

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401**

WASTE DISCHARGE REQUIREMENTS ORDER NO. R3-2015-0007
Drafted May 1, 2015

For

**WINDSET FARMS (CALIFORNIA), INC.
SANTA MARIA GREENHOUSES
SANTA BARBARA COUNTY
(CIWQS Place ID 751954)**

The California Regional Water Quality Control Board, Central Coast Region (hereafter also referred to as the "Water Board") finds:

SITE OWNER AND LOCATION

1. Windset Farms (California), Inc. (hereafter also referred to as "Windset Farms" or the "Discharger") owns and operates a greenhouse growing and packing business located at 1650 Black Road in Santa Maria in Santa Barbara County, as shown in Attachment A.

PURPOSE OF ORDER

2. The Discharger filed a complete Report of Waste Discharge, in accordance with Section 13260 of the Water Code, for authorization to discharge wastewater from its Santa Maria greenhouses.
3. This order promulgates new waste discharge requirements in conformance with the Water Board's adopted *Water Quality Control Plan for the Central Coastal Basin* (hereafter also referred to as the "Basin Plan") for the discharger's existing sanitary, agricultural, and industrial waste streams.

FACILITY/SITE DESCRIPTION

4. **Facility** – The Discharger grows a variety of crops (primarily tomatoes and cucumbers) on a 221-acre land parcel that includes:
 - a. Four 32-acre hydroponic greenhouses surrounding a centralized 5.7-acre pack house building,
 - b. Two 21.5-acre high tunnel hoop houses located east of the existing glass greenhouse structures within the existing 221-acre parcel, and
 - c. Eighteen acres of growing-related structures (i.e., tanks, pumps, etc.), 8 acres of parking and walkways, 8 acres of landscaping, and 16 acres of undeveloped land.
5. The Discharger began operating its first 32-acre (phase 1) greenhouse in 2010. The Discharger's phase 2, 3, and 4 greenhouses were constructed and began discharging in August 2013. The anticipated growing start date for the two 21.5-acre hoop houses is fall 2015.

6. **Discharge Type** – The greenhouse growing and packing business produces sanitary wastewater, stormwater runoff, agricultural wastewater from growing operations, and industrial wastewater from packing operations.
- a. Currently, approximately 650 employees produce approximately 8,000 gallons per day of sanitary wastewater.
 - b. A weather-dependent stormwater runoff wastewater stream results from precipitation falling on the Discharger's 221-acre property. The property includes 156 acres of impermeable area and 65 acres of permeable, undeveloped surface or landscape uses. A storm water detention pond sized to 12.5 acres is located on the adjacent property to the north and is not included in these surface area calculations.
 - c. The agricultural and industrial wastewater streams are weather and crop dependent, historically ranging from 150,000 gallons per day to 800,000 gallons per day and averaging 365,000 gallons per day. The overwhelming majority of wastewater is composed of reverse osmosis (RO) brine and growing operation tailwater. Other minor streams also contribute to the wastewater stream; however, the effect of those streams on water quality is negligible. The agricultural and industrial wastewater streams consist of the following sub-streams:
 - i. RO Brine - Water is extracted from groundwater wells and undergoes RO. The RO process does not add salts to the supply water; it splits the supply water into two streams. One stream, the RO permeate, has a lower TDS concentration than the original supply water while the other stream, the RO brine stream, has a higher concentration than the original supply water. The RO permeate is used for plant growth, while the RO brine is not used in the greenhouse operations but is combined with other wastewater streams and recycled onto the adjacent field as irrigation water for the fodder crop.
 - ii. Growing Operation Tailwater – Some RO water used for growing operations drains from the growing substrate and results in a tailwater. The tailwater originates as relatively low TDS RO permeate. During irrigation, the RO permeate concentrates TDS as a result of evapotranspiration. During irrigation fertilizers are added to the permeate, which increases wastewater salts. The tailwater is collected and recirculated through the greenhouses' irrigation systems. Significant recirculation of the irrigation water can result in increases of mineral concentrations in the irrigation water. To keep irrigation water quality within ranges acceptable for Windset Farms' needs, the discharger from time to time freshens the irrigation water by diverting a portion of the tailwater out of the irrigation system and adding fresh make-up water. When this occurs, the unused tailwater is combined in the waste tank with other wastewater streams.
 - iii. Evapotranspiration Condensate - The growing operations involve evapotranspiration. Some evapotranspiration water condenses on greenhouse interior surfaces. Condensed evapotranspiration water is nearly pure water. That condensate is collected and combined in the waste tank with other wastewater streams.
 - iv. Water Softening Brine - The Discharger softens water for a very small part of its operation. Water softening generates a brine waste stream, which is combined in the waste tank with other wastewater streams.

