CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

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TENTATIVE ORDER NO. R9-2016-0005

GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM COMMERCIAL AGRICULTURAL OPERATIONS FOR DISCHARGERS NOT PARTICIPATING IN A THIRD-PARTY GROUP IN THE SAN DIEGO REGION

Discharges from commercial agricultural operations, including irrigation runoff, other non-storm water runoff, and storm water runoff to waters of the State in the San Diego Region are subject to waste discharge requirements (WDRs), as set forth in this General Order.

Tables 1 and 2 below provide summary information regarding the applicability of this General Order:

Table 1. General Information

Discharger	Any owner or operator of an Agricultural Operation that discharges, or threatens to discharge, wastes associated with agricultural activities into waters of the State in the San Diego Region.
Agricultural Operation	Any agricultural business or trade activity, including farms, nurseries, and orchards, that produces crops with the intent to make a profit.
Eligibility for Coverage	Dischargers that are not members of a Third Party Group.
Waters of the State	Any surface water or groundwater, including saline waters, within the boundaries of the state.

Table 2. Discharge Location and Receiving Waters

Discharge Points	Locations throughout San Diego Region
Discharge Description	Agricultural Operation Waste Discharges
Receiving Waters	Inland Surface Waters, Enclosed Bays and Estuaries, Ocean Waters, and Groundwaters of the San Diego Region

Table 3. Administrative Information

This General Order was adopted by the California Regional Water Quality Control Board, San Diego Region on:	To Be Determined
This General Order became effective on:	To Be Determined

I, David W. Gibson, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, San Diego Region, on To Be Determined.

TENTATIVE
David W. Gibson, Executive Officer

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I. FINDINGS

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) finds:

Scope and Coverage of this General Order

A. This General Order serves as general WDRs for waste discharges from Agricultural Operations that are not covered by WDRs for Members of Third-Party Groups,[1] or other applicable WDRs. Agricultural discharges, including both irrigation water runoff and storm water running off of agricultural fields into surface waters or percolating to groundwater may carry waste constituents including but not limited to sediments, pesticides, nutrients and pathogens that can affect the quality of waters of the State.

B. Owners and operators of an Agricultural Operation who enroll under this General Order are subject to its terms and conditions in their individual capacity. Either the owner or the operator may request enrollment under this this General Order on behalf of all Dischargers for the Agricultural Operation.

C. The San Diego Water Board also intends for this General Order to apply to all Dischargers who 1) fail to obtain WDRs coverage for Agricultural Operation waste discharges or 2) fail to enroll under and comply with applicable WDRs as members of a third-party group. Therefore, the San Diego Water Board may enroll a Discharger under this General Order following a San Diego Water Board hearing on the matter even though no application for coverage has been submitted by the Discharger.

D. This General Order is applicable to discharges from Agricultural Operations within the San Diego Region. The San Diego Region jurisdictional area forms the southwest corner of California and occupies approximately 3,900 square miles of surface area. The western boundary of the San Diego Region consists of the Pacific Ocean coastline which extends approximately 85 miles north from the U.S. and Mexico international border. The northern boundary of the San Diego Region is formed by the hydrologic divide starting near Laguna Beach and extending inland through El Toro and easterly along the ridge of the Elsinore Mountains into the Cleveland National Forest. The eastern boundary of the San Diego Region is formed by the Laguna Mountains and other lesser known mountains located in the Cleveland National Forest. The southern boundary of the San Diego Region is formed by the U.S. and Mexico international border.

E. This General Order does not apply to discharges of waste that are regulated under other WDRs or conditional waiver of WDRs (Waivers). If the other WDRs or Waivers only regulate some of the waste discharge activities at the Agricultural Operation, the owner or operator shall obtain regulatory coverage for any discharges of waste that are not regulated by the other WDRs or Waivers. Such regulatory coverage may be sought through enrollment under this General Order, other applicable WDRs as a member of a third-party group, or by obtaining appropriate changes in the owner or operator's existing WDRs or Waivers.

Discharges Covered Under this General Order

F. This General Order regulates discharges from Agricultural Operations within the San Diego Region that could affect waters of the State. For the purposes of this General Order, an Agricultural Operation is any agricultural business or trade activity, including farms, nurseries,

[1] General Order No. R9-2016-0004 issued by the San Diego Water Board on DATE, establishes waste discharge requirements for discharges from commercial Agricultural Operations for Dischargers that are Members of a Third-Party Group.

and orchards, that produces crops with the intent to make a profit. The San Diego Water Board presumes an intent to make a profit if at least one of the following criteria is met:

1. The owner or operator files a federal Department of Treasury Internal Revenue Service Form 1040 Schedule F *Profit or Loss from Farming* with their federal taxes.
2. The owner or operator receives agriculture water use rates or has been given an agricultural water use variance from their water purveyor.
3. The owner or operator holds a current Operator Identification Number/Permit Number from a local County Agricultural Commissioner for pesticide use reporting.

Discharges Not Covered Under this General Order

G. This General Order does not provide coverage for any of the following:

1. Discharges from Agricultural Operations that are adequately covered under other applicable WDRs.
2. Discharges from agricultural activities that do not meet the definition of an Agricultural Operation provided in Attachment C (Abbreviations and Definitions) and Table 1 of this General Order.
3. Discharges from medicinal cannabis operations.[2]
4. Discharges from agricultural activities not engaged in for profit, such as hobby farming or gardening.[3]
5. Discharges from Agricultural Operations into areas designated by the State Water Resources Control Board (State Water Board) as Areas of Special Biological Significance (ASBS).
6. Discharges from Agricultural Operations that are comingled with other non-agricultural wastes (e.g. industrial wastes, sewage).
7. Discharges from confined animal operations, including but not limited to animal feeding operations, or facilities where animals are corralled, penned, tethered, or otherwise enclosed or held.
8. Discharges from Agricultural Operations that are subject to National Pollution Discharge Elimination System (NPDES) permit requirements, as provided in Clean Water Act (CWA) section 402 and regulations and guidelines adopted thereunder.
9. Discharges of dredge and fill material from Agricultural Operations to waters of the State subject to regulation under CWA sections 401 and 404 and the California Water Code (Water Code).
10. Discharges from Agricultural Operations to a federally-owned, publicly-owned, or privately-owned treatment works regulated under WDRs or an NPDES permit, where

[2] The Medical Marijuana Regulation and Safety Act (MMRSA) created a regulatory framework for licensing the cultivation and sale of medical marijuana. MMRSA added section 13276 to the Water Code which requires Regional Water Boards to adopt WDRs or a Waiver to address environmental impacts associated with cannabis cultivation. The San Diego Water Board will address discharges associated with cannabis cultivation in a separate order.

[3] Section 183(c) of the Internal Revenue Code defines an “activity not engaged in for profit” as any activity other than one for which deductions are allowable under section 162 (trade or business expenses) or section 212(1) or (2) (expenses for production of income) of the Internal Revenue Code.

such discharges are authorized by the entity that has jurisdiction over discharges to such treatment works.

11. Discharges from Agricultural Operations where all growing operations are conducted within buildings or in completely enclosed areas with no potential to discharge waste to waters of the State.

Reasons for Issuance of this General Order

H. There are more than 6,000 agricultural operations on approximately 70,000 acres of land in the San Diego Region. The production of crops on these lands requires disturbance to the soil and the use of various agricultural chemicals which can generate discharges of waste such as nutrients, pesticides, herbicides, fumigants, pathogens, and sediment. If not properly managed, these discharges can degrade water quality, cause or contribute to pollution and nuisance conditions, and adversely affect beneficial uses in waters of the State. The prohibitions and requirements of this General Order are intended to ensure that the discharge of wastes from Agricultural Operations are properly managed to protect, maintain, and improve water quality and prevent impairment of beneficial uses in waters of the State within the San Diego Region.

I. Nitrogen is an essential plant nutrient required to ensure robust crop growth. Management practices at agricultural operations vary with regard to nitrogen application based on the type of crop grown, soil type, irrigation method and other variables. Nitrogen fertilizer use if not properly managed can lead to nitrate levels in groundwater that exceed the water quality objective, including the safe drinking water standard. A study conducted by the State Water Board Groundwater Ambient Monitoring and Assessment Program (GAMA)[4] in 2008 to 2009 involved the collection of groundwater samples from 137 domestic wells within San Diego County. The study concluded that 18% of the samples were reported to exceed the maximum contaminant level (MCL) of 45 milligrams per liter (mg/L). In general, these wells were located in alluvial basins where agricultural activities, confined animal feeding operations, and on-site wastewater treatment systems are currently or were historically located.

J. In September 2013, an Agricultural Expert Panel was convened by the State Water Board to consider a variety of questions, including ones specific to the development of an agricultural nitrate control program. The Agricultural Expert Panel issued a final report of recommendations on September 9, 2014[5] concluding, in part, that because deep percolation of nitrates was universal within irrigated agriculture, a good regulatory program must encompass all irrigated areas, not only lands directly above high nitrate aquifers, those previously identified to be in a high vulnerability area, or those with a certain farm or field size. The San Diego Water Board agrees that groundwater in alluvial basins can be vulnerable to agricultural nitrate impacts, regardless of the time it takes for those impacts to appear in groundwater due to soil conditions, geologic conditions, and depth to groundwater. The San Diego Water Board also agrees that regulatory coverage for all agricultural lands is appropriate. However, the San Diego Water Board is not requiring compulsory nutrient management plans or reporting of crop-specific A/R ratios[6] due to the reduced risk of nitrate percolation to groundwater presented by the unique soil conditions, geologic conditions, and

[4] *Domestic Well Project Groundwater Quality Data Report, San Diego County Focus Area.*

[5] Conclusions of the Agricultural Expert Panel, Recommendations to the State Water Resources Control Board pertaining to the Irrigated Lands Regulatory Program (September. 9, 2014), available at <http://www.swrcb.ca.gov/water_issues/programs/agriculture/docs/ILRP_expert_panel_final_report.pdf> (as of April 26, 2016) (Agricultural Expert Panel Report).

[6] The A/R ratio refers to the multi-year ratio of nitrogen applied to the field to nitrogen removed from the field.

crops grown in the San Diego Region as discussed in section I.D.2.d of the Fact Sheet (Attachment B).

K. Discharges from Agricultural Operations within the San Diego Region have adversely affected water quality, as documented by listings on the CWA section 303(d) List of Water Quality Limited Segments (303(d) List). The 2008 303(d) List identifies 12 water quality limited segments comprised of approximately 80 linear miles and 1,132 acres of surface waters within the San Diego Region where water quality standards were not attained and where agricultural activities were identified as a potential source of the impairment.

L. Past surface water monitoring conducted in accordance with the 2007 *Conditional Waiver of Waste Discharge Requirements for Discharges from Agricultural and Nursery Operations* (Agricultural Waiver) within the Santa Margarita River and San Luis Rey River watersheds in areas influenced by agricultural activities also documented water quality standards exceedances. Most samples exceeded water quality objectives for total dissolved solids, total nitrogen, and total phosphorus, constituents typically associated with agricultural activities. Likewise, regional biological monitoring has documented water quality impacts to the biological integrity of watersheds in the San Diego Region which are influenced by agriculture. The Southern California Index of Biological Integrity Scores – a multi-metric index based on the relative abundance of tolerant and sensitive benthic macroinvertebrates – for the bioassessment ranged from 5.7 (very poor condition) to 61 (good condition). The bioassessment data showed that 50% of streams were in poor or very poor condition, 0% in fair condition, and 50% in good or very good condition.

M. Total Maximum Daily Loads (TMDLs) are required to be established for surface waters placed on the 303(d) List for failure to attain applicable water quality standards. This General Order incorporates all applicable requirements for agricultural operations identified in the following approved TMDLs:

1. Resolution No. R9-2005-0036, *A Resolution Amending the Water Quality Control Plan for the San Diego Basin (9) to incorporate Total Maximum Daily Loads for Total Nitrogen and Total Phosphorus in Rainbow Creek Watershed, San Diego County* (Rainbow Creek TMDL).
2. Resolution No. R9-2010-0001, *A Resolution Amending the Water Quality Control Plan for the San Diego Basin (9) to incorporate Revised Total Maximum Daily Loads for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region (including Tecolote Creek)* (Bacteria TMDL).

Attachment E (Impaired Waterbodies and Applicable Total Maximum Daily Loads (TMDLs) of this General Order provides additional information regarding these TMDLs. This General Order may be considered for use as a non-TMDL solution to address other 303(d) listed waterbody impairments where agricultural activities are identified as the source of the pollutant(s) causing the impairment(s).

Legal and Regulatory Considerations

N. The San Diego Water Board regulates waste discharges that could affect the quality of the waters of the State, which includes both surface water and groundwater, pursuant to the Porter-Cologne Water Quality Control Act (division 7 of the Water Code commencing with section 13000).

O. This General Order adopts WDRs for discharges from Agricultural Operations. The Discharger is required to implement management practices, identified in a Water Quality Protection Plan (WQPP), that prevent or reduce waste discharges that cause or contribute to exceedances of applicable water quality objectives and criteria, unreasonably affect beneficial

uses, or cause or contribute to a condition of pollution or nuisance in waters of the State. The Discharger must attend water quality training, prepare monitoring plans, conduct monitoring, perform inspections to evaluate management practice effectiveness, and report annually on monitoring and inspection results. If monitoring results identify exceedances of water quality standards, the Discharger must develop a Water Quality Restoration Plan (WQRP) to assess the effectiveness of implemented management practices and, when necessary, identify, implement, or upgrade management practices to meet water quality standards. This General Order also requires Dischargers in certain watersheds to implement TMDLs applicable to Agricultural Operations.

P. The issuance of this General Order is consistent with Water Code section 13263, which requires the San Diego Water Board to prescribe WDRs for proposed, existing, or material changes in discharges of waste that could affect water quality. Water Code section 13263 also allows the San Diego Water Board to issue WDRs although no report of waste discharge has been filed, and to issue general WDRs for a category of discharge, if appropriate.

Q. Water Code section 13263, subdivision (i) states that a Regional Water Board may prescribe general WDRs for a category of discharges if the Regional Water Board finds or determines that all of the following criteria apply to the discharges in that category:

1. The discharges are produced by the same or similar operations.
2. The discharges involve the same or similar types of waste.
3. The discharges require the same or similar treatment standards.
4. The discharges are more appropriately regulated under general WDRs than individual WDRs.

Discharges from Agricultural Operations that are regulated under this General Order are consistent with the criteria listed above as described in section I.F of the Fact Sheet (Attachment B).

