where the wastewater will be applied; and*
 - iv. The types of crops to be fertilized with the wastewater.*
- b. Include an agreement by the third party to:*
- i. Use the wastewater at agronomic rates appropriate for the crops to be grown; and*
 - ii. Prevent the runoff to surface waters of wastewater, storm water or irrigation supply water that has come into contact with manure or is blended with wastewater.*
- c. Include a certification statement, as specified in General Reporting Requirements C.7 of the Standard Provision and Reporting Requirements (which is attached to and made part of this Order), which is signed by both the Discharger and third party."*
- d. Land Application Area Specification E.4 of the Order: "The application of animal waste and other materials containing nutrients to any cropland under control of the Discharger shall meet the following conditions:*
- a. The application is in accordance with a certified Nutrient Management Plan developed and implemented in accordance with Required Reports and Notices K.1.c and **Attachment C** of this Order;*
 - b. For poultry operations where birds spend more than an aggregate of twenty percent of the time outdoors (i.e., the time-weighted average number of animals outdoors per day divided by the total number of animals at the facility is greater than 0.20), the stocking rate of birds shall not exceed one AU per one and one-half acres of vegetative cover; if the stocking rate exceeds one AU per one and one-half acres, preparation and implementation of a Nutrient Management Plan is required; and*
 - c. Records are prepared and maintained as specified in the Record-Keeping Requirements of Monitoring and Reporting Program R5-2016-0087-01."*
- e. Land Application Area Specification E.6 of the Order: "The application of waste to cropland shall be at rates that preclude development of vectors or other nuisance conditions and meet the conditions of the certified Nutrient Management Plan."*
- f. Land Application Area Specification E.8 of the Order: "All wastewater applied to land application areas must infiltrate completely within 72 hours after application."*

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- g. Land Application Area Specification E.9 of the Order: *“Wastewater shall not be applied to land application areas during periods when the soil is at or above field moisture capacity unless consistent with a certified Nutrient Management Plan (see Attachment C).”*
- h. Provision H.7 of the Order: *“This Order does not apply to facilities where wastes such as, but not limited to, cannery wastes, septage, municipal or industrial sludge, municipal or industrial biosolids, ash or similar types of waste are generated onsite or are proposed to be brought onto the poultry facility or associated cropland for the purpose of nutrient recycling or disposal. The Discharger shall submit a complete Report of Waste Discharge and shall not apply and/or dispose of such waste prior to receiving Waste Discharge Requirements or a waste-specific waiver of Waste Discharge Requirements from the Central Valley Water Board.”*
- i. Plans for nutrient management shall specify the form, source, amount, timing, and method of application of nutrients on each land application area to minimize nitrogen and/or phosphorus movement to surface and/or ground waters to the extent necessary to meet the provisions of the Order.
- j. Where crop material is not removed from the land application area, waste applications are not allowed. For example, if a pasture is not grazed or mowed (and cuttings removed from the land application area), waste shall not be applied to the pasture.
- k. Manure and/or wastewater will be applied to the land application area for use by the first crop covered by the NMP only to the extent that soil tests indicate a need for nitrogen application.
- l. Supplementary commercial fertilizer(s) and/or soil amendments may be added when the application of nutrients contained in manure and/or wastewater alone is not sufficient to meet the crop needs, as long as these applications do not exceed provisions of the Order.
- m. Nutrient applications to a crop shall not be made prior to the harvest of the previous crop except where the reason for such applications is provided in the NMP.
- n. Water applications shall not exceed the amount needed for efficient crop production.
- o. Nutrients shall be applied in such a manner as not to degrade the soil's structure, chemical properties, or biological condition.

2. Nutrient Application Rates

- a. General

- i. Planned rates of nutrient application shall be determined based on soil test results, crop tissue test results, nutrient credits, manure and wastewater analysis, crop requirements and growth stage, seasonal and climatic conditions, and use and timing of irrigation water. Actual applications of nitrogen to any crop shall be limited to the amounts specified below.
 - ii. Nutrient application rates shall not attempt to approach a site's maximum ability to contain one or more nutrients through soil adsorption. Excess applications or applications that cause soil imbalances should be avoided. Excess manure nutrients generated by the Discharger must be handled by export to a good steward of the manure, or the development of alternative uses.
- b. Nitrogen
- i. Total nitrogen applications to a land application area prior to and during the growing of a crop will be based on pre-plant or pre-side dress soil analysis to establish residual nitrogen remaining in the field from the previous crop to establish early season nitrogen applications. Pre-plant or side dress nitrogen applications will not exceed the estimated total crop use as established by the nutrient management plan. Dischargers shall use their best efforts to ensure that application rates do not result in total nitrogen applied to the land application areas exceeding 1.4 times the nitrogen that will be removed from the field in the harvested portion of the crop.
- c. Phosphorous and Potassium
- i. Phosphorus and potassium may be applied in excess of crop uptake rates. If, however, monitoring indicates that levels of these elements are causing adverse impacts, corrective action must be taken. Cessation of applications may be necessary until crop uptake and harvest has reduced the concentration in the soil.

Important Note: Use of animal manure as a primary source of nitrogen commonly results in applications of phosphorus and potassium at rates that exceed crop needs. Over time, these elements build up in the soils and can cause adverse impacts. For example, phosphorus leaving the land application area as surface runoff contributes to excessive algae growth in receiving waters and potassium can build up in crops to the point of limiting their use as animal feed. Application of these nutrients at agronomic levels, along with reasonable erosion control and runoff control measures, will normally prevent such problems.

Nutrients are being evaluated in several Central Valley surface waters. Where these studies show that nutrients are adversely impacting

beneficial uses, the Central Valley Water Board will work with parties in the watershed, including facilities, to reduce discharges of phosphorus, nitrogen and possibly other constituents to surface waters.

3. Nutrient Application Timing

- a. Wastewater application is not the same as irrigation. 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.
- b. Wastewater shall not be applied when soils are saturated. During the wet 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 threat of nitrate leaching is minimal.
- c. The timing of nutrient application must correspond as closely as possible with plant nutrient uptake characteristics, while considering cropping system limitations, weather and climatic conditions, and land application area accessibility.
- d. Nutrient applications for spring-seeded crops shall be timed to avoid surface runoff and leaching by winter rainfall.
- e. Except for orchards and vineyards, nutrients shall not be applied during periods when a crop is dormant.

4. Nutrient Application Methods

- a. The Discharger shall apply nutrient materials uniformly to application areas or as prescribed by precision agricultural techniques.
- b. Land Application Specification E.7 of the Order: *“Land application areas that receive manure shall be managed through implementation of erosion control measures to minimize erosion and must be consistent with a certified Nutrient Management Plan.”*

F. Wastewater Management on Land Application Areas

Control of water and wastewater applications and runoff is a part of proper nutrient management since water transports nutrients, salts, and other constituents from cropland to groundwater and surface water. The Discharger shall comply with the following provisions of the Order, which place requirements on applications of manure and wastewater to, and runoff from, cropland:

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1. Prohibition A.3 of the Order: *“The discharge of waste from Poultry Operations to surface waters in a manner causing or contributing to an exceedance of any applicable water quality objective in the Basin Plans or any applicable state or federal water quality criteria, or a violation of any applicable state or federal policies or regulations is prohibited.”*
2. Prohibition A.4 of the Order: *“The collection, treatment, storage, discharge or disposal of wastes at poultry operations shall not result in the creation of a condition of pollution or nuisance.”*
3. Prohibition A.9 of the Order: *“The discharge of wastewater to surface waters from a land application area is prohibited. Irrigation supply water that comes into contact or is blended with waste or wastewater shall be considered wastewater under this prohibition.”*
4. Prohibition A.10 of the Order: *“The application of wastewater to a land application area before, during, or after a storm event that may result in the discharge of commingled applied water and runoff to surface waters is prohibited.”*
5. Prohibition A.11 of the Order: *“The discharge of storm water or tailwater to surface water from a land application area where manure, litter, or wastewater has been applied is prohibited unless the land application area has been managed consistent with a certified Nutrient Management Plan.”*
6. Land Application Area Specification E.3 of the Order: *“Land application of wastes for nutrient recycling from Poultry Operations shall not cause the underlying groundwater to contain any waste constituent, degradation product, or any constituent of soil mobilized by the interactions between applied wastes and soil or soil biota, to exceed the groundwater limitations set forth in this Order.”*
7. Land Application Area Specification E.8 of the Order: *“All wastewater applied to land application areas must infiltrate completely within 72 hours after application.”*
8. Land Application Specification E.9 of the Order: *“Wastewater shall not be applied to land application areas during periods when the soil is at or above field moisture capacity unless consistent with a certified Nutrient Management Plan (see **Attachment C**).”*

G. Setbacks and Vegetated Buffer

1. General Specification B.4 of the Order: *“Manure/litter and wastewater shall not be applied, and composting operations shall not be located, 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 and groundwater, unless (i) a 35-foot wide vegetated buffer or physical barrier is substituted for the 100-foot setback or (ii) alternative conservation practices or field or site-specific conditions are demonstrated to provide pollutant reductions equivalent or better than the reductions achieved by the 100-foot setback."

2. A setback is a specified distance from surface waters or potential conduits to surface waters where manure and wastewater may not be land applied, but where crops may continue to be grown.
3. A vegetated buffer is a narrow, permanent strip of dense perennial vegetation where no crops are grown and which is established parallel to the contours of and perpendicular to the dominant slope of the land application area for the purposes of slowing water runoff, enhancing water infiltration, trapping pollutants bound to sediment, and minimizing the risk of any potential nutrients or pollutants from leaving the land application area and reaching surface waters.
4. The minimum widths of setbacks and vegetated buffers must be doubled around the wellhead of a drinking water supply-well constructed in a sole-source aquifer.
5. Practices and management activities for vegetated buffers include the following:
 - a. Removal of vegetation in vegetated buffers will be in accordance with site production limitations, rate of plant growth, and the physiological needs of the plants.
 - b. Do not mow below the recommended height for the plant species.
 - c. Maintain adequate ground cover and plant density to maintain or improve filtering capacity of the vegetation.
 - d. Maintain adequate ground cover, litter, and canopy to maintain or improve infiltration and soil condition.
 - e. Periodic rest from mechanical harvesting may be needed to maintain or restore the desired plant community following episodic events such as drought.
 - f. When weeds are a significant problem, implement pest management to protect the desired plant communities.
 - g. Prevent channels from forming.

H. Field Risk Assessment

The results of the water quality monitoring of discharges of manure, wastewater, storm water, and tailwater to surface water from each land application area, as required by Monitoring and Reporting Program R5-2016-0087-01, shall be used by the Discharger to assess the movement of nitrogen and phosphorus from each land application area. The Discharger shall follow guidelines provided by the Central Valley Water Board in conducting these assessments.

I. Record-Keeping

The Discharger shall maintain records for each land application area as required in the Record-Keeping Requirements of Monitoring and Reporting Program R5-2016-0087-01.

J. Nutrient Management Plan Review

1. Provide the name and contact information (including address and phone number) of the person who created the NMP; the date that the NMP was drafted; the name, title, and contact information of the person who approved the final NMP; and the date of NMP implementation.
2. The NMP shall be updated when discharges from any land application area exceed water quality objectives, a nutrient source has changed, site-specific information has become available to replace default values used in the overall nutrient balance or the nutrient budget, nitrogen application rates in any land application area exceed the rates specified in Technical Standard E.2 or the Field Risk Assessment finds that management practices are not effective in minimizing discharges.
3. The NMP shall be updated prior to any anticipated changes that would affect the overall nutrient balance or the nutrient budget such as, but not limited to, a crop rotation change, changes in the available cropland, or the changes in the volume of wastewater generated.
4. The Discharger shall review the NMP at least once every five years and notify the Central Valley Water Board in the annual report of any proposed changes that would affect the NMP.

**ATTACHMENT D
ORDER R5-2016-0087-01**

**Manure/ Wastewater Tracking Manifest
For
Poultry Operations**

Instructions:

- 1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
- 2) If there are multiple destinations, **complete a separate form for each destination.**
- 3) The operator must obtain the signature of the hauler upon completion of each manure-hauling event.
- 4) The operator shall submit copies of manure/ wastewater tracking manifest(s) with the Annual Report for Poultry Operations; proprietary information can be redacted in the submitted copy provided that an unredacted copy is maintained with the Discharger's records.
- 5) Manifests cannot be used when transferring manure or wastewater to cropland owned or controlled by the owner or operator of the Poultry Operation as a substitute for preparing and implementing a Nutrient Management Plan for the cropland.

Operator Information:				
Name of Operator: _____				
Name of Facility: _____				
Facility Address: _____				
Number and Street	City	Zip Code		
Contact Person Name and Phone Number: _____				
Name		Phone Number		
Manure/ Wastewater Hauler Information:				
Name of Hauling Company/Person: _____				
Address of Hauling Company /Person: _____				
Number and Street	City	Zip Code		
Contact Person: _____				
Name		Phone Number		
Destination Information:				
Composting Facility / Broker / Farmer / Other (identify) _____ (please circle one)				
Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):				

Name	Number and Street	City	Zip Code	Phone Number
Manure/ Wastewater Destination Address or Assessor's Parcel Number (if sold to a broker, a bill of sale issued by the broker can be attached instead of location information):				

Number and Street	City	Zip Code	Assessor's Parcel Number	
GPS coordinates of the manure/ wastewater destination: _____				
Dates Hauled: _____				

Amount Hauled:

Enter the amount of manure hauled in tons, the manure solids content, and the method used to calculate the amount:

Manure: _____ Tons

Method used to determine amount of manure: _____

Enter the amount of wastewater hauled in gallons and the method used to determine the amount.

Wastewater: _____ Gallons

Method used to determine volume of wastewater: _____

Written Agreement:

Does the Operator have a written agreement (in compliance with Land Application Specification E.2 of Waste Discharge Requirements General Order R5-2016-0087-01) with any party that receives wastewater from the Operator for its own use? (please check one)

____ Yes _____ No

Certification:

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

Operator's Signature: _____ Date: _____

Hauler's Signature: _____ Date: _____

Attachment E
Order R5-2016-0087-01
Definitions
For
Poultry Operations

1. "Agronomic rates" is defined as the land application of irrigation water and nutrients (which may include animal manure, litter, or wastewater) at rates of application in accordance with a plan for nutrient management that will enhance soil productivity and provide the crop or forage growth with needed nutrients for optimum health and growth.
2. "Anaerobic digester" is defined as a basin, pond, or tank designed, constructed, maintained, and operated for the anaerobic treatment of liquid or solid animal waste and which promotes the decomposition of manure or "digestion" of the organics in manure to simple organics and gaseous biogas products.
3. "Animal Unit" is defined to equal 1,000 pounds of poultry
4. "Annual flock size" is defined as the maximum number of birds housed at the facility in one month of a calendar year, as reported in the Annual Report.
5. "Aquifer" is defined as ground water that occurs in a saturated geologic unit that contains sufficient permeability and thickness to yield significant quantities of water to wells or springs.
6. "Artificial recharge area" is defined as an area where the addition of water to an aquifer is by human activity, such as putting surface water into dug or constructed spreading basins or injecting water through wells.
7. "As soon as practicable" is defined as the shortest time required to implement an action, as demonstrated by appropriate technical and economic justifications. The justifications are subject to review and concurrence by the Executive Officer.
8. "Central Valley Water Board" is defined as the California Regional Water Quality Control Board, Central Valley Region.
9. "Certified Nutrient Management Plan" is defined as a nutrient management plan that is prepared and signed by a specialist who is certified in developing nutrient management plans. A certified specialist is: a Professional Soil Scientist, Professional Agronomist, Professional Crop Scientist, or Crop Advisor certified by the American Society of Agronomy; a Technical Service Provider certified in nutrient management in California by the Natural Resources Conservation Service; or other specialist approved by the Executive Officer.
10. "Confined area" is defined as the area where poultry are confined within the production area.
11. "Cropland" is defined as the land application area where dry or solid manure and/or wastewater is recycled for the purpose of beneficially using the nutrient value of the manure and/or wastewater for crop production.

12. "Degradation" is defined as any measurable adverse change in water quality.
13. "Discharge" is defined as the discharge or release of waste to land, surface water, or ground water.
14. "Discharger" is defined as the property owner and the operator of a poultry operation subject to Waste Discharge Requirements General Order R5-2016-0087-01.
15. "Dry season" is defined as the period of time between 1 June and 30 September of each year.
16. "Expansion" is defined as, but not limited to, any increase in the existing flock size (i.e., an increase in Animal Units beyond the number calculated and reported in the Notice of Intent) or an increase in the storage capacity of the retention ponds or acquisition of more acreage for reuse of nutrients from manure or wastewater in order to accommodate an expansion of the existing flock size. "Expansion" does not include installation or modification of facilities or equipment to achieve compliance with the requirements of Waste Discharge Requirements General Order R5-2016-0087-01 so long as the modification or installation is sized to accommodate only the existing flock size.
17. "Facility" is defined as a poultry operation subject to Waste Discharge Requirements General Order R5-2016-0087-01.
18. "Field" is defined as cropland and does not include non-farmable surfaces such as roads and perimeter ditches, or structures, such as barns or sheds.
19. "Field moisture capacity" is defined as the upper limit of storable water in the soil once free drainage has occurred after irrigation or precipitation.
20. "Freeboard" is defined as the elevation difference between the wastewater (liquid) level in a pond and the lowest point of the pond embankment or unsealed pipe through the embankment which would allow overflow or uncontrolled release of wastewater.
21. "Incorporation into soil" is defined as the complete infiltration of wastewater into the soil, the disking or rotary tiller mixing of manure into the soil, shank injection of slurries into soil, or other equally effective methods of combining nutrients with soil.
22. "Irrigation return flow" is defined as surface and subsurface water that leaves a field following application of irrigation water.
23. "Land application area" is defined as land, including pasture, under control of the poultry owner or operator, whether it is owned, rented, or leased, to which manure/litter or wastewater from the production area is or may be applied for nutrient recycling. This includes property owned by a third party where agreements with the Discharger require the third party to accept wastewater at a time determined by the Discharger.
24. "Major Storm Event" is defined as a storm event that results in a minimum of one inch of precipitation within 24 hours.
25. "Manure" is defined as the fecal and urinary excretion of animals and other commingled materials. Manure may include litter and waste feed.

26. "Manured solids" is defined as manure that has sufficient solids content such that it will stack with little or no seepage.
27. "Maximum flock size" is the largest number of birds allowed to be housed at a facility and is defined as the maximum number of birds housed at the facility in one month between December 2013 and December 2016 as reported in the NOI or the maximum flock size identified in an approved CEQA document.
28. "Normal precipitation" is defined as the long-term average precipitation based on monthly averages over the time that data has been collected at a particular weather station. Normal precipitation is usually taken from data averaged over a 30-year period (e.g. 1971 to 2000) if such data is available.
29. "Notice of Intent" or "NOI" means the form used to serve as a notification of the intention of the facility identified on the form to adhere to the provisions of the General Order.
30. "Nuisance" is defined in Water Code Section 13050(m) as "*...anything which meets all of the following requirements:*
 - (1) *Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.*
 - (2) *Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.*
 - (3) *Occur during, or as a result of, the treatment or disposal of wastes."*
31. "Nutrient" is defined as any element taken in by a plant which is essential to its growth and which is used by the plant in elaboration of its food and tissue.
32. "Nutrient Management Plan" or "NMP" means a plan written by a certified nutrient consultant in accordance with the Technical Standards to manage the amount, placement, timing and application of nutrients in order to reduce nutrient loss or runoff and to maintain the productivity of soil when growing agricultural commodities
33. "Nutrient recycling" is defined as the application of nutrients at agronomic rates for crop production.
34. "Off-property discharge" is defined as the discharge or release of waste beyond the boundaries of the property of the Poultry Operations production area or the land application area or to water bodies that run through the production area or land application area.
35. "Open tile line intake structure" is defined as an air vent for a subsurface (tile) drain system.
36. "Operator" means any person in control of or having responsibility for, the operation of the Facility

37. "Owner" means any person who owns a Facility
38. "Order" is defined as Waste Discharge Requirements General Order R5-2016-0087-01.
39. "Overflow" is defined as the intentional or unintentional diversion of flow from the collection, treatment, land application, and conveyance systems, including pumping facilities.
40. "Pasture raised poultry operation" is defined as a poultry operation that houses birds at a relatively low density outside on pasture land, rather than confined in cages or housing. Pasture raised poultry operations include movable pens, shelters, or coops with open outdoor access that are moved periodically. Birds spend most of the time on maintained pasture, feeding primarily on grass or forage.
41. "Pollution" is defined in Water Code Section 13050(l)(1) as "*...an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses. (B) Facilities which serve these beneficial uses.*"
42. "Poultry" is a collective name for domestic fowl, such as chickens, turkeys, ducks, geese, guinea fowl, pigeons, ostrich, pheasants, etc.
43. "Production area" is defined as that part of a Poultry Operation that includes houses, pens, manure/litter and feed storage areas, process water conveyances and any other area of the facility that is not the land application area. The production area includes the wastewater storage pond(s).
44. "Public water system" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. A public water system includes the following:
 - (1) Any collection, treatment, storage, and distribution facilities under control of the operator of the system that are used primarily in connection with the system.
 - (2) Any collection or pretreatment storage facilities not under the control of the operator that are used primarily in connection with the system.
 - (3) Any water system that treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.
45. "Reared-outside" means operations where animals spend more than an aggregate of twenty percent of the time outdoors (i.e., the time-weighted average number of animals outdoors per day divided by the total number of animals at the facility is greater than or equal to 0.20).
46. "Salt" is defined as the products, other than water, of the reaction of an acid with a base. Salts commonly break up into cations (sodium, calcium, etc.) and anions (chloride, sulfate, etc.) when dissolved in water. Total dissolved solids is generally measured as an indication of the amount of salts in a water or wastewater.

