

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

**APPENDIX 1**

**MONITORING AND REPORTING REQUIREMENTS**

**INDIVIDUAL ENROLLMENT**

**UNDER**

**ORDER NO. R4-2023-0353**

**WASTE DISCHARGE REQUIREMENTS**

**FOR**

**DISCHARGES FROM IRRIGATED AGRICULTURAL LANDS**

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# Monitoring and Reporting Requirements

These Monitoring and Reporting Requirements are issued by the Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) pursuant to Water Code 13267, which authorizes the Los Angeles Water Board to require preparation and submittal of technical and monitoring reports.

The Los Angeles Water Board require the technical and monitoring reports to implement and determine compliance with the Waste Discharge Requirements for Discharges from Irrigated Agricultural Lands, Order No. R4-2023-0353 (General WDRs). The General WDRs authorize Dischargers to obtain coverage under the General WDRs as an individual or as a member of a Discharger Group. These Monitoring and Reporting Requirements include requirements for Individual Dischargers.

As required by the General WDRs, Individual Dischargers shall develop a Monitoring and Reporting Plan (MRP) to verify the adequacy and effectiveness of the requirements contained in the General WDRs. 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 water quality limitations, where applicable.

The Executive Officer of the Los Angeles Water Board may revise monitoring and reporting requirements as appropriate or necessary to ensure that the monitoring and reporting conducted pursuant to this Appendix is adequate to achieve this purpose.

These Monitoring and Reporting Requirements conform to the goals of the Policy for Implementation and Enforcement of the Nonpoint Source (NPS) Pollution Control Program (NPS Policy). These Monitoring and Reporting Requirements also incorporate the precedential elements of the State Water Board Order WQ 2018-0002 (ESJ Order)<sup>1</sup>, adopted on February 7, 2018.

## 1 Monitoring and Reporting Plan

Individual Dischargers shall submit an MRP to the Los Angeles Water Board for Executive Officer approval 90 days before commencement of discharge. A template

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<sup>1</sup> State Water Board adopted Order WQ 2018-0002 (ESJ Order) available at [https://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2018/wqo2018\\_0002\\_wit\\_h\\_data\\_fig1\\_2\\_appendix\\_a.pdf](https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2018/wqo2018_0002_wit_h_data_fig1_2_appendix_a.pdf) (as of October 7, 2022)

individual monitoring and reporting plan can be found on the Los Angeles Water Board website.

The sections below outline the requirements for the MRP.

## **1.1 Surface Water Quality Monitoring Requirements**

### **1.1.1 Monitoring Sites**

Individual Dischargers shall monitor discharges to waters of the state from their operations under these requirements. The number and location of monitoring sites must be based on site-specific characteristics and be supported by scientific rationale and a detailed discussion of the drainage characteristics of the Individual Discharger site. Monitoring sites must be selected to adequately characterize the majority of the discharge from the Individual Discharger site, based on its typical discharge patterns, including tail water discharges, discharges from tile drains, and stormwater runoff.

The MRP shall describe the characteristics of each sampling site, including crop type and cultivation practices, and provide a maps and GPS coordinates for each monitoring site.

### **1.1.2 Monitoring Frequency and Seasonality**

The frequency of monitoring for Table 1 constituents shall be twice per storm year (i.e., October 15-October 14): once during the dry season and once during the wet season. 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 Water Quality Management Plan (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. Dry-season samples shall be collected after the site has applied pesticides or fertilizers and during an irrigation event. If there is no runoff at the monitoring site, then the observation shall be documented with photos showing the occurrence of irrigation and the lack of runoff at the monitoring site.

### 1.1.3 Monitoring Constituents

All Individual MRPs shall include monitoring for all constituents list in Table 1.