R. Water Code section 13267, subdivision (a), authorizes the San Diego Water Board to investigate the quality of any waters of the State within its region in connection with any action relating to the Basin Plan. Water Code section 13267, subdivision (b) provides that the San Diego Water Board, in conducting an investigation, may require Dischargers to furnish, under penalty of perjury, technical or monitoring program reports. The burden, including costs, of these reports must bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. The requirements and prohibitions of this General Order implement the requirements of Water Code section 13276(b) for the reasons set forth below:

1. The technical and monitoring reports required by this General Order are necessary to ensure that the prior harm and future threat to water quality discharges associated with Agricultural Operations are properly assessed, abated, and controlled. This General Order requires the implementation of a monitoring and reporting program (MRP; Attachment A) that is intended to determine the effects of the waste discharges on water quality, to verify the adequacy and effectiveness of this General Order's conditions, and to evaluate the Discharger's compliance with the terms and conditions of this General Order. A Discharger who is covered under this General Order must comply with the MRP (Attachment A), and future revisions thereto.
2. The burden of preparing and submitting the technical and monitoring reports to the San Diego Water Board is reasonable. The reports are necessary to evaluate the Discharger's compliance with the terms and conditions of this General Order and to assure protection of waters of the State. The costs of monitoring and reporting were

evaluated prior to adoption of this General Order and are included in section I.G.7 of the Fact Sheet (Attachment B).

S. The San Diego Water Board's *Water Quality Control Plan for the San Diego Basin* (Basin Plan) designates beneficial uses, establishes water quality objectives, contains programs of implementation needed to achieve water quality standards, and references the plans and policies adopted by the State Water Board. The water quality objectives are developed to protect the beneficial uses of waters of the State. Beneficial uses designated for groundwater and surface water in the Basin Plan which may be affected by discharges from Agricultural Operations are presented in Table 4.

Table 4. Beneficial Uses of Surface Waters and Groundwaters

Beneficial Use	Abbreviation
Surface Waters	
Agricultural Supply	AGR
Cold Freshwater Habitat	COLD
Commercial and Sport Fishing	COMM
Contact Water Recreation	REC-1
Estuarine Habitat	EST
Freshwater Replenishment	FRSH
Groundwater Recharge	GWR
Industrial Process Supply	PROC
Industrial Service Supply	IND
Municipal and Domestic Supply	MUN
Noncontact Recreation	REC-2
Preservation of Biological Habitats of Special Significance	BIOL
Rare, Threatened, or Endangered Species	RARE
Spawning, Reproduction, and/or Early Development	SPWN
Warm Freshwater Habitat	WARM
Wildlife Habitat	WILD
Groundwaters	
Municipal and Domestic Supply	MUN
Agricultural Supply	AGR
Industrial Service Supply	IND
Industrial Process Supply	PROC
Freshwater Replenishment	FRSH

T. This General Order implements the Basin Plan and other State Water Board water quality control plans and policies by requiring the implementation of management practices to achieve compliance with applicable water quality standards and the prevention of nuisance and pollution conditions. This General Order requires implementation of a MRP (Attachment A) to determine the effects of discharges on water quality and the effectiveness of management practices designed to comply with applicable water quality objectives.

U. The U.S. Environmental Protection Agency (USEPA) adopted the *National Toxics Rule* (NTR) on February 5, 1993, and the *California Toxics Rule* (CTR) on May 18, 2000, which was modified on February 13, 2001. The NTR and CTR contain water quality criteria which, when

combined with beneficial use designations in the Basin Plan, constitute enforceable water quality standards for priority toxic pollutants in California surface waters.

V. The State Water Board adopted the *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program* (Nonpoint Source Policy) in May 2004. The purpose of the Nonpoint Source Policy is to improve the Water Board's ability to effectively manage nonpoint source pollution and conform to the requirements of the federal CWA and the Federal Coastal Zone Act Reauthorization Amendments of 1990. The Nonpoint Source Policy requires that, among other key elements, a nonpoint source control implementation program's ultimate purpose to be explicitly stated. It also requires implementation programs to, at a minimum, address nonpoint source pollution in a manner that achieves and maintains water quality objectives and beneficial uses, including any applicable antidegradation requirements. Consistent with the Nonpoint Source Policy, implementation of management practices may be used to measure nonpoint source control progress. However, implementation of management practices is not a substitute for meeting water quality objectives.

W. This General Order constitutes a Nonpoint Source Implementation Program for the discharges regulated by this General Order. The Fact Sheet (Attachment B) describes the five key elements required by the Nonpoint Source Policy and provides an explanation of how the requirements of this General Order meet the requirements of the Nonpoint Source Policy.

X. Adoption of WDRs is the project for the purposes of the California Environmental Quality Act (CEQA; Public Resources Code section 21000 *et seq*). The San Diego Water Board is the Lead Agency for the development and adoption of this General Order. As the Lead Agency, the San Diego Water Board conducted an Initial Study in accordance with the CEQA Guidelines (California Code of Regulations (CCR) title 14, section 15063 *et seq*). Based on the Initial Study, the San Diego Water Board prepared a Negative Declaration. The San Diego Water Board provided notice of its intent to adopt a Negative Declaration for this General Order on DATE. (14 CCR section 15072). The Negative Declaration/Initial Study was considered concurrently with this General Order in Resolution No. R9-2016-0136. The Negative Declaration is appropriate because the San Diego Water Board has determined, in light of the whole record, that there is no substantial evidence that adoption of this General Order may cause a significant effect on the environment.

Y. The San Diego Water Board has considered Water Code section 106.3, which states that that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This General Order requires Dischargers to implement management practices to meet water quality standards intended to protect water for municipal and domestic uses.

Z. State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (Antidegradation Policy) requires that high quality of waters be maintained unless degradation is consistent with the maximum benefit of people of the State; the degradation will not unreasonably affect present and anticipated beneficial uses; and the degradation will not result in violation of any applicable water quality control plan. This General Order is consistent with the Antidegradation Policy as described in section I.G.7 of the Fact Sheet (Attachment B).

AA. Pursuant to Water Code section 13263(a), the San Diego Water Board has considered the following factors found in section 13241 in establishing this General Order:

1. Past, present, and probable future beneficial uses of water.

2. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
3. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.
4. Economic considerations.
5. The need for developing housing within the Region.
6. The need to develop and use recycled water within the Region.

The San Diego Water Board's consideration of these factors is described in section I.G.7 of the Fact Sheet (Attachment B).

BB. The Findings of this General Order, supplemental information and details in the Fact Sheet (Attachment B), and the administrative record of the San Diego Water Board relevant to the Irrigated Lands Regulatory Program (ILRP), were considered in establishing these WDRs. The Fact Sheet (Attachment B), which contains background information and rationale for the requirements in this General Order, is hereby incorporated into and constitutes Findings for this General Order. Attachment A and Attachments C through J are also incorporated into this General Order.

CC. The San Diego Water Board has notified interested agencies and persons of its intent to adopt this General Order for discharges of waste from Agricultural Operations within the San Diego Region, and has provided them with an opportunity for a public hearing and an opportunity to submit comments.

DD. The San Diego Water Board, in a public meeting, heard and considered all comments pertaining to this General Order.

EE. Any person aggrieved by this action of the San Diego Water Board may petition the State Water Board to review this action in accordance with Water Code section 13320 and CCR title 23, sections 2050-2056. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of adoption of this General Order. If the thirtieth day after the adoption of this General Order falls on a Saturday, Sunday, or a State holiday, the petition may be submitted on the following business day. Copies of the law and regulations applicable to filing petitions may be found at http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to Water Code sections 13260, 13263, and 13267 and in order to meet the provisions contained in division 7 of the Water Code and regulations and policies adopted thereunder, Dischargers shall comply with the following:

II. APPLICATION FOR COVERAGE UNDER THIS GENERAL ORDER

A. Duty to Apply

New and existing Agricultural Operations without coverage under the General WDRS for Members of a Third Party Group or individual WDRs are required to enroll under this General Order. Either the owner or operator of an Agricultural Operation may enroll under this General Order by submitting a complete Notice of Intent (NOI) (Attachment G) to the San Diego Water Board. Regulatory coverage under this General Order is not effective until the San Diego Water Board approves the NOI as described in section II.D of this General Order.

B. Time to Apply

A Discharger shall request coverage under this General Order according to the following timeframes:

1. Existing Dischargers[7] without active coverage in other applicable general or individual WDRs shall submit a completed NOI (Attachment G) to enroll under this General Order no later than 180 days following the effective date of this General Order.
2. Existing Dischargers with active coverage in other applicable general or individual WDRs may submit a completed NOI (Attachment G) to transfer enrollment to this General Order at any time in accordance with section II.F of this General Order.
3. New Dischargers[8] shall submit a complete NOI to enroll under this General Order at least 90 days before the discharge is to commence, unless permission for a later date has been granted by the San Diego Water Board.

C. Notice of Intent (NOI)

To obtain coverage under this General Order, a Discharger shall submit a completed NOI to the San Diego Water Board in accordance with the schedule provided in section II.B of this General Order. The NOI and any attachments may be submitted electronically if such method of submittal is approved by the San Diego Water Board in the future.[9] The NOI shall include all of the following items to be deemed complete:

1. A complete NOI (Attachment G). The NOI shall be signed and certified in accordance with the Signatory and Certification Requirements contained in section VII.E of this General Order.
2. A complete Water Quality Protection Plan (WQPP) in accordance with section VI.C of this General Order.
3. Certification that the Discharger has provided notice to any unenrolled owner(s) or operator(s) of the Agricultural Operation and the landowner of their intent to obtain coverage under this General Order.

D. Notice of Applicability (NOA)

1. The NOI and WQPP are subject to San Diego Water Board approval. The San Diego Water Board will issue an NOA to the Discharger once the NOI application is deemed complete and eligible for coverage under this General Order. Regulatory coverage for the Agricultural Operation discharge, as described in the NOI application, commences with the date of issuance of the NOA. Coverage will not become effective until the San Diego Water Board issues an NOA to the Discharger. Upon receipt of an NOA, the Discharger shall comply with the terms and conditions of this General Order.

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[7] An Existing Discharger is any owner or operator who discharges, or proposes to discharge, waste from an Agriculture Operation that was in existence on the adoption date of this General Order.

[8] A New Discharger is any owner or operator who proposes a new discharge of waste from an Agricultural Operation that was not existence on the adoption date of this General Order.

[9] If documents described in section II.C of this General Order, Notice of Intent (NOI), are submitted electronically by or on behalf of the Discharger, any person providing the documents shall ensure that all of the relevant requirements of the San Diego Water Board are met for that submission.

2. The San Diego Water Board reserves the authority to modify, revoke and reissue the NOA, and request an updated NOI based on new information or changed circumstances. New information and changed circumstances includes but is not limited to the following:
   a. Failure to fully disclose all relevant facts.
   b. Receipt of a request for modification of the NOA by the Discharger.
   c. Material and substantial alterations or additions to the Agricultural Operation.

E. Notice of Exclusion (NOEX)

An NOEX is a notice that indicates that the discharge is not eligible for coverage under this General Order. The San Diego Water Board may issue an NOEX for one or more of the following reasons:

1. The proposed discharge is not covered within the scope of this General Order.
2. The NOI is deemed incomplete.
3. The San Diego Water Board has determined that the Discharger must submit an application for coverage under individual WDRs or other applicable WDRs.

F. Enrollment Modification

There may be no gaps in coverage. A Discharger must submit an amended NOI at least 90 days prior to enrolling under other individual WDRs or other applicable WDRs.

G. Notice of Termination (NOT)

To terminate coverage under this General Order, a Discharger shall submit a completed NOT (Attachment H) to the San Diego Water Board. The NOT shall provide notice that the Discharger meets one or more of the following conditions, and shall be signed and certified by the Discharger in accordance with the Signatory and Certification Requirements contained in section VII.E of this General Order:

1. A new owner or operator has taken over responsibility for the Agricultural Operation, and transfer of coverage under this General Order is not requested.
2. The Discharger no longer owns or operates an Agricultural Operation that meets the enrollment criteria specified in section I.F of this General Order.
3. The Discharger has applied for and obtained coverage under other individual WDRs or other applicable WDRs for the Agricultural Operation.

The Discharger shall continue to comply with the requirements of this General Order until the San Diego Water Board notifies the Discharger in writing that the NOT has been accepted.

The Discharger's coverage under this General Order will terminate on the date specified in the NOT acceptance letter issued by the San Diego Water Board. San Diego Water Board acceptance of the NOT does not relieve the Discharger's responsibility for paying any outstanding annual fees, submitting any outstanding reports as specified in this General Order, or responding to enforcement actions pertaining to this General Order. The San Diego Water Board reserves the right to take any enforcement action for any violations of this General Order. Upon receipt of the San Diego Water Board's NOT acceptance letter, the Discharger will no longer be authorized to discharge under this General Order.

H. Termination of Coverage by the San Diego Water Board

Enrollment under this General Order may be terminated by the San Diego Water Board for cause including, but not limited to the following:

1. Violating any terms or conditions of this General Order.
2. Obtaining enrollment under this General Order by misrepresentation or failure to disclose all relevant facts.
3. The San Diego Water Board determining that individual WDRs would be more appropriate for the Agricultural Operation.

I. Transfer of Enrollment

Enrollment under this General Order is transferable with approval by the San Diego Water Board. Dischargers seeking to transfer enrollment under this General Order shall submit an amended NOI (Attachment G) indicating the change of information to the San Diego Water Board. The transfer request must also include a statement and signature that the new owner or operator assumes full responsibility for compliance with this General Order, including implementation of any WQPP and any WQRP prepared by the preceding owner or operator. The transfer of enrollment is not complete until the San Diego Water Board issues an amended NOA to the new Discharger.

J. Fees

Discharger enrollment under this General Order is conditioned upon total payment of any fee required under CCR title 23, division 3, chapter 9 (commencing with section 2200) and owed by the Discharger. The Discharger shall pay an annual fee to the State Water Board in compliance with the Agricultural and Irrigated Land Fee Schedule set forth at 23 CCR section 2200.6. The fee regulations can be accessed online at http://www.waterboards.ca.gov/resources/fees/docs/fy13_14_fee_schedule_ilrp.pdf:

III. PROHIBITIONS

A. The Discharger shall comply with the Discharge Prohibitions contained in chapter 4 of the Basin Plan and any other applicable statewide water quality control plan. All such prohibitions are incorporated in this General Order as if fully set forth herein and summarized in Attachment F as a condition of this General Order.

B. The discharge of waste at a location or in manner different from that described in the NOI is prohibited.

C. The discharge of wastes from any Agricultural Operation to waters of the State within the San Diego Region is prohibited, unless the Agricultural Operation is covered under this General Order, or other applicable general or individual WDRs.

D. The discharge of a hazardous waste as defined in CCR title 22, section 66261.3 is prohibited.

E. The discharge or deposition of oil, trash, rubbish, refuse, or other solid waste directly into surface waters, or in any manner which may permit it to be washed or transported into the surface waters is prohibited.

F. The discharge of residual pesticides, algaecides, herbicides and/or fumigants in a manner not described in this General Order and inconsistent with other permits for these discharges is prohibited.

G. The discharge of wastes (e.g., fertilizers, fumigants, pesticides) into groundwater via backflow through a water supply well is prohibited.