47. "Salt in animal rations" is defined as the sodium chloride and any added minerals (such as calcium, phosphorus, potassium, sulfur, iron, selenium, copper, zinc, or manganese) in the animal ration.
48. "Significant quantity" is defined as the volume, concentrations, or mass of a pollutant that can cause or threaten to cause pollution, contamination, or nuisance; adversely impact human health or the environment; and/or cause or contribute to a violation of any applicable water quality standards for the receiving water.
49. "Sole-source aquifer" is defined as an aquifer that supplies 50 percent or more of the drinking water of an area.
50. "State" is defined as the State of California.
51. "State Water Board" is defined as the State Water Resources Control Board.
52. "Storm water" is defined as storm water runoff, snowmelt runoff, and surface runoff and drainage.
53. "Subsurface (tile) drainage" is defined as water generated by installing and operating drainage systems to lower the water table below irrigated lands. Subsurface drainage systems, deep open drainage ditches, or drainage wells can generate this drainage.
54. "Surface water" is defined as water that includes essentially all surface waters such as navigable waters and their tributaries, interstate waters and their tributaries, intrastate waters, all wetlands and all impoundments of these waters. Surface waters include irrigation and flood control channels.
55. "Tailwater" is defined as the runoff of irrigation water that has not been blended with wastewater from an irrigated field.
56. "25-year, 24-hour rainfall event" is defined as a precipitation event with a probable recurrence interval of once in twenty five years as defined by the National Weather Service in Technical Paper No. 40, "Rainfall Frequency Atlas of the United States," May, 1961, or equivalent regional or State rainfall probability information developed from this source.
57. "Waste" is defined as set forth in Water Code Section 13050(d), and includes manure, leachate, wastewater and any water, precipitation or rainfall runoff that came into contact with raw materials, products, or byproducts such as manure, compost piles, feed, or bedding.
58. "Waste Management Plan" means a plan written in accordance with the Poultry General Order that documents and recommends a combination of conservation practices and management measures for the handling, storage, treatment and management of manure, litter, or waste water from a Poultry Operation.
59. "Wastewater" is defined as water directly or indirectly used in the operation of a poultry facility for any or all of the following: spillage or overflow from animal watering systems; washing, cleaning, or flushing pens, manure pits, or other facilities; or dust control and

includes any water or precipitation and precipitation runoff which comes into contact with any raw materials, products, or byproducts including manure, feed, or litter. Wastewater includes leachate or any other liquid flowing from, or on, the working surface of a composting operation, or any water that comes in contact with compost, additives, amendments, or feedstocks.

60. "Wastewater Retention Pond" is defined as retention ponds, storage ponds, or any structures used for the treatment, storage, disposal, and recycling of wastewater. Ponds are differentiated from sumps, which are structures in a conveyance system used for the installation and operation of a pump.
61. "Waters of the state" is defined in Water Code Section 13050 as "*...any surface water or groundwater, including saline waters, within the boundaries of the state.*"
62. "Wet season" is defined as the period of time between 1 October and 31 May of each year.

Attachment F
Order R5-2016-0087-01
Abbreviations
For
Poultry Operations

Abbreviations	Meaning
ASABE	American Society Of Agricultural And Biological Engineers
AU	Animal Unit
Basin Plans	Water Quality Control Plans
BMPS	Best Management Practices
BPT	Best Practicable Control Technology Currently Available
BPTC	Best Practicable Treatment Or Control
CalEMA	California Emergency Management Agency
CCR	California Code Of Regulations
CEQA	California Environmental Quality Act
CVRWQCB	Central Valley Regional Water Quality Control Board
cm/sec	Centimeters Per Second
DWQ	Division Of Water Quality
DWR	Department of Water Resources
EC	Electrical Conductivity
EIR	Environmental Impact Report
ET _o	Evapotranspiration From A Standardized Grass Surface
FFA	Future Farmers Of America
ILRP	Irrigated Lands Regulatory Program
MCL	Maximum Contaminant Level
mg N/L	Milligrams Nitrogen Per Liter
mg/L	Milligrams Per Liter
ml	Milliliter
MRP	Monitoring And Reporting Program
MWICR	Monitoring Well Installation Completion Report
MWISP	Monitoring Well Installation And Sampling Plan
NMP	Nutrient Management Plan
NOA	Notice Of Applicability
NOI	Notice Of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
pH	Potential Hydrogen; Expresses A Measurement Of Hydrogen Ion (H ⁺) Activity Or Concentration In A Solution
QA/QC	Quality Assurance/Quality Control
REC-1	Water Contact Recreation
Region	Central Valley Region
Regional Board	California Regional Water Quality Control Board
ROWD	Report Of Waste Discharge
RMP	Representative Monitoring Program
SPRR	Standard Provisions And Reporting Requirements
SRMR	Summary Representative Monitoring Report
State Water Board	State Water Resources Control Board

SWQMP	Surface Water Quality Management Plan
TDS	Total Dissolved Solids
Title 27	Title 27 Of The California Code Of Regulations, Division 2, Subdivision 1, Chapter 7, Subchapter 2, Article 1
Title 3	Title 3 Of The California Code Of Regulations, Division 2, Chapter 1, Article 22
USEPA	United States Environmental Protection Agency
WDRs	Waste Discharge Requirements
WMP	Waste Management Plan
WQ	Water Quality
$\mu\text{mhos/cm}$	Micromhos Per Centimeter (Same As $\mu\text{s/Cm}$)
$\mu\text{S/cm}$	Microsiemens Per Centimeter (Same As $\mu\text{mhos/Cm}$)

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
MONITORING AND REPORTING PROGRAM ORDER NO. R5-2016-0087-01
GENERAL ORDER
FOR
POULTRY OPERATIONS**

INTRODUCTION

This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code (CWC) Section 13267 which authorizes the California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board) to require preparation and submittal of technical and monitoring reports. This MRP establishes specific surface and groundwater monitoring, reporting, and electronic data deliverable requirements for owners and/or operators (Dischargers) subject to and enrolled under Waste Discharge Requirements General Order for Poultry Operations, Order R5-2016-0087-01 (hereafter referred to as the "Order") as Full Coverage Operations, and lesser reporting requirements for Dischargers enrolled as Low Threat Operations. The requirements of this MRP are necessary to monitor Discharger compliance with the provisions of the Order and determine whether State waters receiving discharges from Poultry Operations are meeting water quality objectives. Additional discussion and a rationale for this MRP's requirements are provided in the Information Sheet to the Order.

For Full Coverage Operations this MRP includes Monitoring, Record-Keeping, and Reporting requirements. Monitoring requirements include monitoring of discharges of manure/litter and/or wastewater, storm water, tailwater, surface water, and groundwater.

Monitoring requirements also include monitoring of nutrients applied to, and removed from, land application areas in order for the Discharger to develop and implement a Nutrient Management Plan for cropland controlled by the Discharger, which will minimize leaching of nutrients and salts to groundwater and transport of these constituents to surface water.

In addition, monitoring requirements include periodic visual inspections of Poultry Operations conducted by or on behalf of the Discharger to confirm that they are being operated and maintained to ensure continued compliance with the Order.

This MRP requires the Discharger to keep and maintain records for five years of the monitoring activities for the production and land application areas and to prepare and submit reports containing the results of specified monitoring as indicated below.

All monitoring must begin immediately upon issuance of a Notice of Applicability (NOA) to the Discharger by the Executive Officer. Note that some types of events require that a

report be submitted to the Central Valley Water Board within 24 hours (see Reporting Requirements, Section A).

Monitoring requirements for surface waters and groundwater will be periodically reassessed to determine if changes should be made to better represent discharges to waters of the State from Poultry Operations. The monitoring schedule will also be reassessed so that constituents are monitored during application and/or release timeframes when constituents of concern are most likely to affect water quality. The Discharger shall not implement any changes to this MRP unless the Central Valley Water Board or the Executive Officer issues a revised MRP; the Central Valley Water Board or the Executive Officer may revise this MRP as necessary.

The Discharger shall conduct monitoring, record-keeping, and reporting as specified below.

Poultry Operations qualifying as a Low Threat Operation shall keep records of the export destinations of manure and the results of testing of backflow prevention devices as required under the Record-Keeping Requirements Sections E and B.7 of this MRP. Low Threat Operations shall submit annual reports as required under Reporting Requirements Section B, Annual Reporting, of this MRP. Low Threat Operations shall monitor groundwater as directed by the Executive Officer.

GENERAL PROVISIONS

Monitoring data collected to meet the requirements of the Order must be collected and analyzed in a manner that assures the quality of the data.

All regulatory documents, submissions, materials, data, monitoring reports, and correspondence shall be converted to a searchable Portable Document Format (PDF) and submitted electronically to the State Water Resources Control Board's Internet-accessible database system (Geotracker database).

Dischargers or their representatives need to create a Geotracker user account. Instructions for setting up an account and the process of claiming a site, formatting and uploading data, and other technical information can be found under the "ESI Overview" and "Getting Started" sections at http://www.swrcb.ca.gov/water_issues/programs/ust/electronic_submittal/

Monitoring data and correspondence need to be in searchable Portable Document Format (PDF). Documents must be less than 400 MB to be uploaded to the Geotracker database. If not, PDF file size reduction tools should be used to reduce the size of files larger than 400 MB.

MONITORING REQUIREMENTS

A. General Monitoring Requirements

1. Dischargers must follow sampling and analytical procedures approved by the Executive Officer. Approved sampling and analytical procedures will be posted on the Central Valley Water Board's web site. A Discharger may submit alternative procedures for consideration, but must receive written approval from the Executive Officer before using them. If monitoring consistently shows no significant variation of a constituent concentration or parameter, the Discharger may request the MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency.
2. If conditions are not safe for surface water sampling, the Discharger must provide documentation why samples could not be collected and analyzed (e.g., photo documentation, flow measurements/estimates). For example, the Discharger may be unable to collect samples during dangerous weather conditions (such as local flooding, high winds, tornados, electrical storms, etc.). However, once the dangerous conditions have passed, the Discharger shall collect a sample of the discharge or, if the discharge has ceased, from the next discharge event.
3. The Discharger shall comply with all the "Requirements Specifically for Monitoring Programs and Monitoring Reports" as specified in the Standard Provisions and Reporting Requirements.
4. The Discharger shall use clean sample containers and sample handling, storage, and preservation methods that are accepted or recommended by the selected analytical laboratory or, as appropriate, in accordance with approved United States Environmental Protection Agency analytical methods.
5. All samples collected shall be representative of the volume and nature of the material being sampled.
6. All sample containers shall be labeled with a unique identifier (e.g., field/well number) and records maintained to show the time and date of collection as well as the person collecting the sample, the sample location, and method of sample collection and preservation.
7. The Discharger shall ensure that all sample analyses are conducted by a laboratory certified for such analyses by the Environmental Laboratory Accreditation Program (ELAP) of the Division of Drinking Water, State Water Resources Control Board. The laboratory analyses shall be conducted in accordance with Title 40 Code of Federal Regulations Part 136 (*Guidelines Establishing Test Procedures for the Analysis of Pollutants*) or other test methods approved by the Executive Officer.

8. All samples collected for laboratory analyses shall be preserved and submitted to the laboratory within the required holding time appropriate for the analytical method used and the constituents analyzed.
9. All samples submitted to a laboratory for analyses shall be identified in a properly completed and signed Chain-of-Custody form that should be obtained prior to sample collection from the analytical laboratory to be used.
10. Field test instruments for pH, electrical conductivity, temperature, turbidity, ammonia nitrogen, un-ionized ammonia nitrogen, and dissolved oxygen may be used provided:
 - a. The operator is trained in the proper use and maintenance of the instruments;
 - b. The instruments are calibrated prior to each monitoring event per manufacturer instructions and at the recommended frequency during sampling; and
 - c. Instruments are serviced per the manufacturer's recommended frequency.

B. Visual Monitoring

The Discharger shall conduct and record the inspections specified in Table 1 below and maintain records of the results on-site for a period of five years.

Table 1. INSPECTIONS
<p><i>Production Area</i></p> <p><u>Weekly during the wet season (1 October to 31 May) and monthly between 1 June and 30 September:</u> Inspect all waste storage areas (solid manure and wastewater); document any conditions or changes that could result in discharges to surface water and/or from property under control of the Discharger.</p> <p>Note whether freeboard within each wastewater storage structure is less than, equal to, or greater than the minimum required (two feet for above ground ponds and one foot for below ground ponds) and document any issues with flow meters, berm integrity, cracking, slumping, erosion, excess vegetation, animal burrows, or seepage.</p> <p>Inspect the outdoor animal housing area(s), and solid waste storage area(s) for proper drainage to the wastewater management system</p> <p><u>Within 12 hours after the end of each major storm event (one inch of precipitation within 24 hours):</u> Visual inspections of wastewater containment structures for discharge, freeboard, berm integrity, cracking, slumping, erosion, and seepage.</p> <p><u>Monthly on the 1st operating day of each month:</u> Photograph each pond showing the height of wastewater relative to the depth marker and the current freeboard on that date. Photograph each flow meter, clearly showing the volume reading. All photos shall be dated and maintained as part of the Discharger's record.</p> <p><u>Annually:</u> Inspect aboveground pipes and/or pumps that are part of the wastewater management system for leakage, and repair as necessary.</p>

Land Application Areas

Prior to each wastewater application:

Inspect the land application area and note the condition of land application berms including rodent holes, piping, and bank erosion. Verify that any field valves are correctly set to preclude off-property or accidental discharges of wastewater.

Daily when wastewater is being applied:

Inspect the land application area and note the condition of land application berms including rodent holes, piping, and bank erosion; the presence (or lack) of field saturation, ponding, erosion, runoff (including tailwater discharges from the end of fields, pipes, or other conveyances), and nuisance conditions; and the conditions of any vegetated filter strips/buffers or alternative conservation practices.

Composting Operation

Quarterly:

Inspect working surfaces, berms, ditches, perimeter, erosion control best management practices, and any other operational surfaces for cracking, subsidence, ponding on working surfaces or within ditches, effectiveness of erosion control, maintenance activities, and evidence of any uncontrolled water or wastewater leaving or entering the operation area. Photograph observed and corrected deficiencies.

Annually, prior to the wet season:

Survey the composting operation to confirm that all containment structures are prepared for the pending wet season. Conduct the survey no later than 31 August and complete any necessary construction, maintenance, or repairs by 31 October. Include this information in the Annual Monitoring and Maintenance Report (see Reporting Requirements, Section B).

After Major Storm Events (a minimum of one inch of precipitation within 24 hours):

Inspect all precipitation, diversion, and drainage facilities for damage within 7 days following major storm events. Necessary repairs shall be completed within 30 days of the inspection. Report any damage and subsequent repairs, including photographs of the problem and repairs, in the Annual Monitoring and Maintenance Report portion of the Annual Report.

C. Nutrient Monitoring

The Discharger shall monitor wastewater, manure, and plant tissue produced at the facility, soil in each land application area, and irrigation water used on each land application area under control of the Discharger for the constituents and at the frequency as specified in Table 2 below. This information is to be used to develop and implement the Nutrient Management Plan at the individual land application areas and at the facility as a whole. The Discharger is encouraged to collect and use additional data, as necessary, to refine the process of nutrient management.

Dischargers who do not apply wastewater, commercial fertilizer, or manure to Discharger-controlled land application areas are not required to conduct the plant tissue, soil, or irrigation water monitoring outlined in Table 2 below as long as the areas are enrolled in the Irrigated Lands Regulatory Program. If the land application areas are not enrolled in the Irrigated Lands Regulatory Program, and a crop is grown on the areas, then the plant tissue, soil, and irrigation water monitoring

outlined in Table 2 are required regardless of whether or not wastewater or manure are applied.

Table 2. NUTRIENT MONITORING
<p>Wastewater – Dischargers must collect samples of wastewater that are representative of the amount of nitrogen being applied to the land application area(s). If there is variation in the amount of nitrogen in the wastewater depending on where or when samples are collected, then that variation must be accounted for in the sampling procedure. The sample should be collected at a point such that the sample represents the nutrient content of the wastewater as it is being applied to the land application area(s). For every calendar quarter in which wastewater is applied, wastewater is to be sampled at least once and the following analyses performed. The volume needs to be based on accurate measurements using a calibrated flowmeter with a totalizer, or another equivalent method.</p> <p>At a minimum, the Discharger shall do the following:</p> <p><u>Each application:</u> Record the volume (gallons or acre-inches) and date of wastewater application to each land application area.</p> <p><u>Quarterly during one application event:</u> Laboratory analyses for nitrate-nitrogen, total ammonia-nitrogen, total Kjeldahl nitrogen, total phosphorus, total potassium, and total dissolved solids.</p> <p><u>Once every two years (biennially):</u> Laboratory analyses for general minerals (calcium, magnesium, sodium, bicarbonate, carbonate, sulfate, potassium, and chloride).</p>
<p>Solid Manure that is land applied (including manure that is exported for land application):</p> <p><u>One separate sample from each source of manure (houses, outdoor access area, etc) collected at the time of land application or at the time of export to a grower for land application:</u> Laboratory analyses for total Kjeldahl nitrogen, total phosphorus, total potassium, and percent moisture.</p> <p><u>One separate sample from each source of manure (houses, outdoor access areas, etc), collected once every two years (biennially):</u> Laboratory analyses for calcium, magnesium, sodium, potassium, and chloride.</p> <p><u>Each application to each land application area:</u> Record the percent moisture and total weight (tons) applied.</p> <p><u>Each offsite export of manure:</u> Record the percent moisture and total weight (tons) exported.</p> <p><u>Annually:</u> Calculate the total dry weight (tons) of manure applied annually to each land application area and the total dry weight (tons) of manure exported offsite.</p>

Plant Tissue – required of land application areas that are not enrolled in the Irrigated Lands Regulatory Program.

At harvest:

Record the percent moisture and total weight (tons) of harvested material removed from each land application area.

Laboratory analyses for total nitrogen, total Kjeldahl nitrogen, and percent moisture. Forms must indicate the length of time between sample collection and sample analysis.

Soil

Once every 5 years from each land application area (maybe distributed over a 5-year period by sampling 20% of the land application areas annually):
Laboratory analyses for soluble phosphorous.

Annually, before the planting of the fall crop, from each land application area:
Laboratory analysis for total nitrogen

Irrigation Water¹

Each irrigation event for each land application area:

Record volume (gallons or acre-inches) and source (well or canal) of irrigation water applied and dates applied. For irrigation wells with total nitrogen levels higher than 10 ppm, the volume needs to be based on accurate measurements using a calibrated flow meter with a totalizer or another equivalently accurate method.

Use of well water flow rates based on agricultural pump efficiency tests performed by a certified pump tester annually, combined with electric energy consumption data from an electric utility, may be proposed as an equivalently accurate method for volume calculations of groundwater supply wells only.