- v. Cooling – The greenhouse facility utilizes two cooling systems; one for the greenhouse growing areas and one for the product shipping portion of the packhouse. The greenhouse cooling system is an evaporative system similar to a swamp cooler, changing liquid water into water vapor. The source water is from the RO process units. Any resulting drainwater from the cooling system is collected into the same distribution system as the irrigation tailwater. The cooling system in the shipping portion of the packhouse is a closed-loop compression refrigeration system.
 - vi. Facility/Equipment Cleaning and Sanitation - Food production involves regular sanitation, which produces a sanitation wastewater stream. The facility is not “washed” with hoses or pressure washers. Localized cleaning of packaging equipment and mopping of floors occurs.
7. **Wastewater Treatment** – The various wastewater streams are treated as follows:
 - a. Sanitary wastewater is treated using an onsite septic tank/seepage pit system, which is separated from other wastewater treatment and disposal systems.
 - b. The discharger routes growing operation tailwater through denitrifying (woodchip) bio-filters to reduce effluent nitrogen concentrations. This provides a dual benefit of allowing the Discharger to optimize its bioreactor operation, as well as to remove groundwater nitrate introduced by upgradient activities. While the Discharger will attempt to maximize the amount of nitrate-degraded groundwater extracted, the volume of this groundwater to be denitrified will be dependent on biofilter capacity, nitrate concentration in the extracted groundwater, performance limitations of shallow groundwater extraction wells, and the irrigation needs of the fodder crop at the point of discharge. It is anticipated that the Discharger will route approximately 5,250,000 gallons of shallow groundwater from extraction wells through Biofilters 1 and 2 annually, in addition to the irrigation tail water associated with growing operations.
 8. **Wastewater Recycling** – In addition to recirculating the irrigation water within the growing operation, the discharger recycles combined agricultural and industrial wastewater streams as fodder crop irrigation water on an adjacent pasture. The fodder crops are cattle grazed and harvested.
 9. **Hydrologic Setting** – The discharge occurs within the Santa Maria Hydrologic Unit, Guadalupe Hydrologic Area, Green Canyon sub-watershed.
 10. **Topography and Soils** – The discharge area is characterized by flat to gently rolling alluvial plain soils consisting of loamy sands, silty sands, and clay layers. Water not utilized by the fodder crops readily percolates into the soil.
 11. **Neighboring Land Uses** – The site is just within the Santa Maria city limits in a primarily agricultural area, although an auto wrecking business and the city of Santa Maria’s wastewater treatment facility are in the vicinity of the Discharger’s site. The Discharger’s site is bound to the north by pasture land used primarily for cattle grazing and to the east, south, and west by irrigated agricultural land growing mostly strawberries, broccoli, lettuce, and celery crops. The western side of the facility parallels Black Road. Beyond Black Road lies agricultural land.
 12. **Surface Water** – Other than a potential storm water discharge during an extremely wet period, the Discharger proposes no discharge of storm water to surface water. Beyond the

area's storm water conveyance infrastructure, the nearest surface water is the Santa Maria River, which is four miles away.

13. **Groundwater** – The discharge overlies the Santa Maria groundwater basin. Groundwater is approximately 108 to 127 feet below ground surface.
14. **Groundwater Basin Management Reporting** – Annual groundwater reporting is part of the June 30, 2005, Stipulation of the Superior Court of the State of California, County of Santa Clara in the Santa Maria Valley Groundwater Basin litigation. The stipulation created three management areas of the broader Santa Maria Groundwater Basin. Windset Farms overlies the largest one, the Santa Maria Valley Management Area (SMVMA). As part of the stipulation, groundwater managers annually report on groundwater extraction and discharge in the SMVMA. Given the potential impacts of Windset Farms on the groundwater basin, this order requires Windset Farms to report groundwater extraction and disposal volumes and water quality to the court-appointed area engineer for the SMVMA and to the Water Board.

Total Maximum Daily Load

15. California's 2010 303 (d) list of impaired water bodies, which was approved by USEPA in October 2011, identifies surface waters in the Santa Maria River watershed as being impaired for fecal indicator bacteria, nutrients, toxicity, pesticides, and salts.
16. In the Santa Maria River watershed, TMDL projects for fecal indicator bacteria, nutrients, toxicity and pesticides have been adopted by the Water Board, and salt TMDLs are under development. Agricultural operations are identified as sources of impairment in the TMDLs. Most irrigated agricultural operations in the Santa Maria Valley implement the TMDLs through enrollment in the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands, Order WQ-2013-0101 (Ag Order).
17. This Order includes requirements of all TMDLs that are applicable to the Facility.

EXISTING ORDERS

18. On May 27, 2010, the Executive Officer enrolled the sanitary wastewater discharge under State Water Resources Control Board Order No. 97-10-DWQ, General Waste Discharge Requirements for Discharges to Land by Small Domestic Wastewater Treatment Systems (General Order).
19. Greenhouses that grow food crops under cover are not included in the scope of the State Water Board's Industrial Stormwater Permit. Nonetheless, Windset Farms' stormwater runoff flows to a retention basin where organic pollutants can be subjected to typical pond/soil treatment processes.

COMPLIANCE HISTORY

20. The enrollment referred to in Finding 18 (above) was made with the understanding that no process or irrigation wastewater was anticipated. Subsequent to the enrollment referred to in Finding 18, staff:
 - a. Discovered that the Discharger had an on-going process- and irrigation-wastewater discharge,

- b. Required the Discharger to submit a report of waste discharge, and
 - c. Determined that report of waste discharge was incomplete and issued an April 30, 2014 *Notice of Violation*.
21. Since the April 30, 2014 *Notice of Violation* was issued, the Discharger has been cooperative with staff, so, on January 15, 2015, staff notified Windset Farms that it had satisfied the *Notice of Violation*.

BASIN PLAN

22. The Water Board has adopted the *Water Quality Control Plan for the Central Coastal Basin* (the Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for receiving waters within the Region.
23. The Basin Plan designates the existing and anticipated beneficial uses of groundwater in the vicinity of the Facility to include agricultural water supply, municipal and domestic water supply, and industrial use.
24. For receiving waters with designated beneficial uses of municipal and domestic water supply, the Basin Plan establishes the primary drinking water maximum contaminant levels (MCLs), listed at Title 22 of the California Code of Regulations, Sections 64431 (inorganic compounds) and 64444 (organic compounds), as applicable water quality objectives.