H. The discharge of any waste (e.g., fertilizers, fumigants, pesticides) down a groundwater well casing is prohibited.

IV. DISCHARGE SPECIFICATIONS

A. General Discharge Specifications

1. The waste discharge shall not cause or contribute to surface erosion or scouring of aquatic substrates.
2. The waste discharge shall not contain material or substances that cause or contribute to the occurrence or potential presence of pathogenic organisms or viruses, as identified by indicator bacteria levels, in surface waters or groundwater.
3. The waste discharge shall not contain materials or substances in amounts that cause or contribute to the occurrence of objectionable tastes or odors in surface waters or groundwater.
4. The waste discharge shall not contain material or substances in amounts that cause or contribute to foaming in surface waters or groundwater.
5. The waste discharge shall not contain material or substances in amounts that will accumulate to toxic levels in in surface waters, sediments, biota, or groundwater.
6. The waste discharge shall not contain material or substances in amounts that cause the pH to fall below 6.0 or rise above 9.0 in surface waters or groundwater.
7. The waste discharge shall not contain material or substances in amounts that result in vectors or other nuisances in surface waters or groundwater.
8. The waste discharge shall not contain material or substances in amounts that result in aesthetically undesirable discoloration of surface waters or groundwater.
9. The waste discharge shall not contain settleable material or substances in amounts that may form sediments which will degrade benthic communities or other aquatic life in surface waters.
10. The waste discharge shall not contain material or substances in amounts that significantly degrade the natural light to benthic communities and other aquatic life in surface waters.

B. Waste Discharge Control Requirements

To minimize or prevent the discharge of waste to waters of the State, the Discharger shall:

1. Not apply fertilizers, pesticides, herbicides, algaecides, or fumigants within three days prior to a predicted rain event.
2. Not use soil amendments containing any of the following:
   a. Municipal solid waste.
   b. Septage, liquid waste, oil, or grease.
   c. Hazardous waste, designated waste, or any other waste determined by the San Diego Water Board to pose a potential threat to water quality.
3. Maintain a minimum 100 foot buffer zone between compost piles and all surface waterbodies.
4. Conduct all composting activities on a working surface that prevents ponding of water, infiltration of water and leachate to the underlying soil, and erosion.
5. Manage compost piles to prevent water oversaturation and leachate generation.

6. Implement proper handling, storage, disposal and management of pesticides, fertilizer, and other chemicals. All pesticides, herbicides and fertilizers shall be applied in accordance with the manufacturer's label.
7. Implement management practices to prevent erosion, reduce storm water runoff quantity and velocity, and hold soil particles in place.
8. Implement and comply with management practices as described in the WQPP and any applicable WQRP.[10] The Discharger must (1) implement management practices that prevent or reduce discharges of waste that are causing or contributing to exceedances of water quality standards; and (2) when effectiveness evaluation or reporting, monitoring data, or inspections indicate that the implemented management practices have not been effective in preventing the discharges from causing or contributing to exceedances of water quality standards, the Discharger must implement improved management practices.
9. Properly operate and maintain in good working order any facility, unit, system, or monitoring device installed to achieve compliance with this General Order.
10. Comply with any TMDL-based requirements set forth in Attachment E (Impaired Water Bodies and Applicable TMDLs) of this General Order.

V. RECEIVING WATER LIMITATIONS

The discharge of waste shall not cause or contribute to exceedances of any water quality standard, federal pollutant criteria, or other applicable water quality standard in any surface water or groundwater; unreasonably affect any beneficial use; or cause or contribute a condition of pollution or nuisance. Applicable water quality standards include those contained in the following water quality control plans and policies and federal regulations:

A. The Basin Plan.

B. The *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan).

C. The *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries* (Thermal Plan).

D. The *Water Quality Control Policy for the Enclosed Bays and Estuaries of California* (Bays and Estuaries Policy).

E. The *Water Quality Control Plan for Enclosed Bays and Estuaries Plan, Part 1: Sediment Quality*.

F. The *Policy for Implementation of Toxics Standards for Inland Surface Waters, and Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP).

G. The National Toxics Rule (NTR)[11].

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[10] Pursuant to Water Code section 13260, this General Order does not specify the design, location, type of construction, or particular manner of management practice compliance and Dischargers can use any appropriate management practice to comply with the requirements of this General Order. In determining appropriate management practices, Dischargers are encouraged to consult the State Water Board's Non-Point Source Management Measures Encyclopedia at: http://www.waterboards.ca.gov/water_issues/programs/nps/edu_outreach.shtml and the University of California Cooperative Extension listing of available management practices at http://ucanr.edu/sites/agwaterquality/Grower_Resources/.

[11] Title 40 of the Code of Federal Regulations (40 CFR) section 136.

H. The California Toxics Rule (CTR)[12,13].

VI. REQUIREMENTS

A. General

1. Dischargers shall comply with the attached MRP (Attachment A) and future revisions as specified by the San Diego Water Board.
2. Dischargers shall comply with all applicable federal, State, and local laws and regulations for handling, transport, treatment, or disposal of waste or the discharge of waste to waters of the State.
3. Dischargers shall comply with all applicable provisions of the Water Code, the Basin Plan, and other State Water Board water quality control plans and policies.
4. Dischargers shall maintain a copy of this General Order and copies of all reports required by this General Order, either in hard copy or electronic format, at the primary place of business, or the Discharger's headquarters for its Agricultural Operation, unless otherwise stated in this General Order.

B. Education

1. By December 31 of each year, Dischargers shall complete at least four hours of appropriate water quality training to maintain compliance with this General Order. Training should focus on the actions necessary to attain compliance with water quality standards in receiving waters by identifying water quality problems and implementing pollution prevention strategies and practices designed to protect water quality and resolve water quality problems, and to achieve compliance with this General Order. Water quality training options include formal classroom training, individual meetings with a qualified trainer, and/or internet-based training with the local Farm Bureau, University of California Cooperative Extension (UCCE), Natural Resources Conservation Service (NRCS), Resource Conservation Districts (RCDs), or another comparable organization.
2. Dischargers shall maintain regular contact with the local Farm Bureau, UCCE, NRCS, and/or regional RCDs to be informed on any known water quality problems and the management practices that are available to address those problems.

C. Water Quality Protection Plan (WQPP)

1. Dischargers shall prepare a complete WQPP to identify the type and location of management practices[14] employed at their Agricultural Operation to minimize or prevent the discharge of waste to waters of the State either directly or indirectly through irrigation water runoff and infiltration, non-storm water runoff, and storm water runoff.
2. A copy of the WQPP shall be submitted with the NOI.
3. Dischargers shall commence implementation of the WQPP upon receipt of an NOA from the San Diego Water Board
4. Dischargers shall periodically evaluate the effectiveness of the management practices in the WQPP and make modifications to the WQPP as necessary.

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[12] 65 Federal Register 31682-31719 (May 18, 2000), adding section 131.38 to 40 CFR.

[13] If a water quality objective and a CTR criterion are in effect for the same priority pollutant, the more stringent of the two applies.

[14] See Footnote 10 *Supra*

5. The WQPP shall be kept current and available on the Agricultural Operation site and made available to the San Diego Water Board upon request.
6. The WQPP shall contain all of the following information to be deemed complete:
    a. Name, mailing address, Assessor's Parcel Number, size (in acres), and type of the Agricultural Operation.
    b. Name, mailing address, phone number, email address, and type (individual, corporation, partnership, governmental agency, other) of the owner of the Agricultural Operation.
    c. Name, mailing address, phone number, and email address of the operator of the Agricultural Operation.
    d. Name, mailing address, phone number, and email address of the landowner.
    e. Name, mailing address, phone number, and email address of the individual who prepared the WQPP.
    f. A brief description of the nature of the Agricultural Operation including the activities conducted by the Discharger which require coverage under this General Order
    g. List of crops grown at the Agricultural Operation and the acres dedicated for each crop grown.
    h. List of agricultural chemicals applied to crops at the Agricultural Operation, including but not limited to fertilizers, organic amendments, pesticides, and fumigants.
    i. The name of the receiving surface waters (if known) to which irrigation runoff, storm water runoff, and non-storm water runoff from the Agricultural Operation is discharged.
    j. A scaled topographic map extending one mile beyond the property boundary of the Agricultural Operation and depicting the following:
        i. Property boundaries, roads, structures, and drainage structures.
        ii. Irrigation wells, domestic water supply wells, springs, and other surface water bodies listed in public records or otherwise known to the Discharger to be in the map area.
        iii. Growing areas.
        iv. Compost and manure management areas including storage and disposal sites.
        v. Chemical storage areas.
        vi. Topographic lines.
        vii. Major pipes or other structures through which through which irrigation runoff, storm water runoff and non-storm water runoff from the Agricultural Operation is discharged to surface waters, if applicable.
        viii. The location and types of management practices employed at the Agricultural Operation.
        ix. The location of proposed surface water and groundwater monitoring stations.

k. A detailed description of each current and proposed management practice, including its purpose, operational status, and a time schedule for construction and implementation, if the management practice is not currently in use. This includes but is not limited to management practices related to irrigation efficiency and management, pesticide management, nutrient management, salinity management, and sediment and erosion control to achieve compliance with this General Order. The time schedule shall reflect the shortest practicable time required to perform each task and shall include a final date for construction and implementation. The schedule may not be longer than that which is reasonably necessary to achieve compliance with the receiving water limitations contained in section V of this General Order.

l. A detailed schedule for operation and maintenance of each current or proposed management practice.

m. A detailed visual monitoring program and schedule for evaluating the effectiveness of each current or proposed management practice.

n. Surface Water and Groundwater Monitoring Program Plan (Monitoring Program Plan), as required in section VI of the MRP (Attachment A).

o. Signatory and Certification Requirements contained in section VII.E of this General Order.

7. Dischargers shall ensure that all management practices identified in the WQPP are properly operated and maintained. Dischargers shall periodically evaluate the effectiveness of the management practices and shall make modifications to the WQPP as necessary when visual monitoring indicates waste discharges have not been adequately addressed in the WQPP.

D. Water Quality Restoration Plan (WQRP)

1. If a monitoring benchmark described in section VII of the MRP (Attachment A) is exceeded, Dischargers must promptly notify the San Diego Water Board and thereafter prepare a WQRP containing the information described in section VI.D.3 below. For the purposes of this General Order, an exceedance occurs when a sampling result for a constituent at a single monitoring location exceeds the applicable Surface Water Quality Benchmarks more than 3 out of 4 times for the same constituent. The San Diego Water Board may also require Dischargers to prepare a WQRP if a trend of water quality degradation is identified that threatens a beneficial use in receiving waters affected by the Discharger's Agricultural Operation.

2. Dischargers shall submit the WQRP to the San Diego Water Board within 90 days of the exceedance or determination of threatened degradation unless permission for a later submittal date has been granted by the San Diego Water Board.

3. The WQRP shall contain the following information:

a. For each constituent that has exceeded a Surface Water Quality Benchmark or indicates a trend of water quality degradation that threatens a beneficial use, the WQRP shall include a graph showing the concentrations over time since 2016 and a trend analysis for the constituent.

b. The WQRP shall include a description of the actual or suspected waste sources that may be causing or contributing to the exceedance or trend of water quality degradation that threatens a beneficial use(s).

c. The WQRP shall identify management practices currently being implemented and additional or improved management practices that will be implemented to prevent or minimize the discharge of any waste that is causing or contributing to the exceedance or trend of water quality degradation. The WQRP shall also include a brief justification for selecting specific management practices.[15]

d. The WQRP shall include a schedule for the implementation and completion of all tasks described in the WQRP. The schedule shall reflect the shortest practicable time required to perform each task, given the type of management practices planned or program being implemented, and the experience of commercial agriculture with the time required to implement similar management practices or programs. The schedule may not be longer than that which is reasonably necessary to achieve the receiving water limitations in section V of this General Order. If the schedule exceeds one year, the schedule must include interim annual milestones that demonstrate progress towards completion of the WQRP tasks and compliance with the applicable receiving water limitations of this General Order.

e. The WQRP shall include monitoring methodology for providing feedback on WQRP progress and its effectiveness in achieving compliance with the applicable receiving water limitations of this General Order.

f. The WQRP shall provide for submittal of progress reports with annual monitoring reports to the San Diego Water Board.

The San Diego Water Board may require Dischargers to modify and resubmit the WQRP to include additional management practices, monitoring, or reporting conditions if the WQRP is not in conformance with the above criteria. Dischargers shall submit any modifications to the WQRP required by the San Diego Water Board within 30 days of written notification from the Board.

4. A WQRP is deemed approved 90 days after submission of the WQRP to the San Diego Water Board, unless the Board provides written notice to Dischargers that a WQRP has not been accepted or is conditionally accepted.

5. Dischargers shall commence implementation of the WQRP 90 days after submission of the WQRP in accordance with the accepted schedule, unless otherwise directed in writing by the San Diego Water Board. Before beginning these activities Dischargers shall:

   a. Notify the San Diego Water Board of the intent to initiate actions included in the WQRP.

   b. Comply with any conditions set by the San Diego Water Board.

6. If Dischargers have complied with the WQRP procedures set forth above and are implementing the actions required, Dischargers will not be required to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitation unless directed by the San Diego Water Board to develop and implement additional management practices.

7. The iterative WQRP implementation process shall continue until such time as compliance with the applicable water quality standard(s) is attained.

[15] See Footnote 10 *Supra*

8. The San Diego Water Board will not require preparation and submittal of a WQRP if Dischargers can demonstrate one of the following conditions to the satisfaction of the San Diego Water Board:
    a. The exceedance is solely caused by discharges not associated with agricultural activity.
    b. The exceedance is solely attributable to pollutants from natural background sources.
    c. The exceedance is solely attributable to another Agricultural Operation(s).
    d. The additional management practices required to achieve water quality standards are not technologically available or are economically impracticable.

E. Quarterly Self-Inspection Report

1. Quarterly during the months of March, June, September, and December, Dischargers shall inspect the Agricultural Operation to assess the operation and maintenance of installed management practices and to correct any deficiencies.
2. Dischargers shall document the inspections by completing the Quarterly Self-Inspection Report (Attachment I).
3. The Quarterly Self-Inspection Report shall be signed and certified in accordance with Signatory and Certification Requirements contained in section VII.E of this General Order.
4. Dischargers shall include all Quarterly Self-Inspection Reports with the Annual Surface Water and Groundwater Monitoring Report described in section VII of the MRP (Attachment A).

F. Annual Self-Assessment Report

1. By April 30 of each year, Dischargers shall conduct a self-assessment of the previous year. The Discharger shall document the self-assessment by completing the Annual Self-Assessment Report (Attachment J).
2. The purpose of the Annual Self-Assessment Report is to evaluate compliance with this General Order, the effectiveness of the WQPP described in section VI.C, and the management practices used to control the discharge of pollutants from the Agriculture Operation.
3. The Annual Self-Assessment Report shall include as attachments copies of the Quarterly Self-Inspection Reports (Attachment I) and evidence that the Discharger completed the annual water quality training.
4. The Annual Self-Assessment Report shall also include a listing of each incident of noncompliance during the annual monitoring period and, for each incident of noncompliance, the cause, the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
5. Dischargers shall include the Annual Self-Assessment Report with the Annual Surface Water and Groundwater Monitoring Report described in section VII of the MRP (Attachment A).

