

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**

**APPENDIX 3**

**MONITORING AND REPORTING REQUIREMENTS**

**GROUP ENROLLMENT – VENTURA COUNTY**

**UNDER**

**ORDER NO. R4-2016-XXXX**

**CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS  
FOR  
DISCHARGES FROM IRRIGATED AGRICULTURAL LANDS**

These Monitoring and Reporting Requirements are issued by the Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) pursuant to Water Code sections 13267 and 13269, as set forth in Findings 25-28 of the Order. As conditioned by the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Agricultural Lands (Conditional Waiver), Order No. R4-2016-XXXX, Discharger Groups shall develop a Monitoring and Reporting Plan (MRP) to verify the adequacy and effectiveness of the conditions contained in the Conditional Waiver. The MRP shall be sufficient to (1) assess the impacts of waste discharges from irrigated agricultural lands on waters of the state, (2) evaluate the effectiveness of management practices to control waste discharges, (3) track progress in reducing the amount of waste discharged to waters of the state to improve water quality and protect beneficial uses, and (4) assess compliance with discharge limitations, where applicable. The Executive Officer of the Regional Water Board may revise monitoring and reporting as appropriate.

**1) MONITORING AND REPORTING PLAN**

Discharger Groups shall submit an MRP to the Regional Water Board for Executive Officer approval within six months after adoption of Order No. R4-2016-XXXX.

Other Regional Water Board programs (e.g. TMDLs) may contain requirements similar to the monitoring requirements for Discharger Groups. If such requirements are in place in another regulatory program, the Executive Officer may modify the monitoring tasks of Discharger Groups, upon a request by the Discharger Group, to coordinate with other monitoring programs required by Regional Water Board Programs.

The sections below outline the requirements for the MRP.

**a) Surface Water Quality Monitoring Requirements**

**Monitoring Sites**

Monitoring sites selected for compliance with the Conditional Waiver adopted by Order No. R4-2010-0186 shall be maintained (16 sites for Conditional Waiver constituents and 10 sites for TMDL constituents). More sites shall be added in the lower Ventura River watershed to assess compliance with the Ventura River Algae TMDL, and representative sites shall be proposed from among the existing sites to assess compliance with the

Malibu Creek Nutrients and Sedimentation TMDLs. The identification of waterbodies and locations for monitoring should be based on, but are not limited to, the following:

- waterbodies for which TMDLs have been developed
- size and complexity of watershed
- watershed hydrology
- size of waterbodies
- flow of waterbodies
- proximity to agriculture operations
- safe all-weather access locations

### **Monitoring Frequency and Seasonality**

The frequency of monitoring shall be four times per storm year (i.e., October 15-October 14): twice during the dry season and twice during the wet season. Toxicity shall be monitored during one wet season event and the second dry-season sampling event each storm year. The minimum frequency for fish tissue analysis shall be once every three years. Based on a review of annual monitoring reports, the Executive Officer may increase or decrease the frequency of monitoring. Factors that may be considered in the Executive Officer's evaluation of the monitoring frequency include, but are not limited to, the exceedances or attainment of applicable Water Quality Benchmarks and the effectiveness of any management measures as a result of WQMP implementation.

Monitoring shall be conducted during the dry season and wet season. The dry season is from May 15 to October 15. The wet season is from October 15 to May 15. The wet season samples shall be collected within the first 24 hours of a storm with greater than 0.5 inch rain as measured by the nearest National Weather Service rain gauge, to the extent practicable. Practical constraints on wet season sampling events include, but are not limited to (1) lab closures on weekends and holidays, (2) sample holding times, and (3) safety of the monitoring team. The first wet season samples shall be collected after the first storm of the year. The dry season samples shall be collected after the majority of growers in the area draining to the monitoring site have applied ~~pesticides or~~ fertilizers and during the period where irrigation is required.

### **Monitoring Constituents**

The MRP shall include monitoring for all constituents listed in Table 1. Additionally, the MRP ~~shall include~~ shall include monitoring for the additional constituents specified in Table 2 for those irrigated agricultural lands discharging to the subwatersheds listed in Table 2.

The MRP shall include chronic toxicity testing to evaluate compliance with the narrative toxicity objective in the Basin Plan. During the first year, chronic toxicity testing shall be conducted for three test species: *Pimephales promelas* (fathead minnow), *Ceriodaphnia dubia* (water flea) and *Selenastrum capricornutum* (green algae). Based on the test results, the Discharger Group shall select the most sensitive species for subsequent toxicity monitoring and document its rationale in its annual monitoring report. In addition to the three species toxicity screening, the MRP plan may propose the most relevant species for toxicity testing based on pesticide usage, sample nutrient concentrations,

and site conditions for consideration by the Executive Officer. If sampling sites are located in tidally influenced areas, alternative species that are suitable for more brackish conditions may be selected for toxicity testing, subject to Executive Officer approval.