One irrigation event during each irrigation season during actual irrigation events:

For each irrigation water source (well and canal):

Total dissolved solids, and total nitrogen.²

Data collected to satisfy the groundwater monitoring requirements (below) can be used to satisfy this requirement.

D. Monitoring of Surface Discharges or Runoff

Dischargers who do not land apply wastewater and therefore, are not required to sample wastewater in accordance with Table 2, above, shall monitor any discharges of manure, wastewater, storm water, or irrigation tailwater that are retained in ponds for the constituents at the frequencies specified in Table 3, “Discharges of Wastewater to Ponds”, below.

Dischargers shall monitor discharges of manure, wastewater, storm water, or irrigation tailwater that have the potential to reach surface waters of the State from

¹ The Discharger shall monitor irrigation water (from each water well source and canal) that is used on all land application areas

² In lieu of sampling the irrigation water, the Discharger may provide equivalent data from the local irrigation district.

the production area or land application areas for the constituents and at the frequencies specified in Table 3 below.

All Dischargers operating land application areas with the potential to impact surface waters of the State shall comply with additional surface water monitoring requirements specified in **MRP Attachment B** either through individual surface monitoring or by participation in an Executive Officer approved Joint Monitoring Program, as laid out in **MRP Attachment B**.

Table 3. DISCHARGE MONITORING
<p><i>Discharges of Wastewater to Ponds</i></p> <p><u>Annually, following the first precipitation event that creates a volume of wastewater in the pond capable of producing a representative sample:</u></p> <p>Laboratory analyses for nitrate-nitrogen, total ammonia-nitrogen, total Kjeldahl nitrogen, total phosphorus, total potassium, and total dissolved solids.</p> <p><u>Once every two years (biennially), following the first precipitation event that creates a volume of wastewater in the pond capable of producing a representative sample:</u></p> <p>Laboratory analyses for general minerals (calcium, magnesium, sodium, potassium, bicarbonate, carbonate, sulfate, and chloride).</p>
<p><i>Discharges of Manure or Wastewater from the Production Area or Land Application Area – Prohibited Discharge, PROSE¹ Report Required</i></p> <p><u>Daily during each discharge:</u></p> <p>Record date, time, approximate volume (gallons) or weight (tons), duration, location, source, and ultimate destination of the discharge.</p> <p>Field measurements of the discharge for electrical conductivity, temperature, and pH.</p> <p>Laboratory analyses of the discharge for nitrate-nitrogen, total ammonia-nitrogen, un-ionized ammonia-nitrogen, total Kjeldahl nitrogen, total phosphorus, total potassium, total dissolved solids, and total and fecal coliform.</p> <p><u>Daily during each discharge to surface water:</u></p> <p>For surface water upstream² and downstream³ of the discharge:</p> <p>Field measurements for electrical conductivity, temperature, dissolved oxygen, and pH.</p> <p>Laboratory analyses for nitrate-nitrogen, total ammonia-nitrogen, un-ionized ammonia-nitrogen, total Kjeldahl nitrogen, total phosphorus, total potassium, total dissolved solids, and total and fecal coliform.</p>

¹ PROSE-Priority Reporting of Significant Events (see Reporting Requirements, Section A of this Monitoring and Reporting Program)

² Upstream samples shall be taken just far enough upstream so as not to be influenced by the discharge.

³ Downstream samples shall be taken just far enough downstream where the discharge is blended with the receiving water but not influenced by dilution flows or other discharges.

Storm Water Discharges to Surface Water from the Production Area¹ – Prohibited Discharge, PROSE Report Required

Daily during each discharge to surface water:

Record date, time, approximate volume, duration, location, source, and ultimate destination of the discharge.

For (1) the discharge and surface water (2) upstream and (3) downstream of the discharge:
Field measurements of electrical conductivity, dissolved oxygen, temperature, and pH.

Laboratory analyses for nitrate-nitrogen, total ammonia-nitrogen, unionized ammonia-nitrogen, total Kjeldahl nitrogen, turbidity, total phosphorus, total potassium, total dissolved solids, and total and fecal coliform.

Storm Water Discharges to Surface Water from Each Land Application Area¹ - Some Discharges Require Testing Before Release

First storm event of the wet season² and during the peak storm season (typically February)³ each year from one third of the land application areas⁴ with the land application areas sampled rotated each year⁵:

Record date, time, approximate volume, duration, location, and ultimate destination of the discharge.

Field measurements of the discharge for electrical conductivity, temperature, pH, and total ammonia-nitrogen.

Using the temperature, pH and total ammonia-nitrogen, determine the un-ionized ammonia-nitrogen.

In accordance with Section E.10 of this Order (Land Application Area Specifications), storm water discharges shall be retained on-property if the un-ionized ammonia-nitrogen concentration in the storm water is calculated to be at or above 0.04 mg/l. If the un-ionized ammonia nitrogen concentration is calculated to be between 0.02 and 0.039 mg/l, the storm water should only be released if other mitigations such as high freshwater flows are present.

If the calculated un-ionized ammonia-nitrogen concentration in the storm water is at or above 0.02 mg/l, the Discharger shall conduct laboratory analyses of the discharge for nitrate-nitrogen, total ammonia-nitrogen, total phosphorus, and total and fecal coliform. The Discharger shall submit an analysis to the Executive Officer within 30 days of the testing event describing the reason for the elevated un-ionized ammonia concentration and proposed changes to land application area management practices to ensure limitation of un-ionized ammonia in future discharges.

¹ Sample locations must be chosen such that the samples are representative of the quality and quantity of storm water discharged.

² This sample shall be taken during business hours from the first storm event of the season that produces significant storm water discharge such as would occur during continuous storm water runoff for a minimum of one hour, or intermittent storm water runoff for a minimum of three hours in a 12-hour period.

³ This sample shall be taken during business hours from a storm event that produces significant storm water discharge and that is preceded by at least three days of dry weather. The sample shall be taken during the first hour of the discharge.

⁴ One land application area shall be sampled for Dischargers that have one to three land application areas; two land application areas shall be sampled for Dischargers that have four to six land application areas, etc.

⁵ The Discharger may propose in the annual storm water report to reduce the constituents and/or sampling frequency of storm water discharges to surface water from any land application area based on the previous year's data (see Storm Water Reporting section below).

Tailwater Discharges to Surface Water from Land Application Areas¹ - All Discharges Require Testing Before Release

Each discharge from each land application area:

Field measurements of discharge for electrical conductivity, temperature, pH, and total ammonia-nitrogen.

Using temperature, pH and total ammonia-nitrogen, determine the un-ionized ammonia-nitrogen.

In accordance with Section E.10 of this Order (Land Application Area Specifications), tailwater discharges shall be retained on-property if the un-ionized ammonia-nitrogen concentration in the tailwater is calculated to be at or above 0.04 mg/l. If the un-ionized ammonia nitrogen concentration is calculated to be between 0.02 and 0.039 mg/l, the storm water should only be released if other mitigations such as high freshwater flows are present.

If the calculated un-ionized ammonia nitrogen concentration in the tailwater is at or above 0.02 mg/l, the Discharger shall conduct laboratory analyses for nitrate-nitrogen, total ammonia-nitrogen, total phosphorus, and total and fecal coliform. The Discharger shall submit an analysis to the Executive Officer within 30 days of the testing event describing the reason for the elevated un-ionized ammonia concentration and proposed changes land application area management practices to ensure limitation of un-ionized ammonia in future discharges.

E. Groundwater Monitoring

1. Beginning within six months of issuance of an NOA, the Discharger shall annually sample each domestic and agricultural supply well for two (2) years, and then once every five (5) years, to characterize existing groundwater quality. This monitoring shall be conducted during the same time each year for the constituents specified in Table 4 below.
2. The Discharger shall sample each subsurface (tile) drainage system present in the land application area(s). This monitoring shall be conducted at the frequency and for the parameters specified in Table 4 below.
3. The Discharger shall comply with the additional groundwater monitoring requirements specified in **MRP Attachment A** either through individual groundwater monitoring or by participation in an Executive Officer approved Representative Monitoring Program for Poultry Operations, as laid out in **MRP Attachment A**. Low Threat Operations shall monitor groundwater as directed by the Executive Officer.
4. All monitoring wells and supply wells (domestic and agricultural) must be identified with a unique identification (name/number) for the purposes of sample collection and data interpretation.
5. Groundwater samples from domestic wells shall be collected from the tap nearest to the pressure tank (and before the pressure tank if possible) after water

¹ Sample locations must be chosen such that the samples are representative of the quality and quantity of tailwater or storm water discharged.

has been pumped from this tap for 10 to 20 minutes. If the sample cannot be collected prior to a pressure tank, the well must be purged at least twice the volume of the pressure tank.

6. Groundwater samples from agricultural supply wells shall be collected after the pump has run for a minimum of 30 minutes or after at least three well volumes have been purged from the well.
7. Samples from subsurface (tile) drains shall be collected at the discharge point into a canal or drain.

Table 4. GROUNDWATER MONITORING
<p><i>Domestic and Agricultural Supply Wells</i> <u>Annually for two years and then once every five years (may be distributed over a 5-year period by sampling 20% of the wells annually)</u> Field measurements of electrical conductivity and ammonium nitrogen¹.</p> <p>Laboratory analyses for nitrate-nitrogen and general minerals (calcium, magnesium, sodium, potassium, bicarbonate, carbonate, sulfate, chloride, and total dissolved solids).</p> <p><i>Subsurface (Tile) Drainage System</i> <u>Annually during the irrigation season:</u> Field Measurements of electrical conductivity and ammonium nitrogen¹.</p> <p>Laboratory analyses of nitrate-nitrogen, total phosphorus, and total dissolved solids.</p>

RECORD-KEEPING REQUIREMENTS

Dischargers shall maintain on-site for a period of five years from the date they are created all information as follows (owners must maintain their own copies of this information). Other storage arrangements for records can be considered provided that the review location is within a reasonable distance, with respect to travel time, from the facility. If wastewater, manure, or commercial fertilizer is not applied to land application areas owned or controlled by the Discharger, requirements A, C, and D, below, do not apply to the Discharger.

Low Threat Operations shall maintain Pond Testing records as required in Table 3, above, backflow testing information as described under Section B.7 below, and Tracking Manifest forms as described under Section E below.

- A. All information necessary to document implementation of the Nutrient Management Plan, including the information described in Section B through F below;

¹ If field measurement indicates the presence of ammonium nitrogen, the Discharger shall collect a sample for laboratory analysis of ammonium nitrogen.

- B. All records for the production area including:
1. Records documenting the inspections required under the Monitoring Requirements above and any actions required pursuant to the Operation and Maintenance Plan;
 2. Records documenting any corrective actions taken to correct deficiencies noted as a result of the inspections required in the Monitoring Requirements above. Deficiencies not corrected in 30 days must be accompanied by an explanation of the factors preventing immediate correction;
 3. Records of the date, time, and estimated volume of any overflow or bypass of the wastewater storage or conveyance structures;
 4. Records of mortality management and practices; including documentation of proper disposal (e.g., manifests, invoices, receipts, or other documents demonstrating who transported the mortalities and where they were taken for disposal);
 5. Steps and dates when action is taken to correct unauthorized releases as reported in accordance with Priority Reporting of Significant Events below;
 6. Records of monitoring activities and laboratory analyses conducted as required in Standard Provisions and Reporting Requirements D.5;
 7. Testing schedule and results of periodic testing of all mechanical backflow devices; and
 8. Records of all measures, observations, and actions that are taken through implementing the Operation and Maintenance Plan.
- C. All records for the land application areas including:
1. Expected and actual crop yields;
 2. Identification of crop, acreage, and dates of planting and harvest for each field;
 3. Dates, locations, and approximate weight and moisture content of manure applied to each field;
 4. Dates, locations, and volume of wastewater and irrigation water applied to each field;
 5. Whether precipitation occurred, or standing water was present, at the time of manure and wastewater applications and for 24 hours prior to and following applications;
 6. Dates, locations, and test methods for soil, manure, wastewater, irrigation water, and plant tissue sampling;
 7. Results from manure, wastewater, irrigation water, soil, plant tissue, discharge (including tailwater), and storm water sampling;

8. Explanation for the basis for determining manure or wastewater application rates, as provided in the Technical Standards for Nutrient Management established by the Order (**Attachment C** of the Poultry General Order);
 9. Calculations showing the nitrogen, total phosphorus, and total potassium to be applied to each field from all nutrient sources including manure, wastewater, and chemical fertilizers to each crop in each land application area (Nutrient Budget);
 10. Amount of nitrogen, phosphorus, and potassium actually applied to each field from all nutrient sources, including manure, wastewater, and chemical fertilizer, to each crop in each land application area for each application, including documentation of the total amounts applied (Nutrient Application Calculations);
 11. Records documenting any corrective actions taken to correct deficiencies noted as a result of the inspections required in the Monitoring Requirements above. Deficiencies not corrected in 30 days must be accompanied by an explanation of the factors preventing immediate correction; and
 12. Records of monitoring activities and laboratory analyses conducted as required in Standard Provisions and Reporting Requirements D.5.
- D. A copy of the Discharger's site-specific Nutrient Management Plan;
- E. Tracking Manifest forms (**Attachment D** of the Poultry General Order) for off-site exports of manure or wastewater which includes information on the manure hauler, destination of the manure, dates hauled, amount hauled, and certification; proprietary information may be redacted in the submitted manifest as long as the original unredacted manifest is kept by the Discharger and is available for staff review; and
- F. All analyses of manure, wastewater, irrigation water, wastewater in ponds, soil, plant tissue, discharges (including tailwater discharges), surface water, storm water, subsurface (tile) drainage, and groundwater.

REPORTING REQUIREMENTS

A. **Priority Reporting of Significant Events (PROSE Report) (Prompt Action Required)**

The Discharger shall report any noncompliance that endangers human health or the environment or any noncompliance with Prohibitions A.1 through A.5 and A.7 through A.11 of this Order, **within 24 hours** of becoming aware of its occurrence. The incident shall be reported to the Central Valley Water Board office, local environmental health department, and to the California Emergency Management Agency (CalEMA). During non-business hours, the Discharger shall leave a message on the Central Valley Water Board's voice mail. The message shall include the time, date, place, and nature

of the noncompliance, the name and number of the reporting person, and shall be recorded in writing by the Discharger. CalEMA is operational 24 hours a day. A written report shall be submitted to the Central Valley Water Board office **within two weeks** of the Discharger becoming aware of the incident. The report shall contain a description of the noncompliance, its causes, duration, and the actual or anticipated time for achieving compliance. The report shall include complete details of the steps that the Discharger has taken or intends to take, in order to prevent recurrence. All intentional or accidental spills shall be reported as required by this provision. The written submission shall contain:

1. The approximate date, time, and location of the noncompliance including a description of the ultimate destination of any unauthorized discharge and the flow path of such discharge to a receiving water body;
2. A description of the noncompliance and its cause;
3. The flow rate, volume, and duration of any discharge involved in the noncompliance;
4. The amount of precipitation (in inches) the day of any discharge and for each of the seven days preceding the discharge;
5. A description (location; date and time collected; field measurements of pH, temperature, dissolved oxygen and electrical conductivity; sample identification; date submitted to laboratory; analyses requested) of noncompliance discharge samples and/or surface water samples taken to comply with the Monitoring Requirements above for *Discharges of manure or wastewater from the production area or land application area* and *Storm Water Discharges to Surface Water from the Production Area* (Table 3);
6. The period of noncompliance, including dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue;
7. A time schedule and a plan to implement corrective actions necessary to prevent the recurrence of such noncompliance; and
8. The laboratory analyses of the noncompliance discharge sample and/or upstream and downstream surface water samples shall be submitted to the Central Valley Water Board office within 45 days of the discharge.

B. Annual Reporting

An annual monitoring report is due by **1 August of each year**. It will consist of a General Section, Groundwater Reporting Section (including an appropriate Groundwater Monitoring Report prepared in accordance with **MRP Attachment A**), Storm Water and Tailwater Reporting Section (including an appropriate Surface Water Monitoring Report prepared in accordance with **MRP Attachment B**) and, if a composting operation is on-site, an Annual Monitoring and Maintenance Report for the Composting Operation as described below. Once the (groundwater) Summary Report (for individual Dischargers) or the (groundwater) Summary Representative

Monitoring Report (for representative monitoring groups) has been approved, an Annual Implementation Report (see **MRP Attachment A**) shall be included in the Annual Report.

The annual report for Low Threat Operations shall contain items 1, 2, 12, 14, and 15 of the General Section below, and a signed certification that the facility continues to meet the criteria to qualify as a Low Threat Operation. If the facility includes a composting operation, an Annual Monitoring and Maintenance Report for the Composting Operation must be submitted. A single annual report may be submitted for multiple Low Threat Operations managed by the same Discharger provided that information for items 1,2, 14, and 15 are provided for each facility.

General Section

The General Section of the annual report shall include all the information as specified below. This section of the annual report shall cover information on crops harvested during the previous calendar year, including nutrients applied and nutrients removed in plant tissue. If a crop spans two calendar years (planted in one year and harvested in the following year), all the data regarding nutrients and irrigation water applied to that crop should be included in the annual report for the year in which the crop was harvested.

1. Identification of the beginning and end dates of the annual reporting period;
2. Monthly maximum and monthly average number and type of animals within the boundaries of the facility during the reporting period;
3. Total amount of manure (tons) and wastewater (gallons or acre-inches) generated by the facility during the annual reporting period; results of biennial sampling of solid manure for calcium, magnesium, sodium, and chloride; results of biennial sampling of wastewater for general minerals; and a calculation of the:
 - a. total Kjeldahl nitrogen, total phosphorus, and total potassium of the solid manure; and
 - b. The total nitrate-nitrogen, total ammonia-nitrogen, Kjeldahl nitrogen, total potassium; and total dissolved solids of the wastewater;
4. Total amount of manure (tons) and wastewater (gallons or acre-inches) applied to each land application area during the annual reporting period and a calculation of the total nitrogen, total phosphorus, and total potassium applied to each land application area;
5. Quantify the ratio of total nitrogen applied and total nitrogen removed in the harvested portion (nitrogen uptake) for each crop in each land application area.

If the applied/removed ratio exceeds 1.4 for a given crop, provide an explanation for the exceedance and a discussion of steps that have been taken to limit such an exceedance in the future;

6. Total amount of manure (tons) and wastewater (gallons or acre-inches) transferred to other persons by the facility during the annual reporting period; a calculation of the total nitrogen, total phosphorus, and total potassium in the transferred material;
7. Total number of acres and the Assessor Parcel Numbers for all land application areas that were not used for application of manure or wastewater during the reporting period;
8. Total number of acres and the Assessor Parcel Numbers of properties that were used for land application of manure and wastewater during the annual reporting period;
9. Summary of all manure and wastewater discharges from the production area to surface water or to land areas (land application areas or otherwise) when not in accordance with the facility's Nutrient Management Plan that occurred during the annual reporting period, including date, time, location, and approximate volume; a map showing discharge and sample locations; rationale for sample locations; and method of measuring discharge flows;
10. Summary of all discharges from the land application area to surface water that have occurred during the annual reporting period, including the date, time, approximate volume, location, and source of discharge (i.e., wastewater or blended wastewater); a map showing the discharge and sample locations; rationale for sample locations; and method of measuring discharge flows;
11. A statement indicating if the Nutrient Management Plan has been updated and whether the current version of the facility's Nutrient Management Plan was developed or approved by a certified nutrient management specialist as specified in **Attachment C** of the Poultry General Order;
12. Copies of all manure/ wastewater tracking manifests for the reporting period;
13. A statement indicating if there were any changes to third party agreements to receive manure or wastewater. If there were any changes, submit copies of all new or revised written agreements with each third party that receives solid manure or wastewater from the Discharger for its own use;
14. A description of mortality management practices;
15. Dates and results of testing, and description of any corrective actions taken, for all mechanical backflow prevention devices;

16. Tabulated analytical data for samples of manure, wastewater, irrigation water, soil, and plant tissue, and chain of custody forms for plant tissue samples. The data shall be tabulated to clearly show sample dates, constituents analyzed, constituent concentrations, and detection limits;
17. Results of the Record-Keeping Requirements for the production and land application areas specified in Record-Keeping Requirements B.2, B.3, C.1, C.2, C.3, C.4, C.5, C.10, and C.11.
18. Composting Operation Information: a summary of all monitoring and maintenance activities performed and adverse conditions noted since the prior reporting period with respect to all berms, ditches, working surfaces, and monitoring systems, and a certification that the composting operation complies with the requirements of the Order and applicable portions of the MRP.

