# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

## ORDER NO. R4-2010-0186

# CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED LANDS WITHIN THE LOS ANGELES REGION

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

#### **PURPOSE OF ORDER**

- 1. For the reasons set forth below, the Regional Board concludes that it is in the public interest to establish a Conditional Waiver for Discharges from Irrigated Agriculture Lands. (Conditional Waiver or Order). The conditions established in this Order are intended to ensure that discharges from irrigated agriculture lands are managed such that they do not degrade water quality or impair beneficial uses of waters of the state within the Los Angeles Region. This Order regulates discharges from irrigated agriculture lands in a manner that is intended to attain Water Quality Benchmarks by requiring the quantitative assessment of the water quality impacts of discharges and, when necessary to attain Water Quality Benchmarks, the implementation of management practices.
- 2. The Los Angeles Region has approximately 100,000 acres of agriculture under irrigation and approximately 2,500 operations that are, or may be, discharging waste from irrigated agriculture lands to waters of the state.
- 3. Regional water quality data from the Surface Water Ambient Monitoring Program (SWAMP), the Calleguas Creek Watershed Management Plan Surface Water Monitoring Program, the Stormwater Monitoring Program of the Ventura County Watershed Protection District, the Los Angeles County Stormwater Monitoring Program, and other monitoring programs, identify waters of the state as having water quality impairments that appear attributable to or influenced by discharges of waste from irrigated agriculture land.
- 4. Annual monitoring reports, submitted during the first term of the conditional waiver of waste discharge requirements adopted by Order No. R4-2005-0080, have documented water quality that exceeds Water Quality Benchmarks and that could cause or contribute to water quality impairments. Water Quality Benchmark exceedances have been documented in every monitored watershed within the Los Angeles Region. Two categories of wastes frequently reported in agricultural discharges that impair waters of the state in the Los Angeles Region are pesticides and biostimulatory substances.
- 5. The 2008 Federal Clean Water Act Section 303(d) list of impaired water bodies in the Los Angeles Region identifies agriculture as a potential source of pollutants that impair beneficial uses of some waters within the Region and threaten the quality of the waters of the state.

As authorized by Water Code section 13269, this Order adopts a conditional waiver of waste discharge requirements for discharges from irrigated agriculture lands that requires persons who obtain coverage under the waiver to, in part, (1) prepare monitoring plans, conduct monitoring, and report annually on monitoring results, including the identification of Water Quality Benchmark exceedances; (2) develop, as required, a water quality management plan (WQMP), which identifies management practices that will address Water Quality Benchmark exceedances; (3) implement the WQMP and management practices to attain Water Quality Benchmarks; and (4) assess the effectiveness of implemented agricultural management practices in attaining Water Quality Benchmarks and, when necessary to attain Water Quality Benchmarks, identify, implement, or upgrade management practices.

6. This Order sets forth conditions that apply to discharges of waste from irrigated agriculture lands. This conditional waiver of waste discharge requirements constitutes the Los Angeles Region Irrigated Lands Regulatory Program.

#### **DEFINITIONS**

- 7. "Discharger" means the owner and/or operator of irrigated agriculture lands that discharge, have the potential to discharge, or propose to discharge waste that could directly or indirectly affect the quality of waters of the state.
- 8. A "Discharger Group" is any group of dischargers and/or organizations that forms to comply with this Order. Discharger Groups can be, but are not limited to, organizations formed on a geographic basis or formed with other factors in common, such as commodities.
- 9. "Discharges" are discharges from irrigated agriculture lands, including surface discharges (also known as irrigation return flows or tailwater), subsurface discharges through drainage systems that lower the water table below irrigated agriculture lands (also known as tile drains), discharges to groundwater, and stormwater runoff flowing from irrigated agriculture lands.
- 10. "Hobby Growing/Gardening" activities include growing crops for personal use (includes moderate fundraising and minor secondary incomes from sales at direct marketing locations only) and consumption only. Furthermore:
  - The crop is not sold, including but not limited to (1) an industry cooperative, (2) harvest crew/company, or (3) a direct marketing location, except in the case of moderate funding or minor secondary incomes.
  - The property owner/operator does not hold a current Operator Identification Number/Permit Number for pesticide use reporting.
  - The federal Department of Treasury Internal Revenue Service form 1040 Schedule F Profit or Loss from Farming is not used to file federal taxes.

- 11. "Irrigated Agriculture Lands" means lands where water is applied for producing crops and, for the purpose of this Order, includes, but is not limited to, lands planted for row, vineyard, pasture, field and tree crops, nurseries, nursery stock production, wholesale nurseries, and greenhouse operations with permeable floors, which are not subject to waste discharge requirements, including Municipal Separate Storm Sewer System (MS4) or other National Pollutant Discharge Elimination System (NPDES) permits.
- 12. "New Discharges" are defined as irrigated agriculture operations that did not commence the discharge of stormwater and/or irrigation water at a particular site prior to October 7, 2010.
- 13. "Waste" includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal (Cal. Wat. Code § 13050 (d)).
- 14. "Water Quality Benchmark" means a requirement established by the Regional Board Basin Plan (including discharge prohibitions and narrative or numeric water quality objectives), a requirement established by an applicable Statewide plan or policy, criteria established by USEPA (including those in the California Toxics Rule and the applicable portions of the National Toxics Rule), and load allocations established pursuant to a total maximum daily load (TMDL) (whether established in the Basin Plan or other lawful means). Water Quality Benchmarks for Discharges from Irrigated Agricultural Lands are identified in Appendices 2 and 3 of this Order.
- 15. "Waters of the State" means any surface water or groundwater, including saline waters, within the boundaries of the state. (Cal. Wat. Code § 13050(e))
- 16. Unless otherwise specified above, all other terms used in this Order shall have the same definition as that set forth in California Water Code Division 7.

#### LEGAL AND REGULATORY CONSIDERATIONS

- 17. Water Code section 13260(a)(1) requires that any person discharging waste or proposing to discharge waste within the Regional Board's jurisdiction that could affect the quality of the waters of the state, shall file a Report of Waste Discharge (ROWD) with the Regional Board. The Regional Board may, in its discretion, issue Waste Discharge Requirements (WDRs) pursuant to Water Code section 13263(a). Water Code section 13269 authorizes the Regional Board to conditionally waive the provisions of Water Code sections 13260(a)(1) and 13263(a).
- 18. Water Code section 13269 requires that any waiver of ROWDs and/or WDRs ("Conditional Waiver") must (i) be consistent with any applicable water quality control plans; (ii) be "in the public interest;" (iii) contain conditions; (iv) not exceed five years in duration, but may be renewed in five-year increments; and (v) include monitoring provisions. In addition, Water Code section 13269(a)(4)(A) authorizes the State Water Resources Control Board (State Board) to adopt annual fees for recipients of waivers.

- Water Code section 13269(e) mandates that the regional water boards shall require compliance with the conditions of a waiver of waste discharge requirements.
- 19. All requirements for monitoring and reporting are established in this Order pursuant to Water Code sections 13267 and 13269. These monitoring and reporting requirements are necessary to evaluate the following: (1) compliance with the terms and conditions of this Conditional Waiver of waste discharge requirements for discharges from irrigated agriculture lands; ((2) the effectiveness of any measures or actions taken pursuant to this Order (including water quality management plans); and (3) whether revisions to this Conditional Waiver and/or additional regulatory programs or enforcement actions are warranted.
- 20. Failure to submit a report in accordance with schedules established by this Order, Monitoring and Reporting Requirements (Appendix 1) approved by the Regional Board Executive Officer, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer, or failure to comply with the conditions of the waiver, may subject a Discharger to enforcement action pursuant to section 13268 and/or 13350 of the Water Code and/or the requirement to submit a ROWD.
- 21. The Basin Plan designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the region, and references the plans and policies adopted by the State Water Board.
- 22. This Conditional Waiver is consistent with State and Regional Board water quality control plans because it requires compliance with water quality objectives, prohibitions, and TMDLs set forth in the Regional Board Basin Plan and pertinent state water quality control plans and policies and federal water quality criteria, and it requires protection of the beneficial uses of the waters of the state within the Los Angeles Region.
- 23. Beneficial uses designated for groundwater and surface water in the Basin Plan include:

•	Municipal and Domestic Supply	•	Water Contact Recreation	•	Estuarine Habitat
.#	Agricultural Supply	. =	Non-contact Water Recreation		Wetland Habitat
	Industrial Process Supply		Commercial and Sport Fishing	•	Wildlife Habitat
· <b>II</b>	Industrial Service Supply	<b>x</b>	Aquaculture	. *	Preservation of Biological Habitat
=	Groundwater Recharge	. =	Water Freshwater Habitat		Rare, Threatened, or Endangered Species
*	Freshwater Replenishment		Cold Freshwater Habitat	•	Migration of Aquatic Organisms
=	Navigation		Inland Saline Water Habitat	:	Spawning, Reproduction, and Early Development
•	Hydropower Generation	×	Marine Habitat	=	Shellfish Harvesting