The results of toxicity testing will be used to trigger further investigations to determine the cause of observed toxicity. If toxicity tests indicate the presence of significant toxicity in the sample, Toxicity Identification Evaluation (TIE) procedures shall be initiated to investigate the cause of toxicity. For the purposes of triggering a TIE, significant toxicity is defined as at least 50% mortality. This threshold is consistent with the approach recommended in guidance published by US EPA for conducting TIEs (US EPA, 1996b). During the field collection of samples an adequate volume of water to conduct both toxicity tests and TIEs should be collected from each monitoring site.

**Table 1. List of constituents to be monitored Regionwide**

Constituent	Units
Flow	CFS (Ft <sup>3</sup> /Sec)
pH	pH units
Temperature	°F
Dissolved Oxygen	mg/L
Turbidity	NTU
Total Dissolved Solids	mg/L
Total Suspended Solids	mg/L
Hardness (as CaCO <sub>3</sub> )	mg/L
Chloride	mg/L
Ammonia	mg/L
Nitrate-Nitrogen	mg/L
Total Nitrogen	mg/L
Phosphate	mg/L
Total Phosphorus	mg/L
Sulfate	mg/L
Total Copper	µg/L
Organophosphate Suite <sup>1</sup>	µg/L
Organochlorine Suite <sup>2</sup>	µg/L
Toxaphene	µg/L
Pyrethroids <sup>3</sup>	µg/L
Toxicity	TU <sub>c</sub> <sup>4</sup>
<i>E. coli</i>	MPN/100 mL
Trash	Observations <sup>5</sup>

<sup>1</sup> Organophosphate Suite: Bolstar, Chlorpyrifos, Demeton, Diazinon, Dichlorvos, Dimethoate, Disulfoton, Ethoprop, Fenchlorophos, Fensulfothion, Fenthion, Malathion, Merphos, Methyl Parathion, Mevinphos, Phorate, Tetrachlorvinphos, Tokuthion, Trichloronate

<sup>2</sup> Organochlorine Suite: 2,4' – DDD, 2,4' – DDE, 2,4'-DDT, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Aldrin, BHC-alpha, BHC-beta, BHC-delta, BHC-gamma, Chlordane-alpha, Chlordane-gamma, Dieldrin, Endosulfan sulfate, Endosulfan-I, Endosulfan-II, Endrin, Endrin Aldehyde, Endrin Ketone

<sup>3</sup> Pyrethroid Pesticides include: allethrin, bifenthrin, cyfluthrin, cypermethrin, danitol, deltamethrin, esfenvalerate, fenvalerate, lambda-cyhalothrin, permethrin, and prallethrin

<sup>4</sup> Chronic Toxic Unit is the reciprocal of the sample concentration that causes no observable effects on the test organism by the end of a chronic toxicity test.

<sup>5</sup> Methods used in previously approved MRPs under Order No. R4-2010-0186 or adopted Trash TMDLs may be used. The assessment methodology should produce consistent results across watersheds and across counties.

**Table 2. List of constituents to be monitored in specific subwatersheds based on TMDL requirements**

Subwatershed	Constituent	Units
Calleguas Creek - Reach 2 Revolon Slough Mugu Lagoon	Nickel	µg/L
Calleguas Creek - Reach 2 Revolon Slough Mugu Lagoon	Selenium	µg/L
Calleguas Creek - Reach 2 Revolon Slough Mugu Lagoon	Mercury	µg/L
Mugu Lagoon Calleguas Creek Revolon Slough Arroyo Las Posas Arroyo Simi Conejo Creek	In Sediment: PCBs Chlordane Dieldrin Toxaphene 4,4 DDD 4,4 DDE 4,4 DDT	ng/g
Simi Revolon Slough	Boron	mg/L
Channel Islands Harbor	Total Coliform Fecal Coliform Enterococcus	MPN/100 mL
Santa Clara River Estuary	In Fish Tissue <sup>1</sup> : Chlordane Dieldrin Toxaphene	µg/kg
	In Water: Chlordane Dieldrin Toxaphene	µg/L
	In Suspended Sediment <sup>2</sup> : Chlordane Dieldrin Toxaphene	µg/kg
Malibu Creek Watershed – Hidden Valley Creek	Total Nitrogen Total Phosphorus	mg/L
Santa Clara River Bacteria TMDL	Total Coliform Fecal Coliform Enterococcus <i>E. coli</i>	MPN/100 mL
Ventura River Algae TMDL	Total Nitrogen Total Phosphorus	mg/L

Subwatershed	Constituent	Units
Oxnard Drain #3 Pesticides, PCBs, and Sediment Toxicity TMDL	In Water and Sediment:  Chlorpyrifos 4,4'-DDT 4,4'-DDE 4,4'-DDD Dieldrin PCBs Sediment toxicity Toxaphene	  µg/L µg/dry kg
	In Water:  Bifenthrin Chlordane	  µg/L

<sup>1</sup> The minimum frequency for fish tissue analysis in the Santa Clara River Estuary shall be once every three years.