Groundwater Reporting Section

Groundwater monitoring results shall be included with the annual reports.

1. Dischargers that monitor domestic and agricultural wells and subsurface (tile) drainage systems only shall submit information on the location of sample collection and all field and laboratory data, including all laboratory analyses (including Chain-of-Custody forms and laboratory QA/QC results).
2. Annual Monitoring Report: Dischargers that have individual monitoring well systems shall include all laboratory analyses (including Chain-of-Custody forms and laboratory QA/QC results) and tabular and graphical summaries of the monitoring data. Data shall be tabulated to clearly show the sample dates, constituents analyzed, constituent concentrations, detection limits, depth to groundwater, and groundwater elevations. Graphical summaries of groundwater gradients and flow directions shall also be included. Each groundwater monitoring report shall include a summary data table of all historical and current groundwater elevations and analytical results. The groundwater monitoring reports shall be certified by a California registered professional as specified in General Reporting Requirements C.9 of the Standard Provisions and Reporting Requirements of Order R5-2016-0087-01.

Storm Water and Tailwater Reporting Section

Storm water and tailwater monitoring results will be included in the annual report. If applicable, the section shall include the Annual Surface Water Monitoring Report prepared in accordance with **MRP Attachment B**. The report shall include a map showing all sample locations for all land application areas; rationale for all sampling locations; a discussion of how flow measurements were made; the results (including the laboratory analyses, Chain-of-Custody forms, and laboratory QA/QC results) of all samples of storm water and tailwater; whether, based on the sampling results, the storm water or tailwater was released from the land application area; and any modifications made to the facility or sampling plan in response to pollutants detected in storm water or

tailwater. The annual report must also include documentation if no significant discharge of storm water or tailwater occurred from the land application area(s) or if it was not possible to collect any of the required samples or perform visual observations due to adverse climatic conditions.

Annual Monitoring and Maintenance Report for the Composting Operation

If the Poultry Operation includes a composting operation, include an annual monitoring and maintenance report section in the annual report. The report shall include the following information:

1. The results of quarterly inspections, including dates of the inspections, type and cause of any deficiency/non-compliance observed, including a map and photographs, and a description of corrective actions undertaken or planned, including the date and time of repairs and measures taken to prevent a recurrence of the problem.
2. The results of the annual survey conducted prior to the wet season, including date of the inspection, type and cause of any deficiency/non-compliance observed, including a map and photographs, and a description of corrective actions undertaken or planned, including the date and time of repairs and measures taken to prevent a recurrence of the problem.
3. The results of inspections conducted after major storm events, including dates of the inspections, type and cause of any deficiency/non-compliance observed, including a map and photographs, and a description of corrective actions undertaken or planned, including the date and time of repairs and measures taken to prevent a recurrence of the problem.

C. General Reporting Requirements

1. The results of any monitoring conducted more frequently than required at the locations specified herein shall be reported to the Central Valley Water Board.
2. Each report shall be signed by the Discharger or a duly authorized representative as specified in the General Reporting Requirements C.7 of the Standard Provisions and Reporting Requirements of Order R5-2016-0087-01, and shall contain the following statement:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I

am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

3. Each report shall include the name of the preparer of the report, and the preparer’s contact information.

I, PATRICK PULUPA, Executive Officer, do hereby certify the forgoing is a full, true and correct copy of a Monitoring and Reporting Program issued by the California Regional Water Quality Control Board, Central Valley Region, on 5 April 2019.

Original signed by

PATRICK PULUPA, Executive Officer

**MONITORING AND REPORTING PROGRAM R5-2016-0087-01
ATTACHMENT A**

**Groundwater Monitoring,
Monitoring Well Installation and Sampling Plan
and
Monitoring Well Installation Completion Report
for
Poultry Operations**

A. Groundwater Monitoring

The provisions of **Attachment A** are set out pursuant to the Executive Officer's authority under California Water Code (CWC) Section 13267 to order Dischargers to implement monitoring and reporting programs. The purpose of groundwater monitoring required by these provisions is to confirm that management practices being employed for the wastewater management system, land application areas, and production area, are protective of groundwater quality, and comply with Receiving Water Limitation G.2 (Groundwater Limitations) of the Waste Discharge Requirements General Order for Poultry Operations, Order R5-2016-0087-01 (Order).

Individuals conducting groundwater monitoring on their facility shall, **within 24 months of the adoption of this Order**, submit a workplan to the Executive Officer for approval that describes the installation of groundwater monitoring wells and meets the requirements set forth in Section B of this attachment. **Within 30 months of the adoption of this Order**, the Discharger shall submit a Monitoring Well Installation Completion Report, in accordance with Section E of this attachment, and certify that monitoring well installation is complete.

As an alternative to installing monitoring wells on an individual basis as set out in Section B below, Dischargers subject to the Order may participate in a Representative Monitoring Program that meets the requirements set forth in Section C of this attachment. **Within 18 months of the adoption of this Order**, any entity wishing to form a Representative Monitoring Program shall notify the Executive Officer of their intent to do so. **Within 24 months of the adoption of this Order**, the Monitoring and Reporting Workplan for the Representative Monitoring Program, prepared in accordance with Section C, shall be submitted to the Executive Officer for approval. **Within 30 months of the adoption of this Order**, the Representative Monitoring Program shall submit a Monitoring Well Installation Completion Report, in accordance with Section E below, and certify that monitoring well installation is complete.

Dischargers choosing to participate in a Representative Monitoring Program must notify the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) by letter **within three months** of joining a Representative Monitoring Program. The letter shall state that they are voluntarily joining the Representative Monitoring Program, they are aware of the conditions and requirements to be a member of the Program, they intend to fully comply with the monitoring and reporting program and intent of the Program, and they are fully aware that failure to comply with the Program may result in their removal from the Program and that they may be subject to

enforcement by the Central Valley Water Board. Notification to the Central Valley Water Board¹ 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 Order and Monitoring and Reporting Program R5-2016-0087-01 (MRP).

A Representative Monitoring Program is not a Discharger. Owners and operators of poultry operations are Dischargers and are responsible and liable for individual compliance and for determining if they are in compliance with the terms of the Order. As set forth in Section C of this attachment, an eligible Representative Monitoring Program will convey information related to a Discharger's participation in the Representative Monitoring Program, conduct representative monitoring pursuant to an approved monitoring plan, and prepare and submit any required plans and monitoring reports. However, member Dischargers will be responsible for failure on the part of the Representative Monitoring Program to comply with the MRP.

If a Discharger participating in a Representative Monitoring Program wishes to terminate participation in the Program, the Discharger shall submit a Notice of Termination to the Executive Officer and the administrator of the Representative Monitoring Program. Administrators of a Representative Monitoring Program shall also notify the Executive Officer of a participant's failure to participate in their Representative Monitoring Program. A Representative Monitoring Program shall inform the Executive Officer of the participant's failure to participate within 45 days, which may result in the Executive Officer issuing a Notice of Termination to the Discharger stating that the Discharger is no longer eligible to participate in a Representative Monitoring Program as an alternative to individual groundwater monitoring. Termination from participation in a Representative Monitoring Program will occur on the date specified in the Notice of Termination, unless otherwise specified. Dischargers who voluntarily terminate their participation in a Representative Monitoring Program, receive a Notice of Termination from a Representative Monitoring Program, or receive a Notice of Termination from the Executive Officer, shall be individually subject to the groundwater monitoring requirements of the Order and MRP.

Pursuant to Water Code Section 13267, the Executive Officer may, at any time, order implementation of individual groundwater monitoring at a poultry operation, even if the Discharger participates in a Representative Monitoring Program. Such order may occur, for instance, if violations of the Order are documented and/or the facility is found to be in an area where site conditions and characteristics pose a high risk to groundwater quality. In the event the Executive Officer orders implementation of individual groundwater monitoring to a participant of a Representative Monitoring Program, such an order shall constitute a Notice of Termination to the participant and the Discharger shall no longer be

¹ In lieu of individual discharger notifications to the Central Valley Water Board, a Representative Monitoring Program may provide to the Central Valley Water Board a list of participants that have signed up and met the initial requirements for participation in that Representative Monitoring Program.

eligible to participate in a Representative Monitoring Program to comply with the groundwater monitoring requirements of the MRP.

If data become available from other representative monitoring programs that identify practices that are not protective of groundwater quality, the Executive Officer may require modification of management practices by a date earlier than the dates specified in Sections B.10 and C. 9 and 10, of this Attachment.

B. Individual Monitoring Program Requirements

1. The Discharger shall install sufficient monitoring wells to:
 - a. Characterize groundwater flow direction and gradient beneath the site;
 - b. Characterize natural background (unaffected by the Discharger or others) groundwater quality upgradient of the facility; and,
 - c. Characterize groundwater quality downgradient of the production area, downgradient of the retention ponds, and downgradient of the land application areas.
2. It may be necessary to install more than one upgradient monitoring well (i.e., for the production area and the land application area). The Executive Officer may order more extensive monitoring based on site-specific conditions.
3. Prior to installation of monitoring wells, the Discharger shall submit to the Executive Officer a Monitoring Well Installation and Sampling Plan (MWISP) (see below) and schedule prepared by, or under the direct supervision of, and certified by, a California registered civil engineer or a California registered geologist with experience in hydrogeology. Installation of monitoring wells shall not begin until the Executive Officer notifies the Discharger in writing that the MWISP is acceptable.
4. All monitoring wells shall be constructed in a manner that maintains the integrity of the monitoring well borehole and prevents the well (including the annular space outside of the well casing) from acting as a conduit for pollutant/contaminant transport. Each monitoring well shall be appropriately designed and constructed to enable collection of representative samples of the first encountered groundwater.
5. The construction and destruction of monitoring wells and supply wells shall be in accordance with the standards under *Water Wells and Monitoring Wells* in the *California Well Standards Bulletin 74-90 (June 1991)* and *Bulletin 74-81 (December 1981)*, adopted by the Department of Water Resources (DWR). Should any county or local agency adopt more stringent standards than that adopted by the DWR, then these local standards shall supersede the Well Standards of DWR, and the Discharger shall comply with the more stringent standards. More stringent practices shall be implemented if needed to prevent the well from acting as a conduit for the vertical migration of waste constituents.

6. The horizontal and vertical position of each monitoring well shall be determined by a registered land surveyor or other qualified professional. The horizontal position of each monitoring well shall be measured with one-foot lateral accuracy using the North American Datum 1983 (NAD83 datum). The vertical elevations of each monitoring well shall be referenced to the North American Vertical Datum 1988 (NAVD88 datum) to an absolute accuracy of at least 0.5 feet and a relative accuracy between monitoring wells of 0.01 feet.
7. Within 45 days after completion of any monitoring well, the Discharger shall submit to the Executive Officer a Monitoring Well Installation Completion Report (MWICR) as described in Section E of this Attachment, prepared by, or under the direct supervision of, and certified by, a California registered civil engineer or a California registered geologist with experience in hydrogeology.
8. The Discharger shall sample monitoring wells for the constituents and at the frequency as specified in Table 5. Groundwater monitoring shall include monitoring during periods of the expected highest and lowest water table levels.

Table 5. ADDITIONAL GROUNDWATER MONITORING
<p><i>Monitoring Wells</i></p> <p><u>Quarterly</u>¹: Measurement of the depth to groundwater from a surveyed reference point to the nearest 0.01 foot in each monitoring well.</p> <p><u>Semi-annually</u>: Field measurements of electrical conductivity, temperature, and pH. Laboratory analyses for nitrate and ammonia.</p> <p><u>Within six months of well construction and every two years thereafter</u>: Laboratory analyses for general minerals (calcium, magnesium, sodium, potassium, bicarbonate, carbonate, sulfate, and chloride).</p>

9. Groundwater samples from monitoring wells shall be collected as specified in the approved MWISP.
10. Dischargers implementing individual monitoring shall submit the following reports to the Board's Executive Officer:

Annual Monitoring Reports: The Discharger shall submit to the Executive Officer an annual assessment of the groundwater monitoring data due 1 August of each year. The annual assessment may be attached to the annual report required by Reporting Requirements, Section B of the MRP R5-2016-0087-01. The annual assessment

¹ After two years of quarterly depth to groundwater measurements, the Discharger may request reduction of frequency of depth to groundwater measurements to semi-annually upon demonstration there are no seasonal impacts to groundwater levels.

shall include a tabulated summary of all analytical data collected to date including analytical laboratory reports for data collected during the past year. The assessment shall include an evaluation of the groundwater monitoring program's adequacy to assess compliance with the Order, including whether the data provided is representative of conditions upgradient and downgradient of the production area and land application area of the Poultry Operation. The assessment shall also include an evaluation of the groundwater monitoring data collected to date with a description of the statistical or non-statistical methods used. The assessment must use methods approved by the Executive Officer. If the Discharger determines that the analytical methods required by this MRP are insufficient to identify whether site activities are impacting groundwater quality, the annual assessment must address Item B.11 below and employ the needed analyses during future monitoring events.

Summary Report: Within 6 years of initiating sampling activities, the Discharger shall submit to the Executive Officer a summary report presenting a detailed assessment of the monitoring data to evaluate whether site activities associated with operation of the wastewater management system, production area, or land application areas (if present) have impacted groundwater quality. This summary report can be required at an earlier date if evaluation by the Discharger or Central Valley Water Board staff indicates that the assessment can be completed at an earlier date. This summary report shall also include detailed descriptions of management practices employed at the wastewater retention system, animal confinement areas, and land application areas along with the design standards of the wastewater retention system. The summary report must include an adequate technical justification for the conclusions incorporating available data and reasonable interpretations of geologic and engineering principles to identify management practices protective of groundwater quality. The summary report is subject to approval by the Executive Officer. If monitoring data indicate that Receiving Water Limitation G.2 (Groundwater Limitations) of the Order has been violated, this assessment shall include a description of changes in management practices and/or activities that will be undertaken to bring the facility into compliance.

Annual Implementation Reports: Following the Executive Officer's approval of the Summary Report, the Discharger shall submit Annual Implementation Reports which document what they are doing to upgrade management practices that have been found not to be protective of water quality and an evaluation of progress in complying with Receiving Water Limitation G.2 of the Order. The Annual Implementation Reports will be submitted as part of the Annual Reports. The first annual report must identify alternative management practices the Discharger intends to implement at its Poultry Operation along with a schedule for implementation. With each subsequent Annual Monitoring Report, the Discharger must provide an update on their implementation of additional or alternative management practices. Implementation of the identified management practices must be as soon as practicable and 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 is approved by the Executive Officer.

11. 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.
12. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically, as specified in the General Provisions of MRP R5-2016-0087-01.

C. Representative Monitoring Program Requirements

To establish a Representative Monitoring Program in lieu of individual groundwater monitoring, the Representative Monitoring Program must have Executive Officer approval of a submitted Monitoring and Reporting Workplan. The Monitoring and Reporting Workplan shall include 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 facilities. 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. This information is needed to demonstrate whether collected facility monitoring data will allow identification of practices that are protective of water quality at all facilities represented by the Representative Monitoring Program, including those for which on-site data are not collected. The Monitoring and Reporting Workplan must additionally propose 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. The list of constituents may necessarily be greater than the constituents required to be monitored at sites under individual orders (as listed in Table 5 above), as failure to determine whether groundwater has been impacted at a monitored facility will impair the ability to extrapolate findings to facilities where monitoring does not occur. At a minimum, the baseline constituents shall include those required of individual groundwater monitoring systems.

1. Once the Monitoring and Reporting Workplan is approved, the Representative Monitoring Program shall begin the process of installing monitoring wells as prescribed in paragraphs 3 through 7 below.
2. Prior to installation of monitoring wells, the Representative Monitoring Program shall submit to the Executive Officer a MWISP (see Section D of this attachment) and schedule prepared by, or under the direct supervision of, and certified by, a California registered civil engineer or a California registered geologist with

- experience in hydrogeology. Installation of monitoring wells shall not begin until the Executive Officer notifies the Representative Monitoring Program in writing that the MWISP is acceptable. The MWISP must be submitted within 60 days of Executive Officer approval of the Monitoring and Reporting Workplan.
3. All monitoring wells shall be constructed in a manner that maintains the integrity of the monitoring well borehole and prevents the well (including the annular space outside of the well casing) from acting as a conduit for pollutant/contaminant transport. Each monitoring well shall be appropriately designed and constructed to enable collection of representative samples of the first encountered groundwater.
 4. The construction and destruction of monitoring wells and supply wells shall be in accordance with the standards under *Water Wells* and *Monitoring Wells* in the *California Well Standards Bulletin 74-90 (June 1991)* and *Bulletin 74-81 (December 1981)*, adopted by the Department of Water Resources (DWR). Should any county or local agency adopt more stringent standards than that adopted by the DWR, then these local standards shall supersede the Well Standards of DWR, and the Representative Monitoring Program shall comply with the more stringent standards. More stringent practices shall be implemented if needed to prevent the well from acting as a conduit for the vertical migration of waste constituents.
 5. The horizontal and vertical position of each monitoring well shall be determined by a registered land surveyor or other qualified professional. The horizontal position of each monitoring well shall be measured with one-foot lateral accuracy using the North American Datum 1983 (NAD83 datum). The vertical elevations of each monitoring well shall be referenced to the North American Vertical Datum 1988 (NAVD88 datum) to an absolute accuracy of at least 0.5 feet and a relative accuracy between monitoring wells of 0.01 feet.
 6. Within 45 days after completion of any monitoring well network, the Representative Monitoring Program shall submit to the Executive Officer a MWICR (see below) prepared by, or under the direct supervision of, and certified by, a California registered civil engineer or a California registered geologist with experience in hydrogeology. In cases where monitoring wells are completed in phases or completion of the network is delayed for any reason, monitoring well construction data are to be submitted within 180 days of well completion, even if this requires submittal of multiple reports.
 7. Once the groundwater monitoring network is installed pursuant to an approved Monitoring and Reporting Workplan and paragraphs 3 through 6 above, the Representative Monitoring Program shall sample monitoring wells for the constituents and at the frequencies as specified in the approved Monitoring and Reporting Workplan. Groundwater monitoring shall include monitoring during periods of the expected highest and lowest water table levels. In cases where the monitoring wells are completed in phases or completion of the monitoring well

network is delayed for any reason, collection and analysis of groundwater samples from each well is to commence within 180 days of completion of that well.

8. Groundwater samples from monitoring wells shall be collected as specified in an approved MWISP.
9. The Representative Monitoring Program shall submit the following reports to the Board's Executive Officer on behalf of its members

Annual Representative Monitoring Reports: The Representative Monitoring Program shall submit to the Executive Officer an Annual Representative Monitoring Report (ARMR). The ARMUR shall be due by 1 April of each year and shall include all data (including analytical reports) collected during the previous calendar year. The ARMUR shall also contain a tabulated summary of data collected to date by the Representative Monitoring Program. The ARMUR shall describe the monitoring activities conducted by the Representative Monitoring Program, and identify the number and location of installed monitoring wells and other types of monitoring devices. Within each ARMUR, the Representative Monitoring Program shall evaluate the groundwater monitoring data to determine whether groundwater is being impacted by activities at facilities being monitored by the Representative Monitoring Program. The submittal shall include a description of the methods used in evaluating the groundwater monitoring data. Each ARMUR shall include an evaluation of whether the representative monitoring program is on track to provide the data needed to complete the Summary Representative Monitoring Report. If the evaluation concludes that information needed to complete the Summary Report may not be available by the required deadline, the ARMUR shall include measures that will be taken to bring the program back on track.

The ARMUR shall include an evaluation of data collected to date and an assessment of whether monitored facilities are implementing management practices that are protective of groundwater quality. If the management practices being implemented at a facility being monitored are found to not be protective of groundwater quality, the Executive Officer may issue an order to the owner/operator of the facility to identify and implement management practices that are protective of groundwater quality prior to submittal of the report described in the following paragraph.