**Table 1: Constituents to be Monitored at All Sites**

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>2</sup>	µg/L
Organochlorine Suite <sup>3</sup>	µg/L
Toxaphene	µg/L
Pyrethroid Suite <sup>4</sup>	µg/L
Neonicotinoid Suite <sup>5</sup>	µg/L
Toxicity	Pass/Fail and % <sup>6</sup>
<i>E. coli</i>	cfu/100 mL

<sup>2</sup> Organophosphate Suite: Bolstar, Chlorpyrifos (RL 0.01), Demeton, Diazinon, Dichlorvos, Dimethoate, Disulfoton, Ethoprop, Fenchlorophos, Fensulfothion, Fenthion, Malathion, Merphos, Methyl Parathion, Mevinphos, Phorate, Tetrachlorvinphos, Tokuthion, Trichloronate

<sup>3</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>4</sup> Pyrethroid Suite:: allethrin, bifenthrin, cyfluthrin, cypermethrin, danitol, deltamethrin, esfenvalerate, fenvalerate, lambda-cyhalothrin, permethrin, and prallethrin

<sup>5</sup> Neonicotinoid Suite: acetamiprid, clothianidin, dinotefuran, imidacloprid, nitenpyram, nithiazine, thiacloprid and thiamethoxam.

<sup>6</sup> Results obtained from toxicity tests shall be reported as either a “pass” or a “fail,” and the percent effect at the Instream Waste Concentration (IWC) for each endpoint.

Constituent	Units
Trash <sup>7</sup>	Observations

An Individual MRP shall also include monitoring for the additional constituents in Table 2, where those agricultural lands are located within the subwatersheds listed in Table 2.

**Table 2: Constituents to be Monitored in Specific Subwatershed 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	<u>In Sediment:</u> PCBs <sup>8</sup> 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	Total Coliform Fecal Coliform Enterococcus <i>E. coli</i>	MPN/100mL
Santa Clara River Estuary	<u>In Water:</u> Chlordane	µg/L

<sup>7</sup> Methods used in previously approved MRPs under Order No. R4-2021-0045-A02 or adopted Trash TMDLs may be used. The assessment methodology should produce consistent results across watersheds and across counties.

<sup>8</sup> For polychlorinated biphenyls (PCBs) in aqueous samples, Individual dischargers are encouraged to conduct their analysis using a high-resolution EPA-approved method with recommended Reporting Levels of at least 170 pg/L for for each congener. At a minimum, PCBs shall be analyzed for all 55 PCB congeners listed in Table A-7 of the Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1, Sediment Quality Provisions.

Subwatershed	Constituent	Units
	Dieldrin Toxaphene  <u>In Suspended Sediment</u> <sup>1</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
Oxnard Drain #3 Pesticides, PCBs, and Sediment Toxicity TMDL	<u>In Water and Sediment:</u> Chlorpyrifos 4-4'-DDT 4,4'-DDE 4,4'-DDD Dieldrin PCBs Sediment toxicity Toxaphene	µg/L µg/dry kg
	<u>In Water:</u> Bifenthrin Chlordane	µg/L

<sup>1</sup> Santa Clara River Estuary monitoring for constituents in suspended sediment is only required during wet weather events.

If other Los Angeles 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 3.2 of this document.

## 1.2 Groundwater Monitoring and Reporting Requirements

### 1.2.1 Groundwater Monitoring

The groundwater monitoring shall assess trends in groundwater quality for nitrate beneath irrigated agricultural lands and to develop long-term groundwater quality

information that can be used to evaluate the effectiveness of the management practices implemented to improve groundwater quality.

The Discharger must submit, as part of the MRP, a Groundwater Monitoring and Reporting Plan, prepared and certified by a qualified professional, and describe how the monitoring program will quantitatively evaluate groundwater quality trends over time and quantitatively assess the impacts of agricultural discharges on groundwater quality. Groundwater monitoring must be included in the Quality Assurance Project Plan (QAPP). Any Discharger who does not have a well on their parcel, must install a monitoring well, or wells, as needed, to evaluate water quality trends in the shallowest water-bearing zone beneath their parcel.