- 24. Agricultural activities can generate wastes such as sediment, pesticides, nutrients, and oxygen-demanding organic matter that, upon discharge to a water of the state, can degrade water quality and impair beneficial uses. Section F Water Quality Benchmarks and Appendices 2 and 3 of this Order identify specific water quality objectives, prohibitions, and load allocations and water quality criteria, which will be used to assess the effect of irrigated agriculture discharges on water quality and to determine if management practices implemented to comply with the terms and conditions of the Conditional Waiver are effective.
- 25. The intent of this Order is to establish a regulatory program for irrigated agricultural lands that requires Dischargers to attain Water Quality Benchmarks through a process that quantitatively assesses the in-stream water quality impacts of discharges and, when necessary to attain Water Quality Benchmarks, requires Dischargers to implement effective management practices. Where a Discharger is determined to be causing or contributing to exceedances of Water Quality Benchmarks, this Order requires the Discharger or Discharger Group to identify and implement or upgrade management practices to attain the Water Quality Benchmarks.
- 26. The State Water Board has adopted the "Plan for California's Nonpoint Source Pollution Control Program" (Nonpoint Source Program Plan) dated January 2000 and the "Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program" (Nonpoint Source Implementation and Enforcement Policy) dated May 2004. The purpose of the Nonpoint Source Program Plan is to improve the State's ability to effectively manage nonpoint source pollution and conform to the requirements of the federal Clean Water Act and the federal Coastal Zone Management Act. The Nonpoint Source Implementation and Enforcement Policy explains the authorities used to implement and enforce the Nonpoint Source Program Plan and describes three options for addressing nonpoint source pollution: (1) waste discharge requirements, (2) conditional waivers of waste discharge requirements, and (3) discharge prohibitions. The policy also describes implementation programs to prevent and/or reduce nonpoint source pollution including antidegradation requirements, management practices, time schedules, feedback to Regional Board to evaluate the program progress, and appropriate Board actions to correct program deficiencies, if necessary.
- 27. This Order is consistent with the provisions of State Water Board Resolution No. 68-16 (Statement of Policy with respect to Maintaining High Quality of Waters in California). Regional boards, in regulating the discharge of waste, must maintain high quality waters of the state unless it is demonstrated that any degradation will be consistent with the maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality worse than that described in a regional board's policies. This Order, appendices, and attachments require a Discharger who obtains coverage under the Conditional Waiver to protect beneficial uses, and prevent nuisance by implementing monitoring and reporting programs and management practices to attain Water Quality Benchmarks. This Order does not authorize further degradation of waters of the state. Further, this Order is likely to improve the quality of existing waters by establishing conditions on discharges from irrigated agriculture lands, and including monitoring of such discharges that is designed to determine compliance with the conditions.

- 28. USEPA promulgated the California Toxics Rule (CTR) on May 18, 2000.¹ The CTR contains water quality criteria that, when combined with beneficial use designations in regional boards' basin plans, constitute enforceable water quality standards for priority toxic pollutants in California surface waters. The CTR contains numeric water quality criteria (i.e., objectives) that implement the narrative toxicity objective in the Basin Plan, such that compliance with CTR criteria is consistent with the Basin Plan. The State Water Board adopted the "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California" (known as the State Implementation Policy or SIP), which contains guidance on implementation of the CTR. The SIP states that implementation of the CTR for agricultural nonpoint sources of pollution shall be consistent with the State's Nonpoint Source Management Plan. Adoption of this Order is consistent with the State's Nonpoint Source Management Plan.
- 29. Water Code section 13141 states that prior to implementation of any agricultural water quality control program, an estimate of the total cost of such a program and potential sources of financing must be indicated in any regional water quality control plan. The Regional Board is not required to adopt a basin plan amendment to issue an order pursuant to Water Code section 13269. However, to assist the Regional Board in generally considering the economic impacts of this action, the Regional Board has considered the estimated costs (set forth in the Review of Conditional Waiver Order R4-2005-0080) to Dischargers to implement this agricultural water quality control program in order to protect water quality consistent with section 13141 of the California Water Code. The Regional Board has identified potential sources of funding in the Basin Plan, Chapter 4.
- 30. In California, the Department of Pesticide Regulations (DPR), State Water Board and the Regional Water Boards have mandates and authorities related to pesticides and water quality. In order to promote cooperation to protect water quality from the adverse effects of pesticides, DPR and the State Water Board signed a Management Agency Agreement (MAA) in 1997. The MAA, and its companion document, "The California Pesticide Management Plan for Water Quality," strives to coordinate interaction, facilitate communication, promote problem solving, and ultimately assure the protection of water quality. The intent of this Order is to support and implement the MAA.
- 31. This Order does not authorize any act which results in the taking of a threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & Game Code section 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. section 1531 to 1544).
- 32. The TMDLs listed in the table below assign load allocations to agricultural Dischargers. All TMDLs listed in the table have an interim and/or final load allocations compliance deadline during the term of this waiver. The TMDL load allocations will be

<sup>&</sup>lt;sup>1</sup> 40 CFR 131.38. Minor, non-substantive typographical corrections were made to the CTR by the USEPA on February 13, 2001.

implemented through this Order as Water Quality Benchmarks. The interim and final numeric TMDL load allocations are presented in Appendix 3.

Table 1 Effective TMDLs with load allocations assigned to irrigated agriculture, listed by pollutant category

### Pesticides and PCBs

Calleguas Creek Watershed and Mugu Lagoon Organochlorine Pesticides, PCBs, and Siltation TMDL (Resolution No. R05-010)

Calleguas Creek Watershed and Mugu Lagoon Toxicity, Chlorpyrifos, and Diazinon TMDL (Resolution No. R05-009)

#### Nutrients

Santa Clara River Nitrogen Compounds TMDL (Resolution No. R03-011)

Calleguas Creek Watershed Nitrogen Compounds and Related Effects TMDL (Resolution No. R08-009)

Malibu Creek Watershed Nutrients TMDL (U.S. EPA-established TMDL)

#### Trash

Ventura River Estuary Trash TMDL (Resolution No. R07-008)

Revolon Slough and Beardsley Wash Trash TMDL (Resolution No. R07-007)

#### Metals

Calleguas Creek Watershed and Mugu Lagoon Metals and Selenium TMDL (Resolution No. R06-012)

#### Salts

Calleguas Creek Watershed Boron, Chloride, Sulfate, and TDS (Salts) TMDL (Resolution No. R07-016)

Upper Santa Clara River Chloride TMDL, Revisions (Resolution No. R08-012)

33. The Santa Clara River Estuary is identified on the 1998, 2002 and 2006 Clean Water Act Section 303(d) list of impaired water bodies as impaired due to Chem A and toxaphene in fish tissue. Approved 303(d) listings require the development of a TMDL in most cases. Regional Board Staff have prepared a detailed technical document that provides the factual basis and analysis supporting a TMDL for toxaphene in fish tissue in the Santa Clara River Estuary, including a problem statement, numeric targets, source analysis, linkage analysis, load allocations, a margin of safety, and a consideration of seasonal variations and critical conditions. Based on the source analysis, the Regional Board finds that the implementation of the TMDL for toxaphene in fish tissue can effectively focus on source control and reduction of sediment loading from irrigated agriculture dischargers in the TMDL subwatershed area. According to the "Water Quality Control Policy for Addressing Impaired Waters" (State Water Board Resolution 2005-0050), "[i]f the solution to an impairment can be implemented with a single vote of the regional board, it may be implemented by that vote ... there is no legal requirement to first adopt the plan [TMDL] through a basin plan amendment. The plan [TMDL] may be adopted directly in that single regulatory action" (p. 5). The Regional Board finds, based on the technical documentation, that a single regulatory action through the Conditional Waiver can be used to implement this TMDL. This Order contains additional requirements for water, sediment, and fish tissue monitoring

for toxaphene, chlordane, and dieldrin in the Santa Clara River Estuary and its subwatershed. In addition, this Order incorporates the toxaphene load allocation for sediment and the toxaphene numeric target for fish tissue as Water Quality Benchmarks (Appendix 3). Based on these requirements and other requirements in this Order, the Conditional Waiver will implement the Santa Clara River Estuary toxaphene TMDL.

# RATIONALE FOR CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED LANDS

- 34. Discharges from irrigated agriculture lands can and/or do contain wastes, as defined in Water Code section 13050 that could affect the quality of the waters of the state. The discharge of tailwater, wastewater and/or stormwater from irrigated lands occurs to both surface and ground water. Such wastes include earthen materials, including soil, silt, sand, clay, and rock; inorganic materials (such as metals, salts, boron, selenium, potassium, nitrogen, etc.); organic materials (such as organic pesticides) that enter or threaten to enter into waters of the state. This Order does not authorize the discharge of hazardous waste or human wastes. Discharges of such waste to waters of the state are prohibited unless regulated by waste discharge requirements.
- 35. Irrigated agriculture discharges can impact groundwater quality. A review of groundwater quality data in the Los Angeles Region reveals that groundwater is contaminated with pollutants, such as nitrate, contained in irrigated agriculture discharges. Data obtained from the State's Groundwater Ambient Monitoring and Assessment (GAMA) program, the Department of Water Resources (DWR) Bulletin 118, and the Ventura County Watershed Protection District groundwater monitoring program demonstrate that groundwater basins underlying areas with irrigated agriculture lands contain levels of nitrate that exceed water quality objectives, including state drinking water standards. Recent studies on the effects of irrigated land discharges on groundwater quality funded by the State Water Board showed that nitrate applied to irrigated agriculture lands is not completely taken up in the root zone of crops and can percolate to groundwater (Modifying Agricultural Practices, Nutrients. and Pesticides, Calleguas Creek and Santa Clara River. United Water Conservation District, August 31, 2007, SWRCB Grant No. 04-073-554-1). The studies did not quantify the loading of nitrate from irrigated agriculture lands to groundwater, but they provide evidence that irrigated agricultural practices are a potential source of groundwater pollution in the Los Angeles Region. It is expected that source control management practices, such as improved irrigation efficiency and fertilizer management, employed by Dischargers to attain surface Water Quality Benchmarks will reduce loading to groundwater as well. The number of existing groundwater wells in the Los Angeles Region is adequate to assess broad changes in groundwater quality as a result of implementation of management practices under the Conditional Waiver. Therefore, it is not necessary to require additional groundwater monitoring or requirements in the Conditional Waiver adopted by this Order.
- 36. The goal of this Order is to improve and protect water quality and attain water quality objectives in waters of the state by providing a program to regulate and manage discharges from irrigated lands that cause or contribute to conditions of pollution or