<sup>2</sup> Santa Clara River Estuary monitoring for constituents in suspended sediment is only required during wet weather events.

If other Regional Water Board programs (e.g. TMDLs) are used to monitor the constituents in Table 2 the results of that monitoring must be reported in the annual monitoring report required in Section 3 of this document.

**b) Groundwater Monitoring Requirements**

The purpose of groundwater monitoring is to assess trends in groundwater quality beneath irrigated agricultural lands and to confirm that management practices implemented to improve groundwater quality are effective.

- i. In order to assess ~~existing groundwater quality and ongoing~~ trends in groundwater quality, Discharger Groups shall analyze existing monitoring data from groundwater basins below irrigated agricultural lands and propose wells that will be used to compare historical and future data to evaluate long-term groundwater trends.
- ii. In order to assess the effectiveness of management practices in protecting groundwater quality-effectiveness, Discharger Groups shall submit a work plan to monitor areas where irrigated agricultural lands have the potential to impact groundwater basins, exceedances of nitrate have been confirmed, and groundwater is a significant drinking water source, to determine if ~~conduct a study to correlate~~ management practices implemented on the land surface with the effect of those activities on are protective of underlying groundwater quality. ~~The study shall be designed to establish baseline conditions and to differentiate between ongoing impacts, residual impacts (vadose zone) and legacy pollution. The study may use a variety of tools, such as vadose zone monitoring, modeling, and groundwater monitoring. Existing~~ The same monitoring wells in

~~1.b.i and previous studies can be used where available and appropriate for the study monitoring objectives. Well locations and screening levels shall be considered in order to ensure that the study wells will respond to changes in management practices in a timeframe expected given site specific conditions that would affect water and pollutant movement through the soil and groundwater. The location of the study shall consider agricultural areas where high exceedances of nitrate have been confirmed in underlying groundwater basins and where groundwater is a significant drinking water source.~~

The Discharger Group may explore using existing monitoring networks and programs such as those being conducted in accordance with local groundwater management plans (e.g., Salt and Nutrient Management Plans and Groundwater Sustainability Plans developed under the Sustainable Groundwater Management Act).

### **c) Individual Discharge Monitoring Requirements**

For Discharger Group monitoring sites where TMDL-associated Water Quality Benchmarks are not attained by the deadlines in Section 2.d, Table 3, the MRP shall be revised within three months to include individual discharge monitoring for all member sites draining to the Discharger Group monitoring site and all member sites in the encompassing and adjacent HUC-12 watersheds as defined in Section 2.a.i.

The revised MRP shall include a brief sampling and analysis plan for each member site, including:

- The number and location of individual discharge monitoring points: Individual discharge monitoring points must be selected to adequately characterize the majority of the discharge from the portion of the member site that drains to the Discharger Group monitoring site, based on its typical discharge patterns, including tail water discharges, discharges from tile drains, and stormwater runoff.
- A description of sample collection procedures: Samples may be collected according to the MRP for the Discharger Group monitoring sites.
- Description of how samples will be handled, transported, and received by the laboratory: The QAPP for the Discharger Group monitoring sites may be used.

Samples shall be collected from each individual discharge monitoring point. One sample shall be collected per year in wet weather and/or dry weather, depending on the nature of the exceedance at the Discharger Group monitoring site, until Water Quality Benchmarks are attained at each individual discharge monitoring point or at the Discharger Group monitoring site.

Dry-weather monitoring must be conducted during an irrigation event on the portion of the site draining to the monitoring point. If there is no runoff at the monitoring point, then the observation of no runoff shall be documented in the field data sheet. Dry-weather

sampling for toxicity and for currently applied pesticides (e.g., chlorpyrifos, diazinon, pyrethroids) must occur during the first irrigation event following pesticide application.

Wet-weather monitoring must occur within 24 hours of a storm that produces enough rain to generate runoff from the member site, preferably between half an hour and 6 hours after runoff starts.

#### **d) Methods and Quality Assurance Project Plan**

A discussion of monitoring event preparation and field protocols for sample collection and sample handling (including chain of custody requirements) shall be included in the MRP. Additionally, the MRP shall present the quality control (QC) samples that will be collected in conjunction with environmental samples to verify data quality. All samples shall be collected utilizing field techniques consistent with the State Water Resources Control Board's (State Water Board) Surface Water Ambient Monitoring Program (SWAMP). Moreover, all monitoring instruments and devices used by the Discharger for the prescribed field monitoring and sample collection shall be properly maintained and calibrated to ensure proper working condition and continued accuracy.