ANTI-DEGRADATION

25. State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (Resolution No. 68-16) requires Regional Water Boards, in regulating the discharge of waste, to maintain high quality waters of the state unless it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the state, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in a Regional Water Board's policies (e.g., quality that exceeds applicable water quality standards). Resolution No. 68-16 also states, in part:

Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in best practicable treatment and 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.

26. This Order requires the Discharger to implement best practicable treatment or control. The Discharger's compliance with this Order will prevent pollution and nuisance and will maintain the highest water quality consistent with maximum benefit to the people of the State.
27. The Discharger engages in the agricultural growing of commercial food crops, as well as packing of its harvested vegetables. Treatment and control measures implemented by the discharger include:
- a. **Water Use** - Collecting crop drainage and re-using collected crop drainage multiple times for crop irrigation, then ultimately recycling wastewater for fodder crop irrigation.

- b. **Stormwater** - Placing a roof over growing areas to divert stormwater from contacting and discharging agricultural pollutants including pesticides, fertilizers and sediment.
- c. **Groundwater** - Placing an impermeable floor under growing areas to:
 - i. Preclude pollutants from percolating to groundwater.
 - ii. Eliminate the potential of sedimentation from typical agricultural soil manipulation practices.
- d. **Pesticide Reduction** – Entirely enclosing crops and maintaining a positive air pressure within the enclosure to minimize pesticide needs, as well as implementing integrated pest management practices.
- e. **Nitrogen Reduction** – Tightly controlling fertilizer applications, re-using fertilizers not taken up by crops, and treating crop drainage tailwater to significantly reduce nitrogen discharges prior to recycling to land for fodder crops.
- f. **Nitrogen Reduction** – Removing nitrate in shallow groundwater not originating from the Discharger.

RECYCLED WATER POLICY

28. The Strategic Plan Update 2008-2012 for the Water Boards includes a priority to increase sustainable local water supplies available for meeting existing and future beneficial uses by 1,725,000 acre-feet per year, in excess of 2002 levels, by 2015, and ensure adequate water flows for fish and wildlife habitat. The State Water Resources Control Board adopted the Recycled Water Policy via Resolution No. 2009-0011 on February 3, 2009¹. The Recycled Water Policy is intended to support the Strategic Plan priority to Promote Sustainable Local Water Supplies. Increasing the acceptance and promoting the use of recycled water is a means towards achieving sustainable local water supplies and can result in reduction in greenhouse gases, a significant driver of climate change. The Recycled Water Policy is also intended to encourage beneficial use of, rather than solely disposal of, recycled water.
29. The Recycled Water Policy calls for the development of regional groundwater basin/sub-basin salt/nutrient management plans. The State Water Resources Control Board recognizes that, pursuant to the letter from statewide water and wastewater entities² dated December 19, 2008, and attached to Resolution No. 2009-0011 adopting the Recycled Water Policy, the local water and wastewater entities, together with local salt/nutrient contributing stakeholders, will fund locally driven and controlled, collaborative processes open to all stakeholders that will prepare salt and nutrient management plans for each basin/sub-basin in California, including compliance with CEQA and participation by Water Board staff.
30. It is the intent of the Recycled Water Policy that salts and nutrients from all sources be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses. The State Water Resources Control Board finds that the appropriate way to address salt and nutrient issues is through

¹ http://www.swrcb.ca.gov/board_decisions/adopted_orders/resolutions/2009/rs2009_0011.pdf

² http://www.waterboards.ca.gov/board_info/agendas/2009/feb/020309_7_%20rw_policy_funding_letter.pdf

the development of regional or subregional salt and nutrient management plans rather than through imposing requirements solely on individual projects. The Water Board finds that a combination of regional management plans and individual or programmatic project requirements may be necessary to protect beneficial uses.

31. One of the primary components of the required regional salt/nutrient management plans is the development and implementation of groundwater basin/sub-basin monitoring programs. As specified in the Recycled Water Policy, salt/nutrient contributing stakeholders will be responsible for conducting, compiling, and reporting the monitoring data once the regional groundwater monitoring programs are developed.
32. A large number of technical reports and data contained within Water Board files document widespread and increasing salt and nutrient impacts within the groundwater basins throughout the Central Coast Region, including the Santa Maria River watershed.

ENVIRONMENTAL SUMMARY

33. **California Environmental Quality Act (CEQA)** - The city of Santa Maria is the lead agency pursuant to the California Environmental Quality Act (CEQA) (Cal. Pub. Res. Code Section 15367). As the lead agency, the City certified a Mitigated Negative Declaration on May 27, 2009, for the project. The Mitigated Negative Declaration did not identify any potentially significant environmental effects with respect to the adoption of these waste discharge requirements and within the jurisdiction of the Central Coast Water Board.
34. The Central Coast Water Board is a responsible agency pursuant to CEQA (CEQA Guidelines Section 15096). The Central Coast Water Board has considered the Mitigated Negative Declaration and makes its own conclusions in this Order on whether and how to approve the waste discharge requirements for the project. Since the Mitigated Negative Declaration has not identified any potentially significant environmental effects within the Water Board's jurisdiction, the Water Board is not required to make any specific finding pursuant to CEQA Guidelines 15096. The proposed waste discharge requirements will result in improved water quality in the Santa Maria Basin since they allow the Discharger to remediate shallow groundwater nitrate and improve the understanding of the Santa Maria groundwater basin, which is a goal of the Recycled Water Policy.
35. These waste discharge requirements are for an existing facility and are exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et. seq.) in accordance with Section 15301, Article 19, Chapter 3, Division 6, Title 14 of the California Code of Regulations.

MONITORING PROGRAM

36. Monitoring and Reporting Program No. R3-2015-0007 (MRP) is a part of the proposed Order. The MRP is intended to verify compliance and ensure protection of groundwater quality.