VII. PROVISIONS

A. General Order Compliance Provisions

1. Duty to Comply

   The Discharger shall comply with the terms and conditions of this General Order. Any noncompliance with this General Order constitutes a violation of the Water Code and is grounds for a) enforcement action; b) termination, revocation and reissuance, or modification of the NOA for this General Order; or c) denial of a report of waste discharge in application for new or revised WDRs, or a combination thereof.

2. Need to Halt or Reduce Activity Not a Defense

   It shall not be a defense for the Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Order.

3. Duty to Mitigate

   The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this General Order that has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

4. Proper Operation and Maintenance

   The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this General Order.

5. Effect of this General Order

   This General Order does not convey any property rights of any sort or any exclusive privileges. The issuance of this General Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of federal, State, or local law or regulations.

6. Inspection and Entry

   Under the authority of Water Code section 13267(c), the San Diego Water Board, or an authorized representative, may inspect the premises of Agricultural Operations subject to this General Order. The inspection must be made with the consent of the owner or possessor of the facilities, or if consent is withheld, with a duly issued warrant pursuant to the procedure set forth in title 13 Code of Civil Procedure part 3 (commencing with section 1822.50). However, in the event of an emergency affecting the public health or safety, an inspection may be performed without consent or the issuance of a warrant.

   The Discharger shall allow the San Diego Water Board or the State Water Board and/or their authorized representative(s) (including an authorized contractor acting as their representative) upon the presentation of credentials and other documents, as may be required by law, to:

   a. Enter upon Discharger's premises, where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this General Order.

   b. Access and copy, at reasonable times, any records that shall be kept under the conditions of this General Order.

c. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this General Order.

d. Sample or monitor, at reasonable times, for the purposes of assuring compliance with this General Order or as otherwise authorized by the Water Code, any substances or parameters at any location.

B. Permit Action Provisions

Reopener Provision

This General Order may be modified, revoked and reissued, or terminated for cause including, but not limited to the following:

1. Violation of any terms or conditions of this General Order.
2. Obtaining this General Order by misrepresentation or failure to disclose fully all relevant facts.
3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the Discharger for the modification, revocation, reissuance, or termination of this General Order, or notification of planned changes or anticipated noncompliance does not stay any condition of this General Order.

C. Monitoring Provisions

1. Monitoring

   Monitoring and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. Test Procedures

   Monitoring shall be conducted according to test procedures approved under the title 40 of the Code of Federal Regulations (40 CFR) part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act*, as amended for the analyses of pollutants unless another method is required under 40 CFR subchapters N or O. In the case of pollutants for which there are no approved methods under 40 CFR part 136 or otherwise required under 40 CFR subchapters N or O, monitoring shall be conducted according to a test procedure specified in this General Order for such pollutants.

3. Monitoring Results

   Monitoring results shall be reported at the intervals specified in the MRP (Attachment A) in this General Order.

4. Duty to Provide Monitoring Information

   If the Discharger monitors any pollutant more frequently than required by this General Order using test procedures approved under 40 CFR part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data to the San Diego Water Board.

D. Records Provisions

1. Access to Records

   The Discharger shall allow the San Diego Water Board to access and copy, at reasonable times, any records that are kept under the conditions of this General Order.

2. Retention of Records

   The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this General Order, and records of all data used to complete the NOI application package for this General Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or NOI application package. Records may be maintained electronically. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the San Diego Water Board.

3. Monitoring Records

   Records of monitoring information shall include:

   a. The date, exact place, and time of sampling or measurements.
   b. The individual(s) who performed the sampling or measurements.
   c. The date(s) analyses were performed.
   d. The individual(s) who performed the analyses.
   e. The analytical techniques or methods used.
   f. The results of such analyses.

4. Confidentiality Claims[16]

   Claims of confidentiality for the following information will be denied:

   a. The name and address of any Discharger.
   b. NOIs, NOAs, reports, attachments, and monitoring data.

E. Reporting Provisions

1. Duty to Provide Information

   The Discharger shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating coverage under this General Order. The Discharger shall also furnish to the San Diego Water Board, upon request, copies of records required to be kept by this General Order.

[16] Water Code section 13267, subdivision (b)(2) authorizes the San Diego Water Board to review business information that may constitute trade secrets or secret processes. However, portions of a report that might disclose trade secrets or secret processes may be exempt from public disclosure pursuant to Government Code section 6254, subdivision (k).

2. Signatory Requirements

   a. NOIs must be signed by a Legally Responsible Person. For the purposes of this General Order a Legally Responsible Person is:

      i. Corporations: a responsible corporate officer such as a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function.

      ii. Partnerships and Sole Proprietors: by a general partner or proprietor, respectively.

      iii. Municipalities and Public Agency: by either a principal executive officer or ranking elected official.

   b. Plans and Reports: must be signed by a Legally Responsible Person or by a Duly Authorized Representative. A person is Duly Authorized Representative only if:

      i. The authorization is made in writing by a Legally Responsible Person, as described above.

      ii. The authorization specifies either an individual or position having responsibility for the overall operation of the Agricultural Operation, or an individual having overall responsibility for environmental matters for the Agricultural Operation.

      iii. The written authorization is submitted to the San Diego Water Board.

      If such authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the Agricultural Operation, a new authorization satisfying the above requirements shall be submitted to the San Diego Water Board prior to or together with any reports, information, or applications, to be signed by the Duly Authorized Representative.

3. Certification

   Any person signing a document, plan, or report required by this General Order shall make the following certification:

   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 submitting false information, including the possibility of fine and imprisonment for knowing violations.

4. Reporting

   Dischargers shall submit all reports and information required under this General Order in electronic format via e-mail to SanDiego@waterboards.ca.gov. Documents over 50 megabytes will not be accepted via e-mail and shall be placed on a disc and delivered to:

California Regional Water Quality Control Board, San Diego Region

Attn: Irrigated Lands Regulatory Program

2375 Northside Drive, Suite 100

San Diego, California 92108

Each electronic document shall be submitted as a single file, in Portable Document Format (PDF) format, and converted to text searchable format using Optical Character Recognition (OCR). All electronic documents shall include scanned copies of all signature pages; electronic signatures will not be accepted. Electronic documents submitted to the San Diego Water Board shall include the following identification numbers in the header or subject line: CW-803119.

5. Noncompliance Reports

The Discharger shall report to the San Diego Water Board any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the incident and its cause, the period of the noncompliance including exact dates and times; and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The San Diego Water Board may waive the above-required written report under this provision on a case by case basis if an oral report has been received within 24 hours. The following incidents of noncompliance must be reported within 24 hours under this provision:

a. Any discharge of treated or partially treated sewage wastewater that reaches surface waters of the State.

b. Groundwater monitoring results indicate that water in any well that is used or may be used for drinking water exceeds 45 mg/L nitrate as NO_3.

6. Hazardous Substance Discharge

Except as provided in Water Code section 13271(b), any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as a) that person has knowledge of the discharge, b) notification is possible, and c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the County in accordance with California Health and Safety Code section 5411.5 and the California Office of Emergency Services (OES) of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Government Code title 2, division 1, chapter 7, article 3.7 (commencing with section 8574.17), and immediately notify the State Water Board or the San Diego Water Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code unless the Discharger is in violation of a Basin Plan prohibition.

7. Oil or Petroleum Product Discharge

Except as provided in Water Code section 13272(b), any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as a) such person has

knowledge of the discharge, b) notification is possible, and c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the California OES of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Government Code title 2, division 1, chapter 7, article 3.7 (commencing with section 8574.1). This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to CWA section 311, or the discharge is in violation of a Basin Plan prohibition.

8. Anticipated Noncompliance

   The Discharger shall give advance notice to the San Diego Water Board of any planned changes in the Agricultural Operation which may result in noncompliance with the terms and requirements of this General Order.

9. Other Information

   The Discharger shall report all instances of noncompliance not reported under Reporting Provision 6, 7 or 8 above at the time monitoring reports are submitted. The reports shall contain the information listed in Reporting Provision 5.

10. Duty to Provide Information

    When the Discharger becomes aware that it failed to submit any relevant facts in a NOI or submitted incorrect information in a NOI in application for coverage under this General Order or in any report to the San Diego Water Board, it shall promptly submit such facts or information.

F. Compliance and Enforcement Provisions

1. Enforcement Authority

   Enrolled Dischargers are primarily responsible for meeting the conditions of this General Order. However, owners and operators that are not enrolled may be held responsible for the conduct of operations on the Discharger's enrolled parcel.[17]

   In the event of any violation or threatened violation of the conditions of this General Order, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under State law.

2. Provision Severability

   The provisions of this General Order are severable, and if any provision of this General Order, or the application of any provision of this General Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this General Order, shall not be affected thereby.

3. Payment of Fees

   This General Order is conditioned upon total payment of any fee required under CCR title 23 sections 2200.6(a) and (b), and owed by the Discharger.

[17] The person with day-to-day control of the discharge typically has the primary responsibility for compliance; however, if this person fails to clean up or control a discharge, or threatened discharge, or comply with the MRP (Attachment A), the landowner must assume responsibility for compliance (See Vallco Park, State Water Board WQO 86-18).

4. Investigation of Violations

In response to a suspected violation of any condition of this General Order, the San Diego Water Board may, pursuant to Water Code section 13267, require the Discharger to investigate, monitor, and report information on the violation. The only restriction is that the burden, including costs of preparing the reports, shall bear a reasonable relationship to the need for and the benefits to be obtained from the reports.

ATTACHMENT A - MONITORING AND REPORTING PROGRAM

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ATTACHMENT A - MONITORING AND REPORTING PROGRAM

I. INTRODUCTION

California Water Code (Water Code) section 13267 authorizes the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) to establish monitoring, reporting, and recordkeeping requirements. Pursuant to this authority and consistent with the *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program* (Nonpoint Source Policy) and the *Framework for Monitoring and Assessment in the San Diego Region* as detailed in the San Diego Water Board's *Practical Vision*, this monitoring and reporting program (MRP) establishes conditions for the Discharger to conduct routine monitoring activities and to submit technical and monitoring reports to the San Diego Water Board consistent with this General Order. The purpose of the MRP is as follows:

- Determine compliance with discharge specifications, receiving water limitations and other requirements established in this General Order.
- Assess the effectiveness of management practices required by this General Order.
- Characterize the effects of discharges from Agricultural Operations on waters of the State.

Each section contains the key monitoring and assessment questions the monitoring is designed to answer. In developing the list of key monitoring and assessment questions, the San Diego Water Board considered four basic types of information for each question:

- Information Need – Why does the San Diego Water Board need to know the answer?
- Monitoring Criteria – What monitoring will be conducted for deriving an answer to the question?
- Expected Product – How should the answer be expressed and reported?
- Possible Follow-up Actions – What actions shall be taken to address any impairment in the receiving water?

The framework for this monitoring program has three components that comprise a range of spatial and temporal scales: 1) core monitoring, 2) regional monitoring, and 3) special studies.

1) Core Monitoring

   Core monitoring consists of the basic site-specific monitoring necessary to measure compliance with the requirements of this General Order and impacts to receiving water quality from the Discharger's Agricultural Operation. Core monitoring is typically conducted in the immediate vicinity of the discharge by examining local scale spatial effects.

2) Regional Monitoring

   Regional monitoring provides information necessary to make assessments over large areas and serves to evaluate cumulative effects of all anthropogenic inputs, including commercial agriculture, on the ecological health of water bodies in the San Diego Region. This MRP relies on biological assessment techniques to evaluate the biological condition of waterbodies receiving waste discharges from agricultural operations from a regional perspective. Biological assessment, or "bioassessment," is a way to measure ecosystem health based on the living organisms at a given location. To achieve this, scientists examine communities of organisms such as invertebrates (e.g., insects, crustaceans), fish, algae, and plants to quantify their numbers and species. Summarized community data provides key information about the condition of aquatic ecosystems, such as streams, wetlands, and oceans.

Regional monitoring can include ambient monitoring. Under the San Diego Water Board's *Commercial Agricultural Operation Regulatory Program*, Third-Party Groups will take the lead role in coordinating and carrying out regional monitoring. Individual Dischargers, however, are encouraged to participate in regional monitoring programs as these programs can assist in the interpretation of core monitoring data by providing a more complete picture of natural variability and cumulative impacts in the receiving waters. This assessment in turn allows Individual Dischargers to more effectively use core monitoring data in prioritizing actions targeting pollutants and pollutant sources.

3) Special Studies

Special studies are directed monitoring efforts designed in response to specific management or research questions identified through either core or regional monitoring programs. Oftentimes, special studies are used to help understand core or regional monitoring results where a specific environmental process is not well understood, or to address unique issues of local importance.

II. GENERAL MONITORING AND REPORTING REQUIREMENTS

A. Samples and measurements taken for the purposes of monitoring shall be representative of the volume and nature of the discharge, and shall be collected at the monitoring points approved by the San Diego Water Board. Monitoring locations shall not be changed without prior notification to and approval by the San Diego Water Board.

B. All monitoring instruments and devices shall be properly maintained and calibrated as necessary to ensure their continued accuracy. Any flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

C. Monitoring shall be conducted according to U.S. Environmental Protection Agency (USEPA) test procedures approved under title 40 of the Code of Federal Regulations (40 CFR) part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act*, as amended for the analyses of pollutants, unless another method is specified in this General Order. The San Diego Water Board may approve equivalent test procedures at its discretion.

D. Groundwater monitoring, sample preservation, and analyses shall be performed in accordance with the latest edition of *Test Methods for Evaluating Solid Waste*, SW-846, USEPA.

E. All analyses shall be performed in a laboratory certified to perform such analyses by the State Water Resources Control Board's (State Water Board) Division of Drinking Water (DDW), or by a laboratory approved by the San Diego Water Board. The laboratory shall be accredited under the DDW Environmental Laboratory Accreditation Program (ELAP) to ensure the quality of analytical data used for regulatory purposes to meet the requirements of this Order.

Additional information on ELAP can be accessed at: http://www.waterboards.ca.gov/drinking_water/certlic/labs/index.shtml.

F. Each monitoring report shall affirm in writing that "All analyses were conducted at a laboratory certified for such analyses by the Environmental Laboratory Accreditation Program, and in accordance with current USEPA guideline procedures, or as specified in this Monitoring Program."

G. All plans and reports required under this MRP shall be prepared by professionals qualified to prepare such plans and reports. Professionals shall be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. California Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of registered

professionals. A statement of qualifications of the responsible lead professionals shall be included in all plans and reports submitted by the Member.

H. For any monitoring period in which no discharge occurred, the monitoring report shall include a statement certifying that no discharge occurred during the monitoring period.