The MRP shall include a Quality Assurance Project Plan (QAPP). The QAPP shall describe the quality assurance requirements for the MRP. The QAPP will ensure that data are collected and analyzed consistent with State and Regional Water Board monitoring programs and are of high quality. The QAPP shall be consistent with the SWAMP QAPP. As such, the Discharger's QAPP shall include at least the following four sections (1) Project Management, (2) Data Generation and Acquisition, (3) Assessment and Oversight, and (4) Data Validation and Usability. A QAPP template is available through the SWAMP website at [http://www.waterboards.ca.gov/water\\_issues/programs/swamp/tools.shtml](http://www.waterboards.ca.gov/water_issues/programs/swamp/tools.shtml).

The QAPP shall include the location of sample site(s) and the sampling schedule. The QAPP shall include data quality objectives including, but not limited to the following:

- Representativeness
- Comparability
- Accuracy
- Precision
- Recovery
- Reporting limits
- Completeness

The analytical methods, including method detection limits and reporting limits shall be presented in the QAPP. In general, the method detection limits shall be at or below applicable Water Quality Benchmarks. However, several of the constituents of concern have Water Quality Benchmarks that are lower than the readily available detection limits. As analytical methods and detection limits continue to improve (i.e., development of lower detection limits) and become more environmentally relevant, Dischargers shall incorporate new method detection limits in the MRP and QAPP. In the meantime, the detection limits for these constituents shall be set at levels achievable by professional

analytical labs, subject to discharger request and Executive Officer approval.

A laboratory that is certified by the State Water Board's Environmental Laboratory Accreditation Program (ELAP) shall conduct all laboratory analysis according to standard methodologies (e.g. USEPA methods and/or Standard Methods for the Examination of Water and Wastewater). Laboratory analytical methods must be included as an appendix of the QAPP. All data shall be submitted in electronic format to the Regional Water Board using existing formats in CEDEN at [http://www.ceden.org/ceden\\_datatemplates.shtml](http://www.ceden.org/ceden_datatemplates.shtml). The QAPP shall include the laboratory's Standard Operating Procedures (SOPs).

Toxicity testing shall be conducted in accordance with USEPA *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms* (EPA-821-R-02-013) and *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition* (EPA-821-R-02-014), as appropriate. Additionally, toxicity testing will be implemented in accordance with State Water Board and Regional Water Board plans, policies and guidance at the time that toxicity monitoring is conducted. The Regional Water Board may review Order No. R4-2016-XXXX and modify the Monitoring and Reporting Requirements pertaining to toxicity monitoring and TIEs at the time the State Water Board adopts a policy for toxicity assessment and Control. Toxicity testing shall be implemented as a trigger for initiation of the TIE process as outlined in USEPA's *Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System Program* (2000) and *Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program* (March 27, 2001).

The fish collection and analysis shall be conducted in accordance with the USEPA *Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories: Volume 1 Fish Sampling and Analysis* (EPA 823-B-00-0007) or updates.

## **2) WATER QUALITY MANAGEMENT PLAN**

A Discharger Group shall develop a water quality management plan (WQMP) to address exceedances of Water Quality Benchmarks. The WQMP shall outline specific steps with milestones that work toward attainment of Water Quality Benchmarks through the implementation of management practices. The first WQMP shall be submitted one year from the adoption of Order No. R4-2016-XXX based on water quality monitoring data from 2007-2016 and a report of existing management practices obtained from farm evaluation plans or surveys completed by Discharger Group members as described in section 2.a.iii. WQMPs shall be updated according to the schedule in 2.d, if Water Quality Benchmarks are not attained, based on results of revised farm evaluation plans or surveys completed by Discharger Group members. WQMPs are subject to Executive Officer approval and shall be noticed for public comment prior to Executive Officer approval. The elements of the WQMP shall include:

**a) Summary of Existing Conditions**

The WQMP shall be organized by monitoring site. For each monitoring site provide:

- i. A map showing the monitoring site, the land area draining to the monitoring site, the HUC-12 watershed in which the monitoring site is located, any adjacent HUC-12 watersheds that do not include a monitoring site<sup>6</sup>, and the enrolled and non-enrolled irrigated agricultural parcels within the HUC-12 watershed(s). Maps shall be submitted electronically in GIS format in addition to being included in the written WQMP.
- ii. For each constituent that has exceeded a Water Quality Benchmark (considering applicable averaging periods<sup>7</sup>), a graph showing the concentrations of the constituent over time since 2007.
- iii. A report of existing management practices<sup>8</sup> being implemented in the land area draining to the monitoring site, the HUC-12 watershed in which the monitoring site is located, and any adjacent HUC-12 watersheds that do not include a monitoring site. In addition to adoption rates, report on the degree of implementation (e.g., size of area treated), for each type of management practice, as follows:
  - o For all types of management practices that require linear installation, report linear feet installed per corresponding total length. For example, list how many feet of windbreak are installed on the property per total wind-facing property line.
  - o For all types of management practices that require linear installation to treat an area of irrigated agricultural land, report linear feet installed and acres treated. For example, list how many feet of filter strip are installed at the property to treat how many acres of land.
  - o For all types of management practices that are installed to treat a specific area, report acres treated. For example, for a sedimentation retention basin,

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<sup>6</sup> Discharger groups shall propose a method for associating adjacent HUC-12 watersheds with monitoring sites in the WQMP.