- nuisance as defined in Section 13050 of the Water Code or that cause or contribute to exceedances of applicable Water Quality Benchmarks.
- 37. The Monitoring and Reporting Requirements of this Order satisfy section 13269 of the California Water Code. Under Appendix 1, an Individual Discharger and/or Discharger Group subject to this Order is required to monitor locations where discharges from irrigated lands enter waters of the state, as approved by the Executive Officer. If results from the monitoring programs indicate that applicable Water Quality Benchmarks are exceeded, the individual and/or group is required to submit a WQMP, as described Appendix 1. The WQMP requires improved management practices and additional monitoring, if necessary, to achieve and document compliance with Water Quality Benchmarks.
- 38. The adoption of this Order is in the public interest because, in part: (1) it was adopted in compliance with Water Code sections 13260, 13263, 13267, and 13269 and other applicable law, (2) it includes conditions that are intended to reduce and prevent pollution and nuisance and protect the beneficial uses of the waters of the state, (3) it requires compliance with State and Regional Board's water quality control plans, (4) it implements the Nonpoint Source Implementation and Enforcement Policy, (5) it provides for an efficient and effective use of limited staff resources given the magnitude and number of waste discharges from irrigated lands, and (6) it provides reasonable flexibility for the Dischargers who seek coverage under the Conditional Waiver by providing them with the option of complying with the Water Code through participation in Discharger Groups or as individuals.
- 39. The requirements of the Conditional Waiver adopted by Order No. R4-2005-0080 have thus far resulted in extensive water quality monitoring, ongoing grower education and outreach, and implementation of numerous new and/or improved management practices. These activities represent significant strides toward the improvement and protection of water quality. At this time, the Regional Board finds the continuation of similar activities and requirements under this Order an appropriate approach for regulation of discharges of waste from irrigated agriculture lands. The Regional Board may consider reasonable and appropriate bases for the adoption of individual or general WDRs, where necessary, in the future.
- 40. Where other federal, State, and local agencies have a regulatory role for activities or pollution addressed by the conditions of this Order, the Regional Board will work cooperatively with the other agencies in order to effectively regulate discharges from irrigated lands.
- 41. The Regional Board may consider adoption of waste discharge requirements to regulate discharges from irrigated lands that do not meet the requirements for participation in the Conditional Wavier as described herein.

# SCOPE AND DESCRIPTION OF CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED AGRICULTURE LANDS

- 42. This Order applies to discharges of waste from irrigated agriculture lands to waters of the state.
- 43. This Order does not apply to discharges that are subject to the NPDES permit program under the federal Clean Water Act and does not relieve discharges of the obligation to apply for an NPDES permit if required. This Order does not apply to discharges of waste that are regulated under another conditional waiver, or regulated by individual or general waste discharge requirements.
- 44. This Order applies to return flows from irrigated agriculture because such discharges are excluded from coverage under the NPDES permit program (40 CFR § 122.2).
- 45. This Order does not preempt or supersede the authority of municipalities, flood control agencies, agricultural commissioners, pesticide regulators or other agencies to prohibit, restrict, or control discharges of waste subject to their jurisdiction.
- 46. This Order does not apply to confined animal operations, parks, golf courses, cemeteries, and recreational fields. These are regulated under other regulatory programs and permits.
- 47. This Order does not apply to hobby growing and or gardening.
- 48. This action to waive the requirement to submit ROWDs and to waive the issuance of waste discharge requirements for discharges from irrigated lands: (a) is conditional, (b) may be terminated at any time, (c) does not permit an illegal activity, (d) does not preclude the need for permits that may be required by other State or local government agencies, and (e) does not preclude the Regional Board or Executive Officer from taking other actions authorized by the Water Code, including requiring additional technical reports or administering enforcement remedies (including civil liability).
- 49. The Regional Board will periodically evaluate whether the Conditional Waiver is adequate to restore and/or protect water quality and beneficial uses. The evaluation will include a consideration of the character of the discharges covered by this Order, the effect of those discharges on waters of the state, and the effectiveness of any management practices that were implemented to address impairments of waters of the state.
- The Regional Board recognizes that the overall effectiveness of this Order is based on a myriad of factors. When assessing the effectiveness of this Order, the Regional Board will consider the monitoring and reporting results, the effectiveness of management practices in reducing or eliminating discharges of waste and meeting Water Quality Benchmarks, changes in water quality, and other factors, including, without limitation, the level of participation and cooperation of Dischargers.
- 51. The conditions of this Order require the identification and implementation of targeted actions that will lead to achieving Water Quality Benchmarks, including implementation

or upgrading management practices. When results from the required monitoring program indicate that a Water Quality Benchmark is exceeded, an Individual Discharger or Discharger Group shall submit a WQMP for approval by the Executive Officer. The WQMP shall include specific, targeted steps with milestones to attain Water Quality Benchmarks through the use of best management practices. The guidelines for developing a WQMP are presented in Appendix 1.

- 52. Irrigated lands dischargers shall comply with the conditions of this Order by (1) submitting a Notice of Intent (NOI) to comply with this Order, or participating in a Discharger Group that submits an NOI to comply with this Order, (2) performing individual or group monitoring, (3) submitting annual monitoring reports, and (4) developing and implementing a WQMP, if necessary, to reduce or eliminate waste discharges to surface waters. Monitoring requirements shall be designed to support the development and implementation of this Order, including but not limited to, verifying the adequacy and effectiveness of the conditions. In establishing monitoring requirements, the Regional Board may consider the volume, duration, frequency, and constituents of the discharge; the extent and type of existing monitoring activities; including, but not limited to, existing watershed-based, compliance, and effectiveness monitoring efforts; the size of the project area; and other relevant factors (Water Code section 13269(a)(2)). Existing monitoring activities may include monitoring requirements established under TMDLs.
- The primary objective of the WQMP is to identify and construct or implement targeted management practices to reduce or eliminate waste discharges from irrigated agriculture lands to the waters of the state in order to achieve water quality objectives. To support this objective, the WQMP is also designed to (1) assess the impacts of waste discharges from irrigated lands to surface waters, including an evaluation of compliance with narrative and numeric water quality objectives and, where applicable, load allocations and federal water quality criteria to determine where additional implementation of management practices is necessary to improve and/or protect water quality and implement those practices; (2) determine waste concentration and load in these discharges to surface waters; (3) identify likely waste constituent sources; (4) document the degree of implementation of management practices to reduce discharge of specific wastes that impact water quality; and (5) determine the effectiveness of management practices and strategies to reduce discharges of waste that impact water quality.
- A Discharger Group or an individual Discharger may apply for coverage under the Conditional Waiver as specified in this Order. The Discharger Group or Individual Discharger must submit a complete NOI to comply with the conditions of the Conditional Waiver. The NOI submitted by Dischargers shall contain information required by this Order. Requirements for the NOI are presented in Section A of this Order.
- Individual Dischargers and Discharger Groups shall develop a Monitoring and Reporting Plan (MRP) to assess the impacts of waste discharges from irrigated agriculture lands on the waters of the state and, where necessary, to assess the sources of wastes and track progress in reducing the amount of waste discharged that affects the quality of the waters of the state and their beneficial uses and causes

- nuisance conditions. Monitoring and Reporting Requirements are described in Appendix 1. All Dischargers subject to the requirements of this Order will be required to comply with the monitoring requirements in Appendix 1.
- 56. Upon submittal of complete and approved enrollment documents (NOI and MRP), the individual Discharger or Discharger Group will be considered enrolled under the Conditional Waiver and the Executive Officer will issue a Notice of Applicability (NOA).
- 57. The formation, operation, and funding of Discharger Groups are the responsibilities of the local entities and/or individual Dischargers who are represented by the Discharger Group.
- 58. A Discharger Group collects and maintains enrollment information, financial records, monitoring data, and fulfills the reporting requirements on behalf of a specific set of Dischargers. Discharger Groups must manage and comply with the Monitoring and Reporting Requirements in Appendix 1.
- 59. The Regional Board may review this Order at any time and may modify or terminate the Conditional Waiver for Individual Dischargers, individual members of a Discharger Group, or an entire Discharger Group, as appropriate.
- 60. Pursuant to Water Code section 13263(g), discharge of waste to waters of the state is a privilege, not a right, and adoption of this Order establishing a Conditional Waiver, and the receipt of an NOA from the Executive Officer, does not create a vested right to continue the discharge.
- 61. The Regional Board has notified interested agencies and persons of its intent to adopt a Conditional Waiver as described in this Order, and has provided them with an opportunity to submit written comments and recommendations regarding the tentative requirements. This notice complied with the requirements of Government Code section 11125.
- 62. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharges to be regulated under this Order and to the tentative requirements of the Conditional Waiver.
- 63. Pursuant to Water Code section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Water Board. A petition must be sent to the State Water Resources Control Board, P.O. Box 100, Sacramento, California 95812, within 30 days of adoption of this Order.
- 64. As specified in California Code of Regulations, title 23, section 2511(a), discharges covered by the Conditional Waiver established by this Order are exempt from the provisions of title 23 of the California Code of Regulations, Division. 3, Chapter 15, Discharge of Hazardous Waste to Land.

#### CALIFORNIA ENVIRONMENTAL QUALITY ACT

65. The Regional Board is the lead agency for this project under the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.) The Regional Board finds that the adoption of this Order to renew a waiver of waste discharge requirements for discharges from irrigated lands is categorically exempt from CEQA review as an existing facility. The action to renew a conditional waiver is intended to protect, maintain, and improve water quality. The waiver renewal sets forth similar conditions as those required by Order No, R4-2005-0080, including the requirement to implement management practices to protect and restore water quality and monitoring to ensure that such practices are effective, and thus does not require additional CEQA review. To the extent that this Order includes requirements for additional management practices beyond those required by R4-2005-0080 in order to meet load allocations established by TMDLs, the substitute environmental documents for the TMDLs have considered the reasonably foreseeable environmental impacts of the management practices, the reasonably foreseeable feasible mitigation measures, and the reasonably foreseeable alternative means of compliance, which would avoid, eliminate, or reduce the identified impacts.

#### IT IS HEREBY ORDERED that:

In order to meet the provisions contained in Division 7 of the Water Code and regulations adopted there under, and those of the Regional Board's Basin Plan, the Regional Board hereby waives waste discharge requirements for discharges of wastes from irrigated agriculture lands provided that the Discharger satisfies all conditions and requirements of this Conditional Waiver.

#### A. ELIGIBILITY

- 1. Existing and future discharges from irrigated agriculture lands to waters of the state are potentially eligible for coverage under this Order.
- 2. Dischargers eligible under this Order bear the responsibility of complying with the provisions and conditions contained in this Order and others related thereto.
- 3. Dischargers eligible under this Order shall comply with the terms and conditions of the Conditional Waiver and take action to improve and protect waters of the State.