I. Monitoring results shall be reported at intervals and in a manner specified in this General Order.

J. This MRP may be modified by the San Diego Water Board, as appropriate.

III. CORE MONITORING REQUIREMENTS

A. Core Monitoring Questions

The Core Monitoring requirements have been designed to answer the following questions:

1. How effective are the management practices at preventing or reducing discharges of waste from the Agricultural Operation that are causing or contributing to exceedances of applicable water quality standards in surface water and groundwater?
2. What effect, if any, has the Agricultural Operation had on surface water and groundwater quality?

B. Core Monitoring – Surface Water

1. Surface Water Core Monitoring Locations

a. If the Agricultural Operation is hydraulically connected to surface waters:

The Discharger shall establish monitoring locations in surface waters that receive direct or indirect discharges from the Agricultural Operation. Monitoring locations shall meet the following minimum requirements:

i. The number and location of monitoring locations shall be based on site-specific characteristics and shall be supported by scientific rationale and the drainage characteristics of the Agricultural Operation. Monitoring locations shall be selected to adequately characterize the majority of the discharges from the Agricultural Operation site, based on its typical discharge patterns, including tail water discharges, discharges from tile drains, and storm water runoff.

ii. Monitoring locations shall be in areas influenced by the Discharger's Agricultural Operation.

iii. Monitoring locations shall have sufficient spatial density or distribution within the region of interest to provide data to meet the Core Monitoring questions.

iv. Monitoring locations shall be readily accessible (defined as sites that can be safely reached and sampled within one day) during both dry and wet weather.

v. If possible, monitoring locations shall be in wadeable stream reaches with surface flow during the sampling period. A wadeable reach is defined as that which is less than one meter deep for at least 50% of its length.

b. If the Agricultural Operation is not hydraulically connected to surface waters:

The number and location of monitoring locations shall be based on site-specific characteristics and shall be supported by scientific rationale and the drainage characteristics of the Agricultural Operation. Monitoring locations shall be selected

to adequately characterize the majority of individual discharges (e.g. irrigation water runoff, storm water and non-storm water flows) that are conveyed beyond the property limits of the Agricultural Operation through outfalls (e.g. pipes, ditches, constructed swales, tile drains, or other discrete structures or features that transport the water).

2. Surface Water Monitoring Requirements

a. The Discharger shall conduct surface water monitoring at approved monitoring locations for the constituents and sampling frequency set forth in Table A-1 below:

Table A-1. Surface Water Monitoring Requirements

Parameter	Units	Frequency
Flow[1]	ft^3/day	Once during the dry season (May 15 to October 15) and once during the wet season (October 15 to May 15)
Flow Velocity	ft/sec	
pH	standard units	
Temperature	°C	
Stream Width	ft	
Depth	ft	
Dissolved Oxygen	mg/L	
Turbidity	NTU	
Total Dissolved Solids	mg/L	
Total Suspended Solids	mg/L	
Hardness (as $CaCO_3$)	mg/L	
Ammonia	mg/L	
Nitrate as (NO_3)	mg/L	
Nitrate + Nitrite as Nitrogen	mg/L	
Total Nitrogen	mg/L	
Total Phosphorus	mg/L	
Sulfate	mg/L	
E. coli	MPN/100 mL	
Enterococci	MPN/100 mL	
Fecal Coliform	MPN/100 mL	
Total Coliform	MPN/100 mL	
Chronic Toxicity	TU_c	

b. The wet season samples shall be collected within the first 24 hours of a storm with greater than 0.5-inch rain as measured by the nearest National Weather Service rain gauge, to the extent practicable. Practical constraints on wet season sampling events include but are not limited to 1) laboratory closures on weekends and holidays, 2) sample holding times, and 3) safety of the monitoring team. If there is no runoff at the monitoring site, then the observation shall be documented with photos showing the occurrence of irrigation and the lack of runoff at the monitoring site.

[1] Dischargers may wish to consult the State Water Board's website for guidance on how to measure stream flows at: http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/cwt/guidance/4113.pdf.

c. Dry season samples shall be collected after the site has applied pesticides or fertilizers and during an irrigation event. If there is no runoff at the monitoring site, then the observation shall be documented with photos showing the occurrence of irrigation and the lack of runoff at the monitoring site.

d. All surface water monitoring data shall be submitted to the California Environmental Data Exchange Network (CEDEN).[2]

e. The San Diego Water Board may increase the frequency of surface water sampling based on information in the Notice of Intent (NOI), Surface Water Monitoring Program Plan, or Annual Surface Water Monitoring Reports. Factors that may result in an increased sampling frequency include, but are not limited to: crop type, frequency of crop rotation, and trends of water quality degradation.

C. Core Monitoring – Groundwater Monitoring Requirements (if applicable)

The purpose of groundwater monitoring is to assess trends in groundwater quality beneath Agricultural Operation lands and to confirm that management practices implemented to protect and improve groundwater quality are effective. As an initial step towards developing a groundwater quality program for Agricultural Operations, groundwater quality monitoring will be limited to areas in the San Diego Region where groundwater is a significant drinking water source. At this time the groundwater monitoring requirements of this General Order only apply to Agricultural Operations with drinking water supply wells.

The purpose of the drinking water supply well program outlined below is to identify wells that have nitrate concentrations that threaten to exceed the maximum contaminant level (MCL) of 45 mg/L as NO_3 [3] and notify any well users of the potential for human health impact.

1. *Water Supply Well Sampling and Monitoring Frequency.* Due to the potential severity and urgency of health issues associated with drinking groundwater with high concentrations of nitrates, the Discharger is required to 1) collect an initial groundwater sample at all drinking water supply wells located on the Agricultural Operation site within the first year following issuance of the Notice of Applicability (NOA); or 2) submit existing drinking water supply well sampling data, provided sampling and testing for nitrates was completed using USEPA-approved methods at least twice within the last 5 years.

   a. Drinking water supply wells with samples reported to have a nitrate concentration less than 36 mg/L NO_3 [4] shall thereafter be monitored for nitrates once every five years beginning in 2020. All further sampling shall be conducted at the time when nitrate concentration was at its maximum, based on initial monitoring. Sampling may cease if a drinking water well is taken out of service and no longer provides drinking water.

   b. Drinking water supply wells with samples reported to have a nitrate concentration equal to or above 36 mg/L as NO_3 shall be resampled within 30 days of receipt of the laboratory test result to confirm the result. Based on the retest results, the Discharger shall do one of the following:

[2] Information on CEDEN data submission requirements may be found at http://www.ceden.org/

[3] The MCL is also expressed as 10 mg/L of nitrate + nitrite as N. The authority to set the MCL for nitrate previously resided with the California Department of Public Health (CDPH) (and the Department of Health Services prior to the establishment of CDPH), but the authority to set the MCL for nitrate is now within the purview of the State Water Board.

[4] The nitrate level of 36 mg/L is 80% of the MCL and is presumed to be the benchmark defining when wells have a high potential for exceeding the MCL in a short time frame.

i. If the retest is equal to or above 36 mg/L as NO_3:

The Discharger shall thereafter monitor the drinking water supply well for nitrate levels on an annual basis, unless an alternative sampling schedule based on trending data for the well is approved by the San Diego Water Board. All further sampling shall be conducted at the time when the nitrate concentration was at its maximum, based on initial monitoring. Sampling may cease if a drinking water well is taken out of service and no longer provides drinking water

ii. If the retest is equal to or above 45 mg/L as NO_3:

(a) Within 24 hours of receipt of the laboratory test results, the Discharger shall notify the San Diego Water Board pursuant to section VII.E.5 of the General Order and the applicable County Health Department to determine if additional actions are needed.

(b) Within 10 days of receipt of the laboratory test results the Discharger shall immediately notify all individuals using the water supply well for a drinking source of the nitrate test results and actions to be taken. Where the Discharger is not the property owner, the San Diego Water Board will promptly notify the property owner and the well users.

(c) The Discharger shall thereafter monitor the drinking water supply well for nitrate levels on an annual basis, unless an alternative sampling schedule based on trending data for the well is approved by the San Diego Water Board. All further sampling shall be conducted at the time when nitrate concentration was at its maximum, based on initial monitoring. Sampling may cease if a drinking water well is taken out of service and no longer provides drinking water.

iii. If the retest is less than 36 mg/L as NO_3, the Discharger shall collect a sample from the drinking water supply well for a confirmation test within 30 days of receipt of the retest result, and shall submit a copy of the confirmation test report to the San Diego Water Board within 10 days of receipt of results. If the confirmation test result is less than less than 36 mg/L as NO_3, the Discharger shall continue to monitor the groundwater well once every five years beginning 2020. Sampling may cease if a drinking water well is taken out of service and no longer provides drinking water.

2. *Drinking Water Well Sample Protocols.* Groundwater samples shall be collected using proper sampling methods, chain-of-custody, and quality assurance/quality control protocols. Groundwater samples shall be collected at or near the well head before the pressure tank and prior to any well head treatment. In cases where this is not possible, the water sample shall be collected from a sampling point as close to the pressure tank as possible, or from a cold-water spigot located before any filters or water treatment systems.

3. *Drinking Water Well Sample Results.* The results of all drinking water well sampling shall be included in the Annual Surface Water and Groundwater Monitoring Report described in section VII of this MRP.

4. *Monitoring Frequency Changes.* Based on a review of groundwater monitoring reports, the San Diego Water Board may increase or decrease the frequency of groundwater water supply well monitoring. Factors that may inform the San Diego Water Board's evaluation of the monitoring frequency include, but are not limited to the exceedances or attainment of the nitrate MCL and the effectiveness of any management measures as a result of Water Quality Restoration Plan (WQRP) implementation.

IV. REGIONAL MONITORING REQUIREMENTS

Under the San Diego Water Board's *Commercial Agricultural Operation Regulatory Program*, Third-Party Groups will take the lead role in coordinating and carrying out regional monitoring. Individual Dischargers, however, are encouraged to participate in regional monitoring programs as these programs can assist in the interpretation of core monitoring data by providing a more complete picture of natural variability and cumulative impacts in the receiving waters. This assessment in turn allows Individual Dischargers to more effectively use core monitoring data in prioritizing actions targeting pollutants and pollutant sources.

V. SPECIAL STUDIES - WATER QUALITY RESTORATION PLAN (WQRP)

If water quality monitoring data, collected as described in this MRP indicate exceedances of applicable Surface Water Quality Benchmarks (see table A-2 of this MRP), the Discharger shall develop a WQRP as described in section VI.D of this General Order. Upon approval of the WQRP by the San Diego Water Board, the Discharger shall implement targeted management practices intended to attain the Surface Water Quality Benchmarks. Management practices may include those recommended by organizations such as Natural Resources Conservation Service (NRCS) and University of California Cooperative Extension (UCCE).

VI. SURFACE WATER AND GROUNDWATER MONITORING PROGRAM PLAN

The Discharger shall prepare and submit a detailed Surface Water and Groundwater Monitoring Program Plan (Monitoring Program Plan) to implement the surface water and groundwater (if applicable) monitoring requirements specified in this MRP. The Monitoring Program Plan is an element of the Water Quality Protection Plan (WQPP) required under section VI.C of this General Order and shall be submitted with the WQPP. At a minimum the Monitoring Program Plan shall contain the following:

A. *Monitoring Event Preparation and Protocols*. The Monitoring Program Plan shall include a description of monitoring event preparation and field protocols for sample collection and sample handling (including chain of custody requirements). The Monitoring Program Plan shall also describe protocols for ensuring that all monitoring instruments and devices used by the Discharger for the prescribed monitoring and sample collection are properly maintained and calibrated to ensure proper working condition and continued accuracy.

B. *Quality Assurance Project Plan* (QAPP). The Monitoring Program Plan shall include a QAPP describing the objectives and organization of the Surface Water and Groundwater (if applicable) Monitoring Program, functional activities, and quality assurance/quality control to be conducted. The purpose of the QAPP is to ensure that the data collection and analysis is consistent with the type and quality of data needed to meet the San Diego Water Board's monitoring goals and objectives. The QAPP shall meet the State Water Board Surface Water Ambient Monitoring Program (SWAMP) requirements and 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. Laboratory analytical methods shall be included as an appendix of the QAPP. A QAPP template is available at http://www.waterboards.ca.gov/water_issues/programs/swamp/tools.shtml.

C. *Monitoring Locations.* The Monitoring Program Plan shall include a list of the monitoring locations. The monitoring locations shall meet the monitoring location requirements listed in

sections III.B and III.C of this MRP. The Monitoring Program Plan shall describe the characteristics of each sampling site, including crop type and cultivation practices, and shall provide an appropriately scaled map of the monitoring locations and GPS coordinates for each monitoring location. The Monitoring Program Plan shall also provide the supporting scientific rationale for the selection of each surface water monitoring location including a demonstration that the proposed locations are appropriate for evaluating the effects of irrigation runoff, storm water, and non-storm water discharges from the Agricultural Operation, and for evaluating the success of management practices.

D. *Monitoring Constituents.* The Monitoring Program Plan shall include a list of the constituents to be monitored at each monitoring location. The list shall include, but need not be limited to, the parameters listed in Table A.1 and section III.C of this MRP.

E. *Monitoring Frequency.* The Monitoring Program Plan shall include the frequency and approximate dates of monitoring. Surface water monitoring shall be conducted during the dry season and wet season and at the frequency specified in in Table A.1 and section III.C of this MRP.

F. *Monitoring Team.* A description of the monitoring team, including names, titles, qualifications, and contact information.

VII. ANNUAL SURFACE WATER AND GROUNDWATER MONITORING REPORT (ANNUAL MONITORING REPORT)

Annually by April 30 (beginning the year following issuance of the NOA), the Discharger shall prepare and submit to the San Diego Water Board an Annual Surface Water and Groundwater Monitoring Report (Annual Monitoring Report), covering January 1 through December 31 of the prior year. For any monitoring period in which no discharge occurred, the monitoring report shall include a statement certifying that no discharge occurred during the monitoring period. The Annual Monitoring Report shall include the following elements:

A. *Title Page and Table of Contents.*

B. *Summary.* The Annual Monitoring Report shall briefly outline what surface water and groundwater (if applicable) monitoring was done in the prior year, describe the significance of key findings, and list important recommendations.

C. *Introduction.* The Annual Monitoring Report shall identify the objectives and the issues being addressed.

D. *Monitoring Area Description.* The Annual Monitoring Report shall include a summary of the monitoring area geography, hydrology, the location of the Agricultural Operation, the size of the Agricultural Operation, the crop type(s) being grown at the Agricultural Operation, the irrigation and cultivation method(s) utilized at the Agricultural Operation, and the waste discharge sources in the area being monitored. All monitoring locations and features including Agricultural Operation property boundaries, waters of the State, and other features which may affect water quality should be provided on an appropriately scaled map.

E. *Monitoring Methods.* The Annual Monitoring Report shall provide details on the methods and procedures used for conducting the surface water and groundwater (if applicable) monitoring including a summary of the procedures followed for quality assurance.