### **1.3 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 Los Angeles 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's 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). The QAPP shall include the laboratory's Standard Operating Procedures (SOPs). Laboratory analytical methods must be included as an appendix of the QAPP. All data shall be submitted in electronic tabular format to the Los Angeles Water Board in CEDEN-compatible format ([http://www.ceden.org/ceden\\_datatemplates.shtml](http://www.ceden.org/ceden_datatemplates.shtml)).

Toxicity testing will be conducted and implemented in accordance with the *State Policy for Water Quality Control: Toxicity Provisions* as revised on October 5, 2021 or as further updated and other State Water Board and Los Angeles Water Board toxicity plans, policies and guidance at the time that toxicity monitoring is conducted.

Chronic toxicity testing shall be analyzed using the Test of Significant Toxicity using a chronic freshwater method based on the 2021 Revised State Policy for Water Quality Control: Toxicity Provisions. The Discharger shall conduct chronic toxicity testing using the most sensitive of the three test species: *Pimephales promelas* (fathead minnow), *Ceriodaphnia dubia* (water flea) and *Selenastrum capricornutum* (green algae). The Discharger shall document its selection rationale in its annual monitoring report. 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 chronic toxicity testing will be used to trigger further investigations to determine the cause of observed toxicity. If chronic 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.

## **1.4 Irrigation and Nutrient Management Plan and Report Requirements**

### **1.4.1 Irrigation and Nutrient Management Plan**

All Dischargers must prepare and implement an Irrigation and Nutrient Management Plan (INMP) that provides information on which irrigation and nutrient associated management practices will be implemented for the upcoming crop year. At a minimum the INMP should include all the elements in the approved INMP template available on the Los Angeles Regional Board website. All Dischargers with sites in watersheds with TMDLs that address water bodies impaired due to nutrients, must prepare certified<sup>9</sup> INMPs. All Dischargers must prepare their first INMP on March 1<sup>st</sup> and update it annually thereafter. INMPs are to be kept on-farm.

### **1.4.2 Irrigation and Nutrient Management Report**

All Dischargers must also prepare an Irrigation and Nutrient Management Report (INMR) that provides field-level information on the irrigation and nitrogen application practices for the previous year. An INMR must include the information used by the Discharger in calculating an Applied/Removed (A/R) ratio for nitrogen, and an Applied-Removed (AR) difference for nitrogen, as defined in the equations in sections 1.4.4.1 – 1.4.4.5 below. All Members must submit the first INMR on March 1<sup>st</sup>, one year after INMP and annually thereafter. The INMRs submitted by Dischargers shall be reported by field<sup>10</sup> and include nitrogen applied values<sup>11</sup> and crop yield. The INMR must include the information unless otherwise specified.

#### **1.4.2.1 Total Nitrogen Applied**

All Dischargers must report total nitrogen applied each year in the INMR. The total nitrogen applied includes all nitrogen proactively added to a field from any source such as organic amendments, synthetic fertilizers, manure, and irrigation water.

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<sup>9</sup> A certified nutrient management plan must be certified in one of the following ways:

- a) 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
- b) Self-certified by the Member that the plan adheres to a field-specific recommendation from the Natural Resources Conservation Service (NRCS) or the University Cooperative Extension
- c) Certified by a Crop Advisor certified by the American Society of Agronomy, or Technical Service Providers certified in nutrient management by NRCS

<sup>10</sup> A field is a contiguous piece of land that has the same crop planted on it. There can be multiple fields on a single parcel and a field can span across multiple parcels.

<sup>11</sup> Nitrogen applied values include any nitrogen that is applied to a field such as organic amendments, synthetic fertilizers, manure, and irrigation water.