#### **Individual Dischargers**

Individual Dischargers eligible for coverage under this Order shall:

4. File a Notice of Intent (NOI) within six months after this Conditional Waiver is adopted by the Regional Board that provides Individual Discharger information, billing address, site information, water supply, type of discharge, facility information (including type and volume of crops; type, quantity and frequency of pesticide

- applications; irrigation schedule; and management practices in place to mitigate waste loadings). The Individual NOI form is provided in Appendix 4.
- 5. Submit a Monitoring and Reporting Plan (MRP) in accordance with the Monitoring and Reporting Requirements in Appendix 1 and attach it to the NOI. The purpose of the Monitoring and Reporting Requirements is to assess the impacts of waste discharges on waters of the state, evaluate the effectiveness of management practices, and, where necessary, to track progress in reducing the amount of waste discharged that affects the quality of the waters of the state and their beneficial uses.
- 6. Provide any additional information that the Executive Officer deems necessary to evaluate the discharge.
- 7. After the required documents are reviewed and approved by the Executive Officer, the Executive Officer will issue a Notice of Applicability (NOA).
- 8. Upon receipt of an NOA, Individual Dischargers shall implement the approved MRP in accordance with the requirements of Appendix 1.
- 9. Within two years of issuance of the NOA, the Discharger shall complete 8 hours of educational training on water quality impairments related to agriculture discharges, regulatory requirements, and management practices that control waste discharges.
- 10. One year after issuance of an NOA and annually thereafter the Individual Discharger shall submit an annual monitoring report in accordance with the Monitoring and Reporting Requirements in Appendix 1.
- 11. Each Individual Discharger shall pay a fee to the State Water Resources Control Board in compliance with the fee schedule contained in Title 23 California Code of Regulations.

#### **Discharger Groups**

Discharger Groups eligible for coverage under this Order shall:

12. File an NOI within six months after this Order is adopted by the Regional Board. The NOI shall include a participant list that identifies the Dischargers participating in the group. The participant list shall include: (1) assessor parcel number, 2) parcel owner and operator name, (3) parcel size, (4) parcel watershed, and (5) parcel owner and operator mailing address. The NOI shall also include the billing address for the Group; general site information for group participants; and descriptions of water supplies used by group participants, types of discharges, types of crops, types of pesticides and application practices, irrigation practices, and other management practices.

- 13. Submit an MRP in accordance with the Monitoring and Reporting Requirements in Appendix 1 and attach it to the NOI. The purpose of the Monitoring and Reporting Requirements is to assess the impacts of waste discharges from irrigated lands on waters of the state, evaluate the effectiveness of management practices and, where necessary, to track progress in reducing the amount of waste discharged that affects the quality of the waters of the state and their beneficial uses.
- 14. Submit a Bacteria Special Study in accordance with the requirements in Appendix 1.
- 15. Provide any additional information that the Executive Officer deems necessary to evaluate the discharge.
- 16. After the required documents are reviewed and approved by the Executive Officer, the Executive Officer will issue an NOA.
- 17. Upon receipt of an NOA Discharger Groups shall implement the approved MRP in accordance with the requirements of Appendix 1.
- 18. Within two years of issuance of the NOA, all Dischargers within the Discharger Group shall complete 8 hours of educational training on water quality impairments related to agriculture discharges, regulatory requirements, and management practices that control waste discharges.
- 19. One year after issuance of an NOA and annually thereafter the Discharger Group shall submit an annual monitoring report in accordance with the Monitoring and Reporting Requirements in Appendix 1.
- 20. Each Discharger Group shall pay a fee to the State Water Resources Control Board in compliance with the fee schedule contained in Title 23 California Code of Regulations.

#### **B. AUTHORIZATION**

- 1. To be authorized to discharge under this Order, an Individual Discharger or Discharger Group must submit an NOI and other required documents in accordance with Section A and Appendix 1 of this Order.
- 2. Upon receipt of the application, the Executive Officer shall (1) determine the applicability of this Order to the Individual Discharger or individuals within a Discharger Group, (2) notify the Individual Discharger or Discharger Group that the discharge is or is not authorized under the terms and conditions of this Order, and (3) approve or require modifications to documents submitted to comply with the Monitoring and Reporting Requirements (Appendix 1).
- 3. For new discharges, the discharge shall not commence until receipt of the Executive Officer's NOA under this Order.

#### C. DISCHARGE PROHIBITIONS

- 1. The discharge of wastes from irrigated lands that are not authorized by this Conditional Waiver or other Order authorized by the Regional Board is prohibited.
- 2. Wastes discharged from irrigated lands shall be limited to agricultural wastewater only; no residential, municipal, industrial, hazardous or commercial wastes shall be discharged from the agricultural property.
- 3. Except in conformance with the conditions of this Order, the discharge of wastes containing any substance in concentrations toxic to human, animal, plant or aquatic life is prohibited.
- 4. The discharge of pollutants subject to Clean Water Act section 310, 402, or 404 is not authorized by this Order.

#### D. GENERAL PROVISIONS

- 1. Dischargers shall comply with applicable Water Quality Benchmarks. Dischargers shall demonstrate compliance with Water Quality Benchmarks according to Section E, provisions 1, 2, and 3.
- 2. Dischargers may not discharge any waste not specifically regulated by this Order except in compliance with the Water Code.
- 3. An Individual Discharger shall maintain, for inspection by Regional Board staff, the NOI, an MRP (as required by Appendix 1), records of pesticide and fertilizer application information as required by other regulatory programs, and a WQMP, if monitoring results have documented Water Quality Benchmark exceedances.
- 4. Participants in a Discharger Group shall maintain, for inspection by the Regional Board staff, proof of participation in a Discharger Group, contact information for the Discharger Group, individual pesticide and fertilizer application information as required by other regulatory programs, and a Discharger Group WQMP, if monitoring results have documented Water Quality Benchmark exceedances.
  - a. To the extent authorized by, and in accordance with, Water Code section 13267, the Regional Board is authorized to inspect upon reasonable notice private property owned or occupied by any Discharger for the purpose of determining compliance with the provisions of this Order. Except in emergency situations that pose a threat to public health, safety and property, no authorized official of the Regional Board may enter private property owned or occupied by a Discharger except upon consent of the owner or possessor of the facilities or, if consent is withheld, with a warrant issued pursuant to Civil Code section 1822.50. In the course of a duly authorized inspection, the Regional Board may (a) upon reasonable notice enter upon the Discharger's premises where a regulated operation or activity is located or conducted or where records must be kept under conditions of this Order; (b) inspect or photograph any operation or activity

(including monitoring and control equipment) pertinent to this Order, (c) have access to and copy any records pertinent to this Order; (d) sample or monitor to determine compliance with this Order, or as otherwise authorized by the Water Code, any substances or parameters; and (e) without notice enter upon the discharger's premises in the event of an emergency affecting the public health or safety.

- 5. This Order does not relieve the Discharger from responsibility to obtain other necessary local, State, and federal permits to construct facilities necessary for compliance with this Order, nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency.
- 6. The Discharger shall furnish, within a reasonable time not to exceed 30 days, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the Discharger's coverage under this Order. The Discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
- 7. After notice, coverage of an Individual Discharger or participant of a Discharger Group under this Order may be terminated or modified for cause by the Executive Officer, including but not limited to the following:
  - a. Violation of any term or condition contained in this Order;
  - b. Obtaining this Order by misrepresentation or failure to disclose all relevant facts; or
  - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- 8. The filing of a request by the Discharger for an Order modification, revocation and issuance, termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- 9. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the discharger from liability under federal, State or local laws, nor do they create a vested right for the discharger to continue the waste discharge (Water Code section 13263(g)).

#### E. SPECIFIC PROVISIONS

- 1. Individual Dischargers and Discharger Groups shall submit the results of water quality monitoring to the Regional Board every year in accordance with the Monitoring and Reporting Requirements in Appendix 1.
- 2. If the monitoring results demonstrate an exceedance of a Water Quality Benchmark, including load allocations, then the Individual Discharger or

- Discharger Group shall, in accordance with an approved WQMP, implement targeted management practices intended to attain Water Quality Benchmarks.
- 3. Individual Dischargers and Discharger Groups shall submit a WQMP within six months after submittal of the annual monitoring report. Requirements for a WQMP are set forth in the Monitoring and Reporting Requirements, Appendix 1. The WQMP shall be revised annually based on the results of continued water quality monitoring. Dischargers shall continue to implement the existing WQMP required by Order No. R4-2005-0080 until the WQMP required by this Order is submitted and approved by the Executive Officer.
- 4. All Dischargers shall conduct monitoring required pursuant to established TMDLs, as described in Appendix 1.
- 5. All Dischargers shall obtain a minimum of 8 hours of educational training within two years of receiving an NOA. Training shall focus on water quality impairments from agriculture discharges, regulatory requirements, and management practices to reduce or eliminate discharges of waste to waters of the state. At least one hour of the educational training shall focus on requirements of, and compliance with, this regulatory program. Documentation of participation in educational training is required. All educational training programs must be approved by the Executive Officer in order to provide accredited hours.

#### F. WATER QUALITY BENCHMARKS

- 1. Water Quality Benchmarks for discharges from irrigated land are identified in Appendix 2 and 3.
- 2. Pursuant to the Basin Plan, there shall be no individual pesticide or combination of pesticides present in the discharge in the concentrations that adversely affect beneficial uses. Waters (surface water and groundwater) designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticide in excess of the limiting concentrations specified in Table 6444-A of Section 6444 (Organic Chemicals) of Title 22 of the California Code of Regulations.
- 3. Discharges from irrigated lands that result in an exceedance of a Water Quality Benchmark shall be subject to a WQMP as required by this Order. Specific requirements for developing and implementing a WQMP are contained in the Monitoring and Reporting Requirements, Appendix 1.