GENERAL FINDINGS

37. Discharge of waste is a privilege, not a right, and authorization to discharge is conditional upon the Discharger's complying with provisions of Division 7 of the California Water Code and any more stringent effluent limitations necessary to implement water quality control plans,

to protect beneficial uses, and to prevent nuisance. Compliance with this order should ensure this and mitigate potential adverse changes in water quality due to the discharge.

38. On February 25, 2015, the Water Board notified the Discharger and interested parties of its intent to issue waste discharge requirements for the discharge and has provided them with a copy of the proposed Order and an opportunity to submit written views and comments.
39. After considering all comments pertaining to this discharge during a public hearing on May 28, 2015, this Order was found consistent with the above findings.
40. Any person affected by this action of the Board may petition the State Water Resources Control Board to review the action in accordance with Section 13320 of the California Water Code and Title 23 of the California Code of Regulations, Section 2050. The State Water Resources Control Board must receive the petition within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.

IT IS HEREBY ORDERED, that to meet the provisions contained in division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. Pursuant to authority in Sections 13263 and 13267 of the California Water Code, Windset Farms (California), Inc., its agents, successors, and assigns, may discharge waste at the above-described facility providing compliance is maintained with the following:

Throughout these requirements footnotes are listed to indicate the source of requirements specified. Requirement footnotes are as follows (requirements without footnotes are BPJ unless otherwise noted):

BPJ	Best Professional Judgment of Regional Water Quality Control Board Staff
ROWD	The Discharger's Report of Waste Discharge
40CFR	Title 40 Code of Federal Regulations
BP	Central Coast Regional Water Quality Control Plan
T22	Title 22 CCR, Division 4, Chapter 3, Water Reclamation Criteria
PC	Porter-Cologne Water Quality Control Act (California Water Code)

A. DISCHARGE PROHIBITIONS

1. Discharge of treated wastewater to areas other than the disposal area shown in Attachment "B" is prohibited.
2. Discharge of any wastes including overflow, bypass, seepage, or overspray from transport, treatment, or disposal systems to adjacent drainage ways or onto adjacent properties is prohibited.
3. Bypass of the treatment facility and discharge of untreated or partially treated wastes is prohibited.^{PC}
4. A discharge of sludge, residues, or any other wastes into surface waters or into any area where it may be washed into surface water is prohibited.^{PC}

5. Discharge of waste classified as “hazardous” or “designated” as defined in CCR, Title 23, Chapter 15, Section 2521 (a) and CWC Section 13173, respectively, to any part of the wastewater disposal system is prohibited.
6. The treatment and disposal of wastes at the facility shall not cause pollution, contamination, or nuisance as defined in CWC Section 13050.

B. SPECIFICATIONS

System Operation

1. All wastewater conveyance, treatment, disposal, and re-use shall occur as described in the Discharger’s Report of Waste Discharge.
2. All equipment must be tested and calibrated as recommended by the equipment manufacturer.
3. The Discharger shall route all irrigation drain water through denitrification bioreactors identified as Biofilter 1 and Biofilter 2.
4. When Biofilters 1 and 2 have excess de-nitrifying capacity, the Discharger shall augment the water flow into the Biofilters with existing nitrate-degraded groundwater extracted from shallow zones.
5. Fodder crop irrigation shall occur at or below agronomic rates for moisture and nutrients.
6. Greenwaste shall be maintained separate from municipal waste. Greenwaste shall be hauled off-site for composting.
7. All solids generated must be reclaimed or disposed of in a manner acceptable to the Executive Officer.
8. The Discharger shall use a conservation tillage approach when mowing fodder crops.
9. Solids accumulation in each septic tank shall be regularly measured as stated in Monitoring and Reporting Program (MRP) No. R3-2015-0007 and the appropriate tank cleaned when
 - a. The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment.
 - b. The scum layer is within 4 inches of the outlet device.
 - c. The sludge layer is within 10 inches of the outlet device. Odors associated with the treatment and disposal of wastewater shall not be perceivable beyond the limits of the Discharger’s property boundary.

Effluent Limitations

10. Sanitary wastewater discharge rate shall not exceed a 30-day running average of 8,000 gpd.^{ROWD}

Groundwater Limitations

11. The discharge shall not cause total nitrogen concentrations in the groundwater affected by disposal activities to exceed 5 mg/L as N or shall not cause a statistically significant increase of total nitrogen concentrations in underlying groundwater, whichever is more stringent.
12. Wastewater discharged to the leachfield zones shall not cause groundwater to contain taste- or odor-producing substances in concentrations that adversely affect beneficial uses. ^{BP}
13. Discharge shall not cause the median concentration of human fecal coliform organisms in groundwater over any seven-day period to be more than 2.2/100 mL.
14. The discharge shall not cause a statistically significant increase of mineral or organic pollutant concentrations in underlying groundwater, as determined by statistical analysis of samples collected from wells in the vicinity of the treatment and disposal area. ^{BP}
15. To protect the municipal and domestic supply beneficial uses of groundwater underlying the leachfields, treated wastewater discharged from the Facility shall not cause groundwater to:
BP/BPJ/T22
 - a) Exceed the Primary Maximum Contaminant Levels for organic chemicals set forth in the California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5.5, Section 64444.
 - b) Exceed the Primary Maximum Contaminant Levels for inorganic chemicals set forth in the California Code of Regulations, Title 22, Division 4, Chapter 15, Article 4, Section 64431.
 - c) Exceed the levels for radionuclide set forth in the California Code of Regulations, Title 22, Division 4, Chapter 15, Article 5, Section 64443.
16. The discharge shall not cause radionuclides to be present in groundwater in concentrations that are deleterious to human, plant, animal, or aquatic life, or result in the accumulation of radionuclide in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life. ^{BP}