F. *Monitoring Results.* The Annual Monitoring Report shall include the results of all surface water and groundwater samples collected during the period January 1 through December 31 of the

prior year in electronic tabular format using available data submission templates for CEDEN.[5] Laboratory data sheets, and completed chain of custody forms shall be attached to the report.

G. *Surface Water Monitoring Data Analysis.* The Annual Monitoring Report shall include an analysis of the surface water monitoring data including:

1. Interpretations and conclusions as to whether applicable receiving water limitations in section V of this General Order were attained at each monitoring location.
2. Interpretations and conclusions regarding any change in receiving water quality related to agricultural activities at the Agricultural Operation (i.e., a comparison of water quality at upstream and downstream monitoring locations).
3. Identification of all exceedances of applicable Surface Water Quality Benchmarks[6] contained in Table A-2 of this MRP at any monitoring location. For the purposes of this General Order, an exceedance occurs when a sampling result for a constituent at a single monitoring location exceeds the applicable Surface Water Quality Benchmarks more than 3 out of 4 times for the same constituent. If water quality monitoring data indicate exceedances of applicable Surface Water Quality Benchmarks, the Discharger shall prepare and submit a Water Quality Restoration Plan (WQRP) pursuant to section VI.D of this General Order.

H. *Groundwater Monitoring Data Analysis (if applicable).* If applicable, the Annual Monitoring Report shall include an analysis of the groundwater monitoring data including:

1. Interpretations and conclusions as to whether the groundwater is safe to drink.
2. Interpretations and conclusions regarding any change in groundwater quality related to agricultural activities at the Agricultural Operation (i.e., a trend analysis comparing of groundwater quality data over time for the same constituent).
3. Identification of all exceedances of the applicable nitrate benchmark of 36 mg/L as NO_3 at any water supply well monitoring location. If groundwater quality monitoring data indicate exceedances of the nitrate benchmark, the Discharger shall prepare and submit a Water Quality Restoration Plan (WQRP) pursuant to section VI.D of this General Order.

I. *CEDEN Data Submission.* All surface water quality data shall be reported to CEDEN. The Annual Monitoring Report shall include documentation that all surface water monitoring data was successfully uploaded to CEDEN.[7]

J. *Geotracker Data Submission (if applicable).* If groundwater quality monitoring is conducted, all groundwater quality data shall be reported to Geotracker. The Annual Monitoring Report shall

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[5] CEDEN data submission templates are provided in Microsoft Excel (version 97-2003) to facilitate submission of data and can be accessed on the CEDEN website at http://www.ceden.org/ceden_datatemplates.shtml (as of May 31, 2016).

[6] "Water Quality Benchmark" means discharge prohibitions and narrative or numeric surface water quality objectives, a water quality objective 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).

[7] CEDEN is the State Water Board's data system for surface water quality in California. Information on CEDEN data submission requirements may be found at http://www.ceden.org/, and a copy of the CEDEN electronic tabular format can be found at http://www.ceden.org/ceden_datatemplates.shtml (as of May 31, 2016).

include documentation that all groundwater monitoring data was successfully uploaded to Geotracker.[8]

K. *Recommendations.* The Annual Monitoring Report shall include recommendations for proposed future monitoring activities listed in order of priority.

L. *Monitoring Team.* The report shall include a description of the monitoring team, including names, titles, qualifications, and contact information.

M. *Identification of Discharger.* The report shall include the Discharger's contact information.

N. The Annual Monitoring Report shall include Quarterly Self-Inspection Reports as required by section VI.E of this General Order.

O. The Annual Monitoring Report shall include Annual Self-Assessment Report as required by section VI.F of this General Order.

P. *Certification.* The Annual Monitoring Report shall be signed and certified in accordance with Signatory and Certification Requirements contained in section VII.E of this General Order.

Table A-2. Surface Water Quality Benchmarks[9]

Parameter	Units	Water Quality Benchmark
pH	standard units	Note 1
Temperature	℃	Note 1
Dissolved Oxygen	mg/L	Note 1
Turbidity	NTU	Note 2
Total Dissolved Solids	mg/L	Note 2
Total Suspended Solids	mg/L	Note 2
Ammonia	mg/L	0.025, Note 3
Nitrate (as NO_3)	mg/L	45, Note 4
Nitrate + Nitrate (as Nitrogen)	mg/L	10, Notes 4 and 5
Total Nitrogen	mg/L	1.0, Notes 3 and 5
Total Phosphorus	mg/L	0.1, Notes 3 and 5
Sulfate	mg/L	Note 2
E. coli	MPN/100 mL	Note 3
Enterococci	MPN/100 mL	Notes 3 and 6
Fecal Coliform	MPN/100 mL	Notes 3 and 6
Total Coliform	MPN/100 mL	Notes 3 and 6
Chronic Toxicity	TU_c	1.0, Note 7

Note 1. Water Quality Benchmarks are based on Designated Water Quality Objectives for Ocean Waters and Inland Surface Waters, Enclosed Bays and Estuaries, Coastal Lagoons and Groundwater contained in Chapter 3 of Water Quality Control Plan for the San Diego Basin (9).

Note 2. Water Quality Benchmarks are based on Designated Water Quality Objectives for Inland Surface Waters, Enclosed Bays and Estuaries, Coastal Lagoons and

[8] GeoTracker is the State Water Board statewide database and geographic information system that provides online access to environmental data. The Geotracker on-line database can be accessed on the State Water Board website at http://www.waterboards.ca.gov/gama/geotracker_gama.shtml (as of May 31, 2016).

[9] The Water Quality Control Plan for the San Diego Basin (9) can be accessed at http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml (as of May 31, 2016)

Groundwater contained in Chapter 3, Table 3-2 of Water Quality Control Plan for the San Diego Basin (9).

Note 3. Water Quality Benchmarks are based on Designated Water Quality Objectives for Inland Surface Waters, Enclosed Bays and Estuaries, Coastal Lagoons and Groundwater contained in Chapter 3 of Water Quality Control Plan for the San Diego Basin (9).

Note 4. Water Quality Benchmarks are based on Designated Water Quality Objectives for Inland Surface Waters, Enclosed Bays and Estuaries, Coastal Lagoons and Groundwater contained in Chapter 3, Table 3-4 of Water Quality Control Plan for the San Diego Basin (9).

Note 5. For Agricultural Operations located within the Rainbow Creek Watershed, the Water Quality Benchmarks are the Numeric Targets established for the Total Maximum Daily Loads for Total Nitrogen and Total Phosphorus in Rainbow Creek Watershed, San Diego County, Resolution No. R9-2005-0036 (see Table 7-11 in Chapter 7 of the Basin Plan).

Note 6. For Agricultural Operations located in watersheds included in the Revised Total Maximum Daily Loads for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region (including Tecolote Creek), Resolution No. R9-2010-0001, the Water Quality Benchmarks are the Numeric Targets established for the Bacteria TMDL (see Tables 7-24 and 7-25 in Chapter 7 of the Basin Plan.

Note 7. TUc, 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.

ATTACHMENT B - FACT SHEET

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As described in section I.BB of this General Order, the San Diego Regional Water Quality Control Board (San Diego Water Board) incorporates this Fact Sheet as findings of the San Diego Water Board supporting the issuance of this General Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this General Order.

I. BACKGROUND

A. Definitions

1. Discharger

   A Discharger is any owner or operator of an Agricultural Operation that discharges, or threatens to discharge, wastes associated with agricultural activities into waters of the State in the San Diego Region.

2. Agricultural Operation

   For the purposes of this General Order, an Agricultural Operation is any agricultural business or trade activity (including farms, nurseries, and orchards), that produces crops with the intent to make a profit. The San Diego Water Board presumes intent to make a profit if the Agricultural Operation meets at least one of the following criteria:

   a. The owner or operator files the federal Department of Treasury Internal Revenue Service (IRS) Form 1040 *Schedule F Profit or Loss from Farming* with their federal taxes.

   b. The owner or operator receives agricultural water rates or has been given an agricultural water use variance from their water purveyor.

   c. The owner or operator holds a current Operator Identification Number/Permit Number from a local County Agricultural Commissioner for pesticide use reporting.

   The IRS presumes an agricultural operation was carried on for profit if it produced a profit in at least 3 of the last 5 tax years. It's a subjective judgment and the IRS considers the nine factors listed below for determining a profit motive with no one factor being decisive to distinguish farm businesses from hobby farms. These concepts are described in the IRS Farmers Tax Publication 225 at https://www.irs.gov/pub/irs-pdf/p225.pdf.

   - The manner in which the owner/operator carried on the agricultural activity.
   - The expertise of the owner/operator or his or her advisers.
   - The time and effort expended by the owner/operator in carrying on the agricultural activity.
   - The expectation that the assets used in the agricultural activity may appreciate in value (e.g. the degree to which assets may increase in value and cover the costs of the agricultural activity).
   - The success of the owner/operator in carrying on other similar or dissimilar activities.
   - The owner/operator's history of income or loss with respect to the agricultural activity.
   - The amount of occasional profits, if any, which are earned.
   - The financial status of the owner/operator (e.g. how much of income of owner/operator comes from agricultural operation).

- Elements of personal pleasure or recreation (Does owner/operator enjoy what they do and are there aspects of that which show a profit motive?).

B. Applicability

1. This General Order applies to any owner or operator of an Agricultural Operation that discharges, or threatens to discharge, wastes associated with agricultural activities into waters of the State in the San Diego Region who is not a member of a Third-Party Group. To apply for coverage under this General Order, either the owner or the operator must submit a Notice of Intent (NOI) to the San Diego Water Board. Coverage under this General Order will not become effective until the San Diego Water Board issues a Notice of Applicability (NOA) signed by the Executive Officer to the Discharger.
2. This General Order does not apply to discharges of waste that are regulated under other waste discharge requirements (WDRs) or conditional waiver of WDRs (Waivers). If the other WDRs/Waivers only regulate some of the waste discharge activities at the regulated site, the owner/operator shall obtain regulatory coverage for any discharges of waste that are not regulated by the other WDRs/Waivers. Such regulatory coverage may be sought through enrollment under this General Order, applicable WDRs as a member of a Third-Party Group, or by obtaining appropriate changes in the owner and/or operator's existing WDRs/Waivers.

C. Agricultural Activities in the San Diego Region

The San Diego Region jurisdictional area forms the southwest corner of California and occupies approximately 3,900 square miles of surface area. The western boundary of the San Diego Region consists of the Pacific Ocean coastline which extends approximately 85 miles north from the U.S. and Mexico international border. The northern boundary of the San Diego Region is formed by the hydrologic divide starting near Laguna Beach and extending inland through El Toro and easterly along the ridge of the Elsinore Mountains into the Cleveland National Forest. The eastern boundary of the San Diego Region is formed by the Laguna Mountains and other lesser known mountains located in the Cleveland National Forest. The southern boundary of the San Diego Region is formed by the U.S. and Mexico international border.

The following is a summary of Agricultural Operations in the San Diego Region.

1. Agricultural Operations in San Diego County

   There are approximately 5,700 Agricultural Operations, on approximately 60,000 acres of land, in San Diego County within the jurisdictional boundaries of the San Diego Water Board. The Agricultural Operations specialize in producing cut flowers, fruit, vegetables, and nuts.

2. Agricultural Operations in Riverside County

   There are approximately 300 Agricultural Operations on approximately 33,000 acres of land in Riverside County within the jurisdictional boundaries of the San Diego Water Board. The Agricultural Operations specialize in producing fruit and wine grapes.

3. Agricultural Operations in Orange County

   Most of southwestern Orange County is classified as urban and built-up land within the jurisdictional boundaries of the San Diego Water Board.[1] There are few remaining farms,

[1] Orange County Important Farmland 2012 Map, prepared by the California Department of Conservation Farmland Mapping and Monitoring Program, dated January 2015.

orchards, and nurseries in Orange County within the jurisdictional boundaries of the San Diego Water Board, which are generally located along San Juan and Chiquita Creeks.

Unlike other areas of the State, the majority of the Agricultural Operations within the jurisdictional boundaries of the San Diego Water Board are relatively small, with the median size being approximately 4 acres. Moreover, the types of crops grown, the methods used to grow them, the climate, and the hydrogeology are all unique to the San Diego Region. The San Diego Water Board considered these differences in developing this General Order.

D. Agricultural Activities and Water Quality

1. Pollutants Associated with Agricultural Activities

Agricultural discharges, including both irrigation water and storm water running off agricultural fields into surface waters or percolating to groundwater, carry constituents considered to be waste as defined under California Water Code (Water Code) section 13050(d). These discharges can affect water quality by transporting agricultural waste constituents such as pesticides and fertilizers, sediment, and salts from growing areas into surface waters and groundwater of the State. The following is a discussion of pollutants typically associated with Agricultural Operation discharges.

a. Nutrients

Agricultural fertilizers applied to produce crops may contain nitrogen and phosphorus in multiple chemical forms (nitrogen, nitrate, nitrate, ammonia, etc). Nitrogen helps plants make the proteins needed to produce new tissue. Phosphorus stimulates root growth, helps plants set buds and flowers, improves vitality, and increases seed size. However, nutrients in surface waters can cause algal growth which in turn may reduce the dissolved oxygen available to support aquatic life. Excess nitrate in drinking water is known to cause methemoglobinaemia, commonly called blue baby syndrome, in infants, and is characterized by reduced ability of the blood to carry oxygen because of reduced levels of normal hemoglobin.

i. Surface waters within the San Diego Region known to be impaired for nitrogen include:

(a) Arroyo Trabuco Creek

(b) De Luz Creek

(c) Santa Margarita Lagoon

(d) Lake Hodges

(e) Morena Reservoir

(f) Rainbow Creek

(g) Loma Alta Slough

ii. Surface waters within the San Diego Region known to be impaired for phosphorus include:

(a) Santa Margarita Lagoon

(b) Lake Hodges

(c) Rainbow Creek

(d) Loma Alta Slough

(e) Tijuana River

The *Total Maximum Daily Load for Total Nitrogen and Total Phosphorus in Rainbow Creek Watershed* (Rainbow Creek TMDL) was adopted to address excessive nitrogen and phosphorous concentrations in the Rainbow Creek Watershed.