### **1.4.2.2 Total Nitrogen Removed**

All Dischargers must report the crop yield each year in the INMR unless the Discharger meets one of the criteria for alternative reporting requirements below. With approval from the Executive Officer, the following Dischargers may initially report the Total Nitrogen Applied value only:

- Growers that (1) operate in areas with evidence of no or very limited nitrogen impacts to surface water or groundwater, (2) have minimal nitrogen inputs, and (3) have difficulty measuring yield;
- Diversified socially disadvantaged growers, as defined by the Farmer Equity Act of 2017, 117 with (1) a maximum total acreage of 45 acres, (2) gross annual sales of less than \$350,000, and (3) a crop diversity greater than 0.5 crops per acre (one crop for every two acres); or
- Growers with (1) a maximum total acreage of 20 acres, and (2) a crop diversity greater than 0.5 crops per acre (one crop for every two acres).

Any Discharger who concludes that the exemptions apply to their discharge shall prepare an assessment report and submit it for the Executive Officer approval, demonstrating that they meet the criteria items.

### **1.4.3 Exemption from Nitrogen Management Reporting Requirements**

Notwithstanding the provisions above, for Dischargers where applied nitrogen is not expected to seep below the root zone in amounts that could impact groundwater and is further not expected to discharge to surface water, the INMPs, INMRs, and calculations in Sections 1.4.4.1 – 1.4.4.5 are not required.

Any Discharger who concludes that the exemptions apply to their discharge shall prepare an assessment report and submit it for the Executive Officer approval, demonstrating that they meet the criteria items.

### **1.4.4 INMR Data Evaluation**

For each field, the Discharger shall calculate Nitrogen Removed (Section 1.4.4.1), Annual and Multi-year Nitrogen Applied/Nitrogen Removed (A/R Ratio) (Sections 1.4.4.1 and 1.4.4.2), and Annual and Multi-year Nitrogen Applied-Nitrogen Removed (A-R Difference) (Sections 1.4.4.3 and 1.4.4.4) as indicated below.

#### 1.4.4.1 Annual Nitrogen Applied/Nitrogen Removed Ratio (A/R Ratio)

The A/R ratio shall be reported as the ratio of total nitrogen applied to total nitrogen removed. The formula for calculating the annual A/R ratio is below.

$$A/R (1 \text{ year}) = \frac{\text{Nitrogen Applied during current reporting cycle}}{\text{Nitrogen Removed during current reporting cycle}}$$

#### 1.4.4.2 Multi-Year Applied/Nitrogen Removed Ratio (A/R Ratio)

For each field for which three consecutive years of A/R ratio is available, the Discharger shall calculate the multi-year A/R ratio as the ratio of total nitrogen applied to total nitrogen for the three prior consecutive years. The formula for calculating the multi-year A/R ratio is below.

$$A/R (3 \text{ year}) = \frac{\text{Sum of Nitrogen Applied during current and two previous reporting cycles}}{\text{Sum of Nitrogen Removed during current and two previous reporting cycles}}$$

#### 1.4.4.3 Nitrogen Applied – Nitrogen Removed Difference (A-R Difference)

The Discharger shall calculate the A-R difference as the numerical difference between total nitrogen applied and total nitrogen removed. The formula for calculating the annual A-R Difference is below.

$$A-R (1 \text{ year}) = \text{Nitrogen Applied (current reporting cycle)} - \text{Nitrogen Removed (current reporting cycle)}$$

#### 14.4.4 Multi-Year Applied/Nitrogen Removed Difference (A-R Difference)

Beginning the third year of reporting, for those locations with data available for three years, the Discharger shall calculate and report a three-year running total for the A-R difference. The formula for the 3-year A-R difference is shown in the equation below.

$$A-R (3 \text{ year}) = [\text{Sum of Nitrogen Applied (current and two previous reporting cycles)}] - [\text{Nitrogen Removed (current and two previous reporting cycles)}]$$

### **1.4.5 Discharger Reporting Requirements**

The Discharger shall report the following data in a tabular form to the Los Angeles Water Board:

- 1) Field ID
- 2) Crop type
- 3) Nitrogen applied via fertilizers (lbs/acre)
- 4) Nitrogen applied via organics and compost (lbs/acre)
- 5) Nitrogen applied via irrigation water (lbs/acre)
- 6) Total Nitrogen applied (lbs/acre) which is sum of nitrogen from fertilizer, organics/compost, and irrigation water
- 7) Nitrogen removed per acre (lbs/acre)
- 8) A/R ratio
- 9) A-R difference (lbs/acre)
- 10) 3-year A/R ratio, if available
- 11) 3-year A-R difference, if available

The Discharger shall submit field-level AR data. The Discharges determined by the Los Angeles Water Board to be outliers in the amount of nitrogen applied shall be subject to follow-up and training.