Wastewater Disposal

17. Wastewater shall be confined to land owned or controlled by the Discharger. ^{BPJ}
18. Effluent shall not be discharged within 100 feet of any existing water supply well.
19. Effluent application rates shall be consistent with accepted engineering practice. ^{BPJ}

C. SALT AND NUTRIENT MANAGEMENT PROGRAM³

1. The Discharger shall maintain an ongoing salt and nutrient management program with the intent of reducing mass loading of salts and nutrients (with an emphasis on nitrogen species)

³ As an alternative to the salt and nutrient management program requirements described in this section, upon Executive Officer approval, the Discharger may submit documentation and a summary of participation in a regional salt and nutrient management plan implemented under the provisions of State Water Resources Control Board Resolution No. 2009-0011 (Recycled Water Policy).

in treated effluent to a level that will ensure compliance with effluent limitations and protect beneficial uses of groundwater.

2. Salt reduction measures shall focus on all potential salt contributors to the collection system.
3. Nutrient reduction measures shall focus on optimizing wastewater treatment processes for nitrification and denitrification, or other means of nitrogen removal. Reduction measures may also include source control as appropriate.

D. GENERAL PROVISIONS

1. The Discharger shall comply with MRP No. R3-2015-0007, as specified by the Executive Officer. The Executive Officer is authorized to revise the MRP at any time during the Order term.
2. All technical and monitoring reports submitted pursuant to this Order are required pursuant to Section 13267 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order, attachments to this Order, or failure to submit a report of sufficient technical quality acceptable to the Executive Officer, may subject the discharger to enforcement action pursuant to Section 13268 of the California Water Code.
3. The Discharger shall comply with all applicable items of the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated December 5, 2013.
4. Physical facilities shall be designed and constructed according to accepted engineering practices and shall be capable of full compliance with this Order when properly operated and maintained. Operation and maintenance of the wastewater system shall conform to the Operations and Maintenance Plan, which shall be periodically reviewed, and, if appropriate, revised. The Operations and Maintenance Plan is subject to review by the Executive Officer, who shall be provided a current copy within ten days of any significant revision.
5. All discharges from the Facility shall comply with lawful requirements of the municipalities, counties, irrigation districts, drainage districts, and other local agencies regarding discharges of waste to land and surface waters within their jurisdiction.
6. The Discharger shall give advance notice to the Water Board of any planned changes in the permitted facility or waste management activities that may result in noncompliance with this Order.
7. This Order may be reopened to address any changes in state or federal plans, policies, or regulations that would affect the requirements for the discharge.
8. In the event of any change in control or ownership of land or facilities presently owned or utilized by the Discharger, the Discharger shall notify the succeeding owner(s) or operator(s) of the existence of this Order by letter, a copy of which shall be forwarded to the Water Board.
9. The Discharger shall file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9, of the California Administrative Code given a material change in the character, location, or volume of the discharge. Material changes warranting submittal of a Report of Waste Discharge include, but are not limited to, the following:

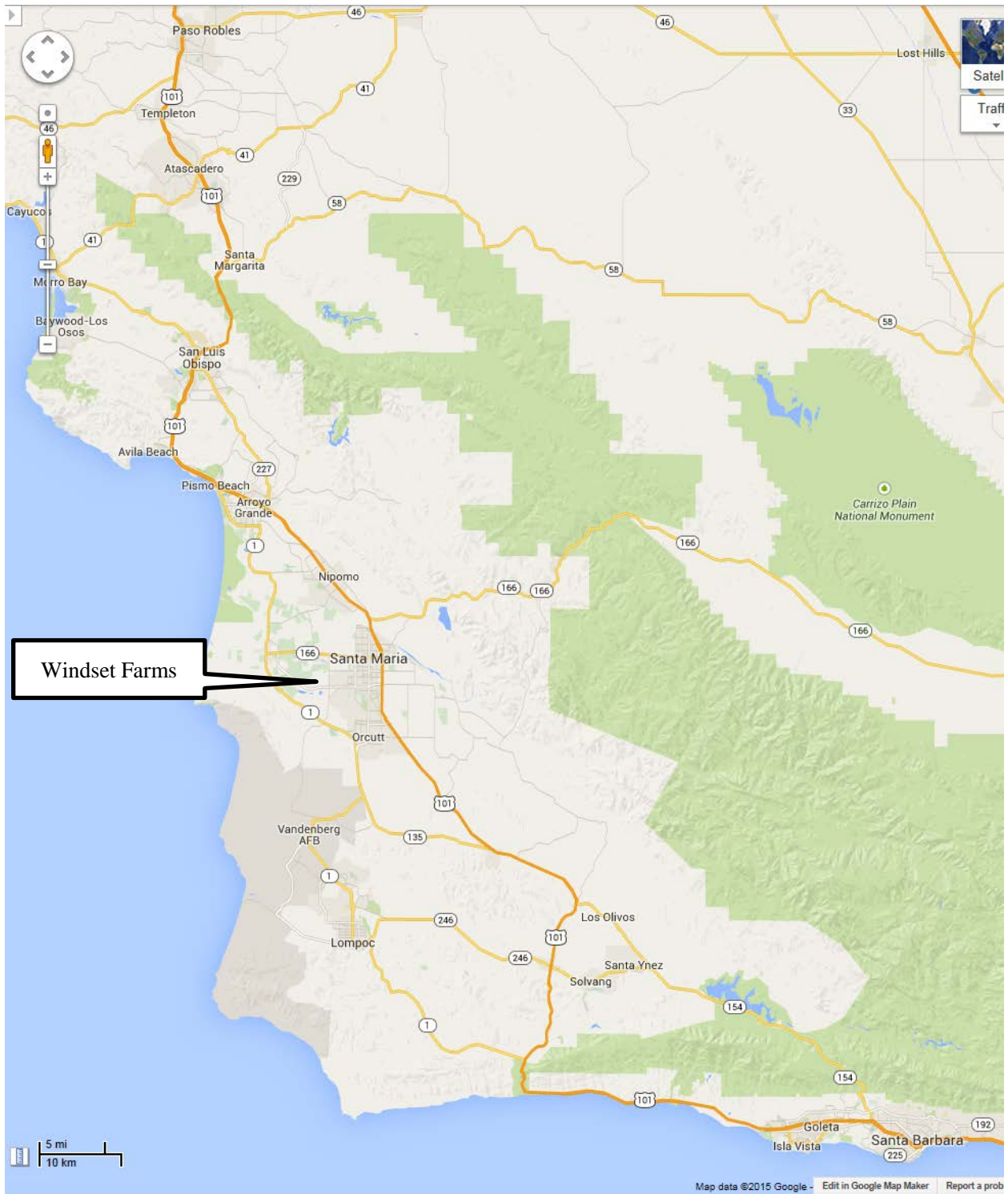
- a) Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.
- b) Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.
- c) Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.
- d) Increase in flow beyond that specified in the waste discharge requirements.