#### G. SCHEDULE

- 1. Existing Individual Dischargers or Discharger Groups seeking to discharge under this Order shall submit an NOI and MRP (Appendix 1) within six months after adoption of this Order.
- 2. New Dischargers shall file a complete NOI at least 45 days before commencement of the discharge.

3. The table below presents the schedule of tasks for Dischargers enrolling under this Conditional Waiver

Task	∼Responsible Party	Due Date
Submit NOI and MRP	Each Individual Discharger or Discharger Group	6 months after adoption of Conditional Waiver
Annual Monitoring Report	Each Individual Discharger or Discharger Group	Within 12 months after issuance of NOA and annually thereafter
WQMP, if necessary	Each Individual Discharger or Discharger Group	6 months after submittal of annual monitoring report if necessary, and annually thereafter, if necessary

#### H. COMPLIANCE AND ENFORCEMENT

- 1. Individual Dischargers and participants of a Discharger Group are the responsible parties for meeting the conditions of this Order. Failure by a Discharger to maintain compliance with conditions of this Order may result in enforcement actions including imposition of civil liability under Water Code 13268 or 13350, and/or withdrawal of the Conditional Waiver and issuance of waste discharge requirements by the Regional Board (Water Code sections 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350).
- 2. Under the terms of this Order, both owners and operators of irrigated lands have responsibility for compliance with the conditions of this Order. Many management practices will be operational in nature and under the direct control of the operator, while structural practices which remain in place through changes in leaseholders will more likely be the responsibility of the landowner. In the event that the Regional Board undertakes enforcement action, the owner and the operator may be held accountable. Owners and operators may consider delineating these responsibilities in lease agreements; however both the owner and operator will retain full legal responsibility for complying with all provisions of this Order.
- 3. The conditions of this Order require the identification and implementation of targeted actions to attain Water Quality Benchmarks. To satisfy the conditions of this Order, an Individual Discharger or Discharger Group must submit technical reports and conduct required monitoring programs. In addition to the foregoing, a Discharger must, where necessary to attain Water Quality Benchmarks, implement management practices, evaluate the effectiveness of those practices, and, refine and/or supplement those practices to improve their effectiveness, as necessary to

- attain Water Quality Benchmarks, and protect the beneficial uses of waters of the state.
- 4. If a Discharger fails to meet the requirements and conditions of this Order, the Executive Officer may, upon providing the Discharger with reasonable notice and an opportunity to submit information and be heard, terminate the Discharger's coverage under this Conditional Waiver.
- 5. Individual Dischargers and members of a Discharger Group in compliance with the conditions of this Order will not be required to file ROWDs or be subject to WDRs during the term of this Conditional Waiver.
- 6. This Order and Conditional Waiver shall become effective on October 7, 2010 and expire on October 7, 2015, except for enforcement purposes, unless rescinded, renewed, or extended by the Regional Board.

#### I. TERMINATION

- 21. The Los Angeles Regional Board may review this Order at any time and may modify or terminate the Conditional Waiver in its entirety. Upon providing a Discharger or Discharger Group with reasonable notice and opportunity to be heard, the Executive Officer may terminate applicability of the Conditional Waiver with respect to that Individual Discharger or Discharger Group.
- 22. The Los Angeles Regional Board may reopen this Order at the time the State Water Resources Control Board adopts a policy for Whole Effluent Toxicity Assessment and Control and modify the Monitoring and Reporting Requirements (Appendix 1) pertaining to toxicity monitoring and Toxicity Identification Evaluation (TIE).
- 23. The Los Angeles Regional Board may reopen this Order to incorporate any new or revised TMDL load allocations (assigned to irrigated agriculture discharges) that become effective during the term of this Order.
- 24. If an Individual Discharger or individual participant in a Discharger Group wishes to terminate coverage under this Order, the Discharger shall submit a complete Notice of Termination (NOT), Appendix 5. Termination from coverage will occur on the date specified in the NOT, unless otherwise specified. All discharges shall cease before the date of termination, and any discharges on or after that date shall be considered in violation of the California Water Code, unless the discharge is regulated by another conditional waiver or other waste discharge requirements.
- 25. Administrators of a Discharger Group shall notify the Regional Board of an individual's failure to participate in the group efforts. The Discharger Group shall not be responsible or liable for individual compliance with the terms of this Order or the Water Code in general. The Discharger Group shall only be responsible for conveying information related to an individual's participation in the Group, and not for determining if the individual is in compliance with the terms of this Order. The

Discharger Group shall provide at least 30 days notice to individual participants before informing the Regional Board of the individual's failure to participate, which may result in the Regional Board issuing a NOT to the participant. Termination from coverage will occur on the date specified in the NOT, unless otherwise specified. All discharges shall cease before the date of termination, and any discharges on or after that date shall be considered in violation of the California Water Code, unless the discharge is regulated by another conditional waiver or waste discharge requirements.

26. In the event that the Regional Board issues an individual order with more specific requirements to a Discharger, the applicability of this Order to that Discharger is automatically terminated, except for enforcement purposes, on the effective date of the individual order.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on October 7, 2010.

Samuel Unger, PE

Executive Officer

# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

#### APPENDIX 1

#### MONITORING AND REPORTING REQUIREMENTS

#### UNDER

#### ORDER NO. R4-2010-0186

# CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED LANDS

These Monitoring and Reporting Requirements are issued by the Regional Water Quality Control Board, Los Angeles Region (Regional Board) pursuant to Water Code sections 13267 and 13269. As conditioned by the Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Conditional Waiver), Order No. R4-2010-0186 (Order No. R4-2010-0186), Individual Dischargers and Discharger Groups (Dischargers) shall develop a Monitoring and Reporting Plan (MRP) to (1) assess the impacts of waste discharges from irrigated lands, and where necessary, (2) assess the source(s) of wastes, evaluate the effectiveness of management practices, and track progress in reducing the amount of waste discharged that affects the quality of the waters of the State and their beneficial uses and causes nuisance conditions. In order to support the Conditional Waiver program, the monitoring requirements must be able to detect long-term trends over time, assess areas where Water Quality Benchmarks, as defined in the Order, are not attained, and conduct follow-up investigations to better characterize problems areas. The Monitoring and Reporting Requirements presented in this document describe the minimum MRP requirements for compliance with Order No. R4-2010-0186. The Executive Officer of the Regional Board may revise these Monitoring and Reporting Requirements based on site-specific conditions for an Individual Discharger or Discharger Group.

### The MRP has three basic purposes:

- 1. to monitor the discharge of wastes in irrigation return flows, tile drains, stormwater, and waters of the state and identify waste sources;
- where discharges of waste cause or contribute to exceedances of Water Quality Benchmarks or cause pollution or nuisance, to submit a Water Quality Management Plan (WQMP) to implement targeted management practices to reduce or eliminate the discharges of waste; and
- 3. report results and other required information on an annual basis.

Dischargers shall prepare and submit to the Regional Board for review and approval by the Regional Board Executive Officer an MRP that meets the minimum requirements of this Order, including sites to be monitored, frequency of monitoring, constituents to be monitored, documentation of monitoring protocols, and sufficient information about the irrigated agriculture lands to demonstrate that the proposed MRP adequately documents water quality and waste discharges to waters of the state.

As required, Dischargers shall submit a Water Quality Management Plan (WQMP), if a Water Quality Benchmark<sup>1</sup> is exceeded. WQMPs shall contain the necessary information to (1) assess the impacts of waste discharges from irrigated lands to surface waters, (2) quantify and identify waste sources, (3) identify and implement new and/or revised management practices to reduce or eliminate discharges of waste that cause or contribute to exceedances of Water Quality Benchmarks, (4) document the implementation and maintenance of management practices, and (5) document attainment of Water Quality Benchmarks.

#### 1 MONITORING AND REPORTING PLAN

Dischargers shall submit an MRP to the Regional Board for Executive Officer approval six months after adoption of Order No. R4-2010-0186. Specifications in these monitoring requirements are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order.

Other Regional Board programs (e.g. TMDLs) may contain requirements similar to the monitoring requirements for Discharger Groups or Individual Dischargers. If such requirements are in place in another regulatory program, the Executive Officer may modify the monitoring tasks of Dischargers to coordinate between Regional Board Programs.

The sections below outline the requirements for the MRP.

#### **Monitoring Sites**

Waters of the state receiving discharges from irrigated lands shall be monitored per monitoring plans approved by the Executive Officer. The number and location of monitoring sites must be based on specific watershed characteristics and be supported by scientific rationale and a detailed discussion of drainage characteristics. Several criteria should be used to identify waterbodies and locations for monitoring. These include, but are not limited to the following:

- waterbodies that are on or proposed for the 303(d) list of impaired waterbodies
- waterbodies that have documented beneficial use impairments due to waste discharges associated with agriculture
- size and complexity of watershed
- watershed hydrology
- size of waterbodies
- flow of waterbodies

<sup>&</sup>lt;sup>1</sup> Water Quality Benchmark means a requirement established by the Regional Board Basin Plan (including discharge prohibitions and narrative or numeric water quality objectives); a requirement established by an applicable Statewide plan or policy, criteria established by USEPA (including those in the California Toxics Rule and the applicable portions of the National Toxics Rule), and load allocations established pursuant to a total maximum daily load (TMDL) (whether established in the Basin Plan or other lawful means). Water Quality Benchmarks for Discharges from Irrigated Agricultural Lands are identified in Appendices 2 and 3 of Order R4-2010-0186.

- previous or existing monitoring locations
- proximity to agriculture operations
- safe all-weather access locations

The MRP shall describe the general drainage area (e.g. land use, crop type, and cultivation practices, which may affect water quality) of each sampling site and provide GPS coordinates for each site. A topographic map that shows the proposed monitoring site(s), the agricultural land with crop type, and potentially affected waters of the state shall also be included as a part of the MRP.

More than one site may be located on tributaries, if required to distinguish and assess agriculturally-sourced inputs from those of other land uses. Dischargers shall sample no more than 50 feet downstream from the location where the discharge(s) enters the receiving water, to the extent feasible; otherwise, sampling shall occur at the nearest feasible downstream location. The number of discharge locations shall be considered when selecting the number and location of sampling sites required.