Summary Representative Monitoring Report: No later than six years following submittal of the first ARMUR, the Representative Monitoring Program shall submit a Summary Representative Monitoring Report (SRMR) to the Executive Officer for approval which identifies management practices that are protective of groundwater quality for the range of conditions found at facilities participating in the Representative Monitoring Program. The identification of management practices for the range of conditions must be of sufficient specificity to allow participants covered by the Representative Monitoring Program and the Central

Valley Water Board to identify which practices at monitored facilities are appropriate for facilities with a corresponding range of site conditions, and generally where such facilities may be located within the Central Valley (e.g., the SRMR may need to include maps of the Central Valley that identify the types of management practices that should be implemented in certain areas based on specified site conditions). The SRMR must include an adequate technical justification for the conclusions incorporating available data and reasonable interpretations of geologic and engineering principles to identify management practices protective of groundwater quality. The SRMR must include time schedules that are as short as practicable, and supported with appropriate technical or economic justification, for implementation of the identified management practices. The Central Valley Water Board may modify these schedules based on evidence that meeting the compliance date is technically or economically infeasible, or when evidence shows that compliance by an earlier date is feasible. In no case may time schedules extend beyond 10 years from the date that the SRMR is approved by the Executive Officer. The Executive Officer may require the SRMR to include additional management practices that have been identified by other programs as protective of water quality.

10. Individual Annual Implementation Reports: On 1 August following Executive Officer approval of the SRMR, each Discharger that is a participant covered by a Representative Monitoring Program shall include in their annual report required in MRP R5-2016-0087-01 a description of management practices currently being implemented at their wastewater management system, land application area (if present), and production area. If these management practices are not confirmed to be protective of groundwater quality based on information contained in the SRMR, and therefore are not confirmed to be sufficient to ensure compliance of the facility with Receiving Water Limitation G.2 (Groundwater Limitations) of the Order, the Discharger's first annual report shall identify which alternative management practices the participant intends to implement at its facility and a schedule for their implementation (based on the findings of the SRMR). Implementation of the identified management practices must be as soon as practicable and must not exceed time schedules set out in the SRMR. Management practices deemed to be protective of groundwater quality are subject to approval by the Executive Officer. With each annual report submitted after the first report following Executive Officer approval of the SRMR, each participant shall include within his or her annual report an update with respect to implementation of the additional or alternative management practices being employed by the Discharger to protect groundwater quality.
11. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically, as specified in the General Provisions of MRP R5-2016-0087-01.

D. Monitoring Well Installation and Sampling Plan (MWISP) (Applicable to both Individual and Representative Monitoring Program Requirements)

At a minimum, the MWISP must contain all of the information listed below.

1. General Information:
 - a. Topographic map showing any existing nearby (about 2,000 feet) domestic, irrigation, and municipal supply wells and monitoring wells known to the Discharger, utilities, surface water bodies, drainage courses and their tributaries/destinations, and other major physical and man-made features, as appropriate.
 - b. Site plan showing proposed well locations, other existing wells, unused and/or abandoned wells, major physical site structures, waste handling facilities (including retention ponds and manure storage areas), irrigated cropland and pasture, and on-site surface water features.
 - c. Rationale for the number of proposed monitoring wells, their locations and depths, and identification of anticipated depth to groundwater. In the case of a Representative Monitoring Program, this information must include an explanation of how the location, number, and depths of wells proposed will result in the collection of data that can be used to assess groundwater at sites with a variety of conditions that have joined the Representative Monitoring Program but are not being monitored as part of the monitoring network.
 - d. Local permitting information (as required for drilling, well seals, boring/well abandonment).
 - e. Drilling details, including methods and types of equipment for drilling and logging activities. Equipment decontamination procedures (as appropriate) should be described.
 - f. Health and Safety Plan.
2. Proposed Drilling Details:
 - a. Drilling techniques.
 - b. Well logging method.
3. Proposed Monitoring Well Design – all proposed well construction information must be displayed on a construction diagram or schematic to accurately identify the following:
 - a. Well depth.
 - b. Borehole depth and diameter.

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- c. Well construction materials.
 - d. Casing material and diameter – include conductor casing, if appropriate.
 - e. Location and length of perforation interval, size of perforations, and rationale.
 - f. Location and thickness of filter pack, type and size of filter pack material, and rationale.
 - g. Location and thickness of bentonite seal.
 - h. Location, thickness, and type of annular seal.
 - i. Surface seal depth and material.
 - j. Type of well cap(s).
 - k. Type of well surface completion.
 - l. Well protection devices (such as below-grade water-tight vaults, locking steel monument, bollards, etc.).
4. Proposed Monitoring Well Development:
- a. Schedule for development (not less than 48 hours or more than 10 days after well completion).
 - b. Method of development.
 - c. Method of determining when development is complete.
 - d. Parameters to be monitored during development.
 - e. Method for storage and disposal of development water.
5. Proposed Surveying:
- a. How horizontal and vertical position of each monitoring well will be determined.
 - b. The accuracy of horizontal and vertical measurements to be obtained.
 - c. The California licensed professional (licensed land surveyor or civil engineer) to perform the survey.
6. Proposed Groundwater Monitoring:
- a. Schedule (at least 48 hours after well development).
 - b. Depth to groundwater measuring equipment (e.g., electric sounder or chalked tape capable of ± 0.01 -foot measurements).
 - c. Well purging method, equipment, and amount of purge water.
 - d. Sample collection (e.g., bottles and preservation methods), handling procedures, and holding times.
 - e. Quality assurance/quality control (QA/QC) procedures (as appropriate).
 - f. Analytical procedures.

- g. Equipment decontamination procedures (as appropriate).
- 7. Proposed Schedule:
 - a. Fieldwork.
 - b. Laboratory analyses.
 - c. Report submittal.

E. Monitoring Well Installation Completion Report (MWICR) (Applicable to both Individual and Representative Monitoring Program Requirements)

At a minimum, the MWICR shall summarize the field activities as described below.

- 1. General Information:
 - a. Brief overview of field activities including well installation summary (such as number, depths), and description and resolution of difficulties encountered during field program.
 - b. Topographic map showing any existing nearby domestic, irrigation, and municipal supply wells and monitoring wells, utilities, surface water bodies, drainage courses and their tributaries/destinations, and other major physical and man-made features.
 - c. Site plan showing monitoring well locations, other existing wells, unused and/or abandoned wells, major physical site structures (such as animal houses), waste handling facilities (including retention ponds and manure storage areas), land application area(s), and on-site surface water features.
 - d. Period of field activities and milestone events (e.g., distinguish between dates of well installation, development, and sampling).
- 2. Monitoring Well Construction:
 - a. Number and depths of monitoring wells installed.
 - b. Monitoring well identification (i.e., numbers).
 - c. Date(s) of drilling and well installation.
 - d. Description of monitoring well locations including field-implemented changes (from proposed locations) due to physical obstacles or safety hazards.
 - e. Description of drilling and construction, including equipment, methods, and difficulties encountered (such as hole collapse, lost circulation, need for fishing).
 - f. Name of drilling company, driller, and logger (site geologist to be identified).
 - g. As built for each monitoring well with the following details:

- i. Well identification.
 - ii. Total borehole and well depth.
 - iii. Date of installation.
 - iv. Boring diameter.
 - v. Casing material and diameter (include conductor casing, if appropriate).
 - vi. Location and thickness of slotted casing, perforation size.
 - vii. Location, thickness, type, and size of filter pack.
 - viii. Location and thickness of bentonite seal.
 - ix. Location, thickness, and type of annular seal.
 - x. Depth of surface seal.
 - xi. Type of well cap.
 - xii. Type of surface completion.
 - xiii. Depth to water (note any rises in water level from initial measurement) and date of measurement.
 - xiv. Well protection device (such as below-grade water-tight vaults, stovepipe, bollards, etc.).
 - h. All depth to groundwater measurements during field program.
 - i. Field notes from drilling and installation activities (e.g., all subcontractor dailies, as appropriate).
 - j. Construction summary table of pertinent information such as date of installation, well depth, casing diameter, screen interval, bentonite seal interval, and well elevation.
3. Monitoring Well Development:
- a. Date(s) and time of development.
 - b. Name of developer.
 - c. Method of development.
 - d. Methods used to identify completion of development.
 - e. Development log: volume of water purged and measurements of temperature, pH, and electrical conductivity during and after development.
 - f. Disposition of development water.
 - g. Field notes (such a bailing to dryness, recovery time, number of development cycles).
4. Monitoring Well Survey:
- a. Identify coordinate system or reference points used.

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- b. Description of measuring points (e.g., ground surface, top of casing, etc.).
- c. Horizontal and vertical coordinates of well casing with cap removed (measuring point to nearest ± 0.01 foot).
- d. Name, license number, and signature of California licensed professional who conducted survey.
- e. Surveyor's field notes.
- f. Tabulated survey data.

**MONITORING AND REPORTING PROGRAM R5-2016-0087-01
ATTACHMENT B**

**Surface Water Monitoring
for
Poultry Operations**

A. Surface Water Monitoring

The provisions of this attachment to Monitoring and Reporting Program R5-2016-0087-01 (MRP) are set out pursuant to the Executive Officer's authority under California Water Code (CWC) Section 13267 to order Dischargers to implement monitoring and reporting programs. The purpose of surface water monitoring required by these provisions is to confirm that farming practices being employed for the operation of land application areas are protective of surface water quality and comply with Receiving Water Limitation G.1 (Surface Water Limitations) of the Waste Discharge Requirements General Order for Poultry Operations, Order R5-2016-0087-01 (Order). These surface water monitoring provisions do not preclude the requirement for Dischargers to monitor surface runoff as described in Section D of MRP R5-2016-0087-01.

The provisions of this attachment do not apply to Low Threat Poultry Operations or to Poultry Operations that do not land apply waste to their own cropland.

As an alternative to monitoring surface water for pesticides on an individual basis or as a member of a Joint Monitoring Program pursuant to Section F of this **Attachment B**, Dischargers required to monitor surface water for pesticides may participate in an Irrigated Lands Regulatory Program (ILRP) Monitoring Coalition. Dischargers choosing to participate in an ILRP Coalition shall notify the Central Valley Water Board **within 24 months of the adoption of this Order** and identify the Coalition that the Discharger intends to join.

B. Farm Evaluation Form

All Full Coverage Poultry Operations that farm land not covered under the Irrigated Lands Regulatory Program shall, **within 18 months of adoption of the Order**, complete and submit to the Executive Officer a Farm Evaluation Form (Attachment B-1 to the MRP). The Farm Evaluation Form serves as a summary of farm management practices being used on land application areas to protect surface and groundwater from pesticides and nutrients, including drift. It consists of:

1. a Whole Farm Evaluation (Part A),
2. evaluation forms for each field regarding irrigation practices; nitrogen management methods; and sediment, drift, and erosion control practices (Parts B and C), and
3. irrigation well information (Part D).

C. Demonstration of No Potential to Discharge

After completion of a Farm Evaluation Form, a poultry operation may be exempted from the surface water monitoring requirements of this Attachment if it can be demonstrated that any discharge from the land application areas associated with the operation, including drift, have

no potential to reach surface water. The written demonstration is **due within 24 months of adoption of the Order**, should be submitted to the Executive Officer for review, and shall include an aerial photograph identifying nearby surface waters (or lack thereof). Features relied upon to prevent a discharge to surface water shall be discussed, and shall either represent natural conditions such as topography or a lack of nearby surface water, or substantial artificial features such as levees. After review of the demonstration, the Executive Officer shall notify the facility if compliance with the surface water monitoring provisions is required.

D. Exclusion of Pesticides from Monitoring

A Discharger may request the Executive Officer that a pesticide in use on a specific land application area be excluded from monitoring based on the overall runoff risk posed by that pesticide. Pesticides identified as having a low overall runoff risk in Publication 8161 (University of California, Division of Agriculture and Natural Resources) or an equivalent peer-reviewed scientific publication would be eligible for an exclusion from monitoring.

A Discharger may request the Executive Officer that a pesticide in use on a specific land application area be excluded from sediment toxicity testing based on the adsorption runoff potential posed by that pesticide. Pesticides identified as having a low adsorption runoff potential in Publication 8161 (University of California, Division of Agriculture and Natural Resources) or an equivalent peer-reviewed scientific publication would be eligible for an exclusion from sediment toxicity testing.

E. Reduction in Monitoring Frequency

The Discharger may petition the Executive Officer to reduce surface water monitoring frequencies if, after three consecutive years of monitoring for a constituent, there are no exceedances and no trends of degradation that may threaten applicable Basin Plan beneficial uses. The maximum surface water monitoring frequency reduction authorized by this section is one that reduces monitoring frequencies to once every five years. The Executive Officer may reinstate the required monitoring if an exceedance occurs, if a trend of degradation that may threaten applicable Basin Plan beneficial uses is indicated by available data, or if management practices change in a manner that could result in an exceedance or a trend of degradation.

F. Individual Monitoring Requirements

1. Surface Water Monitoring Requirements

a. Discharges to be Monitored

A Discharger whose discharges of storm water or irrigation tailwater have the potential to reach surface water shall monitor discharges of storm water, irrigation tailwater, and surface water channel-deposited sediments as specified in Table 6 below, unless modified by the Executive Officer. The purpose of this monitoring is to assess the wastes in discharges from land application areas to surface waters and to

evaluate the effectiveness of management practice implementation. Water quality is evaluated with both field-measured parameters and laboratory analytical data. The monitoring required below does not apply to surface water discharges from tile drainage systems. Tile drainage system discharge monitoring requirements are included in Section E.2 of MRP R5-2016-0087-01. **Monitoring of surface water shall begin within 36 months of the adoption of the Order or, for new or expanding facilities, within 6 months of receipt of the Notice of Applicability.**

TABLE 6. SURFACE WATER MONITORING	
<p>The following samples shall be collected each year from one third of the irrigation discharge points and storm water discharge points.^a The discharge points sampled shall be rotated each year, so that all discharge points from the Discharger's land application areas will be sampled every three years. Sample locations must be chosen such that the samples are representative of the quality and quantity of tailwater or storm water discharge, and at a point downgradient of water quality management practices.</p> <p><u>Irrigation tailwater monitoring is not required where the irrigation system produces an effectively immeasurable^b tailwater discharge.</u></p>	
<i>Irrigation Tailwater and Storm water Discharges to Surface Water</i>	
<p>Irrigation tailwater samples and storm water discharge samples shall be collected during the first hour of discharge per the following frequency:</p> <p>D.1 First and final (estimated final irrigation event) discharge of the growing season.</p> <p>D.2 First irrigation or storm event discharge that occurs within 60 days of application of a pesticide used on the land application area (sample is not required if there is no irrigation or storm water discharge within 60 days of application)^c. For each application of a pesticide, a new 60-day monitoring window begins.</p> <p>D.3 Irrigation discharges during employment of fertigation operations.</p> <p>For each sample, the Discharger shall record the date, time, location^d and ultimate destination of the discharge. Irrigation tailwater and storm water discharge samples shall be collected and analyzed for the constituents in Table 7 (as noted: D.1, D.2, and D. 3).</p>	
<i>Sediment Toxicity</i>	
<p>D.4 Sediment sample during the first irrigation or storm event discharge that occurs within 60 days of application of a pesticide used on the land application area (sample is not required if there is no irrigation or storm water discharge within 60 days of application). This shall be carried out at each location where surface water discharges are sampled, if sediment is present in the discharge.^e</p>	
<p>a.</p> <p>b.</p> <p>c.</p> <p>d.</p> <p>e.</p>	<p>A discharge point is defined as a location where surface water discharges leaves the Discharger's property. One discharge point per year shall be sampled for Dischargers that have one to three discharge points from land application areas, two discharge points per year shall be sampled for Dischargers that have four to six discharge points, etc.</p> <p>An effectively immeasurable discharge includes standing water (i.e., ponding, backflow) or where the total volume discharged in a 15-minute period of time is less than what is needed to collect the necessary sample volume.</p> <p>The list of pesticides that must be monitored is based on the pesticides used on a particular field, as listed in the Farm Water Quality Plan or annual updates provided as part of the Annual Report.</p> <p>The location of sample collection shall be recorded as latitude and longitude coordinates in decimal degrees, with at least four recorded decimal places.</p> <p>Not more than one sediment sample is required to be collected each year. Sediment must be present in the discharge in a quantity sufficient for testing.</p>

2. Pesticides to be Monitored

a. *Surface Water*

The Discharger shall monitor surface water discharges for pesticides identified in the Farm Water Quality Plan as in use on the land application area from which the discharge originated, and those pesticides identified in annual updates provided as part of the Annual Surface Water Monitoring Report.

b. *Sediment*

The Discharger shall test sediment for pesticides identified in the Farm Water Quality Plan as in use on the land application area from which the discharge originated, and those pesticides identified in annual updates provided as part of the Annual Surface Water Monitoring Report.

Sediment toxicity shall be tested using *Hyalella azteca*. The *Hyalella azteca* sediment toxicity test endpoint is survival.

All sediment samples must be analyzed for total organic carbon (TOC), as specified in Table 7 below. Analysis for TOC is necessary to evaluate the expected magnitude of toxicity to the test species. If the sample is not toxic to the test species, the additional sample volume can be discarded.

Sediment samples that show significant toxicity to *Hyalella azteca* at the end of an acceptable test and exhibit less than 80% organism survival compared to the control will require pesticide analysis of the same sample in an effort to determine the potential cause of toxicity. The pesticide analysis must include, at a minimum, the pesticides that triggered the sediment sampling. If the pesticides used by the Discharger are detected in the sediment sample (sediment toxicity trigger), the Discharger shall prepare a Surface Water Quality Management Plan and resample the receiving water or discharge channel one time per year if a surface water discharge occurs within 60 days of an application of the pesticide. The annual sampling requirement shall be reduced to one sample every 5 years when the sediment toxicity trigger is not exceeded for three consecutive sampling events at the discharge/receiving water location where the sediment toxicity was initially triggered.

If the sediment toxicity sampling frequency is reduced as described above, the Discharger shall continue the current, or equivalent, water quality management practices with respect to pesticide use and sediment and erosion control with sediment toxicity sampling once every five years. If equivalent management practices for pesticide use or sediment and erosion control are discontinued, sediment toxicity monitoring reverts to the annual sampling described in Table 6 above. The Discharger may petition the Executive Officer to remove the sediment toxicity monitoring requirement based on information showing that employed management practices protect against sediment toxicity, e.g., practices in place result in no measurable sediment discharge.

TABLE 7. DISCHARGE MONITORING OF TAILWATER, STORMWATER, AND SEDIMENT TOXICITY^(a)	
Constituent	Frequency (as given in Table 1)
Flow or volume of discharge	D.1, D.2, D.3
Duration of discharge	D.1, D.2, D.3
Turbidity	D.1(b)
Temperature (water)	D.3 (c)
pH	D.1, D.3 (c)
Electrical conductivity (EC) (at 25 °C)	D.1
Nitrate + nitrite (as nitrogen)	D.1, D.3
Dissolved oxygen	D.1, D.3
Ammonia	D.3 (d)
E. coli	D.1 (e)
Pesticide(s)	D.3 (f)
Hardness (as CaCO ₃)	D.3 (g)
Sediment toxicity to <i>Hyalella Azteca</i>	D.4
Sediment total organic carbon	D.4
Sediment total suspended solids	D.4
Sediment total settleable solids	D.4
a. Analytical methods, reporting limits, and reporting units are listed in on the Central Valley Water Board website. b. When measuring effluent turbidity, upstream receiving water turbidity shall also be measured. c. For D.3 discharges, temperature and pH measurements are only required when ammonia is used. d. Required when ammonia is used in fertigation. e. Required for any operation type where manure is applied within the last year. f. Pesticides that must be monitored are listed in identified through the procedures outlined in this Attachment. g. Hardness samples are only required when sampling for dissolved copper.	

3. Reporting Requirements

The results of any water quality monitoring conducted more frequently than required at the locations specified herein shall be maintained in accordance with the requirements specified in Record-Keeping Requirements MRP R5-2016-0087-01 and included in Annual Surface Water Monitoring Reports.

a. *Farm Water Quality Plan (FWQP)*

Within 24 months of adoption of the Order, the Discharger shall develop a farm-specific water quality plan and submit the plan to the Central Valley Water Board. Dischargers are encouraged to work with technical service organizations such as Resource Conservation Districts, commodity groups, and the University of California Cooperative Extension in the development of the entire FWQP. The Board recommends the University of California, Division of Agriculture and Natural Resources' Publication 8332, *The Farm Water Quality Plan*, as a reference to help complete this requirement. Under a FWQP, the Discharger is required to track and evaluate the farm's current management practices for pesticide use and runoff control and describe those practices needed or currently in use to minimize waste discharge to achieve surface water quality protection. The Executive Officer may require additional surface water quality monitoring to evaluate the effectiveness of the practices implemented. Additional practices/monitoring may be necessary, in an iterative process, to address water quality concerns.

