General Waste Discharge Requirements for the Commercial Agricultural Operations Regulatory Program

June 7, 2017
San Diego Regional Water Quality Control Board

THE ORDERS

Order No. R9-2016-0004, General Waste Discharge Requirements for Discharges from Commercial Agricultural Operations for Dischargers that are Members of a Third-Party Group in the San Diego Region (Third-Party General Order)

Use effective management practices (aka BMPs) to minimize or prevent the discharge of wastes to surface water and groundwater

- Water Quality Protection Plan (WQPP)
- Education
- Monitoring and reporting
- Feedback mechanism (WQRP)

*THE REQUIREMENTS*

**COMMERCIAL AGRICULTURAL OPERATION**

Any agricultural business that produces crops with the intent to make a profit.

- IRS Guidance
- Agricultural Water Rates or Variance
- Pesticide Use Reporting Identification Number/Permit Number
TOTAL MAXIMUM DAILY LOADS

- Adopted TMDLs
- Load Allocations
- Numeric Targets
- Implementation Plans
- Future TMDLs, TMDL Amendments, TMDL Alternatives

WATER QUALITY BENCHMARKS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Water Quality Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>standard units</td>
<td>Note 1</td>
</tr>
<tr>
<td>Temperature</td>
<td>°C</td>
<td>Note 1</td>
</tr>
<tr>
<td>Dissolved Oxygen</td>
<td>mg/L</td>
<td>Note 1</td>
</tr>
<tr>
<td>Turbidity</td>
<td>NTU</td>
<td>Note 2</td>
</tr>
<tr>
<td>Total Dissolved Solids</td>
<td>mg/L</td>
<td>Note 2</td>
</tr>
<tr>
<td>Total Suspended Solids</td>
<td>mg/L</td>
<td>Note 1</td>
</tr>
<tr>
<td>Ammonia</td>
<td>mg/L</td>
<td>0.025, Note 1</td>
</tr>
<tr>
<td>Nitrate (as NO3)</td>
<td>mg/L</td>
<td>40, Note 2</td>
</tr>
<tr>
<td>Nitrate (as NO3) - Groundwater</td>
<td>mg/L</td>
<td>30-45, see section III. C of the MRP.</td>
</tr>
<tr>
<td>Nitrate + Nitrite (as Nitrogen)</td>
<td>mg/L</td>
<td>1.0, Notes 1 and 4</td>
</tr>
<tr>
<td>Nitrite (as Nitrogen)</td>
<td>mg/L</td>
<td>1.0 Note 2</td>
</tr>
<tr>
<td>Total Nitrogen</td>
<td>mg/L</td>
<td>1.0, Notes 1 and 4</td>
</tr>
<tr>
<td>Total Phosphorus</td>
<td>mg/L</td>
<td>0.1, Notes 1 and 4</td>
</tr>
<tr>
<td>Sulfate</td>
<td>mg/L</td>
<td>Note 2</td>
</tr>
<tr>
<td>E. coli</td>
<td>MPN/100 mL</td>
<td>Note 1</td>
</tr>
<tr>
<td>Enterococci</td>
<td>MPN/100 mL</td>
<td>Notes 1 and 5</td>
</tr>
<tr>
<td>Fecal Coliform</td>
<td>MPN/100 mL</td>
<td>Notes 1 and 5</td>
</tr>
<tr>
<td>Total Coliform</td>
<td>MPN/100 mL</td>
<td>Notes 1 and 5</td>
</tr>
<tr>
<td>Chronic Toxicity</td>
<td>TLIc</td>
<td>5.0, Note 6</td>
</tr>
</tbody>
</table>
SURFACE WATER AND GROUNDWATER MONITORING PROGRAM

CORE MONITORING – MONITORING QUESTIONS

- How effective are the management practices at preventing or reducing discharge of wastes from the Members’ Agricultural Operations that are causing or contributing to exceedances of applicable water quality standards in surface water and groundwater?

- What effect, if any, have the Members’ Agricultural Operations had on surface water and groundwater quality?
CORE MONITORING – SURFACE WATER
MONITORING PARAMETERS

- Once during dry season, once during wet season
- Monitoring parameters
  - Nutrients
  - Bacteria
  - Chronic Toxicity
  - General Chemistry: DO, TSS, TDS, pH, Temperature
  - Stream Characteristics: Cross sectional area, flow, velocity

CORE MONITORING – SURFACE WATER
MONITORING LOCATIONS

- Surface water that directly or indirectly receives discharges from Member’s agricultural operations
- Sufficient spatial density or distribution
- Sub-watershed level
- Readily accessible
- Wadeable streams
CORE MONITORING
SURFACE WATER MONITORING LOCATIONS

- Members
- Residential
- Feed Lot
- Monitoring Location

CORE MONITORING – GROUNDWATER

- Existing drinking water supply wells
- Nitrates (as NO₃)
- Water Quality Benchmark (36 mg/L)
- Maximum Contaminant Level (45 mg/L)
**CORE MONITORING – GROUNDWATER**

- >36 mg/L
  - Yes
  - QWRP
- ≥ 45 mg/L
  - Yes
  - Notify Regional Board
  - WQRP
- Yes
  - Notify County Health Dept. to determine what additional actions are needed.
  - Notify Users
  - Annual Monitoring
- Resample in Five Years
- Retest
  - No
- <36 mg/L
  - Yes
  - Confirmation
  - Yes
  - WQRP
  - No
  - <36 mg/L
  - No

**REGIONAL MONITORING – THIRD-PARTY GROUP**

- What effect, if any, have the Members’ Agricultural Operations collectively had on regional surface water quality?
- Are waterbody conditions in the areas with commercial agriculture in the San Diego Region getting better or worse?
REGIONAL MONITORING – THIRD-PARTY GROUP
MONITORING PARAMETERS

• Every five years, once in wet season, once in dry season
• Bioassessment monitoring
• Physical Habitat
• Nutrients
• General chemistry

REGIONAL MONITORING – THIRD-PARTY GROUP
MONITORING LOCATIONS

• Southern California Storm Water Monitoring Coalition (SMC)
• Identified 13 SMC sites
**How Will the Monitoring Data Be Used?**

- Upload to CEDEN
- Amend Monitoring Plan
- Compare to Water Quality Benchmarks
- Water Quality Restoration Plan

**Water Quality Restoration Plan**

- Required when:
  - Surface water monitoring benchmark is exceeded 3 out of 4 monitoring events
  - The nitrate monitoring benchmark for groundwater is exceeded
  - When directed by the San Diego Water Board
- Includes:
  - Source identification
  - Actions to be taken
  - Monitoring activities
THE REQUIREMENTS

Use effective management practices (aka BMPs) to minimize or prevent the discharge of wastes to surface water and groundwater

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- Education
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- Feedback mechanism (WQRP)

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Special Topics
- Water Reuse
- Air Quality:
  - Agriculture and Forestry
  - Adult Population
  - Outdoor Agriculture
  - SWP Grant Participants
  - San Diego Regulator
  - California State Water Resources Board
  - Environment Committee

California

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6/7/2017
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