I, Kenneth A. Harris Jr., Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Coast Region on May 28, 2015.

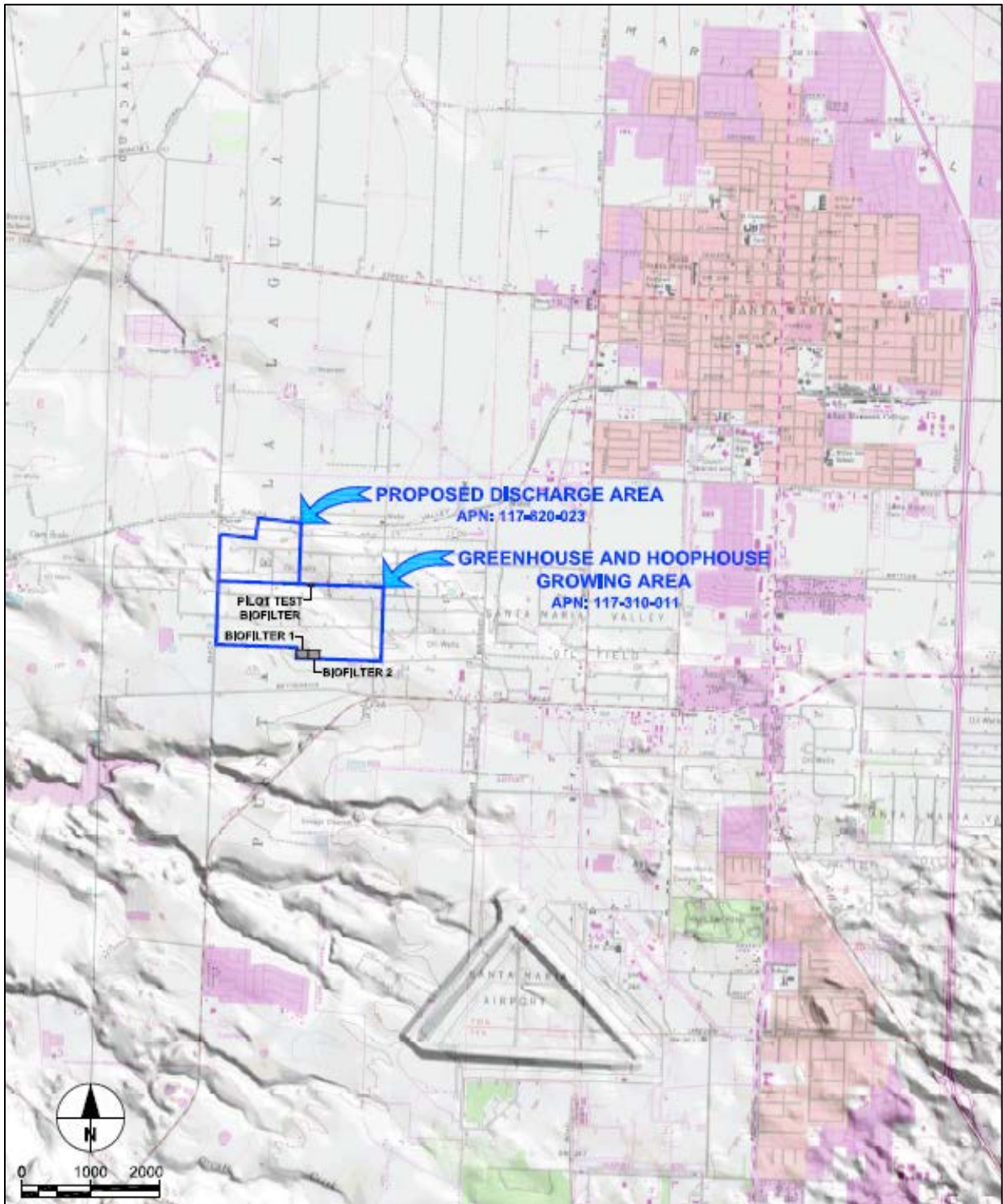
Kenneth A. Harris Jr., Executive Officer

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Site Location



Disposal/Discharge Area
Windset Farms, Santa Maria, CA



**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401**

**MONITORING AND REPORTING PROGRAM NO. R3-2015-0007
Drafted May 1, 2015**

For

**WINDSET FARMS (CALIFORNIA), INC.
SANTA MARIA GREENHOUSES
SANTA BARBARA COUNTY
(CIWQS Place ID 751954)**

This Monitoring and Reporting Program No. R3-2015-0007 (MRP) is issued pursuant to Water Code section 13267, which authorizes the California Regional Water Quality Control Board, Central Coast Region (hereafter Central Coast Water Board) to require preparation and submittal of technical and monitoring reports. This Monitoring and Reporting Program is issued in accordance with Provision D.1 of Central Coast Water Board Order No. R3-2015-0007. The monitoring and reports required by this MRP are to evaluate effects of discharges of waste from Windset Farms' discharge on waters of the state and to determine compliance with the Order.