<sup>7</sup> The averaging period is typically defined in the Basin Plan, as part of water quality criteria promulgated by the USEPA, or as part of the criteria being used to interpret narrative objectives. If averaging periods are not defined in the Basin Plan, USEPA promulgated criteria, or other water quality criteria, or approved water quality trigger, the Regional Water Board will use the best available information to determine an appropriate averaging period.

<sup>8</sup> To determine existing management practice implementation, a discharger group may survey its members or compile information from farm evaluation plans completed by members. The survey questions or farm evaluation plans must be specific enough to produce the required level of detail for management practice reporting. The Discharger Group shall submit the survey or template farm evaluation plan to the Executive Officer for review and approval within 120 days of the adoption of Order No. R4-2016-XXXX and shall make the farm evaluation plan template or survey available to its members according to the schedule in Section 3 of these monitoring and reporting requirements.

report how many acres of runoff from agricultural land are treated by this basin.

- iv. A pesticide use evaluation assessment, including the timing of pesticide applications, the application rates, the amounts of pesticide applied, and the points of application. Compare changes in pesticide concentrations at specific monitoring sites to pesticide use patterns for land area draining to the monitoring site.
- v. Comparison of existing management practice implementation (type of management practices, adoption rates, and degree of implementation specified in 2.a.iii) in the land area draining to the monitoring site to long-term monitoring data for the monitoring site using graphical comparisons, as specified in 2.a.ii, in order to assess management practice effectiveness and determine if additional or upgraded management practices are necessary to meet Water Quality Benchmarks.

#### **b) Proposed Additional or Upgraded Management Practices**

Based on the analysis completed under section 2.a.v., for each monitoring site provide:

- i. Description of additional or upgraded management practices, which shall be implemented by members in the land area draining to the monitoring site (and in the HUC-12 watershed in which the monitoring site is located and any adjacent HUC-12 watersheds that do not include a monitoring site) to address Water Quality Benchmark exceedances, as follows:
  - o For exceedances of Water Quality Benchmarks for nutrients, the WQMP must specify the following types of management practices:
    - Improved irrigation efficiency to reduce runoff
    - Certified nutrient management plans, including crop-specific applied/removed ratios for nitrogen<sup>9</sup>
    - Treatment systems or control systems to remove nitrogen from discharges

<sup>9</sup> A certified nutrient management plan must be certified ~~in one of the following ways:~~  
~~Self-certified by the Member who attends a California Department of Food and Agriculture or other Executive Officer approved training program for nutrient plan certification~~  
~~Self-certified by the Member that the plan adheres to a site-specific recommendation from the Natural Resources Conservation Service (NRCS) or the University of California Cooperative Extension~~  
Certified by a Crop Advisor certified by the American Society of Agronomy, or Technical Service Providers certified in nutrient management in California by the National Resource Conservation Service (NRCS)

- For exceedances of Water Quality Benchmarks for historic pesticides and their degradation products, such as DDT, DDE, chlordane, and dieldrin, the WQMP must specify the following types of management practices:
  - Improved irrigation efficiency to reduce runoff
  - Practices to reduce sediment in runoff
  - Stormwater runoff filtration and/or infiltration
- For exceedances of Water Quality Benchmarks for copper and current use pesticides, such as chlorpyrifos, diazinon, and pyrethroids, the WQMP must specify the following types of management practices:
  - Pesticide management plans
  - Improved irrigation efficiency to reduce runoff
  - Practices to reduce sediment in runoff
  - Stormwater runoff filtration and/or infiltration
- Additional or upgraded management practices must be based on a comparison to existing management practices, as follows:
  - If source reduction and non-structural management practices are not fully implemented by all members in the land area draining to the monitoring site, then the WQMP must specify increased implementation of source reduction and non-structural management practices
  - If source reduction and non-structural management practices are fully implemented<sup>10</sup> by all members in the land area draining to the monitoring site, then the WQMP must specify implementation of structural/treatment management practices
- ii. Description of TMDL-specific management practices, which shall be implemented by members in watersheds addressed by TMDLs, as follows:
  - For the Ventura River Algae TMDL, certified nutrient management plans
  - For the McGrath Lake OC Pesticides and PCBs TMDL, practices to reduce sediment runoff and improve irrigation efficiency on individual farms, and reduce sediment runoff in the Central Ditch
  - For the Santa Clara River Estuary Toxaphene TMDL, practices to reduce sediment runoff and improved irrigation efficiency

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<sup>10</sup> Or cannot be fully implemented. For example, if irrigation runoff cannot be reduced or eliminated by replacing inefficient irrigation systems with drip irrigation because of plant propagation needs or other considerations, then irrigation runoff must be treated before leaving the property, or recycled (tailwater recovery).