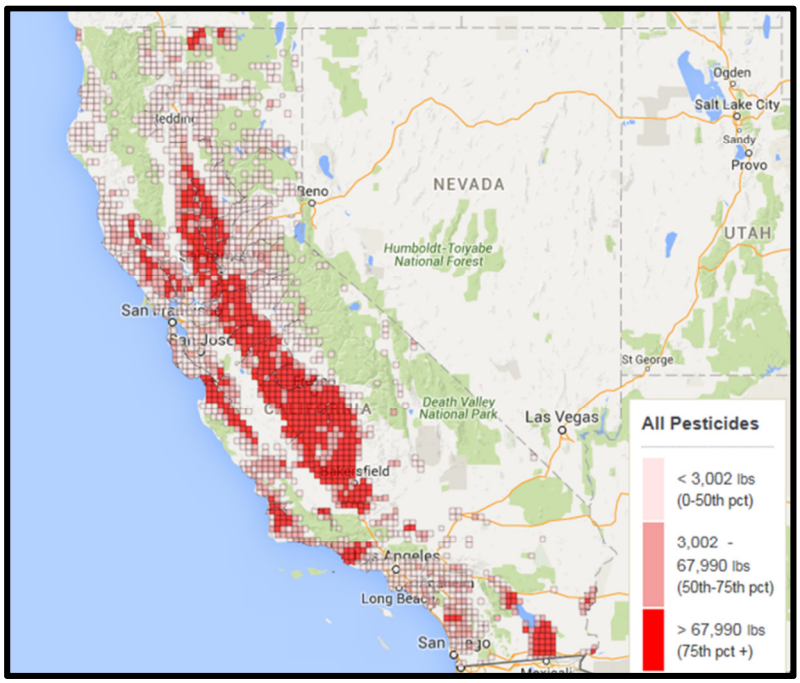
b. Agricultural Chemicals

Pesticides, herbicides, algaecides, and fumigants are applied to agricultural land to control pests, weeds, and fungus. If not properly managed, these chemicals can migrate into surface waters of the State and cause toxic conditions that threaten the viability of the water bodies to support aquatic and other species.

The California Department of Pesticide Regulation (DPR) publishes summaries of pesticide use in California. The following is a summary of data of pesticide use reported by the DPR for 2014.

i. The San Diego Region uses less agricultural chemicals than other areas of the State. As shown on Figure B-1, agricultural pesticides (including carcinogens, cholinesterase inhibitors, endocrine disruptors, fumigants, neonicotinoids, reproductive and development toxicants, and toxic air contaminates) are used throughout the State. Figure B-1 also illustrates that most of the Townships located in agricultural areas of the San Diego Region had a reported pesticide use ranging between the 0 and 75th percentile of all Townships in the State.

Figure B-1. Agricultural Pesticide Use in California[2]



ii. Table B-1 lists the reported pesticide use in agricultural Counties in California. As shown on Table B-1, The San Diego Region uses significantly less pesticides as the other major agricultural Counties in the State.

[2] *California Environmental Health Tracking Program, California Department of Public Health. Agricultural Pesticide Mapping Tool. Data from California Department of Pesticide Regulation Pesticide Use Reporting. 2016.* www.cehtp.org/pesticidetool.

Table B-1. 2014 Reported Pesticide Use for Agricultural Counties in California[3]

County	Reported Pesticide Use in Pounds
Fresno	31,828,231
Kern	27,181,424
San Joaquin	14,908,389
Monterey	9,389,189
Stanislaus	7,076,488
Ventura	6,532,477
Imperial	5,005,430
Orange	919,351
Riverside	2,234,831
San Diego	1,617,591

iii. The DPR compiled a list of the top five pesticides used in San Diego County in 2014. The ranking of pesticides is determined by total cumulative acres treated by the active ingredient used. The acres treated are mostly agricultural. Because most of the Agricultural Operations in the San Diego Region are located within the San Diego County and the types of agricultural operations in San Diego County are similar throughout the San Diego Region, the top five pesticides used in San Diego County provides an indication of the pesticide use within the San Diego Region. Table B-2 lists the top five pesticides used in San Diego County in 2014.

[3] Data from the *California Department of Pesticide Regulation – 2014 Summary Data* http://www.cdpr.ca.gov/docs/pur/pur14rep/lbsby_co_14.pdf.

Table B-2. Top Five Pesticides Used in San Diego Region in 2014[4]

Pesticide	Representative Crops	Pounds Applied	Acres Treated
Glyphosate, Isopropylamine Salt	Avocados Outdoor Container Plants Citrus	99,796.	27,032
Glyphosate, Potassium Salt	Avocados Outdoor Container Plants Citrus	27,448	21,271
Mineral Oil	Avocados Outdoor Container Plants Citrus	263,448	12,638
Alpha-(Para-Nonylphenyl)-Omega-Hydroxypoly(Oxyethylene)	Avocados Outdoor Container Plants Outdoor Flowers Citrus	3,809	9,306
Abamectin	Avocados Outdoor Container Plants Greenhouse Container Plants Outdoor Flowers Citrus	151	8,356

Surface waters within the San Diego Region known to be impaired for agricultural chemicals include Tijuana River and Tijuana River Estuary.[5]

c. Pathogens

Compost and manure are applied to crop land to improve soil texture and to add organic matter and nutrients to the soil. If not properly managed, these materials can migrate into surface waters of the State and pose a public health risk if ingested.

Waterbodies within the San Diego Region known to be impaired[6] for pathogens include:

i. Agua Hedionda Creek

ii. Agua Hedionda Lagoon

iii. Aliso Creek

iv. Buena Vista Lagoon

v. Chollas Creek

vi. Dana Point Harbor

vii. Escondido Creek

viii. Forester Creek

[4] http://www.cdpr.ca.gov/docs/pur/pur14rep/top_5_ais_sites_acres14.pdf.

[5] http://www.waterboards.ca.gov/sandiego/water_issues/programs/303d_list/docs/updates_020910/App_B_All_Decisions.pdf.

[6] The *Revised Total Maximum Daily Loads for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region Including Tecolote Creek* (Bacteria TMDL) was adopted to address fecal indicator bacteria impairments in the San Diego Region.

ix. Loma Alta Slough

x. Long Canyon Creek (tributary to Murrieta Creek)

xi. Los Penasquitos Creek

xii. Murray Reservoir

xiii. Murrieta Creek

xiv. Pine Valley Creek (Upper)

xv. Redhawk Channel

xvi. San Diego River (Lower)

xvii. San Dieguito River

xviii. San Elijo Lagoon

xix. San Juan Creek

xx. San Luis Rey River, Lower (west of Interstate 15)

xxi. Santa Gertrudis Creek

xxii. Santa Margarita River (Lower)

xxiii. Sweetwater River, Lower (below Sweetwater Reservoir)

xxiv. Tecolote Creek

xxv. Temecula Creek

xxvi. Tijuana River and Estuary

xxvii. Warm Springs Creek (Riverside County)

xxviii. The majority of Mission Bay, San Diego Bay, and Pacific Ocean Shoreline

d. Sediments

Agricultural operation activities like tilling and grading can lead to excess sediment discharges to surface waters that would violate the turbidity water quality objective causing impacts to wildlife and aquatic habitat.

Surface waters within the San Diego Region known to be impaired for sediments include:[7]

i. Agua Hedionda Lagoon

ii. Buena Vista Lagoon

iii. Los Penasquitos Lagoon

iv. San Diego River (Upper)

v. San Elijo Lagoon

vi. Tijuana River

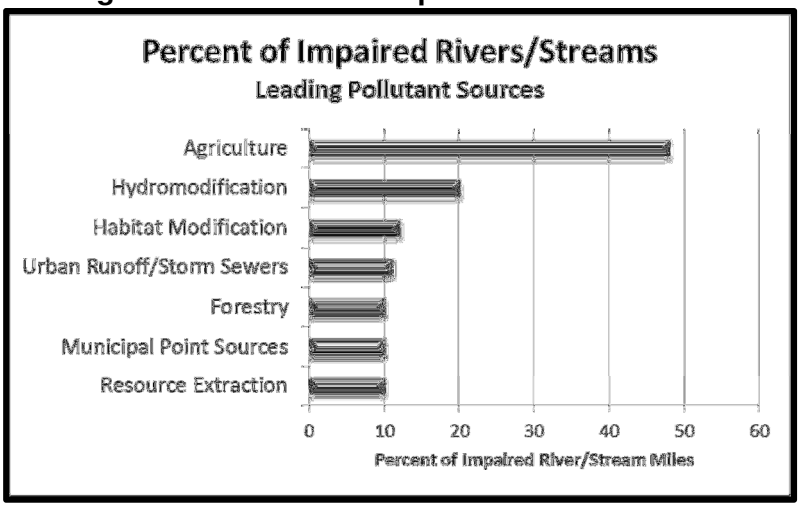
2. Water Quality Impacts Associated with Agricultural Activities

[7] http://www.waterboards.ca.gov/sandiego/water_issues/programs/303d_list/docs/updates_020910/App_B_All_Decisions.pdf.

a. Surface Water Impacts Associated with Agricultural Activities

The production practices used by agriculture can result in a number of pollutants entering water resources, including sediment, nutrients, pathogens, pesticides, and salts. The U.S. Environmental Protection Agency (USEPA) reports[8] that nationwide, agriculture is the listed source of pollution for 128,859 miles of rivers and streams. This amounts to 48% of the assessed rivers and streams found to have impaired conditions. Figure B-2, using data from the USEPA *National Water Quality Inventory 2000 Report*, illustrates the leading pollutant sources and their corresponding percentage of impaired rivers/streams.

Figure B-2. Percent of Impaired Rivers/Streams



Statewide, approximately 9,493 miles of rivers/streams and 513,130 acres of lakes/reservoirs are listed on the federal Clean Water Act (CWA) section 303(d) *List of Water Quality Limited Segments* (303(d) List) as being impaired by irrigated agriculture. Of these, approximately 2,800 miles, or approximately 28%, have been identified as impaired by pesticides.[9]

b. Surface Water Quality Impacts Associated with Agriculture in the San Diego Region

i. Nutrient Loading into the Santa Margarita Estuary

A study conducted to support the development of a TMDL for Santa Margarita River Estuary (SMRE)[10] concluded that 55% of the total nitrogen and 26% of the total phosphorus entering the SMRE originated from agricultural operations. The SMRE and various tributaries within the Santa Margarita River Watershed are listed on the 303(d) List of water quality limited segments as impaired due to nutrients and eutrophication.

A watershed loading model (Hydrologic Simulation Program Fortran-HSPF) and receiving water model (Environmental Fluid Dynamics Code-EFDC and Water Quality Simulation Program-WASP) were used to understand the hydrodynamic and nutrient loading within the Santa Margarita River

[8] USEPA, National Water Quality Inventory 2000 Report.
[9] http://www.swrcb.ca.gov/water_issues/programs/agriculture/docs/about_agwaivers.pdf.
[10] Sutula M., Butcher, J. and Boschen, J, DRAFT - *Application of Watershed Loading and Estuary Water Quality Models to Inform Nutrient Management in the Santa Margarita River Watershed*, Southern California Coastal Water Research Project Technical Report No. XXX, dated April 2016.

Watershed. Model development included the use of surface and groundwater monitoring data to calibrate the model.

The model estimated the "source load," the loading in pounds per year from specific land uses within each of the 77 sub-basins in the Santa Margarita River Watershed, and estimated delivered load, each sub-basin's and land use's contribution of nutrients in pounds per year entering the SMRE.

The study found that of the yearly nitrogen load of 201,352 into the SMRE, 110,457 pounds, or 55% originated from agricultural land uses. The study also found that of the yearly phosphorus load of 350,734 pounds of phosphorus, 89,583 pounds, or 26% originated from agricultural land uses.

ii. Surface Water Monitoring Conducted Pursuant to Resolution No. R9-2007-0104, *Amendment to the Water Quality Control Plan for the San Diego Basin (9) to Incorporate the Revised Conditional Waivers of Waste Discharge Requirements for Specific Types of Discharge Within the San Diego Region* (2007 Waiver)

The 2007 Waiver required that surface water monitoring be conducted. Surface water monitoring was conducted by the San Diego Regional Irrigated Lands Group, the San Mateo Irrigated Lands Group, and the Upper Santa Margarita Irrigated Lands Group. The purpose of the monitoring was to evaluate the condition of surface water in the San Luis Rey and Santa Margarita Watersheds in areas of agricultural activity. In addition to collecting and analyzing surface water samples for nutrients and general chemistry parameters, biological assessments were conducted.

Table B-3 summarizes the results of surface water monitoring performed in 2012 and 2013 in the San Luis Rey and Santa Margarita Watersheds by the Irrigated Lands Monitoring Groups, as a requirement of the 2007 Waiver.

As shown in Table B-3, a majority of samples had concentrations of total dissolved solids, nitrogen, phosphorous, sulfate, and chloride that exceeded water quality objectives for those parameters.

Table B-3. Surface Water Monitoring Results, 2012 and 2013

Parameter	Units	Water Quality Objective	San Luis Rey Watershed	Santa Margarita Watershed
			6/27/13 - 7/18/13 (6 sampling events)	12/13/12 - 9/27/13 (6 sampling events)
pH	standard units	6.5 – 8.5	7.4-8.1	7.9-8.2 (4 samples)
Dissolved Oxygen	milligram per litter (mg/L)	>5.0	6.8-8.9	--
Total Dissolved Solids	mg/L	750	1545-2141	940-2568
Total Nitrogen	mg/L	1	5.7-41	not detected (ND)-14
Nitrate + Nitrite as N	mg/L	10	42 (1 sample)	--
Nitrate as N	mg/L	10	5.2-18.3 (5 samples)	ND-5.2

Nitrite as N	mg/L	1	ND-0.1 (5 samples)	ND-0.2
Un-ionized Ammonia	mg/L	0.025	0.0013 (1 sample)	--
Ammonia as N	mg/L	0.025	ND-0.06 (5 samples)	ND-0.42
Total Phosphorus	mg/L	0.1	0.03-0.24	0.03-0.26
Sulfate	mg/L	250	517-694	312-537
Chloride	mg/L	250	230-455	198-918

iii. Bioassessment

Biological assessment, or "bioassessment," is a way to measure the ecosystem health of a stream based on the living organisms at a specific location by examining communities of organisms such as invertebrates (e.g., insects, crustaceans), fish, algae, and plants. Based on several factors, including the types and numbers of identified species, the presence and abundance of algae, physical conditions of the water such as temperature, and the physical habitat, such as types of vegetation, the waterbody is assigned an Indicator of Biological Integrity (IBI) score based on a standard, or reference condition, representative of the area assessed, such as the Southern California IBI (SoCal IBI). There are five SoCal IBI ranks: Very Poor, Poor, Fair, Good, and Very Good.

Table B-4 summarizes the results of bioassessment monitoring performed between June and July, 2013, in surface waters in the vicinity of Agricultural Operations in the San Diego Region.

The results of the bioassessment indicates that 50% of the streams were in good or very good condition, 0% were in fair condition, and 50% were in poor or very poor condition.

Table B-4. Bioassessment Monitoring Results, June and July 2013

Watershed	SoCal IBI Score	SoCal IBI Rank
Santa Margarita Watershed	5.7	Very Poor
San Luis Rey Watershed	6-61	Very Poor - Good

c. Groundwater Impacts Associated with Agricultural Activities

In 2008, Senate Bill SBX2 1 (Perata) was signed into law (Water Code section 83002.5), requiring the State Water Resources Control Board (State Water Board), in consultation with other agencies, to prepare a report to the State Legislature to "improve understanding of the causes of [nitrate] groundwater contamination, identify potential remediation solutions and funding sources to recover costs expended by the State…to clean up or treat groundwater, and ensure the provision of safe drinking water to all communities."

