

**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

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 June 2, 2015