- iii. A time-certain schedule for implementation of additional or upgraded management practices ~~to ultimately with a goal of attaining~~ Water Quality Benchmarks ~~in within~~ ten years from the date the WQMP is submitted, unless otherwise specified in Table 3.

#### c) Outreach Plan

The WQMP shall include a strategy for communicating to growers the need to implement additional or upgraded management practices. For each monitoring site:

- i. Provide regular communication (a minimum of twice per year) to members alerting them of additional and upgraded management practice requirements specific to their monitoring site/HUC-12 or TMDL watershed as specified in section 2.b.
- ii. Provide education classes, referrals to technical assistance providers, and notices of available funding to members, targeting the constituents specific to their monitoring site/HUC-12 or TMDL watershed as specified in section 2.b.

#### d) WQMP Process

The WQMP process is an iterative process. The Discharger Group shall submit the first WQMP one year from the adoption of Order No. R4-2016-XXX based on data collected since 2007 and results from farm evaluation plans or surveys completed by its members. The Discharger Group shall update the WQMP with the latest monitoring data since 2007; new information about existing management practices based on updated farm evaluation plans or surveys completed by its members, according to Section 2.a; and additional or new management practices proposed for the next year, according to Section 2.b; as well as an updated outreach plan, according to Section 2.c. The schedule for submittal of updated WQMPs is as follows:

Submit first WQMP: April 14, 2017

Submit second WQMP: December 15, 2018

Submit final report for 2016 Waiver<sup>11</sup>: October 31, 2020

In addition to the iterative WQMP process for Discharger Group monitoring sites that exceed Water Quality Benchmarks, beginning with the second WQMP submitted under this Waiver term, there are additional requirements if these sites do not show ~~a~~ decreasing trends in the concentrations of constituents ~~the at that~~ exceed Water Quality Benchmarks. If a Discharger Group monitoring site does not show a decreasing trend in concentrations of constituents that exceed Water Quality Benchmarks<sup>12</sup>, then the Discharger Group shall investigate the source(s) of the constituents that exceed Water Quality Benchmarks. The Discharger Group shall submit a work plan for the investigation to the Executive Officer for approval by October 1, 2018. The work plan shall be noticed for public comment prior to Executive Officer approval. The Discharger

<sup>11</sup> Final report shall include presentation of data in section 2.a. and a summary of progress under the 2016 Waiver.

<sup>12</sup> Discharger groups shall propose a method for trend analysis in the source investigation work plan.

Group shall begin implementation of the source investigation as soon as possible after Executive Officer approval of the work plan and no later than January 2019.

The work plan shall provide the justification for the proposed investigation, specifically identifying how the investigation will identify the source(s) of a Water Quality Benchmark exceedance and evaluate management practice effectiveness on member sites draining to the Discharger Group monitoring site. The investigation shall include some individual discharge monitoring of member sites that drain to the Discharger Group monitoring site based on an evaluation of relative locations, existing management practice implementation, pesticide application, and fertilizer application and irrigation practices of member sites. The specific investigation may include monitoring upstream of member sites to demonstrate that member sites that drain to the Discharger Group monitoring site are not causing or contributing to a Water Quality Benchmark exceedance at the Discharger Group monitoring site.

The iterative WQMP implementation process shall continue until the deadlines specified in Table 3. The deadlines in Table 3 take into consideration the relative difficulty in achieving Water Quality Benchmarks for different constituents and are based on TMDL compliance dates.

**Table 3. Water Quality Benchmark Compliance Deadlines**

TMDL Constituents	Compliance Date
Malibu Creek Watershed Nutrients TMDL	October 14, 2022
Santa Clara River Nitrogen Compounds TMDL	October 14, 2022
Ventura River Estuary Trash TMDL	October 14, 2020
Calleguas Creek Nitrogen Compounds and Related Effects TMDL	October 14, 2025
Revolon Slough and Beardsley Wash Trash TMDL	October 14, 2020
Upper Santa Clara River Chloride TMDL	October 14, 2020
Calleguas Creek Watershed and Mugu Lagoon Siltation TMDL*	March 24, 2015
Calleguas Creek Watershed and Mugu Lagoon Toxicity, Chlorpyrifos, and Diazinon TMDL	March 24, 2022
Ventura River Algae TMDL	June 28, 2019
McGrath Lake OC Pesticides and PCBs TMDL	June 30, 2021
Malibu Creek Watershed Sedimentation and Nutrients TMDL	July 2, 2021
Calleguas Creek Watershed and Mugu Lagoon Metals and Selenium TMDL	March 26, 2022
Calleguas Creek Watershed Boron, Chloride, Sulfate and TDS (Salts) TMDL	Dec. 23, 2023
Santa Clara River Estuary Toxaphene TMDL	October 7, 2025
Calleguas Creek Watershed and Mugu Lagoon OC Pesticides & PCBs TMDL	March 24, 2026
Oxnard Drain #3 Pesticides, PCBs, and Sediment Toxicity TMDL	April 14, 2026
Santa Clara River Bacteria TMDL	March 21, 2023 dry March 21, 2029 wet

\*Additional time may be added to this TMDL deadline should a TMDL reconsideration revise the implementation schedule based on the results of special studies.