## **2 Water Quality Management Plan**

If water quality monitoring data, collected as described above, indicate exceedances of applicable water quality benchmarks, the Discharger shall develop a WQMP and, upon approval of and in accordance with the WQMP, implement targeted management practices intended to attain water quality benchmarks. Dischargers shall submit a WQMP within six months after the submittal of the annual monitoring report. The WQMP shall outline specific actions with milestones intended to attain of water quality benchmarks through the implementation of management practices. Management practices must be designed and implemented to reduce or eliminate waste discharges to surface waters and groundwater in order to achieve water quality benchmarks. Management practices may include those recommended by organizations such as Natural Resources Conservation Service and University of California Cooperative Extension. The WQMP is subject to Executive Officer approval. In order to address high priority water quality problems, the Executive Officer may require additional monitoring.

The elements of the WQMP are described in Sections 2.1 and 2.2.

### **2.1 Summary of Existing Conditions**

- a. A review of monitoring objectives and detailed description of sample location(s), including GPS coordinates and a map(s).
- b. For each constituent that has exceeded a water quality benchmark, a graph showing the concentrations of the constituent over time since 2007 and a trend analysis for that constituent<sup>12</sup>.
- c. A report of existing management practices being implemented, including 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 roads are covered with gravel per total length of roads.
  - 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 socks 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 runoff collection, report how many acres of runoff from irrigated agricultural land are treated.
- d. A summary of pesticide/herbicide/fungicide and fertilizer application practices. Compare changes in pesticide and nutrient concentrations at monitoring site(s) to pesticide and fertilizer use patterns for site.
- e. Comparison of existing management practice implementation specified in Section 2.1.c in order to assess management practice effectiveness and determine if additional or upgraded management practices are necessary to meet water quality benchmarks.

## 2.2 Proposed Additional or Upgraded Management Practices

Based on the analysis completed under Section 2.1.e., provide:

- a. Description of additional or upgraded management practices, which shall be implemented 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:

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<sup>12</sup> Discharger shall propose a method for trend analysis in the WQMP.

- Improved irrigation efficiency to reduce runoff
  - Treatment systems or control systems, such as bioreactors, to remove nitrogen from discharges
  - Practices to reduce erosion and sediment in runoff
  - Vegetated practices, such as riparian buffers and vegetated channels
- 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 erosion and sediment in runoff
    - Stormwater runoff filtration and/or infiltration
    - Vegetated practices, such as riparian buffers and vegetated channels
  - 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 erosion and sediment in runoff
    - Stormwater runoff filtration and/or infiltration
    - Vegetated practices, such as riparian buffers and vegetated channels
  - Additional or upgraded management practices must be based on a comparison to existing BMPs, as follows:
    - If source reduction and non-structural management practices are not fully implemented, then the WQMP shall require increased implementation of source reduction and non-structural management practices
    - If source reduction and non-structural management practices are fully implemented<sup>13</sup>, then the WQMP shall require implementation of structural/treatment BMPs
  - For sites located under a utility easement, additional or upgraded management practices may be based on “Best Management Practices: A Water Quality Field Guide for Nurseries, Southern California Edition” prepared by the University of California Agriculture and Natural Resources.

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<sup>13</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).