WATER SUPPLY MONITORING

1. Representative water supply samples shall be collected and analyzed for the constituents and at the frequency specified below:

Parameter/Constituent^{a,b,c}	Units	Sample Type	Minimum Sampling and Analyzing Frequency
Flow	gpd	Metered (or estimated from pumping equipment capabilities and usage)	Weekly
Total Dissolved Solids	mg/L	Grab	Semiannually (April & October)
Sodium			
Chloride			
Sulfate			
Boron			
Total Nitrogen (as Nitrogen)			
Total Kjeldahl Nitrogen (as Nitrogen)			
Ammonia (as Nitrogen)			
Nitrate (as Nitrogen)			
Nitrite (as Nitrogen)			

Notes:

- a) Sampling results for the Division of Drinking Water may be submitted to satisfy these requirements.
- b) Data shall be reported as individual concentrations for each water supply well sampled and calculated as flow weighted averages to represent as delivered water supply quality.
- c) Sampling for specific analytes may be reduced or discontinued upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.

DENITRIFICATION BIOREACTOR MONITORING

Monitoring of the denitrification bioreactor effluent shall include the following:

Parameter/Constituent	Units	Sample Type^a	Minimum Sampling and Analyzing Frequency
Influent			
Flow from growing operation	GPD	Metered	Daily
TDS from growing operation	mg/L	Grab	Monthly
Nitrate (as N) from growing operation	mg/L	Grab	Monthly
Flow from groundwater augmentation wells	GPD	Metered	Daily
TDS from groundwater augmentation wells	mg/L	Grab	Monthly
Nitrate (as N) from growing operation	mg/L	Grab	Monthly
Effluent			
Flow	GPD	Metered	Daily
Maximum Daily Flow	GPD	Metered	Monthly
Average Daily Flow	GPD	Calculated	30-day Running Average
TDS	mg/L	Grab	Monthly
pH	-	Grab	Monthly
BOD ₅	mg/L	Grab	Monthly
Total Suspended Solids	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly
Sodium	mg/L	Grab	Monthly
Chloride	mg/L	Grab	Monthly
Nitrate (as N)	mg/L	Grab	Monthly
Nitrite (as N)	mg/L	Grab	Monthly
Ammonia (as N)	mg/L	Grab	Monthly
Total Nitrogen	mg/L	Grab	Monthly
Sulfate	mg/L	Grab	Monthly
Boron	mg/L	Grab	Semiannually (April & October)

Notes:

- a) Sampling for specific analytes may be reduced or discontinued upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.

PILOT DENITRIFICATION BIOREACTOR MONITORING

Monitoring of the pilot denitrification bioreactor effluent shall include the following:

Parameter/Constituent	Units	Sample Type^a	Minimum Sampling and Analyzing Frequency
Flow	GPD	Metered	Daily
Maximum Daily Flow	GPD	Metered	Monthly
Average Daily Flow	GPD	Calculated	30-day Running Average
TDS	mg/L	Grab	Monthly
pH	-	Grab	Monthly
BOD ₅	mg/L	Grab	Monthly
Total Suspended Solids	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly
Sodium	mg/L	Grab	Monthly
Chloride	mg/L	Grab	Monthly
Nitrate (as N)	mg/L	Grab	Monthly
Nitrite (as N)	mg/L	Grab	Monthly
Ammonia (as N)	mg/L	Grab	Monthly
Total Nitrogen	mg/L	Grab	Monthly
Sulfate	mg/L	Grab	Monthly
Boron	mg/L	Grab	Semiannually (April & October)

FODDER CROP IRRIGATION MONITORING

Representative samples of wastewater being discharged shall be collected and analyzed for the parameters/constituents and at the frequencies specified in the following table:

Parameter/Constituent^{a,b}	Units	Sample Type	Minimum Sampling and Analyzing Frequency
pH	-	Grab	Monthly
BOD ₅	mg/L	Grab	Monthly
Total Suspended Solids	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly
Sodium	mg/L	Grab	Monthly
Chloride	mg/L	Grab	Monthly
Nitrite (as N)	mg/L	Grab	Monthly
Nitrate (as N)	mg/L	Grab	Monthly
Ammonia (as N)	mg/L	Grab	Monthly
Total Nitrogen	mg/L	Grab	Monthly
Sulfate	mg/L	Grab	Monthly
Boron	mg/L	Grab	Semiannually (April & October)

Notes:

- Effluent samples shall be collected from locations representative of final effluent being discharged to the subsurface.
- Sampling for specific analytes may be reduced or discontinued upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.