The FWQP shall include, at a minimum:

- i. Description of the operation, including number of land application acres, crops;
- ii. Pesticides that may be applied, recommended rates, and practices associated with the pesticides that could affect the discharge of pesticides to surface water, such as application methods and irrigation related practices;
- iii. Map(s) showing the location of irrigated production areas, discharge points to surface waters, surface water bodies, and water quality sampling locations;
- iv. Rationale for the water quality sampling locations;
- v. Water quality management practices used or to be used (if planned, include timetable for implementation) to comply with the Order and reduce or eliminate discharge of waste to surface waters. As described in the Order, following are the farm management performance standards that must be achieved:
 - (1) Minimize waste discharge offsite in surface water,
 - (2) Prevent pollution and nuisance, and
 - (3) Minimize or eliminate the discharge of sediment above background levels.

b. *Surface Water Quality Management Plan (SWQMP)*

The Discharger shall develop a SWQMP when required by the Executive Officer. The Plan shall include the following elements.

- i. Constituent(s) for which the SWQMP is required (constituent[s] of concern), relevant sample results, and collection dates of the exceedances, if applicable, that triggered development of the SWQMP.
- ii. Summary of onsite sources of the constituent(s) of concern.
- iii. Description and justification for the proposed management practices that will be implemented to reduce the discharge of the constituent(s) of concern to address the problem triggering preparation of the SWQMP.
- iv. Proposed monitoring plan to evaluate the effectiveness of improved management.
- v. Proposed time schedule for implementation of management practices to address the problem triggering the preparation of the Plan. Time schedule shall be as short as practicable.

c. *Annual Surface Water Monitoring Report*

The Discharger shall submit to the Executive Officer an annual assessment of the surface water monitoring data due 1 August of each year, **with the first report due 48 months after adoption of the Order**. The annual assessment may be attached to the annual report required in of MRP R5-2016-0087-01. The annual assessment shall include a tabulated summary of all field-measured and analytical data collected to date including analytical lab reports for data collected during the past year. The assessment shall include an evaluation of the surface water monitoring program's adequacy to assess compliance with the Surface Water Limitations of the Order.

The Annual Surface Water Monitoring Report shall include the following sections and elements:

i. Surface water monitoring results:

Sample date
Constituent
Sample concentration result and trigger limit
Indicate which results are exceedances of trigger limits
Sample collection location with latitude and longitude coordinates in decimal degrees to at least the fourth decimal place
Sample site name / code

- ii. Copies of all field sheets associated with water quality sample collection.
- iii. Copies of all laboratory certified analytical reports associated with water quality samples.
- iv. For exceedances that have triggered a SWQMP, a summary of the updates to the Farm Water Quality Plan to reduce waste discharge and prevent future exceedances consistent with the requirements of the Order.
- v. Summary of the progress made meeting the time schedules approved in the SWQMP.
- vi. Updates on pesticide use. This section shall list all pesticides used during the annual monitoring period and all planned pesticides for the next reporting period.

d. **Water Quality Triggers**

This Order requires that Dischargers comply with all adopted water quality objectives and established federal water quality criteria applicable to their discharges. The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins and the Water Quality Control Plan for the Tulare Lake Basin (Basin Plans) contain numeric and narrative water quality objectives applicable to surface water within the Order's coverage area (the Central Valley region). USEPA's 1993 National Toxics Rule and 2000 California Toxics Rule contain water quality criteria which, when combined with Basin Plan beneficial use designations, constitute numeric water quality standards.

This Order establishes water quality triggers for developing SWQMPs. Water quality triggers are based on Basin Plan water quality objectives, some of which are site-specific, and therefore difficult to apply generally across the entire Order coverage area. Consequently, this Order establishes a process for providing Dischargers with water quality triggers for surface water. This process is initiated when the Discharger files a Farm Water Quality Plan. The Executive Officer will review the Plan and may

issue an NOA containing surface water quality triggers and any additional monitoring requirements based on review of the Plan. Additional monitoring requirements will include monitoring for compliance with any applicable Basin Plan Total Maximum Daily Loads and associated load limits.

e. Record-Keeping Requirements

- i. Records of on-site activities shall include:
 - (1) Date the observations were recorded, measurements were made, or samples were collected;
 - (2) Name and signature of the individual(s) who made the observations, made and recorded the measurements, or conducted the sampling;
 - (3) Location of measurements or sample collection;
 - (4) Procedures used for measurements or sample collection;
 - (5) Unique identifying number assigned to each sample; and
 - (6) Method of sample preservation utilized.

- ii. Records of laboratory analyses shall include:
 - (1) Results for the analyses performed on the samples that were submitted;
 - (2) Chain-of-Custody forms used for sample transport and submission;
 - (3) Form that records the date that samples were received by the laboratory and specifies the analytical tests requested;
 - (4) Name, address, and phone number of the laboratory which performed the analysis;
 - (5) Analytical methods used;
 - (6) Date(s) analyses were performed;
 - (7) Identity of individual(s) who performed the analyses or the lab manager; and
 - (8) Results for the quality control/quality assurance (QA/QC) program for the analyses performed.

All records described in this section will be submitted as part of the Annual Surface Water Monitoring Report

2. Joint Monitoring Program Requirements

As an alternative to conducting individual surface water monitoring as detailed in Section F, a group of Dischargers whose discharges of storm water or irrigation tailwater have the potential to reach surface water and which grow similar crops and have similar pesticide use can join together to monitor a representative portion of their combined land application areas. The group of Dischargers shall, **within 24 months of the adoption of the Order** request approval from the Executive Officer to conduct such representative monitoring. The request shall include, at a minimum, the names of the Dischargers in the group; list of crops grown and pesticides used; and a map showing the location of all of their land application areas, and indicating which crops are grown and which pesticides are used on which land application areas. The map shall also show the location of the proposed monitoring points and the crops and pesticides to be monitored by each point.

Such joint monitoring shall not commence until written approval is issued by the Executive Officer. **Within 30 months of the adoption of the Poultry General Order**, a Joint Monitoring Program shall submit a workplan for surface water monitoring to the Executive Officer for approval.

All Dischargers in a Joint Monitoring Program shall individually complete a Farm Water Quality Plan and submit it to the Central Valley Water Board. The Joint Monitoring Program shall conduct monitoring and keep records as described in Section F of this attachment for individual monitoring programs. The Joint Monitoring Program shall prepare and submit the Surface Water Quality Management Plan and Annual Surface Water Monitoring Reports to the Central Valley Water Board on behalf of the Dischargers in the Joint Monitoring Program.

A Joint Monitoring Program is not a Discharger. Owners and operators of Poultry Operations are Dischargers and are responsible and liable for individual compliance and for determining if they are in compliance with the terms of the Order and MRP. Pursuant to the Water Code Section 13267, the Executive Officer may, at any time, order implementation of individual surface water monitoring at a poultry operation, even if the Discharger participates in a Joint Monitoring Program. Such order may occur, for instance, if violations of the Order are documented and/or the facility is found to be in an area where site conditions and characteristics pose a high risk to surface water quality. In the event the Executive Officer orders implementation of individual surface water monitoring to a participant in a Joint Monitoring Program, the Discharger shall no longer be eligible to participate in a Joint Monitoring Program to comply with the surface water monitoring requirements of the MRP.

**MONITORING AND REPORTING PROGRAM No. R5-2016-0087-01
Attachment B-1**

**Farm Evaluation Survey
for
Poultry Operations**

This Farm Evaluation Survey is intended to be a summary of farm management practices being used on land application areas to protect surface and groundwater. All Full Coverage Poultry Operations that irrigate a "land application area" that is not covered under the Irrigated Lands Regulatory Program (whether or not manure or wastewater is applied to that land) shall complete and submit this form to the Executive Officer.

There are three, one-page "parts" to the Farm Evaluation Survey to complete:

- Part A: Whole Farm Evaluation; complete only once (1 page).
- Part B: Specific Field Evaluation; complete one page for each field.
- Part C: Sediment and Erosion Control Practices; complete one page for each field.

Answer questions based on practices used in 2016.

You may need to make copies of Parts B and C of the survey and complete separate surveys for each of your fields that are managed differently or have different crops. See detailed instructions on the following pages.

The practices recorded on the survey should correspond to the APN parcels and Field IDs used in your Nutrient Management Plan. You may subdivide a parcel into fields, assigning each field a name or number (if one is not already assigned).

For example, you might have two fields of different crops in one APN so they could be identified as APN# 111-00-222, field A; APN# 111-00-222, field B, etc or any other designation used by the County Agricultural Commissioner or your own records.

If all parcels/fields listed have the same practices, fill out one (1) survey for all parcels and return. If parcels/fields have different practices, make copies of the survey and fill out one (1) survey for each parcel/field with different practices.

For example, if a Discharger has 3 parcels enrolled with one crop grown (Parcel A, B, and C) and he manages Parcel A and B the same, he can fill out one survey for Parcels A and B. Another survey needs to be filled out for Parcel C to record the crops or practices that differ from A and B.

Step by Step Instructions

The Farm Evaluation has 3 components:

Part A: Whole Farm Evaluation

Part B: Specific Field Evaluation

Part C: Sediment & Erosion Control Practices

Step 1: Part A: Answer Questions 1 – 3 for all cropland.

Step 2: Part B, Question 1: List the parcels described on that page. Remember to fill out a page for each of your parcels or fields that are managed differently.

Step 3: Part B: Answer questions 2 – 4 for parcels that **you identified** at the top of the page by checking the applicable box(es). *If parcels or fields differ in their practices, you must make a copy of the page to answer questions for parcels/fields differently.*

Step 4: Part C: Answer questions as you did in Part B in reference to parcels that **you identify** at the top of the page. *If parcels or fields differ in their practices you must make a copy of the page to answer questions for parcels/fields differently.*

Step 5: Sign the bottom of Part A to certify that all of the information provided is current and accurate and submit to the Executive Officer by the due date, 6 June 2018.

Part A – Whole Farm Evaluation

Facility Name: _____ Facility Address: _____

1. Which pest management application practices have you implemented? (check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Followed County Permit | <input type="checkbox"/> Monitored Wind Conditions |
| <input type="checkbox"/> Followed Label Restrictions | <input type="checkbox"/> Used Buffer Zones |
| <input type="checkbox"/> Mapped Sensitive Areas | <input type="checkbox"/> Used Vegetated Drain Ditches |
| <input type="checkbox"/> Attended Pest Management Trainings | <input type="checkbox"/> Monitored Rain Forecasts |
| <input type="checkbox"/> Used End of Row Sprayer Shutoff | <input type="checkbox"/> Followed PCA Recommendations |
| <input type="checkbox"/> Avoided Surface Water When Spraying | <input type="checkbox"/> Used Chemigation |
| <input type="checkbox"/> Reapplied Rinsate to Treated Field | <input type="checkbox"/> Mixed and loaded on low runoff hazard site (e.g. away from creeks or wells) |
| <input type="checkbox"/> Used Targeted Sensing Sprayer | <input type="checkbox"/> Applied Lower Risk Pesticides |
| <input type="checkbox"/> Used Drift Control Agents | <input type="checkbox"/> Limited/controlled irrigation runoff after application |
| <input type="checkbox"/> Integrated Pest Management (Reduced Pesticide Use) | <input type="checkbox"/> No Pesticides Applied |
| | <input type="checkbox"/> Other _____ |

2. Who do you have develop your Nutrient Management Plan? (check all that apply)

- Certified Crop Advisor (CCA)
- UC Farm Advisor
- Certified Technical Service Providers by NRCS
- Professional Soil Scientist
- Professional Agronomist
- None of the above

3. Do one of more of your fields have the potential to discharge sediment to off-farm surface waters? Circle One Yes No

If so, complete Part C on sediment and erosion control practice used on farm field(s).

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

Signature

Printed Name

Date

Part B – Field Specific Evaluation

Facility Name: _____ Facility Address: _____

1. Identify the Parcels and Fields covered by this evaluation. *Fill out a separate survey for parcels/fields with different practices.*

Parcel (APN)	Field ID	Acres	Crop
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

2. Which irrigation method(s) are used for the parcels/field covered by this evaluation?
(A secondary system could be used for crop germination, frost protection, crop cooling, etc.)

Primary (check one)

- Drip
- Micro Sprayer/Sprinkler
- Furrow
- Sprinkler
- Border Strip
- Flood

Secondary (if applicable, check one)

- Drip
- Micro Sprayer/Sprinkler
- Furrow
- Sprinkler
- Border Strip
- Flood

3. Which irrigation management practices are implemented for the parcels/field covered by this evaluation? (check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Laser Leveled Fields | <input type="checkbox"/> Measured plant water stress |
| <input type="checkbox"/> Weather-based irrigation sch | <input type="checkbox"/> Measured applied irrigation water (water meter) |
| <input type="checkbox"/> Based irrigation on crop water need | <input type="checkbox"/> Maintained irrigation system for optimal performance |
| <input type="checkbox"/> Measured soil moisture | <input type="checkbox"/> Used pressure control regulators |
| <input type="checkbox"/> Tested/improved distribution uniformity (DU) | <input type="checkbox"/> Used variable speed pump |
| <input type="checkbox"/> Used tailwater return/reuse system | <input type="checkbox"/> Other _____ |

4. Nitrogen Management Methods to Minimize Leaching Past the Root Zone (check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Scheduled fertilizer application to match crop need | <input type="checkbox"/> Used urease and/or nitrification inhibitors |
| <input type="checkbox"/> Used Cover Crop or crop rotation | <input type="checkbox"/> Mixed and loaded fertilizers on low runoff sites (away from creeks/wells) |
| <input type="checkbox"/> Used split fertilizer applications | <input type="checkbox"/> Tested irrigation water N concentration |
| <input type="checkbox"/> Tested soil for residual nitrogen | <input type="checkbox"/> Used Fertigation |
| <input type="checkbox"/> Used Tissue/Petiole Testing | <input type="checkbox"/> Measured N content of organic amendments |
| <input type="checkbox"/> GPS used for Variable Rate Application | <input type="checkbox"/> Evaluated crop nitrogen need |
| <input type="checkbox"/> Applied Foliar N | <input type="checkbox"/> Other _____ |

Part C – Sediment & Erosion Control Practices

Facility Name: _____ Facility Address: _____

1. Identify the Parcels and Fields that are covered by this evaluation.

Fill out a separate survey for parcels/fields with different practices.

Parcel (APN)	Field ID	Acres	Crop
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

2. Which Irrigation Practices are implemented for the parcels/fields covered by this evaluation for Managing Sediment and Erosion? (check all that apply)

- In-furrow dams are used to increase infiltration and settling out of sediment prior to entering the tail ditch.
- The time between pesticide applications and the next irrigation is lengthened as much as possible to mitigate runoff of pesticide residue.
- Shorter irrigation runs are used with checks to manage and capture flows.
- PAM (polyacrylamide) used in furrow and flood irrigated fields to help bind sediment and increase infiltration.
- Use drip or micro-irrigation to eliminate irrigation drainage.
- Use of flow dissipaters to minimize erosion at discharge point.
- Tailwater Return System.
- Catchment Basin.
- No irrigation drainage due to field or soil conditions.

3. Which Cultural Practices are implemented for the parcels/fields covered by this evaluation for Managing Sediment and Erosion? (check all that apply)

- Storm water is captured using field borders.
- Vegetated ditches are used to remove sediment as well as water soluble pesticides, phosphate fertilizers and some forms of nitrogen.
- Vegetative filter strips and buffers are used to capture flows.
- Sediment basins / holding ponds are used to settle out sediment and hydrophobic pesticides such as pyrethroids from irrigation and storm runoff.
- Cover crops or native vegetation are used to reduce erosion.
- Hedgerows or trees are used to help stabilize soils and trap sediment movement.
- Soil water penetration has been increased through the use of amendments, deep ripping and/or aeration.
- Crop rows are graded, directed and at a length that will optimize the use of rain and irrigation water.
- Creek banks and stream banks have been stabilized.
- Subsurface pipelines are used to channel runoff water.
- Berms are constructed at low ends of fields to capture runoff and trap sediment.
- Minimum tillage incorporated to minimize erosion.
- Field is lower than surrounding terrain.
- No storm drainage due to field or soil conditions.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

**STANDARD PROVISIONS AND REPORTING REQUIREMENTS
FOR
WASTE DISCHARGE REQUIREMENTS GENERAL ORDER NO. R5-2016-0087-01
FOR
POULTRY OPERATIONS**

6 DECEMBER 2016

A. Introduction:

1. These Standard Provisions and Reporting Requirements (SPRR) are applicable to Poultry Operations that are regulated pursuant to the provisions of Title 27 California Code of Regulations (CCR) Division 2, Subdivision 1, Chapter 7, Subchapter 2, Sections 22560 et seq.
2. Any violation of the Order constitutes a violation of the California Water Code and, therefore, may result in enforcement action.
3. If there is any conflicting or contradictory language between the Order, the Monitoring and Reporting Program (MRP) associated with the Order, or the SPRR, then language in the Order shall govern over the MRP and the SPRR, and language in the MRP shall govern over the SPRR.

B. Standard Provisions:

1. The requirements prescribed in the Order do not authorize the commission of any act causing injury to the property of another, or protect the Discharger from liabilities under federal, state, or local laws.
2. The Discharger shall comply with all federal, state, county, and local laws and regulations pertaining to the discharge of wastes from the facility that are at least as stringent as the requirements of the Order.
3. All discharges from the facility must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or to other courses under their jurisdiction that are at least as stringent as the requirements of the Order.
4. The Order does not convey any property rights or exclusive privileges.
5. The provisions of the Order are severable. If any provision of the Order is held invalid, the remainder of the Order shall not be affected.
6. The Discharger shall take all reasonable steps to minimize any adverse impact to the waters of the State resulting from noncompliance with the Order. Such steps shall include accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliance.

7. The fact that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the Order shall not be a defense for violations of the Order by the Discharger.
8. The filing of a request by the Discharger for modification, revocation and reissuance, or termination of the Order, or notification of planned changes or anticipated noncompliance, does not stay any condition of the Order.
9. The Order is not transferable to any person except after notice to the Central Valley Water Board. The Central Valley Water Board may modify or revoke and reissue the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the California Water Code. For composting operations, notice must also be provided to CalRecycle and the Local Enforcement Agency.
10. The Discharger shall provide to the Executive Officer, within a reasonable time, any information which the Executive Officer may request to determine whether cause exists for modifying, revoking, and reissuing, or terminating the Discharger's coverage under the Order or to determine compliance with the Order. The Discharger shall also provide to the Executive Officer upon request, copies of records required by the Order to be kept.
11. After notice and opportunity for a hearing, the Order may be terminated or modified for cause, including but not limited to:
 - a. Violation of any term or condition contained in the Order;
 - b. Obtaining the Order by misrepresentation, or failure to disclose fully all relevant facts;
 - c. A change in any condition that results in either a temporary or permanent need to reduce or eliminate the authorized discharge; or
 - d. A material change in the character, location, or volume of discharge.
12. The Order may be modified if new state statutes or regulations are promulgated, and if more stringent applicable water quality standards are approved pursuant to Title 27 of the CCR, or as adopted into the Central Valley Water Board *Water Quality Control Plans (Basin Plans) for the Sacramento River and San Joaquin River Basins (4th Ed)*, and for the *Tulare Lake Basin (2nd Ed.)*. The Order may also be modified for incorporation of land application plans, and/or changes in the waste application to cropland.
13. The Central Valley Water Board may review and revise the Order at any time upon application of any affected person or by motion of the Board.