#### Monitoring Frequency and Seasonality

The frequency of monitoring shall be, each year, 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 year. Based on a review of annual monitoring reports, the Executive Officer may increase or decrease the frequency of monitoring. Factors that may inform 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 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 monitoring team. The first wet-season samples shall be collected after the first storm of the year. The first dry-season samples will be collected after the majority of growers in a subwatershed have applied pesticides or fertilizers and during the period where irrigation is required.

#### **Monitoring Constituents**

Monitoring is required for all constituents list in Table 1. Owners/Operators of irrigated agriculture lands discharging to the subwatersheds listed in Table 2 must monitor for the additional constituents specified in the table.

The MRP shall include chronic toxicity testing to evaluate compliance with the narrative toxicity objective in the Basin Plan. Chronic toxicity testing shall be conducted for three test species: *Pimephales promelas* (fathead minnow), *Ceriodaphnia dubia* (water flea) and *Selenastrum capricornutum* (green algae). Once one toxicity sample has been

collected and analyzed in the first year, the Discharger shall select the most sensitive species for subsequent toxicity monitoring. 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 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)
pН	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
Phosphate	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
Pyrethroids	μg/L
Toxicity	TU <sub>c</sub> <sup>4</sup>
Trash	Observations

<sup>&</sup>lt;sup>2</sup> Oragnophosphate Suite: Bolstar, Chlorpyrifos, Demeton, Diazinon, Dichlorvos, Dimethoate, Disulfoton, Ethoprop, Fenchlorophos, Fensulfothion, Fenthion, Malathion, Merphos, Methyl Parathion, Mevinphos, Phorate, Tetrachlorvinphos, Tokuthion, Trichloronate

<sup>&</sup>lt;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 sufate, Endosulfan-I, Endosulfan-II, Endrin, Endrin Aldehyde, Endrin Ketone

<sup>&</sup>lt;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.

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	In Sediment: PCBs Chlordane	
Revolon Slough Arroyo Las Posas Arroyo Simi	Dieldrin Toxaphene 4,4 DDD	ng/g
Conejo Creek Simi	4,4 DDE 4,4 DDT	
Revolon Slough	Boron	mg/L
Channel Islands Harbor	Bacteria	MPN/100 mL
	In Fish Tissue: Chlordane Dieldrin Toxaphene	μg/kg
Santa Clara River Estuary	In Water: Chlordane Dieldrin Toxaphene	µg/L
	In Suspended Sediment <sup>1</sup> : Chlordane Dieldrin Toxaphene	µg/kg

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

If other Regional 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.

### Santa Clara River Watershed Toxaphene Monitoring

The SCR Estuary is identified on the 1998, 2002 and 2006 Clean Water Act (CWA) 303(d) list of impaired water bodies as impaired due to toxaphene and a TMDL is

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required for this waterbody-pollutant combination. This TMDL is being adopted and implemented through requirements contained in this Conditional Waiver.

In addition to the requirements for all Dischargers covered by the Conditional Waiver, owners/operators of irrigated lands discharging to the Santa Clara River Estuary and the Santa Clara River Reaches 1 and 2 shall conduct monitoring and implement BMPs, as necessary, to address the toxaphene impairment and assess chlordane and dieldrin concentrations in the Santa Clara River Estuary. Monitoring and analyses for measuring toxaphene, chlordane, and dieldrin in water, sediment, and fish tissue shall be proposed in the Discharger's MRP for review and approval by the Executive Officer.

Monitoring will be conducted at one representative agricultural drain that discharges to the river between Victoria Boulevard and Harbor Boulevard, and one representative agricultural drain that discharges to the river above Victoria Boulevard and below the Freeman Diversion. Water quality samples shall be analyzed for total suspended solids, toxaphene, chlordane, and dieldrin. Water quality samples shall be collected from two wet weather events and two dry weather events a year. Water samples shall be filtered and the filter residue (i.e. filtered sediment) shall be analyzed for toxaphene, chlordane, and dieldrin. Filtered sediment samples shall be collected from two wet weather events a year.

Fish tissue shall be collected in the Estuary. The minimum frequency for fish tissue analysis shall be every three years. Fish tissue samples shall be analyzed for toxaphene, chlordane, and dieldrin.

#### 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.

Dischargers shall submit a Quality Assurance Project Plan (QAPP) for Executive Officer approval six months after adoption of the Conditional Waiver. 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 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.

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 Executive Officer approval.

A laboratory that is certified by the Department of Health Services 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 will be submitted in both electronic and written tabular formats to the Regional Board. These formats will be specified by the Executive Officer. 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 Board plans, policies and guidance at the time that toxicity monitoring is conducted. The Regional Board may review Order No. R4-2010-0186 at the time the State Water Resources Control Board adopts a policy for Whole Effluent Toxicity Assessment and Control and modify the Monitoring and Reporting Requirements pertaining to toxicity monitoring and TIE. 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

If water quality monitoring data, collected as described above, indicate exceedances of applicable Water Quality Benchmarks, the Dischargers shall develop a WQMP and, upon approval of and in accordance with said 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 steps with milestones that work to attainment of Water Quality Benchmarks through the use 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.

### **Elements of the Water Quality Management Plan**

The elements of the WQMP shall include:

### Assessment of Existing Conditions

- A summary review of monitoring objectives and sample locations including GPS coordinates and maps.
- An assessment of the impacts of waste discharges from irrigated lands to waters of the State, including a summary of Water Quality Benchmark exceedances.
- Determination of pollutant loading from irrigated agricultural land, where practicable.
- Identification of likely waste sources, review of possible correlations between sampling conditions (e.g., time and weather), seasonal growing activities, and water quality results.
- Follow-up monitoring, which may include edge of field monitoring, as needed, to improve understanding of the nature and source of wastes and/or to document attainment of Water Quality Benchmarks. Follow-up monitoring may be proposed as a revision to the MRP. Edge of field monitoring, conducted as part of follow-up monitoring, is at the discretion of the discharger.
- A description and documentation of existing management practices, including the degree and location of implementation.
- A review of existing management practice maintenance.

## Proposed Onsite and/or Subwatershed Modifications

- Identification of priority areas for management practice implementation, follow-up monitoring, and focused outreach and education. Information, such as the severity of water quality problems, existence of TMDL load allocations, and availability of other data sources to inform decision-making, should be considered when identifying priority areas.
- Description and general location of management practices (new or revised) which will be implemented to address water quality impairments. Proposed management practices shall be based on a quantitative assessment of practice performance and expected attainment of Water Quality Benchmarks. Proposed management practices shall consider the protection of both surface and groundwater quality. For example, source control management practices, such as improved irrigation efficiency and nutrient management protect both surface water and groundwater.
- Explanation of the management practice selection process and how the new or revised management practices implemented will address Water Quality Benchmark exceedances.
- A time-certain schedule and strategy for the implementation of new and/or revised management practices.
- Pesticide use evaluation assessment should include 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 areas upstream. This comparison may demonstrate how a change in pesticide use patterns could impact water quality. Changing pesticide use patterns is a management practice and may be included in a WQMP.
- Tracking of management practice implementation and maintenance. Compile information on the type of management practices that are being used, the degree and locations of implementation in the area, and the effectiveness of the practices in protecting waters of the state. Data should be collected in several broad areas: (1) fertilizer and pesticide application and post-application practices, (2) management practices to address other wastes (salt, sediment, nitrogen, etc.), and (3) operational practices. If more effective management practices are available and practicable, a time-specific plan to change management practices shall be included.
- An approach to determine the effectiveness of management practices at reducing waste discharge and protecting water quality. This may

require follow-up monitoring. As the program develops, revisions to the WQMP should document effective management

An evaluation of compliance with Water Quality Benchmarks to determine if implementation of additional or upgraded management practices are necessary to improve and/or protect water quality. Alternatively, provide technical documentation of natural, historical, or existing conditions that are causing noncompliance.

#### 3 Bacteria Special Study

Dischargers shall conduct a Bacteria Special Study to characterize potential discharges of bacteria from irrigated agriculture lands. Within one year of adoption of Order R4-2010-0186 dischargers shall submit a Bacteria Special Study workplan for Executive Officer approval. The workplan must be technically adequate to assess the quality of irrigated agriculture discharges with respect to bacteria. The workplan shall specify representative monitoring locations and frequency to accurately characterize wet- and dry-weather discharges and allow comparison to bacteria water quality objectives. The length of the special study shall be no less than two years.

#### 4 REPORTING REQUIREMENTS

Pursuant to Water Code Section 13267 and 13269, the following Reports are required to be submitted to the Regional Board by the deadlines identified below.

# Monitoring and Reporting Plan DUE: 6 months after Conditional Waiver adoption

The MRP must include the components of the monitoring and reporting requirements as stated in this document. The MRP for receiving waters shall include the following elements:

- 1. Title page and Table of Contents
- 2. Description of the Individual Discharger or Discharger Group
- 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. Monitoring periods and sites with GPS coordinates
- 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 Table 1 and 2
- 9. A QAPP consistent with the requirements described in Section 1
- 10. Documentation of monitoring protocols including sample collection and handling methods

- 11. Individual or Discharger Group contact information
- 12. Preliminary monitoring data, after QA/QC has been conducted, shall be submitted to the Regional Board in electronic format within 90 days of a monitoring event. Preliminary data will not be considered final until it is submitted as part of the annual monitoring report. Preliminary data will not be used to formally assess attainment of Water Quality Benchmarks.