For Discharger Group monitoring sites where a deadline in Table 3 has passed, individual sites shall be subject to discharge limitations equal to Water Quality Benchmarks from the deadline forward until Water Quality Benchmarks are attained at the individual sites or at the Discharger Group monitoring site. Discharger Groups shall submit a revised MRP with individual discharge monitoring according to the requirements in Section 1.c.

### **3) REPORTING REQUIREMENTS**

Pursuant to Water Code Section 13267 and 13269, the Discharger Group shall submit the following reports to the Regional Water Board by the deadlines identified below.

#### **Monitoring and Reporting Plan**

**Due: six months from the adoption of Order 2016-XXX, and updated, if needed, within three months of the submittal of the annual monitoring report**

The MRP must include the components of the monitoring and reporting requirements as stated in Section 1 of these Monitoring and Reporting Requirements. The MRP shall also include the following elements:

1. Title page and Table of Contents
2. Description of the Discharger Group, including formation and background information
3. Summary of Discharger Group membership and setting, including characteristics relevant to the monitoring
4. Summary of the historical data and/or on-going monitoring at each monitoring site
5. GPS coordinates for each monitoring site
6. Maps showing property boundaries, land use, topography, waters of the state, crop types, and any other features which may affect water quality
7. Summary of current pesticide use practices (including top 5 pesticides applied by volume and 5 most frequently applied pesticides).
8. Monitoring constituents and frequency of sampling to include all constituents in Tables 1 and 2
9. A QAPP consistent with the requirements described in Section 2.d
10. Documentation of monitoring protocols including sample collection and handling methods
11. Discharger Group contact information
12. Individual discharge monitoring plan, if needed, according to Section 1.c

#### **Groundwater Quality ~~Assessment and~~ Trend Monitoring Plan**

**Due: six months from the adoption of Order 2016-XXX**

The Groundwater Quality ~~Assessment and~~ Trend Monitoring Plan shall be completed according to the requirements of Section 1.b.i. Trend monitoring shall begin upon Executive Officer approval of the plan. The results of the Groundwater Quality Trend Monitoring Plan shall be reported with annual monitoring reports beginning December 15, 2017.

**Groundwater ~~Quality Assessment Report and Groundwater~~ Management Practice ~~Assessment Evaluation~~ Plan**  
**Due: April 14, ~~2017~~ 2018**

The Groundwater Management Practice ~~Assessment Evaluation~~ Plan shall be developed according to the requirements of Section 1.b.ii ~~and will be informed by the results of the Groundwater Quality Assessment Plan developed in accordance with Section 1.b.i. Thus the Groundwater Quality Assessment and the Groundwater Management Practice Assessment Plan shall be submitted at the same time.~~

**Groundwater Management Practice ~~Assessment Evaluation~~ Report**  
**Due: Annually, beginning December 15, ~~2018~~ 2020**

The results of the Management Practice ~~Assessment Evaluation~~ Plan shall be reported ~~with annual monitoring reports beginning December 15, 2020, including a correlation between~~ determination regarding the effect of management practices implemented on the land surface ~~with the effect of those activities~~ on underlying groundwater quality.

**Annual Monitoring Report**  
**Due: Annually beginning December 15<sup>th</sup>**

The Discharger Group shall prepare the Annual Monitoring Report (AMR) after monitoring events have been completed and it shall include a review of the results of the data collected and data evaluation and a WQMP progress report. The AMR shall include the following components:

1. Title page
2. Table of contents
3. Description/Summary of Discharger Group membership and setting
4. Updated membership list, submitted electronically
5. Monitoring objectives
6. Sampling and analytical methods used, submitted in a CEDEN compatible tabular format
7. For each monitoring site:
  - a. Site description, including photographs
  - b. GPS coordinates of the site and a map showing the land area draining to the site and the HUC-12 watershed in which the site is located.
  - c. Parameters monitored and frequency. Tabulated results of analyses and comparison with applicable Water Quality Benchmarks and/or discharge limitations
  - d. Data interpretation including assessment of compliance and/or noncompliance with Water Quality Benchmarks and/or discharge limitations
  - e. Results of toxicity tests and results of TIE, where performed
  - f. List of enrolled and non-enrolled parcels

8. Copy of chain of custody, submitted electronically
9. Associated laboratory and field quality control samples results
10. Summary of precision and accuracy
11. Quality control data interpretation, including assessment of data quality objectives
12. WQMP Progress Report