14. The Discharger shall ensure compliance with existing and/or future promulgated standards that apply to the discharge.
15. The Discharger shall permit representatives of the Central Valley Water Board and the State Water Resources Control Board (State Water Board), upon presentations of credentials at reasonable hours, to:
 - a. Enter premises where wastes are treated, stored, or disposed and where any records required by the Order are kept;
 - b. Copy any records required to be kept under terms and conditions of the Order;
 - c. Inspect facilities, equipment (monitoring and control), practices, or operations regulated or required by the Order; and
 - d. Sample, photograph, and/or video tape any discharge, waste, waste management unit, or monitoring device.
16. The Discharger shall properly operate and maintain in good working order any facility, unit, system, or monitoring device installed to achieve compliance with the Order. Proper operation and maintenance includes best practicable treatment and controls, and the appropriate quality assurance procedures.
17. Animal waste storage areas and containment structures shall be designed, constructed, and maintained to limit, to the greatest extent possible, infiltration, inundation, erosion, slope failure, washout, overtopping, by-pass, and overflow.
18. Setbacks or separation distances contained under Water Wells, Section 8, Part II, in the *California Well Standards, Supplemental Bulletin 74-90 (June 1991)*, and *Bulletin 94-81 (December 1981)*, California Department of Water Resources (DWR), shall be maintained for the installation of all monitoring wells and groundwater supply wells at existing facilities. A setback of 100 feet is required between supply wells and animal enclosures in the production area. A minimum setback of 100 feet, or other control structures (such as housing, berming, grading), shall be required for the protection of existing wells or new wells installed in the cropland. If a county or local agency adopts more stringent setback standards than that adopted by the DWR, then these local standards shall carry precedence over the Well Standards of DWR, and the Discharger shall comply with the more stringent standards.
19. Following any storm event that causes the freeboard of any wastewater pond to be less than one (1) foot for below-grade ponds, or two (2) feet for above-grade ponds, the Discharger shall take action as soon as possible to provide the appropriate freeboard in the wastewater pond.
20. For any electrically operated equipment at the facility, the failure of which would cause loss of control or containment of waste materials, or violation of this Order, the Discharger shall employ safeguards to prevent loss of control over wastes or

violation of this Order. Such safeguards may include alternate power sources, standby generators, standby pumps, additional storage capacity, modified operating procedures, or other means.

C. General Reporting Requirements:

1. The Discharger shall give at least 60 days advance notice to the Central Valley Water Board of any planned changes in the ownership or control of the facility. For composting operations, the Discharger shall notify the Central Valley Water Board, CalRecycle, and the Local Enforcement Agency, in writing, at least 30 days in advance of any change in control or ownership. In both cases the notification shall include:
 - a. A statement of acknowledgment that the current owner is liable for violations occurring up to the transfer date and that the new owner is liable for violations occurring after the date that ownership of the property transfers; and
 - b. The new owner's Notice of Intent
2. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of the Order by letter at least 60 days in advance of such change, a copy of which shall be immediately submitted to the Central Valley Water Board in accordance with General Reporting Requirements C.12 below.
3. To assume operation under the Order, any succeeding owner or operator must request, in writing, that the Executive Officer transfer coverage under the Order. The Central Valley Water Board will provide a form for this request that will allow the succeeding owner or operator to provide their full legal name, address and telephone number of the persons responsible for contact with the Central Valley Water Board and a responsibility statement and a signed statement in compliance with General Reporting Requirement C.7 below. The form will also include a statement for signature that the new owner or operator assumes full responsibility for compliance with the Order and that the new owner or operator will implement the Waste Management Plan and the NMP prepared by the preceding owner or operator. Transfer of the Order shall be approved or disapproved in writing by the Executive Officer. The succeeding owner or operator is not authorized to discharge under the Order and is subject to enforcement until written approval of the coverage transfer from the Executive Officer.
4. The Executive Officer may require the Discharger to submit technical reports pursuant to the Order and California Water Code Section 13267.
5. The Discharger shall identify any information that may be considered to be confidential under state law and not subject to disclosure under the Public Records

Act. The Discharger shall identify the basis for confidentiality. If the Executive Officer cannot identify a reasonable basis for treating the information as confidential, the Executive Officer will notify the Discharger that the information will be placed in the public file unless the Central Valley Water Board receives, within 10 calendar days, a written request from the Discharger to keep the information confidential containing a satisfactory explanation supporting the information's confidentiality.

6. Except for data determined to be exempt from disclosure under the Public Records Act (California Government Code Sections 6275 to 6276), and data determined to be confidential under Section 13267(b)(2) of the California Water Code, all reports prepared in accordance with the Order and submitted to the Executive Officer shall be available for public inspection at the offices of the Central Valley Water Board. Data on waste discharges, water quality, meteorology, geology, and hydrogeology shall not be considered confidential.
7. All technical reports and monitoring program reports shall be accompanied by a cover letter with the certification specified in C.8 below and be signed by a person identified below:
 - a. For a sole proprietorship: by the proprietor;
 - b. For a partnership: by a general partner;
 - c. For a corporation: by a principal executive officer of at least the level of senior vice-president; or
 - d. A duly authorized representative if:
 - i. The authorization is made in writing by a person described in Subsection a, b, or c of this provision;
 - ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the facility, such as the position of manager. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and
 - iii. The written authorization is submitted to the Central Valley Water Board.
8. Each person, as specified in C.7 above, signing a report required by the Order or other information requested by the Central Valley Water Board 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 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.”

9. In addition to Item C.7 above, all technical reports required in the Order that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by, or under the direction of, and signed by persons registered to practice in California pursuant to California Business and Professions Code, Sections 6735, 7835, and 7835.1 or federal officers and employees who are exempt from these Sections by California Business and Professions Code, Section 6739 or 7836. To demonstrate compliance with Title 16 CCR, Sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.
10. The Discharger shall file a Notice of Intent with the Central Valley Water Board at least 140 days before making any material change in the character, location, or volume of the discharge. A material change includes, but is not limited to, the following:
 - a. The addition of a new wastewater that results in a change in the character of the waste;
 - b. Significantly changing the disposal or waste application method or location;
 - c. Significantly changing the method of treatment;
 - d. Increasing the discharge flow beyond that specified in the Order; and/or
 - e. Expanding flock size beyond the maximum flock size reported in the Notice of Intent (**Attachment A**).
11. For changes to a composting operation, the Discharger shall submit a revised Notice of Intent (NOI) to the Central Valley Water Board, CalRecycle, and the Local Enforcement Agency at least 90 days prior to:
 - a. Adding a new feedstock, additive, or amendment;
 - b. Changing material or construction specifications;
 - c. Changing a monitoring program; or
 - d. Changing an operation or activity that was not described in the approved NOI.The Central Valley Water Board may require submittal of a revised technical report.
12. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence shall be converted to a searchable Portable Document Format

(PDF) and submitted electronically to the State Water Resources Control Board's Internet-accessible database system (Geotracker database).

Dischargers or their representatives need to create a Geotracker user account. Instructions for setting up an account and the process of claiming a site, formatting and uploading data, and other technical information can be found under the "ESI Overview" and "Getting Started" sections at http://www.swrcb.ca.gov/water_issues/programs/ust/electronic_submittal/.

Monitoring data and correspondence needs to be in searchable Portable Document Format (PDF). Documents must be less than 400 MB to be uploaded to the Geotracker database. If not, PDF file size reduction tools should be used to reduce the size of files larger than 400 MB.

D. Requirements Specifically for Monitoring Programs and Monitoring Reports:

1. The Discharger shall file self-monitoring reports and/or technical reports in accordance with the detailed specifications contained in the MRP attached to the Order.
2. The Discharger shall maintain a written monitoring program sufficient to assure compliance with the terms of the Order. Anyone performing monitoring on behalf of the Discharger shall be familiar with the written program.
3. The monitoring program shall include observation practices, sampling procedures, and analytical methods designed to ensure that monitoring results provide a reliable indication of water quality at all monitoring points.
4. All instruments and devices used by the Discharger for the monitoring program shall be properly maintained and shall be calibrated as recommended by the manufacturer and at least once annually to ensure their continued accuracy.
5. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by the Order, and records of all data used to complete the reports. Records shall be maintained for a minimum of five years from the date of sample, measurement, report, or application. Records shall also be maintained after facility operations cease if wastes that pose a threat to water quality remain at the site. This five-year period may be extended during the course of any unresolved litigation regarding the discharge or when requested in writing by the Executive Officer.
 - a. Records of on-site monitoring activities shall include the:
 - i. Date that observations were recorded, measurements were made, or samples were collected;
 - ii. Name and signature of the individual(s) who made the observations, made and recorded the measurements, or conducted the sampling;

- iii. Location of measurements or sample collection;
 - iv. Procedures used for measurements or sample collection;
 - v. Unique identifying number assigned to each sample; and
 - vi. Method of sample preservation utilized.
- b. Records of laboratory analyses shall include the:
- i. Results for the analyses performed on the samples that were submitted;
 - ii. Chain-of-custody forms used for sample transport and submission;
 - iii. Form that records the date that samples were received by the laboratory and specifies the analytical tests requested;
 - iv. Name, address, and phone number of the laboratory which performed the analysis;
 - v. Analytical methods used;
 - vi. Date(s) analyses were performed;
 - vii. Identity of individual(s) who performed the analyses or the lab manager; and
 - viii. Results for the quality control/quality assurance (QA/QC) program for the analyses performed.

E. Enforcement

California Water Code Section 13350 provides that any person who violates WDRs or a provision of the California Water Code is subject to civil liability of up to \$5,000 per day or \$15,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil liability of up to \$10 per gallon, or \$20 per gallon; or some combination thereof, depending on the violation, or upon the combination of violations. In addition, there are a number of other enforcement provisions that may apply to violation of the Order.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
Order R5-2016-0087-01**

INFORMATION SHEET

**WASTE DISCHARGE REQUIREMENTS GENERAL ORDER
FOR
POULTRY OPERATIONS**

INTRODUCTION

This Information Sheet provides information to supplement, clarify, and elaborate upon the findings and requirements contained in the Waste Discharge Requirements General Order for Poultry Operations, Order No. R5-2016-0087-01 (Poultry General Order). This Information Sheet is considered a part of the Poultry General Order.

The Poultry General Order will serve as general Waste Discharge Requirements for discharges of waste from Poultry Operations. The Poultry General Order is not a National Pollutant Discharge Elimination System (NPDES) permit, and does not authorize discharges to surface waters that would otherwise require an NPDES permit.

BACKGROUND ON REGULATION OF CONFINED ANIMAL OPERATIONS

Pursuant to Water Code Section 13260, any person discharging or proposing to discharge wastes that could affect the quality of the waters of the state is obliged to file a report of that discharge with the appropriate regional water board and receive waste discharge requirements from that board. The regional water boards have the authority to waive this requirement pursuant to Water Code Section 13269. In 1982, the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board or Board) adopted Resolution No. 82-036, which waived waste discharge requirements for most confined animal operations. This waiver remained in place until statutory changes to Water Code Section 13269 resulted in the automatic expiration of all waivers on 1 January 2003.

To replace the expiring waiver, the Central Valley Water Board adopted Resolution R5-2002-0205 on 6 December 2002 that states all operations that discharge or propose to discharge waste would be expected to obtain regulatory coverage under either:

- Individual or general waste discharge requirements prescribed by the Board pursuant to Water Code Section 13263;
- A conditional waiver that the Board would adopt pursuant to Water Code Section 13269; or
- Individual or general National Pollutant Discharge Elimination System (NPDES) permits, which would be issued by the Board pursuant to Federal law.

The Central Valley Water Board rescinded Resolution R5-2002-0205 on 13 March 2003, because neither general waste discharge requirements nor a general NPDES permit were available as options for facilities to consider before the deadlines in the Resolution expired.

Since the waiver expired, the Regional Board has been developing and implementing General Orders for various groups of dischargers, including confined animal operations. The Poultry General Order is aimed at protecting surface and groundwater quality in the Central Valley from waste produced by Poultry Operations.

RATIONALE FOR ISSUING A GENERAL ORDER

The Board regulates most discharges by prescribing waste discharge requirements or by issuing conditional waivers. All Poultry Operations (as defined in Cal. Code Regs., tit. 27, § 20164) are subject to the Board's regulatory authority.

Water Code Section 13263(i) describes the criteria that the Board uses to determine whether a group of operations should be regulated under a general order (as opposed to individual orders). These criteria include:

- The discharges are produced by the same or similar types of operations,
- The discharges involve the same or similar types of wastes,
- The discharges require the same or similar treatment standards, and
- The discharges are more appropriately regulated under general WDRs rather than individual WDRs.

Poultry Operations are appropriately regulated by a General Order because they: (a) involve similar types of operations, where animals are confined and where their wastes are managed by onsite storage, land application, or removal offsite; (b) the discharges from these operations, which are primarily composed of animal waste, are similar; (c) the operations are subject to regulations that impose the same or similar treatment standards; (d) discharges of poultry wastes have the same potential to impact waters of the state; and, (e) given the large number of operations and their similarities, the operations are more appropriately regulated under a General Order.

POULTRY AND POULTRY OPERATIONS IN THE CENTRAL VALLEY

The Central Valley Region has approximately 500 facilities that house egg-producing chickens; about 400 of these facilities house fewer than 400 birds. The remaining facilities house 99 percent of the egg-producing chickens in the Central Valley Region. Ninety-eight percent of the egg-producing chicken population is housed in four counties: Stanislaus, Kern, San Joaquin, and Merced.

The number of meat bird operations in the Central Valley is less clear. Available information indicates that there are about 215 ranches at which meat chickens are raised, with populations ranging from 40,000 to 600,000 birds, and about 75 turkey ranches. Only minimal information is available on Poultry Operations raising ducks, geese, or game birds. Regardless of the size of the operations, most counties in the Central Valley have at least some Poultry Operations.

Regarding the number of birds associated with these Poultry Operations, according to the 2012 USDA Census of Agriculture¹, the Central Valley of California houses a total of about 36 million chickens (22 million broilers, 8 million layers, 2 million pullets or immature birds) and 4 million turkeys (Figure 1). About 97 percent of the poultry population in the Central Valley is concentrated in four counties: Stanislaus, Fresno, Merced and San Joaquin.

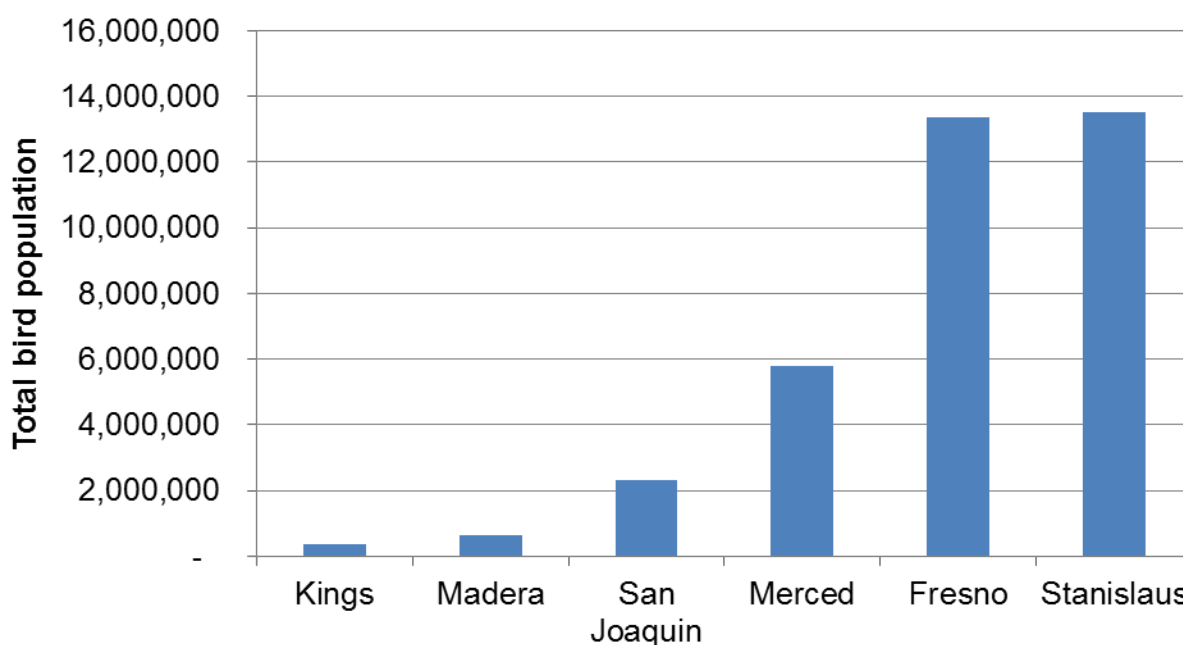


Figure 1. Counties with high populations of poultry

Considering the large poultry population in the Central Valley, significant amounts of manure are generated daily. The rate at which manure is produced by poultry depends on the weight of the bird and the type of poultry operation. It was estimated that 13.4 lbs. of manure (dry basis) are produced daily per 1,000 lbs. of live weight of laying chickens. Manure production from meat chickens was estimated to be 17.4 lbs. (dry basis) per day per 1,000 lbs. of live weight². Sound plans are required to manage this manure to minimize impacts to water quality.

¹ National Agricultural Statistics Services, 2012 Census of Agriculture – County Data

² D.R. Edwards and T.C. Daniel, Bioresource Technology 41 (1992) 9-33

POTENTIAL IMPACTS OF POULTRY WASTE ON WATER QUALITY

For the purposes of this General Order, poultry waste includes, but is not limited to, manure, litter, leachate, process wastewater and any water, precipitation or rainfall runoff that came into contact with raw materials, products, or byproducts such as manure, compost piles, feed, or bedding.

Waste generated at Poultry Operations is typically cleaned out of animal housing and transported off-site within a few days. Wastes are sometimes applied to cropland owned by the poultry operation as a nutrient source. Wastes are sometimes stored in solid form in piles and sometimes in liquid form in wastewater retention ponds.

Poultry manure contains over twice as much total nitrogen as manure from dairy cattle, measured as a percentage of dry weight. Manure from Poultry Operations contains high concentrations of salts (total dissolved solids, including constituents such as sodium and chloride) derived primarily from the feed and water sources used in the poultry production activities. Poultry manure is generally preferred to dairy manure for application to cropland, and much poultry manure is sold to third parties instead of being land applied to cropland owned by the poultry operation. However, Central Valley Water Board staff has investigated some cases of mismanagement at Poultry Operations that have resulted in impacts to surface water quality. The cases generally involve liquid poultry waste management systems, where ponds designated to receive poultry waste have overflowed or otherwise discharged to surface water due to a lack of maintenance, or where wastes are discharged directly onto the ground due to the lack of a wastewater pond. Runoff from outdoor pens has also impacted surface water. The Poultry General Order is designed to ensure that poultry waste is protected from rainfall that can mobilize waste constituents, and that ponds and outdoor areas housing birds do not discharge waste constituents off-property.

WASTE MANAGEMENT PROVISIONS IN THE POULTRY GENERAL ORDER

The Poultry General Order contains prohibitions, general specifications, and specific requirements for wastewater ponds, the production area where birds are housed, the land application area where crops are grown, and monitoring requirements. The goal of the Order is to ensure that Poultry Operations implement water quality management practices that protect surface and groundwater. Practices can be physical, like the construction of new wastewater ponds in ways that protect water quality, or can be management-related, like the prompt shipment off-site of manure removed from bird housing, or the timing of such house cleanouts to periods when rain is not expected.

Excluded Operations: The Order does not regulate Poultry Operations having fewer than 2 animal units onsite. An animal unit is 1000 pounds of live weight, and is roughly 200 meat-type chickens. Therefore, operations having fewer than 400 meat chickens, for example, are not required to obtain coverage under this Order.

Two Tiered Regulatory System: Because many Poultry Operations do not store waste on site or apply waste to cropland owned by the operation, Central Valley Water Board staff is proposing a two-tiered regulatory system, where operations that pose a low threat to water quality can be placed into a Low Threat tier with reduced waste management requirements. The Low Threat designation is predicated on waste management practices that limit the exposure of waste to precipitation or other water sources.

Poultry Operations considered to be Low Threat operations are required to:

- Submit a Notice of Intent within 12 months of the adoption of the Order;
- Maintain records and submit annual reports;
- Submit an Operation and Maintenance Plan describing how the facility will be operated, and install and maintain backflow prevention devices; and
- Document the destinations of exported manure using manifests or Bills of Sale.

Poultry Operations considered to be Full Coverage operations are required to:

- Submit a Notice of Intent within 12 months of the adoption of the Order,
- Where applicable, monitor wastewater, soil, crops, manure, surface water discharges, and storm water discharges;
- Where applicable, monitor surface water and groundwater in accordance with a monitoring and reporting program (regulated Operations have the option to join a Representative Groundwater Monitoring Program (RMP) in lieu of individual monitoring of first encountered groundwater);
- Where applicable, prepare, submit, and implement a Waste Management Plan for the poultry production area (including an Operation and Maintenance Plan);
- Where applicable, prepare and implement a Nutrient Management Plan (NMP) for land application areas, or document the destinations of exported manure using manifests or Bills of Sale;
- Maintain records and submit annual reports; and
- Improve or replace management practices that are found not to be protective of water quality.