# Annual Monitoring Report Due: Annually beginning 1 year after issuance of NOA

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 or Discharger Group membership and setting
- 4. Updated membership list, submitted electronically
- 5. Monitoring objectives
- 6. Sampling site descriptions, including photographs
- 7. Location map of sampling sites including GPS coordinates of sampling sites
- 8. Parameters monitored and frequency
- 9. Sampling and analytical methods used, submitted in a tabular format
- 10. Tabulated results of analyses
- 11. Data interpretation including assessment of compliance and/or noncompliance with Water Quality Benchmarks
- 12. Results of toxicity exceedances and results of TIE, clearly identified in the report as a separate section
- 13. Copy of chain of custody, submitted electronically
- 14. Associated laboratory and field quality control samples results
- 15. Summary of precision and accuracy
- 16. Quality control data interpretation, including assessment of data quality objectives
- 17. 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.
- 18. Documentation that education requirements have been fulfilled by the Individual Discharger or each member of a Discharger Group
- 19. Conclusions and recommendations

Dischargers eligible under this Order bear the responsibility to inform the Regional Board, maintain records, and submit regular reports detailing the types of discharges, monitoring results for required constituents, participants in the Group, 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 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) individual(s) who performed the sampling or measurements, (4) date(s) analyses were performed, (5) laboratory and/or individual(s) who performed the analyses, (6) the analytical techniques or method used, and (7) the results of such analyses.

The monitoring data will be submitted in a format consistent with SWAMP reporting requirements, both electronically and in written tabular form.

# Water Quality Management Plan Due: Annually 6 months after first AMR with exceedances

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 3 of this document.

### 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 or outline implementation of actions to be taken under a WQMP. The transmittal letter shall be signed and shall contain a penalty of perjury statement by the Individual Discharger, Discharger Group, or 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 Board.
- 3. The Dischargers 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 California Department of Health Services, 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 Regional 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, and a paper copy must be provided and addressed to the Regional Board, Attention: Irrigated Lands Regulatory Program.
- 7. Records and reports submitted to the Regional Board are public documents and shall be made available for inspection during normal business hours at the Regional Board office.

## CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED LANDS ORDER NO. R4-2010 – 0186

## APPENDIX 2 STANDARD WATER QUALITY BENCHMARKS

Constituent	Units	Water Quality  Benchmark
Temperature	<sup>0</sup> F	(a) <sup>1</sup>
pH	pH units	(a) <sup>1</sup>
Dissolved Oxygen (DO)	mg/L	(a) <sup>1</sup>
Turbidity	NTU	(a) <sup>1</sup>
Trash	NA	(a) <sup>1</sup>
Total Suspended Solids	mg/L	(a) <sup>1</sup>
Total Dissolved Solids	mg/L	(a) <sup>1</sup>
Chloride	mg/L	(a) <sup>1</sup>
Nitrate-Nitrogen	mg/L	(a) <sup>1</sup>
Ammonia-Nitrogen	mg/L	(a) <sup>1</sup>
Sulfate	mg/L	(a) <sup>1</sup>
Copper <sup>2</sup>	μg/L	CCC = 0.960e [(0.8545(ln(hardness) + (-1.702)]
Chlordane <sup>2</sup>	μg/L	0.00059
4,4'-DDT <sup>2</sup>	μg/L	0.00059
4,4'-DDD <sup>2</sup>	μg/L	0.00084
DDE <sup>2</sup>	μg/L	0.00059
Dieldrin <sup>2</sup>	μg/L	0.00014
Toxaphene <sup>2</sup>	μg/L	0.00075
Chlorpyrifos <sup>3</sup>	μg/L	0.025
Diazinon <sup>3</sup>	μg/L	0.10
Toxicity <sup>4</sup>	TU <sub>c</sub>	1.0

<sup>(</sup>a)<sup>1</sup> Water Quality Benchmarks shall be based on the surface water and groundwater basin objectives currently contained in the Water Quality Control Plan Los Angeles Region (Basin Plan) or other applicable water quality standards established for the Los Angeles Region.

<sup>&</sup>lt;sup>2</sup> The Water Quality Benchmarks are based on the CTR criteria.

<sup>&</sup>lt;sup>3</sup> The Water Quality Benchmarks are based on the targets developed in the Calleguas Creek Watershed and Mugu Lagoon Toxicity, Chlorpyrifos, and Diazinon TMDL (Resolution No. R05-009).

<sup>&</sup>lt;sup>4</sup> TU<sub>c</sub> or Toxic Unit-Chronic is the reciprocal of the effluent concentration that causes no observable effects (i.e., no mortality) on the test organisms by the end of a chronic toxicity test.

# CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM IRRIGATED LANDS ORDER NO. R4-2010 – 0186

## **APPENDIX 3**

# WATER QUALITY BENCHMARKS BASED UPON TMDL LOAD ALLOCATIONS (Load allocations that apply after the term of the waiver are shaded in grey)

1		at the base o			•		
Interim Sed	Iment LAS	(ng/g)	Subw	/atershed			
Constituent	Mugu	Calleguas	Revolon	Arroyo Las	Arroyo	Conejo	
	Lagoon <sup>1</sup>	Creek	Slough	Posas	Simi	Creek	
Chlordane	25.0	17.0	48.0	3.3	3.3	3.4	March 24
4,4-DDD	69.0	66.0	400.0	290.0	14.0	5.3	2006
4,4- DDE	300.0	470.0	1,600.0	950.0	170.0	20.0	2000
4,4-DDT	39.0	110.0	690.0	670.0	25.0	2.0	
Dieldrin	19.0	3.0	5.7	1.1	1.1	3.0	,
PCBs	180.0	3,800.0	7,600.0	25,700.0	25,700.0	3,800.0	
ruds .	100.0		1,000.0	20,1:00.0	_0,,00.0	1 3,000.0	
Toxaphene	22,900.0	260.0	790.0	230.0 Agricultural Drai	230.0	260.0	
Toxaphene he Mugu Lago	22,900.0	260.0	790.0	230.0	230.0	260.0	
Toxaphene he Mugu Lago	22,900.0	260.0	790.0 Duck Pond/ <i>f</i>	230.0 Agricultural Drai	230.0	260.0	
Toxaphene The Mugu Lago Final Sedime	22,900.0	260.0	790.0 Duck Pond/ <i>f</i>	230.0	230.0	260.0	
Toxaphene The Mugu Lago Final Sedime Constituent Chlordane	22,900.0 con subwater cnt LAs (ng Mugu Lagoon <sup>1</sup> 3.3	260.0 shed includes /g) Calleguas Creek 3.3	790.0  Duck Pond/A  Subw  Revolon  Slough  0.9	230.0 Agricultural Drain vatershed Arroyo Las Posas 3.3	230.0 n/Mugu/Oxnar	d Drain #2.	March 24
Toxaphene The Mugu Lago Final Sedime Constituent Chlordane ,4-DDD	22,900.0  on subwater  ont LAs (ng  Mugu Lagoon 3.3 2.0	z60.0 shed includes /g) Calleguas Creek 3.3 2.0	Subw Revolon Slough 0.9 2.0	230.0 Agricultural Drain vatershed Arroyo Las Posas	230.0 n/Mugu/Oxnar Arroyo Simi	d Drain #2.  Conejo Creek	March 24 2026
Toxaphene The Mugu Lago Final Sedime Constituent Chlordane ,4-DDD	22,900.0  on subwater  ont LAs (ng  Mugu Lagoon <sup>1</sup> 3.3 2.0 2.2	z60.0 shed includes /g) Galleguas Creek 3.3 2.0 1.4	Subw Revolon Slough 0.9 2.0 1.4	230.0 Agricultural Drain Vatershed Arroyo Las Posas 3.3 2.0 1.4	230.0 n/Mugu/Oxnar Arroyo Simi 3.3	260.0 d Drain #2. Conejo Creek 3.3	March 24 2026
Toxaphene The Mugu Lago Final Sedime Constituent Chlordane .,4-DDD .,4-DDE .,4-DDT	22,900.0  on subwater  ont LAs (ng  Mugu Lageon  3.3  2.0  2.2  0.3	z60.0 shed includes /g) Calleguas Creek 3.3 2.0 1.4 0.3	Subw Revolon Slough 0.9 2.0 1.4 0.3	zatershed Arroyo Las Posas 3.3 2.0 1.4 0.3	230.0 n/Mugu/Oxnar Arroyo Simi 3.3 2.0 1.4 0.3	260.0  d Drain #2.  Conejo Creek 3.3 2.0 1.4 0.3	
Toxaphene The Mugu Lago Final Sedime Constituent Chlordane ,4-DDD ,4-DDE ,4-DDT Dieldrin	22,900.0  on subwater  ont LAs (ng  Mugu  Lagoon  3.3  2.0  2.2  0.3  4.3	z60.0 shed includes /g) Calleguas Greek 3.3 2.0 1.4 0.3 0.2	Subw Revolon Slough 0.9 2.0 1.4 0.3 0.1	zatershed Arroyo Las Posas 3.3 2.0 1.4 0.3 0.2	230.0 n/Mugu/Oxnar	260.0  d Drain #2.  Conejo Creek 3.3 2.0 1.4	
Toxaphene The Mugu Lago Final Sedime Constituent Chlordane 1,4-DDD 1,4-DDE 1,4-DDT Dieldrin PCBs	22,900.0  on subwater  ont LAs (ng  Mugu Lagoon 3.3 2.0 2.2 0.3 4.3 180.0	260.0 shed includes /g)  Calleguas Creek 3.3 2.0 1.4 0.3 0.2 120.0	790.0  Duck Pond/A  Subw  Revolon  Slough  0.9  2.0  1.4  0.3  0.1  130.0	230.0 Agricultural Drain Agricul	230.0 n/Mugu/Oxnar  Arroyo Simi 3.3 2.0 1.4 0.3 0.2 120.0	260.0 d Drain #2.  Conejo Creek 3.3 2.0 1.4 0.3 0.2 120.0	
Toxaphene The Mugu Lago Final Sedime Constituent Chlordane 1,4-DDD 1,4-DDE 1,4-DDT Dieldrin CBs Toxaphene	22,900.0  fon subwater  ant LAs (ng  Mugu Lagoon <sup>1</sup> 3.3 2.0 2.2 0.3 4.3 180.0 360.0	260.0 shed includes /g) Calleguas Creek 3.3 2.0 1.4 0.3 0.2 120.0 0.6	790.0  Duck Pond/A  Subw  Revolon Slough  0.9  2.0  1.4  0.3  0.1  130.0  1.0	zatershed Arroyo Las Posas 3.3 2.0 1.4 0.3 0.2	230.0 n/Mugu/Oxnar Simi 3.3 2.0 1.4 0.3 0.2 120.0 0.6	260.0  d Drain #2.  Conejo Creek 3.3 2.0 1.4 0.3 0.2 120.0 0.6	