GROUNDWATER MONITORING¹

1. The Discharger shall submit a groundwater monitoring well installation plan within six months after adoption of Order No. R3-2015-0007 for Executive Officer approval. The groundwater monitoring well installation plan shall propose locations and actions to install groundwater monitoring wells upgradient and downgradient of the disposal area. The monitoring network shall be supported by sufficient, as determined by the Executive Officer, geologic and hydrogeologic documentation. The proposed groundwater monitoring network shall allow the determination of groundwater flow direction and groundwater depth, and impacts of the discharge on groundwater. The monitoring wells shall meet or exceed well standards contained in the Department of Water Resources Bulletins 84-81 and 74-90. The Discharger shall also comply with the monitoring well reporting provisions of Sections 13750 through 13755 of the California Water Code.
2. Upon Executive Officer approval of the groundwater monitoring well installation plan, the Discharger shall install groundwater monitoring wells and begin groundwater monitoring.
3. Representative samples of groundwater shall be collected and analyzed for the constituents and at the frequencies specified in the following table:

Parameter/Constituent^a	Units	Sample Type	Minimum Sampling and Analyzing Frequency
Depth to Groundwater	Ft above MSL	Measured	Quarterly (March, June, September, December)
pH	-	Grab	
Total Dissolved Solids	mg/L	Grab	
Sodium	mg/L	Grab	
Chloride	mg/L	Grab	
Total Nitrogen (as N)	mg/L	Grab	
Total Kjeldahl Nitrogen (as N)	mg/L	Grab	
Ammonia (as N)	mg/L	Grab	
Nitrate (as N)	mg/L	Grab	
Nitrite (as N)	mg/L	Grab	
Boron	mg/L	Grab	
Sulfate	mg/L	Grab	

Notes:

- a) Sampling for specific analytes may be reduced or discontinued upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.

FACILITY MONITORING

It is Windset Farms' responsibility to identify all violations of waste discharge requirements. At a minimum, weekly inspections shall be made of the denitrification basins and fodder crop irrigation area and quarterly inspections shall be made of the leachfield zones. Inspections shall

¹ At the Discharger's request, in lieu of the groundwater monitoring described in this MRP, the Central Coast Water Board Executive Officer may approve a) participation in basin-wide salt/nutrients management plan activities implemented under the provisions of State Water Board Resolution No. 2009-0011 (Recycled Water Policy) or b) participation in Santa Maria River basin-wide salt TMDL activities.

be designed to detect noncompliance with Waste Discharge Requirements Order No. R3-2015-0007. The fodder crop irrigation area inspection frequency shall be increased commensurate with the probability of off-site surface water flows. During the inspections, notes shall be kept of any violations of waste discharge requirements. A log of these inspections shall be maintained and a summary of observations made during the inspections shall be submitted with each semi-annual monitoring report. In addition, all unusual occurrences shall be discussed in monitoring reports.

SALT AND NUTRIENT MONITORING

As part of the annual monitoring report, the Discharger shall report all salt and nutrient reduction efforts including (at a minimum):

Salt Component

- a. An annual balance that compares supply water salts to wastewater salts, with an accompanying analysis of contributing sources;
- b. Analysis of wastewater evapotranspiration/salt concentration effects;
- c. Analysis of groundwater monitoring results related to salt constituents;
- d. Analysis of potential impacts of salt loading on the groundwater basin;
- e. A summary of existing salt reduction measures; and
- f. Recommendations and time schedules for implementation of any additional salt reduction measures.

Nutrient Component

- a. An annual balance that compares supply water nitrogen to wastewater nitrogen, with an accompanying analysis of contributing sources;
- b. Analysis of wastewater treatment facility ability to facilitate nitrification and denitrification, or other means of nitrogen removal;
- c. Analysis of groundwater monitoring results related to nitrogen constituents;
- d. Analysis of potential impacts of nitrogen loading on the groundwater basin;
- e. A summary of existing nitrogen loading reduction measures; and,
- f. Recommendations and time schedules for implementation of any additional nitrogen loading reduction measures.

REPORTING

1. **Monitoring reports are required quarterly, by the 30th of April, July, October, and January**, and shall contain all data collected or calculated over the previous three months. The January 30 report may be combined with the annual report. Data shall be tabulated in a logical and coherent format and be accompanied by laboratory analytical data sheets.
2. **Monitoring reports shall be submitted in an electronic format.**
3. **By January 30th of each year** the Discharger shall submit an annual monitoring report Pursuant to Standard Provisions and Reporting Requirements, General Reporting Requirement C.16 which states:

By January 30 of each year, the discharger shall submit an annual report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. The Discharger shall discuss the compliance record and

corrective actions taken, or which may be needed, to bring the discharger into full compliance.

4. **Biennially, by January 30th** the Discharger shall submit a Salt and Nutrient Management report as specified in provision C.5. of Order No. R3-2015-0007. The first report is due January 30, 2016.
5. If the Discharger monitors any pollutant designated more frequently than is required by this Monitoring and Reporting Program, the results of such monitoring shall be included in the monitoring reports.

PROVISIONS

1. All monitoring must be conducted according to test procedures established by 40 Code of Federal Regulations Part 136, entitled, "Guidelines Establishing Test Procedures for Analysis of Pollutants." All sampling analyses shall be conducted at the lowest practical quantitation limits achievable under U.S. EPA specified methodology. In cases where effluent limits are set below the lowest achievable practical quantitation limits, constituents not detected at the practical quantitation limit will be considered in compliance with effluent limitations.
2. All samples collected shall be tracked and submitted under chain of custody and analyzed by a laboratory certified by California Department of Health Services for the specified analysis.
3. This Monitoring and Reporting Program may be revised at any time during the Order term, as necessary, under the authority of the Executive Officer.

IMPLEMENTATION

This monitoring and reporting program shall be implemented immediately.

ORDERED BY _____
Kenneth A. Harris Jr.
Executive Officer

DATE _____

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