Terms Used to Describe Areas at Poultry Operations: In the Poultry General Order, the land associated with a poultry operation is divided into a “production area” and a “land application area”. The Order uses the term “production area” to refer to the area of the operation where birds are housed, feed and manure are stored, and wastewater is managed. The Order uses the term “land application area” to refer to cropland where wastes and wastewater generated at the facility are applied to grow crops. Many Poultry Operations do not have cropland associated with the operation.

Water Quality Concerns for Land Application Areas (cropland): When used as a fertilizer on cropland, poultry waste is applied to soils of varying character and drainage characteristics, varying proximity to surface drainages and waterways, and different depths to groundwater. Because of the site variability, this General Order requires Poultry Operations that apply poultry waste to their own cropland to develop a Nutrient Management Plan that is field specific to ensure that optimum nutrient utilization takes place. Although the waste materials provide nutrients to crops, they can create nuisance conditions if improperly managed or cause pollution of surface water and/or groundwater if site conditions are not taken into account in preparing a nutrient utilization and management strategy. This General Order regulates the management of poultry wastes onsite and requires nutrient monitoring, discharge monitoring, groundwater monitoring (individual or representative) and manifesting of poultry waste exported from the operation.

Surface water can also be degraded by both the type and high concentrations of pollutants in poultry manure and wastewater. Ammonia in the waste is highly toxic to aquatic life and can suppress dissolved oxygen concentrations. In addition, nitrogen and phosphorus compounds in the waste can cause excessive algal growth in surface waters, resulting in lower oxygen levels and which in turn causes fish and other organisms to die. The presence of pathogens in the waste can create a public health threat through human contact with affected waters. The Poultry General Order prohibits the discharge of waste and water that has contacted waste from the production area, the discharge of waste and wastewater from cropland, and requires the monitoring of the discharge of storm water and tailwater to surface water from cropland.

Production Area issues – Outdoor Access: One of the criteria required to qualify as a Low Threat operation is that animals do not spend more than an aggregate of 20 percent of the time outdoors, due to concerns about the runoff of waste constituents from the outdoor areas. The 20 percent figure is based on industry-provided information on the amount of time that birds spend outdoors when they have access to both a bird house and an outdoor penned area. This information, in turn, is based on observations of bird behavior. Birds do not prefer to go outside at night or during the warmest portion of the day. During wet or cold weather, birds remain inside. Birds are not allowed outside when they are very young. The intent of the 20 percent figure, which is to be monitored and certified by the Dischargers, is to allow organic operations, which are required to provide outdoor access for birds as a condition of their certification, to qualify for the Low Threat tier, while requiring operations that house birds outside for a significant amount of time to receive Full General Order coverage. Staff believe that the risk of runoff of waste constituents from areas housing poultry increases with the amount of time that birds spend outside, as the amount of waste excreted on the ground increases. Pasture raised poultry operations as defined in Attachment E are not required to obtain coverage under this General Order. The Board intends to regulate pasture raised poultry operations under separate waste discharge requirements.

Groundwater Monitoring for Full General Order Coverage Operations: In order to

assess the impacts to groundwater associated with various waste management practices employed at the Full General Order coverage Poultry Operations, the Order contains two parallel approaches to monitoring: 1) individual monitoring, where Poultry Operations can elect to conduct their own monitoring, submitting a Monitoring Well Installation Plan to the Board for approval and collecting and analyzing their own samples; and 2) a Representative Monitoring Program (RMP), for Poultry Operations that would prefer to pool their resources.

Under the RMP approach, individual Poultry Operations regulated under the full General Order have the option of joining together to collectively monitor different waste management practices in a variety of geologic settings in lieu of developing individual monitoring programs. Poultry Operations utilizing management practices that are found not to be protective of groundwater quality will be required to make improvements in those management practices.

CEQA COMPLIANCE FOR OPERATIONS REGULATED BY THE POULTRY GENERAL ORDER

Poultry facilities which are operational at the date of the issuance of the Tentative Order (23 September 2016) will be considered to be existing facilities for the purposes of the California Environment Quality Act (CEQA), and will not require additional environmental assessment prior to receiving coverage under the General Order. Operations which commence after 23 September 2016, and operations which “expand” will need to comply with the provisions of CEQA before they can be covered by the Poultry General Order.

“Expand” is defined in two ways in the Poultry General Order. If a poultry operation completed a CEQA document in the past, it is considered to have expanded if it increases its flock size beyond the flock size described in the CEQA document. If a poultry operation did not complete a CEQA document in the past, it is considered to have expanded if it increases its flock size beyond its “existing flock size”, which is the maximum number of birds housed at the facility in a single month period that occurred in the three years immediately prior to 23 September 2016. The establishment of “existing flock size” is based on this time span because flock sizes typically fluctuate.

HOW WILL THIS ORDER BE ENFORCED?

The State Water Board's Water Quality Enforcement Policy (Enforcement Policy) establishes a process for using progressive levels of enforcement, as necessary, to achieve compliance. It is the goal of the Central Valley Water Board to enforce this order in a fair, firm, and consistent manner. Violations of this Order will be evaluated on a case-by-case basis with appropriate enforcement actions taken based on the severity of the infraction and may include issuance of administrative civil liabilities. Progressive enforcement is an escalating series of actions that allows for the efficient and effective use of enforcement resources to: 1) assist cooperative dischargers in achieving compliance; 2) compel compliance for repeat violations and recalcitrant violators; and 3) provide a disincentive for noncompliance. Progressive enforcement actions may begin

with informal enforcement actions such as a verbal, written, or electronic communication between the Central Valley Water Board and a Discharger. The purpose of an informal enforcement action is to quickly bring the violation to the Discharger’s attention and to give the Discharger an opportunity to return to compliance as soon as possible. The highest level of informal enforcement is a Notice of Violation. The Enforcement Policy recommends formal enforcement actions for the highest priority violations, chronic violations, and/or threatened violations. Violations of the Poultry General Order that will be considered as high priority violations include, but are not limited to:

- Any discharge of waste and/or storm water from the manure storage area to surface waters.
- The application of waste to lands not owned, leased, or controlled by the Discharger without written permission from the landowner.
- The discharge of wastewater to surface water from cropland.
- Failure to submit notification of a discharge to surface water.
- Falsifying information or intentionally withholding information required by applicable laws, regulations or an enforcement order.
- Failure to submit a Design Report for any new or enlarged wastewater pond prior to construction and/or a Post Construction Report for such construction.
- Failure to pay annual fee, penalties, or liabilities.
- Failure to monitor as required.
- Failure to submit required reports on time.

ECONOMIC ANALYSIS OF THE IMPACT OF THIS ORDER

Based on currently available information on the operational practices at egg and meat chicken operations and at turkey operations, staff has estimated the cost of compliance with the Poultry General Order for operations in the Low Threat and Full General Order coverage tiers. The results of that analysis are summarized in Table 1. These costs do not include costs for new pond construction to meet Pond Specifications C.1 and C.10, nor upgrade costs for existing ponds should upgrades be required. The cost of compliance for other types of poultry facilities was not estimated as information on their on-site operational practices is not available.

Type of Birds	Number of facilities	Tier	Estimated number of Facilities	First year cost/Facility	Annual cost/Facility
Egg-producing chickens	90	Low Threat	50	\$5,000	\$4,000
		Full General Order	40	\$50,000	\$10,000
Turkeys	75	Low Threat	25	\$5,000	\$4,000
		Full General Order	50	\$50,000	\$10,000
Meat chickens	215	Low Threat	200	\$5,000	\$4,000
		Full General Order	15	\$50,000	\$10,000

Table 1. Cost of Implementation of Poultry General Order

APPLICABLE REGULATIONS, PLANS, AND POLICIES

Water Quality Control Plans

The Central Valley Water Board has adopted Water Quality Control Plans (Basin Plans) for the Sacramento River and San Joaquin River Basins (4th ed.) and for the Tulare Lake Basin (2nd ed.). These two Basin Plans designate the beneficial uses of groundwater and surface waters of the Central Valley Region, specify water quality objectives to protect those uses, and include implementation programs for achieving water quality objectives. The Basin Plans also incorporate, by reference, plans and policies of the State Water Board, including the *State Anti-Degradation Policy* and State Water Board Resolution 88-63 (*Sources of Drinking Water Policy*). The Poultry General Order contains requirements necessary to bring the discharges of waste from the Operations into compliance with the Basin Plans, including requirements to meet the water quality objectives and protect beneficial uses specified in the Basin Plans, and other applicable plans and policies.

Beneficial Uses of Surface Water and Groundwater

The State Water Board adopted statewide standard definitions for beneficial uses of surface and ground waters. These standard definitions were used to identify the existing and potential future beneficial uses contained in the Basin Plans. Consideration also was given to the practicability of restoring uses which may have been lost because of water quality.

Surface Waters: Pursuant to Chapter II of the Basin Plans, the beneficial uses of surface water may include: municipal and domestic supply; agricultural supply; industrial process supply; industrial service supply; hydro-power generation; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; migration of aquatic organisms; spawning reproduction and/or early development; wildlife habitat; navigation; rare, threatened, or endangered species; groundwater recharge; freshwater replenishment; aquaculture; and preservation of biological habitats of special significance. The Sacramento River and San Joaquin River Basins Plan includes four additional beneficial use designations not specified in the Tulare Lake Basin Plan (agricultural stock watering, commercial and sport fishing, estuarine habitat, and shellfish harvesting). Both Basin Plans contain a Table that lists the surface water bodies and the beneficial uses. Where water bodies are not specifically listed, the Basin Plans designate beneficial uses based on the waters to which they are tributary.

The beneficial uses are protected in the Poultry General Order by, among other requirements, a prohibition on the direct or indirect discharge of waste and/or storm water from the production area to surface waters, a prohibition on the discharge of wastewater to surface waters from cropland, a prohibition on any discharge of storm

water to surface water from the land application areas unless the land application area has been managed consistent with a certified Nutrient Management Plan, and a prohibition on the discharge of waste from Poultry Operations to surface waters that causes or contributes to an exceedance of any applicable water quality objective or any applicable state or federal water quality criterion.

Groundwater: Chapter II of the Sacramento River and San Joaquin River Basin Plan states:

“Unless otherwise designated by the Regional Water Board, all groundwaters in the Region are considered as suitable or potentially suitable, at a minimum, for municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.”

Chapter II of the Tulare Lake Basin Plan designates the beneficial uses of groundwater to include municipal and domestic supply, agricultural supply, industrial service supply, industrial process supply, water contact recreation, and wildlife habitat. The Tulare Lake Basin Plan includes a table that lists the designated beneficial uses of groundwater within the Basin.

These beneficial uses are protected in this Order by, among other requirements, the specification that the discharge of waste at Poultry Operations shall not cause a violation of water quality objectives or cause pollution or nuisance. Degradation of groundwater is allowed provided it is in accordance with this Poultry General Order.

Water Quality Objectives

Pursuant to Water Code Section 13263(a), Waste Discharge Requirements (WDRs) must implement the Basin Plans, and the Board must consider the beneficial uses of water, the water quality objectives reasonably required to protect those beneficial uses, other waste discharges, and the need to prevent nuisance conditions. Water quality objectives are the limits or levels of water quality constituents or characteristics that are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area. (Wat. Code, § 13050(h).) Water quality objectives apply to all waters within a surface water or groundwater resource for which beneficial uses have been designated. Water quality objectives are listed separately for surface water and groundwater in Chapter III of the Basin Plans and are either numeric or narrative. The water quality objectives are implemented in WDRs consistent with the Basin Plans' *Policy for Application of Water Quality Objectives*, which specifies that the Central Valley Water Board “will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives.” To derive numeric limits from narrative water quality objectives, the Board considers relevant numerical criteria and guidelines developed and/or published by other agencies and organizations.

The primary waste constituents of concern (COCs) due to discharges of waste from Poultry Operations with respect to surface waters are: nitrogen in its various forms (ammonia and un-ionized ammonia, nitrate, nitrite, and total Kjeldahl nitrogen), phosphorus, potassium, salts (as measured by total dissolved solids and electrical

conductivity), total suspended solids, and pathogens.

The COCs due to discharges of waste from Poultry Operations with respect to groundwater are: nitrogen in its various forms (ammonia and un-ionized ammonia, nitrate, nitrite, and total Kjeldahl nitrogen), salts, and general minerals (calcium, magnesium, sodium, potassium, bicarbonate, carbonate, sulfate, and chloride). The discharge of waste from Poultry Operations must not cause surface water or groundwater to exceed the applicable water quality objectives for those constituents. If compliance cannot be immediately achieved, the Board may set a compliance time schedule for the discharger to achieve compliance with the water quality objectives. Under the Basin Plans, this time schedule must be “as short as practicable.”

Water Quality Objectives and Federal Criteria for Surface Water¹

Water quality objectives that apply to surface water include, but are not limited to, (1) numeric objectives, including the bacteria objective, the chemical constituents objective (includes listed chemicals and state drinking water standards, i.e., maximum contaminant levels (MCLs) promulgated in Cal. Code Regs., tit. 22, §§ 64431 and 64444 and are applicable through the Basin Plans to waters designated as municipal and domestic supply), dissolved oxygen objectives, pH objectives, and the salinity objectives; and (2) narrative objectives, including the biostimulatory substances objective, the chemical constituents objective, and the toxicity objective. The Basin Plans also contain numeric water quality objectives that apply to specifically identified water bodies, including for example, electrical conductivity objectives for the Delta.

Federal water quality criteria that apply to surface water are contained in federal regulations referred to as the California Toxics Rule and the National Toxics Rule. (See 40 C.F.R. §§ 131.36 and 131.38.)

Water Quality Objectives for Groundwater

Water quality objectives that apply to groundwater include, but are not limited to, (1) numeric objectives, including the bacteria objective and the chemical constituents objective (includes state MCLs promulgated in Cal. Code Regs., tit. 22, §§ 64431 and 64444 and are applicable through the Basin Plans to municipal and domestic supply), and (2) narrative objectives including the chemical constituents, taste and odor, and toxicity objectives. The Tulare Lake Basin Plan also includes numeric salinity limits for groundwater.

State Water Board Resolution 88-63 (The Sources of Drinking Water Policy)

The *Sources of Drinking Water Policy* states that all surface waters and groundwaters

¹ The Poultry General Order prohibits the direct or indirect discharge of waste and/or storm water from the production area to surface waters, the discharge of wastewater to surface waters from cropland, and the discharge of storm water to surface water from the land application areas where manure or process wastewater has been applied unless the land application area has been managed consistent with a certified Nutrient Management Plan.

of the state are considered to be suitable, or potentially suitable, for municipal or domestic water supply, except where the groundwater meets one or more of the criteria specified in the Basin Plan, including:

1. The TDS exceeds 3,000 milligrams per liter (mg/L) (5,000 micromhos per centimeter ($\mu\text{mhos/cm}$) electrical conductivity) and the aquifer cannot reasonably be expected by the Regional Board to supply a public water system;
2. There is contamination, either by natural processes or by human activity (unrelated to a specific pollution incident), that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices; or
3. The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.
4. The aquifer is regulated as a geothermal energy producing source or has been exempted administratively pursuant to 40 CFR, Section 146.4. for the purpose of underground injection of fluids associated with the production of hydrocarbon or geothermal energy, provided that these fluids do not constitute a hazardous waste under 40 CFR, Section 261.3.

Both Basin Plans include criteria for granting exceptions to municipal and domestic supply designations based on the *Sources of Drinking Water Policy*. The Tulare Lake Basin Plan also includes criteria for granting exceptions to the designation of beneficial uses for agricultural supply and industrial supply. The Tulare Lake Basin Plan specifies exceptions to the designated beneficial uses for some groundwater within the Tulare Lake Basin. Exceptions to the *Sources of Drinking Water Policy* are not self-implementing, but must be established in an amendment to the Basin Plan.

Title 27 of the California Code of Regulations

Title 27 of the California Code of Regulations prescribes minimum standards for animal waste at confined animal operations. For surface water protection, Title 27 includes requirements for the design of containment facilities for both storm water and process wastewater and for adequate flood protection. For groundwater protection, the minimum standards in Title 27 require Poultry Operations to minimize percolation of wastewater to groundwater in fields, apply manure and wastewater to fields at reasonable agronomic rates, and minimize infiltration of water into underlying soils in manured areas. Furthermore, retention ponds must be located in, or lined with, soils of at least 10 percent clay and no more than 10 percent gravel. (Cal. Code. Regs., tit. 27, § 22562(d).)

However, it is Central Valley Water Board staff's understanding that the retention pond standard was developed based on the assumption that manure solids contained within the wastewater would effectively reduce the permeability of the soils lining the wastewater ponds. This reduced permeability would result in a lowering of the pond leaching rate to a level thought to be protective of groundwater quality. An October 2003

report (the "Task 2 Report") by Brown, Vence, and Associates (BVA) confirmed that the "...current Title 27 requirements are insufficient to prevent groundwater contamination from poultry operations, particularly in vulnerable geologic environments." Adverse impacts have been detected in areas where groundwater is as deep as 120 feet below ground surface, and in some areas underlain by fine-grained sediments. Factors that appear to affect a clay-lined pond's ability to be protective of groundwater quality vary significantly from site to site due to native soil conditions, pond construction, pond age, manure properties, climate, pond operation, pond maintenance and depth to groundwater. Potential controlling factors appear to include: the inherent structure of the underlying soil, the moisture content of the unsaturated portion of the aquifer (vadose zone), the presence or absence of macropores or preferential pathways within the vadose zone (desiccation cracking, earthworm channels, development of root holes), and the oxidation reduction conditions present within the vadose zone and within the aquifer itself.

Resolution 68-16 (State Anti-Degradation Policy)

The *State Anti-Degradation Policy*, adopted by the State Water Board in October 1968, limits the Board's discretion to authorize the degradation of high-quality waters. This policy has been incorporated into the Board's Basin Plans. High-quality waters are those waters where water quality is more than sufficient to support beneficial uses designated in the Board's Basin Plan. Whether or not water is high-quality water is established on a constituent-by-constituent basis, which means that an aquifer can be considered high-quality water with respect to one constituent, but not for others. (State Water Board Order WQ 91-10.)

The following provisions of the *State Anti-Degradation Policy* are directly applicable to the discharges regulated by the Poultry General Order:

- Whenever the quality of water is better than the quality established in policies as of the date on which such policies become effective, such high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in the policies.
- Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

Generally speaking, these provisions require that the Board adopt standards and requirements to ensure the discharger controls the discharge by employing "best

practicable treatment or control” methodologies to limit the extent of the degradation, and that the Board carefully consider whether the permitted degradation inheres to the maximum benefit to the people of the State when the Board prescribes waste discharge requirements that will result in the degradation of high-quality waters. The *State Anti-Degradation Policy* also requires that the Board prohibit waste discharges from resulting in water pollution or nuisance, though this is a requirement that also exists outside the context of the *State Anti-Degradation Policy*. (see Wat. Code, § 13263.)

The State Water Board has provided only limited guidance regarding the *State Anti-Degradation Policy*. The State Water Board’s Administrative Procedures Update 90-004 provides guidance for implementing *State Anti-Degradation Policy* and the Clean Water Act’s anti-degradation provisions (40 C.F.R. § 131.12.) in the context of NPDES permitting. Although APU 90-004 is not directly applicable to the Poultry General Order because nonpoint discharges from agriculture are exempt from NPDES permitting requirements, the Appellate Court found this document informative in interpreting the *State Anti-Degradation Policy*.

Central Valley Salinity Alternatives for Long-Term Sustainability

The Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative has the goal of developing sustainable solutions to the increasing salt and nitrate concentrations that threaten achievement of water quality objectives in Central Valley surface waters and groundwater. The Poultry General Order requires actions that will reduce nitrate discharges and should result in practices that reduce salt loading. The Central Valley Water Board intends to coordinate all such actions with the CV-SALTS initiative. CV-SALTS may identify additional actions that need to be taken by Poultry Operations and others to address these constituents. The Poultry General Order can be amended in the future to implement any policies or requirements established by the Central Valley Water Board as a result of the CV-SALTS process.