For each monitoring site:

- a. Copies of outreach materials (mailings, handouts from education classes)
- b. Report on members who have completed and not completed surveys/farm evaluation plans
- c. Report on members who have completed and not completed education requirements
- d. Report on individual discharge monitoring results, if applicable

Discharger Groups eligible under this Order bear the responsibility to provide required information to the Regional Water Board, maintain records, and submit regular reports detailing the types of discharges, monitoring results for required constituents, members of the Group, the type of management practices implemented, how those measures have changed water quality, and other basic information that the Executive Officer may determine is required. Copies of all field documentation and laboratory original data must be included as part of the annual monitoring report in a CEDEN-compatible format (and may be included as attachments). The annual monitoring report should also provide a characterization of the field conditions during each sampling event, including a description of the weather, rainfall, temperature, photographs, stream flow, color of the water, odor, crop type, cultivation practices and pesticide, fertilizer or sediment control measures, which may affect water quality, and other relevant information that can help in data interpretation.

Monitoring and analyses event records shall include the following information: (1) date and time of sampling, (2) sample location (GPS coordinates), (3) photograph of the site, (4) individual(s) who performed the sampling or measurements, (5) date(s) analyses were performed, (6) laboratory and/or individual(s) who performed the analyses, (7) the analytical techniques or method used along with method detection limits and reporting limits, and (8) the results of such analyses.

The monitoring data will be submitted in an electronic CEDEN-compatible format.

**Source Investigation Work Plan**  
**Due: October 1, 2018.**

A source investigation work plan shall be submitted for the Discharger Group monitoring sites that do not show a decreasing trend in concentrations of constituents that exceed Water Quality Benchmarks according to the requirements in Section 2.d. The Discharger Group shall begin implementation of the source investigation as soon as possible after Executive Officer approval of the work plan and no later than January 2019.

**Source Investigation Report**  
**Due: September 1, 2019**

A source investigation report and updated WQMP outreach plan will be prepared based on the results of the source investigation(s).

**Water Quality Management Plan**  
**First WQMP due: April 14, 2017**  
**Second WQMP due: December 15, 2018, combined with the third AMR**  
**Final report for 2016 Waiver due: October 31, 2020**

The first WQMP shall be based on water quality monitoring data from 2007-2016 and the results of farm evaluation plans or surveys completed by its members. The Discharger Group shall begin surveying its members within eight months of the adoption of Order No. R4-2016-XXX in order to submit the first WQMP by April 14, 2017.

The Discharger Group shall update the WQMP according to the schedule above with the latest monitoring data since 2007 and revised farm evaluation plans or survey results. The required elements of a WQMP are presented in Section 2 of these Monitoring and Reporting Requirements.

The second WQMP shall be based on completion of a second set of farm evaluation plans or surveys by its members. The Discharger Group shall begin surveying its members for the second WQMP beginning June 2018. The second WQMP shall also incorporate the approved Source Investigation Work Plan.

The final report shall be based on completion of a third set of farm evaluation plans or surveys by its members. The Discharger Group shall begin surveying its members for the final report beginning June 2020. The final report shall include a summary of progress under the 2016 Waiver, including results of the third survey and the updated outreach plan based on the source investigation conducted under the second WQMP.

**Other Reporting Requirements**

1. A transmittal letter shall accompany each report. This letter shall include a brief discussion of any violations of the Conditional Waiver that were found during the reporting period and cite to the pages in the report that note these violations. The transmittal letter shall be signed and shall contain a perjury statement by the Discharger Group's authorized agent. This statement shall state:

*"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 knowingly submitting false information, including the possibility of fine and imprisonment for perjury."*

2. If Dischargers monitor any constituent (at locations established in the MRP), for the purposes of evaluating compliance with the provisions of this Order, more frequently than required by the Conditional Waiver, the discharger shall submit the monitoring results to the Regional Water Board.
3. The Discharger Groups shall retain records of all monitoring information including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the application for this Order.
4. Records shall be maintained for a minimum of five years from the date of the sample, measurement, or report. This period may be extended during the course of any unresolved enforcement action, including, but not limited to, litigation regarding this discharge, or when requested by the Executive Officer.
5. Each monitoring report must affirm in writing that “All analyses were conducted at a laboratory certified for such analyses by the Environmental Laboratory Accreditation Program, and in accordance with current USEPA guideline procedures, or as specified in this Monitoring Program.”
6. If there is no discharge during any reporting period, the report shall so state. Monitoring reports must be provided in electronic format to be specified by the Executive Officer.
7. Records and reports submitted to the Regional Water Board are public documents and shall be made available for inspection during normal business hours at the Regional Water Board office.

Ordered by: \_\_\_\_\_  
Samuel Unger, PE  
Executive Officer

\_\_\_\_\_ Date