Calleguas Creek Watershed and Mugu Lagoon Toxicity, Chlorpyrifos, and Diazinon TMDL	Compliance Date
Interim Chlorpyrifos Load Allocations (ug/L) apply watershed-wide	
Acute Chronic (1hour) (4 day) 2.57 0.810	
Interim Diazinon Load Allocations (ug/L) apply watershed-wide	
Acute (1hour) Chronic (4 day)	March 24, 2006
0.278 0.138	
	·
A load allocation of 1.0 TUc applies watershed-wide.	March 24, 2006
Final Chlorpyrifos Load Allocations (ug/L)	
Subwatershed Acute & Chronic  Arrovo Simi 0.014	
Arroyo Simi       0.014         Las Posas       0.014         Conejo       0.014	March 24, 2016
Calleguas0.0133Revolon0.0133	
Mugu Lagoon 0.014	
Final Diazinon Load Allocations (ug/L) apply watershed-wide	
Acute & Chronic	t
0.1	

Callegua	s Creek Watershed	Boron, Chloride, Sulfate and TMDL	TDS (Salts)	Compliance Date
	· ·	Weather Load Allocations		
	Constituent	Interim Limit (mg/L)		Dec. 2, 2008
•	Boron Total	1.8		
	Chloride Total	230		
	Sulfate Total	1962		:
	TDS Total	3995		
•	<del></del>			

<u> Zaman in 1998, p</u> enang kalanggan dan penanggan ing	5. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	TMDL	1		Date
nterim dry weath					
iverages at the ba neasured as an ii	onde which is				
ry weather LAs a	·				
nere was no mea	isurable preci	pitation in the p	revious 24 hou	ır period.	·
he 86 <sup>th</sup> percentile	o flow rata sh	all be calculate	d based on flo	win the	
ydrologic year (C					
yarologio yoar (c	. Oopt	. oo janacanos	sample was oc	ilootou.	
	Final Dry V	Veather Load A	llocations	•	
	Boron	Chloride	TDS	Sulfate	
Subwatershed	Allocation (lb/day)	Allocation (lb/day)	Allocation (Ib/day)	Allocation (lb/day)	
Simi	641	3,631	1,068	4	Dec. 23, 2023
			, , , , , , , , , , , , , , , , , , , ,	N/A	Dec. 23, 2023
_as Posas	2,109	11,952	3,515	11/74	
<del></del>	2,109 743	11,952 4,212	3,515 1,239	N/A	:
Conejo Camarillo	743 59	4,212 336	1,239 99		
Las Posas Conejo Camarillo Pleasant Valley Revolon	743	4,212	1,239	N/A	

Called	guas Creek Wate	ershed and M TM		Metals and Se	elenium	Compliance Date
20-2	utiga timokis ilmiya ke eti serri ke unun <u>engili kilibi kebanasi ke kilibi</u> keb	And Compatible are an extended the tension of the company of	e enterphone results in the e	u tra teleper et tradició de la unera la trabació que	Control of the Contro	<u>ार्केस प्रकर्ण है कसूच के प्रतिहत्त है जाता निर्देश स्थान गर्ने हैं</u>
iterim	Load Allocations	for total recov	erable metals			
		Calle	guas and Con	ejo Creek		March 26, 2007
	Constituent	Dry Daily Maximum (ug/L)	Dry Monthly - Average (ug/L)	Wet Daily Maximum (ug/L)	·	
	Copper	24	19	1390		
	Nickel	43	42	1000		
	Selenium					
	-					
			Revolon Sloug			
	Constituent	Dry Daily Maximum	Dry Monthly Average	Wet Daily Maximum		
		(ug/L)	(ug/L)	(ug/L)		
	Copper	24	19	1390		-
	Nickel	43	42		<u>.</u>	,
	Selenium	6.7 (c)	6 (c)			
o <sup>th</sup> per ays wh ubwate	ather LAs apply to centile flow rate flows in the sershed.	or each subwi tream exceed	atershed. We the 86 <sup>th</sup> perce	t weather LAs entile flow rate	apply to for each	
ne 86° ydrolo	<sup>th</sup> percentile flow r gic year (Oct. 1 <sup>st</sup>	rate shall be c – Sept. 30 <sup>th</sup> ) t	hat the sample	ed on flow in the	ie d. 	
iterim	Load allocations				ear)	March 26, 200
	Flow Rar million gallor	م lge	leguas reek	Revolon Slough		
	0-15,000	118226. A4016 A4070 A104 A104 A104 A104 A104 A104 A104 A10	3.9	2		
	15,000-25,00		12.6	4.8		
	Above 25,000					,
	ADDVE ZO.UU	0 1	77.5	12.2		
	Above 25,000	0	77.5	12.2		

# Calleguas Creek Watershed and Mugu Lagoon Metals and Selenium Compliance TMDL Date

Dry Weather - Final Load allocations (lbs/day) for total recoverable metals

		Calleguas Cree	k
Constituent	Low Flow	Avg. Flow	Elevated Flow
Copper*	0.07 x	0.12 x	0.31 x
	(WER - 0.03)	(WER - 0.02)	(WER - 0.05)
Nickel	0.420	0.260	0.970
Selenium			

<sup>\*</sup> If site-specific WERs are approved by the Regional Board, TMDL load allocations shall be implemented in accordance with the approved WERs using the equations set forth above.

Calleguas Creek	
Flow Category:	Flow Rate (cfs)
Low	0 - 5
Average -	5 - 21
Elevated	21 - 30

		Revolon Sloug	n
Constituent	Low-Flow	Avg. Flow	Elevated Flow
Copper*	0.07 x	0.14 x	0.35 x (WER
	(WER - 0.03)	(WER - 0.07)	- 0.07)
Nickel	0.390	0.690	1.600
Selenium	0.008	0.007	0.018

<sup>\*</sup> If site-specific WERs are approved by the Regional Board, TMDL load allocations shall be implemented in accordance with the approved WERs using the equations set forth above.

Revolon Slough					
Flow Category	Flow Rate (cfs)				
Low	0 - 10				
Average	10 - 17				
Elevated	17 - 22				

Wet Weather Final Load Allocations (lbs/day) for total recoverable metals

Constituent	Calleguas Creek	Revolon Slough
Copper*	$(0.00017 \times Q^2 \times 0.01 \times Q - 0.05) \times$	$(0.00123 \times Q^2 + 0.0034 \times Q) \times$
	WER – 0.02	WER
Nickel	$0.014 \times Q^2 + 0.82 \times Q$	$0.027 \times Q^2 + 0.47 \times Q$
Selenium		$0.1 \times Q^2 + 1.8 \times Q$

<sup>\*</sup> If site-specific WERs are approved by the Regional Board, TMDL load allocations shall be implemented in accordance with the approved WERs using the equations set forth above. Q = Daily storm volume

March 26, 2022

Calleguas Creek Watershed and Mugu Lagoon Metals and Selenium TMDL  Final Load allocations for Mercury in Suspended Sediment (lbs/year)				Compliance Date	
i iiai Load	allocations for Merce	Calleguas Creek	Revolon Slough		March 26, 2022
	Flow Range MGY	Agriculture	Agriculture		Waton 20, 2022
	0-15,000	0.5	0.2		
	15,000-25,000	1.9	0.8		
•	Above 25,000	11.2	2.2		
	allocations are measu d Calleguas Creek.	ured in-stream a	the based of Revolor	n	

Calleguas Creek	litrogen Compou	nds and Related	l Effects TMD	Compliance Date
	Nitrate-N + N (mg/L			July 16, 2010
	9.0			· ·

Revolon Slough and Beardsley Wash Trash TMDL	Compliance Date
LAs are zero trash. Dischargers may achieve compliance with the LAs by implementing a minimum frequency of assessment and collection/best management practice (MFAC/BMP) program. By March 6, 2010, agricultural dischargers must demonstrate full compliance and attainment of the zero trash target's requirement that trash is not accumulating in deleterious amounts between the required trash assessment and collection events.	March 6, 2010

Reach	Chloride Conditional LA (mg/L)	April 6, 2010
6	150 (12 month average)	
Ů,	230 (daily maximum)	
£	150 (12 month average)	
5	230 (daily maximum)	
4B	117 (3 month average)	
46	230 (daily maximum)	

Santa Clara River Ni	trogen Compounds TMDL	Compliance Date
Reach	NH3-N + NO <sub>2</sub> -N + NO <sub>3</sub> -N (mg-N/L)	
7	8.5	March 23, 2004
Mint Canyon Reach 1 Wheeler Canyon/Todd Barranca Brown Barranca/Long Canyon Other Santa Clara River Reaches	10	

Malibu Creek W	atershed Nutrients TN	IDL:	Compliance Date
Season	Total Nitrogen (Ibs/day)	Total Phosphorus (lbs/day)	
Summer (April 15 – November 15)	3	0.2	
			March 21, 2003
Season	Nitrogen (nitrate-N +		
Winter (November 16 – April	14) 8		

Ventura River Estuary Trash TMDL	Compliance Date
LAs are zero trash. Dischargers may achieve compliance with the LAs by implementing a minimum frequency of assessment and collection/best management practice (MFAC/BMP) program. By March 6, 2010, agricultural dischargers must demonstrate full compliance and attainment of the zero trash target's requirement that trash is not accumulating in deleterious amounts between the required trash assessment and collection events.	March 6, 2010

Compliance Date October 7, 2010	The Santa Clara River Estuary Toxaphene TMDL				
	Toxaphene Allocation for Concentration in Suspended Sediment	Toxaphene Fish Tissue Target		Reach	
	0.1 (µg/kg)	6.1 (µg/kg)	S. W. STOLEY AND STANDARD STAN	Santa Clara River Estuary	
•	0.1 (µg/kg)  Intrations in fish tissue  Its will be achieved	toxaphene concei		Estuary  n ten years of the co	shall b

Ordered by: Samuel Unger, PE Executive Officer

Mov. 19, 2016 Date