- b. Description of TMDL-specific management practices, which shall be implemented by Dischargers in watersheds addressed by TMDLs, as follows:
  - o For the Ventura River Algae TMDL, certified nutrient management plans
  - o 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
  - o For the Santa Clara River Estuary Toxaphene TMDL, practices to reduce sediment runoff and improved irrigation efficiency
- c. For irrigated agricultural areas within the Los Angeles Region agricultural irrigated lands that are subject to erosion and may discharge sediment that may degrade surface waters, the WQMP must specify sediment and erosion control management practices.
- d. A time-certain schedule for implementation of additional or upgraded management practices to ultimately attain water quality benchmarks within five years from the date the WQMP is submitted, unless otherwise specified in Table 3.

## 2.3 Educational Events Participation Requirements

All Dischargers must participate in educational events regarding water quality. The Discharger shall complete 2 hours of educational training every year on water quality impairments related to irrigated agricultural discharges, regulatory requirements, and management practices that treat or control discharges of waste. Discharger Group programs can be used to meet education requirements.

## 2.4 WQMP Process

The WQMP implementation process shall continue as long as there are increasing trends in concentrations at the Individual Discharger monitoring sites<sup>14</sup> and until the deadlines specified in Table 3. The deadlines in Table 3 are based on TMDL compliance dates and take into consideration the relative difficulty in achieving water quality benchmarks for different constituents. For sites where there are not decreasing trends in concentrations or a deadline in Table 3 has passed, the site shall be subject to discharge limitations equal to water quality benchmarks from the deadline forward.

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<sup>14</sup> According to method specified section 2.1.c.



**Table 3 Water Quality Benchmark Compliance Deadlines**

<b>TMDL Constituents</b>	<b>Compliance Date</b>
Malibu Creek Watershed Nutrients TMDL	October 14, 2022
Santa Clara River Nitrogen Compounds TMDL	March 23, 2004
Ventura River Estuary Trash TMDL	March 6, 2010
Calleguas Creek Nitrogen Compounds and Related Effects TMDL	July 16, 2010
Revolon Slough and Beardsley Wash Trash TMDL	March 6, 2010
Upper Santa Clara River Chloride TMDL	April 6, 2010
Calleguas Creek Watershed and Mugu Lagoon Siltation TMDL*	March 24, 2015
Calleguas Creek Watershed and Mugu Lagoon Toxicity, Chlorpyrifos, and Diazinon TMDL	March 24, 2016
Ventura River Algae TMDL	June 28, 2019
McGrath Lake OC Pesticides and PCBs TMDL	June 30, 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
Malibu Creek Watershed Sedimentation and Nutrients TMDL	October 14, 2022
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.

### 3 Reporting Requirements

The Discharger shall submit the following reports to the Los Angeles Water Board.

#### 3.1 Monitoring and Reporting Plan

Due: 90 days before commencement of discharge

The MRP must include the components of the monitoring and reporting requirements as stated in this Appendix. The MRP shall also include the following elements:

- 1) Title page and Table of Contents
- 2) Description of the Individual Discharger, including size and location of irrigated agricultural land(s), crop type(s), cultivation method(s), etc.
- 3) Summary of the historical data and/or on-going monitoring at the monitoring site(s)
- 4) GPS coordinates for the monitoring site(s)
- 5) Maps showing property boundaries, land use, topography, waters of the state, crop types, and any other features which may affect water quality
- 6) Summary of current pesticide use practices (including top 5 pesticides applied by volume and 5 most frequently applied pesticides).
- 7) Monitoring constituents and frequency of sampling (including all constituents in Table 1 and those applicable to the irrigated agricultural lands covered by the MRP in Table 2)
- 8) A QAPP consistent with the requirements described in section 1
- 9) Documentation of monitoring protocols including sample collection and handling methods
- 10) Individual Discharger contact information

## 3.2 Annual Monitoring Report

Due: December 15<sup>th</sup>, annually

The Annual Monitoring Report (AMR) shall be prepared after monitoring events have been completed and shall include a review of the results of the data collected and data evaluation. The AMR shall include the following components:

- 1) Title page
- 2) Table of contents
- 3) Description/Summary of Individual Discharger Group setting
- 4) Monitoring objectives
- 5) Sampling and analytical methods used, submitted in a tabular format
- 6) For each monitoring site:
  - a. Site description, including photographs
  - b. Location map of sampling site(s), including GPS coordinates and map(s) of sampling site(s)
  - c. Parameters monitored and frequency
  - d. Tabulated results of analyses
  - e. Data interpretation including assessment of compliance and/or noncompliance with water quality benchmarks and/or discharge limitations
  - f. Results of toxicity tests and results of TIE, where performed
- 7) Copy of chain of custody, submitted electronically
- 8) Associated laboratory and field quality control samples results
- 9) Summary of precision and accuracy

- 10) Quality control data interpretation, including assessment of data quality objectives
- 11) If water quality benchmarks are not attained as demonstrated by monitoring, the AMR shall include a statement of intent to prepare a WQMP within six months to address all benchmark exceedances.
- 12) Documentation that education requirements have been fulfilled

Dischargers eligible under this General Order bear the responsibility to inform the Los Angeles Water Board, maintain records, and submit regular technical and monitoring reports detailing the types of discharges, monitoring results for required constituents, the type of management practices implemented (including changes in pesticides applied), 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 in 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 assist 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 sampling 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.

### **3.3 Water Quality Management Plan**

First WQMP Due: December 15<sup>th</sup> after first Annual Monitoring Report with documented exceedances of water quality benchmarks and every three years thereafter

The WQMP shall be prepared if monitoring results document the exceedances of water quality benchmarks. The required elements of a WQMP are presented in Section 2 of these Monitoring and Reporting Requirements.

### **3.4 Irrigation and Nutrient Management Plan and Report**

First INMP due: March 1<sup>st</sup>, annually

First INMR due: March 1<sup>st</sup>, one year after submittal of first INMP, annually

### 3.5 Groundwater Quality Trends Monitoring Report

The Groundwater Quality Trend Monitoring Plan shall be completed according to the requirements of section 1.2. 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.

### 3.6 Other Reporting Requirements

- 1) A transmittal letter shall accompany each report. This letter shall include a brief discussion of any violations of the General WDRs 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 Individual Discharger. 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 Discharger monitors 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 General WDRs, the discharger shall submit the monitoring results to the Los Angeles Water Board.
- 3) The Discharger 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. The Discharger shall submit an annual report to the Los Angeles Water Board within one

year of the date of Notice of Applicability and at the same date each year thereafter. Monitoring reports must be provided in electronic format to be specified by the Executive Officer.

- 7) Records and reports submitted to the Los Angeles Water Board are public documents and shall be made available for inspection during normal business hours at the Los Angeles Water Board office except for reports, or portions of such reports, subject to an exemption from public disclosure in accordance with California law and regulations, including the Public Records Act, Water Code section 13267(b)(2), and the California Food and Agriculture Code. If the Discharger Group or Member of the Discharger Group asserts that all or a portion of a report is subject to an exemption from public disclosure, it must clearly indicate on the cover of the report that it asserts that all or a portion of the report is exempt from public disclosure, a general description of the redacted information and the basis for that redaction. Any Discharger Group or Member that submits redacted information must also submit a complete and unredacted version of the report that is clearly labeled "CONFIDENTIAL". All reports labeled "CONFIDENTIAL" will be maintained by the Los Angeles Water Board in a separate, confidential file unless the Los Angeles Water Board determines that the information is not confidential. Data on waste discharges, water quality, meteorology, geology, hydrogeology, and field-level nitrogen application shall not be considered confidential. NOIs shall generally not be considered exempt from disclosure. If, at any time, the Los Angeles Water Board cannot identify a reasonable basis for treating the information as exempt from disclosure, the Executive Officer will notify the Member or Discharger Group that the information will be placed in the public file unless the Los Angeles Water Board receives, within 10 calendar days, a satisfactory explanation supporting the claimed exemption. Knowingly making any false statements on a monitoring or technical report submitted to the Los Angeles Water Board may result in the imposition of criminal penalties as provided for in Water Code section 13268(a)(2).