In September 2013, an Agricultural Expert Panel was convened by the State Water Board to consider a variety of questions, including ones specific to the development of an agricultural nitrate control program. The Agricultural Expert Panel issued a

final report of recommendations on September 9, 2014[11] concluding, in part, that because deep percolation of nitrates was universal within irrigated agriculture, a good regulatory program must encompass all irrigated areas, not only lands directly above high nitrate aquifers, those previously identified to be in a high vulnerability area, or those with a certain farm or field size. The San Diego Water Board agrees that groundwater in alluvial basins can be vulnerable to agricultural nitrate impacts, regardless of the time it takes for those impacts to appear in groundwater due to soil conditions, geologic conditions, and depth to groundwater.

d. Groundwater Quality in the San Diego Region

The Groundwater Ambient Monitoring and Assessment (GAMA) *Domestic Well Project, Groundwater Quality Data Report, San Diego County Focus Area Report* issued by the State Water Board's GAMA Program[12] stated that 18 percent of the 137 domestic water supply wells sampled (25 wells) were reported to have groundwater samples that exceeded the nitrate maximum contaminate level (MCL) of 45 mg/l. Additionally, the *Temecula Valley Basin Salt and Nutrient Management Plan* (Temecula SNMP)[13] found that nitrate as NO_3 concentrations in Temecula Valley (an area that includes Agricultural Operations) ranges between 1 to 7.5 mg/L, and groundwater model results for a 20 year projection considering an expansion of 4,000 acres of irrigation using recycled water would result in nitrate as NO_3 concentrations ranging between 1.5 and 10 mg/L.

In the San Diego Region, the types of crops grown, the typical irrigation methods used, and the soil types typically found in agricultural areas present a reduced risk of nitrate contamination of groundwater as compared to the conditions encountered in the Central Valley Region for the following reasons:

i. Wine grapes, avocados, and citrus fruits are the most prevalent crops grown in the San Diego Region. According to California Institute for Water Resources[14], production of wine grapes have a nitrate hazard rating of 1 (low), and avocados and citrus fruits have a nitrate hazard rating of 2 (low to moderate).

ii. Most of the Agricultural Operations in the region use drip or micro sprinkler irrigation, not flood or overhead spray irrigation, significantly limiting the amount of irrigation water that reaches groundwater aquifers.

iii. The soil type typically found in agricultural areas in the San Diego Region is Cretaceous-aged granitic and gabbroic rock (igneous rock). The terrains tend to be moderately to steeply sloping, and the soils generally overlaying them are thin and have a rocky to sandy loam texture (e.g. Fallbrook soil series). Areas overlain with thin soils over igneous rock are less prone to be areas where water infiltrates to groundwater.

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[11] *Conclusions of the Agricultural Expert Panel, Recommendations to the State Water Resources Control Board pertaining to the Irrigated Lands Regulatory Program* (September. 9, 2014), available at <http://www.swrcb.ca.gov/water_issues/programs/agriculture/docs/ILRP_expert_panel_final_report.pdf> (as of April 26, 2016) (Agricultural Expert Panel Report).

[12] Groundwater Ambient Monitoring and Assessment Domestic Well Project, Groundwater Quality Data Report, San Diego County Focus Area, dated March 2010.

[13] Temecula Valley Basin Salt and Management Plan, prepared by RMC Water and Environment, dated March 2014.

[14] http://ciwr.ucanr.edu/Tools/Nitrogen_Hazard_Index/.

These regional conditions warrant a modified approach to the groundwater protection and monitoring requirements recommended in the 2014 Agricultural Expert Panel Report. The development of detailed Nutrient Management Plans and crop-specific A/R ratios (the multi-year ratio of nitrogen applied to the field to nitrogen removed from the field) called for in the 2014 Agricultural Expert Panel Report will only be required for those areas of the San Diego Region that warrant a greater degree of groundwater protection.

E. State and Regional Irrigated Lands Programs (ILRPs)

1. State Water Board's ILRP

A range of pollutants can be found in runoff from agricultural lands, such as pesticides, fertilizers, salts, pathogens, and sediment. At high enough concentrations, these pollutants can harm aquatic life or make water unusable for drinking water or agricultural uses. Across the nine Regional Water Quality Control Boards (Regional Boards) there are significant differences in the approaches for regulating irrigated agriculture. Some of these differences can be attributed to varying water quality threats posed by the disparate agricultural operations around the State. Other differences can be explained by the need for more stringent requirements to protect vulnerable or impaired receiving waters.

Currently, the State Water Board formally coordinates with all nine Regional Boards in developing WDRs or Waivers to regulate discharges from agricultural lands. The State Water Board supports the Regional Boards in the following programmatic activities:

a. Program coordination

b. Public outreach

c. Multi-agency coordination with agricultural agencies/entities/academia/coalitions and third-party groups

d. Information management

e. Fee development and collection

f. Petitions and enforcement

g. Adaptive management - Team Concept Demonstration Projects

On February 8, 2016, the State Water Board issued a draft order in the matter of *Waste Discharge Requirements General Order No. R5-2012-0116 for Growers within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group* (State Water Board Order). The State Water Board Order, if adopted, is expected to provide precedential direction to Regional Boards regarding the requisite elements of WDRs issued to regulate agricultural operations in the State. As drafted, the State Water Board Order incorporates many of the recommendations of the Agricultural Expert Panel convened by the State Water Board in 2013 to consider a variety of questions, including the appropriate regulatory structure for irrigated lands. The San Diego Water Board incorporated requirements consistent with the State Water Board Order to the extent these recommendations were applicable to regional conditions in San Diego.[15]

[15] The Agricultural Expert Panel issued a final report of recommendations on September 9, 2014 concluding, in part, that because deep percolation of nitrates was universal within irrigated agriculture, a good regulatory program must encompass all irrigated areas, not only lands directly above high nitrate aquifers, those previously identified to be in a high vulnerability area, or those with a certain farm or field size. The San Diego

2. San Diego Water Board's Agricultural Regulatory Program

The San Diego Water Board's agricultural regulatory program commenced with the adoption of a conditional waiver of WDRs for agricultural lands in 1983 (1983 Waiver) pursuant to Water Code section 13269. The 1983 Waiver conditionally waived the requirement for submittal of a permit application (report of waste discharge or ROWD) for irrigation return water flows as long as the discharger implemented effective management practices, and the discharge did not cause exceedances of applicable water quality objectives or nuisance conditions in the receiving waters or contain any substance toxic to animal or plant life.

In response to revisions to Water Code section 13269, the San Diego Water Board re-examined and revised its original waiver in 2007. The 2007 Waiver restructured the San Diego Water Board's regulatory approach to take advantage of local knowledge and resources, leverage limited regulatory resources, and minimize costs.

The 2007 Waiver allowed growers to form discharger coalitions with a third-party representative responsible for outreach, education, and implementation of a number of the requirements of the regulatory program, including monitoring. Prior to the expiration of the 2007 Waiver on February 13, 2014, the San Diego Water Board directed staff to develop general WDRs rather than extending the 2007 Waiver or issuing a new waiver. The development of general WDRs and the associated California Environmental Quality Act (CEQA) analysis commenced in 2014. This General Order extends regulatory coverage to both irrigated and non-irrigated Agricultural Operations, set forth conditions that will require dischargers to implement management practices to protect water quality, and ensure through monitoring and reporting that these practices are sufficiently protective of water quality.

F. Rationale for General WDRs

This General Order was developed to regulate discharges from a large number of Agricultural Operations within the San Diego Region. Agricultural discharges, including both irrigation water and storm water running off of agricultural fields into surface waters or percolating to groundwater, may carry constituents considered to be waste as defined under Water Code section 13050(d).[16] Water Code sections 13260 requires persons "discharging or proposing to discharge waste" to file a ROWD with the appropriate Regional Board. Water Code section 13263 in turn requires the San Diego Water Board to prescribe WDRs for those discharges that implement relevant water quality control plans. This General Order must primarily implement the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) which sets the beneficial uses of the surface water bodies and groundwater in the region and sets water quality objectives to be achieved in those waters.[17] This General Order must also conform to State Water Board Policies including the *Policy for the Implementation and Enforcement of*

Water Board agrees that regulatory coverage for all agricultural lands is appropriate. However, the San Diego Water Board is not requiring compulsory nutrient management plans due to the reduced risk of nitrate percolation to groundwater presented by the unique soil conditions, geologic conditions, and crops grown in the San Diego Region as discussed in section D.2.h.

[16] 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." (Wat. Code section 13050, subdivision (b).

[17] The Basin Plan is available on the San Diego Water Board website at http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml (as of May 31, 2016)

the Nonpoint Source Pollution Control Program[18] (Nonpoint Source Policy) and the *Statement of Policy with Respect to Maintaining High Quality Waters, State Water Board Resolution No. 68-16*[19] (Antidegradation Policy). Water Code section 13264 prohibits persons from initiating any new discharge of waste or making any material changes in any discharge prior to the filing of a ROWD and being issued WDRs by the appropriate Regional Board. Water Code section 13263(d) allows the San Diego Water Board to prescribe WDRs even though no ROWD has been filed.

Water Code section 13263(i) provides that the Regional Boards may prescribe general WDRs to a category of discharges, such as agricultural operation discharges, rather than issue individual WDRs to separate operations. Issuance of this General Order complies with Water Code section 13263(i) criteria for the issuance of General WDRs which allows the San Diego Water Board to prescribe General WDRs if:

1. The discharges are produced by the same or similar operations.
2. The discharges involve the same or similar types of waste.
3. The discharges require the same or similar treatment standards.
4. The discharges are more appropriately regulated under general WDRs than individual requirements.

General WDRs are an effective and efficient method to regulate the more than 6,000 Agricultural Operations that meet the enrollment criteria in the San Diego Region because the discharges are similar and discharge requirements would be similar if individual WDRs were issued.

While WDRs require compliance with the water quality objectives specified in the water quality control plans, such compliance need not be achieved immediately. A time schedule for compliance with water quality requirements is explicitly permitted by Water Code section 13263(c), which states that WDRs “may contain a time schedule subject to revision in the discretion of the Regional Board.”

G. Applicable Plans, Policies, and Regulations

1. Basin Plan

The San Diego Water Board’s *Water Quality Control Plan for the San Diego Basin* (Basin Plan) is the San Diego Water Board's master water quality control planning document. It designates beneficial uses, establishes water quality objectives, and contains programs of implementation needed to achieve water quality standards.

Pursuant to the Basin Plan and State Water Board plans and policies, including State Water Board Resolution 88-63 (Sources of Drinking Water Policy), and consistent with the CWA, existing and potential beneficial uses of waters in the San Diego Region have been identified (see Table B-5).

[18] The Non-Point Source Policy is available on the State Water Board website at http://www.waterboards.ca.gov/water_issues/programs/nps/docs/plans_policies/nps_iepolicy.pdf (as of May 31, 2016).

[19] The Antidegradation Policy is available on the State Water Board website at http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf (as of May 31, 2016).

Table B-5. Beneficial Uses Which May be Affected by Agricultural Operations

Beneficial Use	Abbreviation
Surface Waters	
Agricultural Supply	AGR
Cold Freshwater Habitat	COLD
Commercial and Sport Fishing	COMM
Contact Water Recreation	REC-1
Estuarine Habitat	EST
Freshwater Replenishment	FRSH
Groundwater Recharge	GWR
Industrial Process Supply	PROC
Industrial Service Supply	IND
Municipal and Domestic Supply	MUN
Noncontact Recreation	REC-2
Preservation of Biological Habitats of Special Significance	BIOL
Rare, Threatened, or Endangered Species	RARE
Spawning, Reproduction, and/or Early Development	SPWN
Warm Freshwater Habitat	WARM
Wildlife Habitat	WILD
Groundwaters	
Municipal and Domestic Supply	MUN
Agricultural Supply	AGR
Industrial Service Supply	IND
Industrial Process Supply	PROC
Freshwater Replenishment	FRSH

This General Order implements the Basin Plan by requiring compliance with receiving water limitations that prohibit discharges from causing or contributing to an exceedance of applicable water quality objectives, unreasonably affecting applicable beneficial uses, or causing or contributing to a condition of pollution or nuisance.

2. Impaired Water Bodies and Total Maximum Daily Loads (TMDLs)

Pursuant to CWA section 303(d), States, territories, and authorized tribes are required to develop lists of water quality limited segments that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. This list is referred to as the 303(d) List. Federal regulations require that a TMDL be developed for waterbodies on the 303(d) List for each pollutant of concern. TMDLs are regulatory tools that provide the maximum amount of a pollutant from potential sources that a waterbody can receive while still meeting water quality standards. A TMDL can be compared to a pollution budget. It includes a calculation of the maximum amount of a pollutant that can occur in a waterbody and allocates the necessary reductions to one or more pollutant sources. For point sources, these allocations are called waste load allocations. For nonpoint sources these allocations are called load allocations. Discharges from agriculture are considered nonpoint sources.

The following is a list of the TMDLs with load allocations applicable to agricultural activities in the San Diego Region:

a. *Total Maximum Daily Load for Total Nitrogen and Total Phosphorus in Rainbow Creek Watershed* (Rainbow Creek TMDL)

b. *Bacteria TMDL Revised Total Maximum Daily Loads for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region Including Tecolote Creek* (Bacteria TMDL)

This General Order implements these TMDLs. Like all other water quality standards in this General Order, if TMDL load allocation is exceeded, improved management practices must be used to address these exceedances. Additional information regarding the TMDLs can be found in Attachment E of this General Order.

In some cases, other regulatory programs can be used to address 303(d) List impairments instead of a TMDL. The requirements, prohibitions, and provisions of this General Order may serve as an alternative, non-TMDL solution to address other water bodies on the 303(d) List. The intent of this General Order is to reduce the loading of nutrients, agricultural chemicals, bacteria, and sediment from discharging to the waters of the State from Agricultural Operations. Not only will the installation and maintenance of effective management practices reduce the loading of pollutants from Agricultural Operations to the waters of the State, they also incorporate the same types of implementation measures that would be required under a TMDL to reduce the loading of pollutants to the waters of the State.

3. Nonpoint Source Policy

The State of California's principal strategy for addressing NPS pollution is contained in the State Water Board's *California Nonpoint Source Program Implementation Plan* (Nonpoint Source Program Plan). The primary objective of the Nonpoint Source Program Plan is to reduce and prevent nonpoint source pollution so that the waters of the State support a diversity of biological, educational, recreational, and other beneficial uses. Towards this end, the Nonpoint Source Program Plan focuses on implementation of 61 management measures and related management practices in six land use categories: 1) agriculture, 2) forestry (silviculture), 3) urban runoff, (e.g., from construction sites, roads and highways, septic systems), 4) marinas and boats, 5) hydromodification activities, and 6) resource extraction.

In May 2004, pursuant to Water Code section 13369, the State Water Board adopted the Nonpoint Source Policy, setting forth how the Nonpoint Source Program Plan should be implemented and enforced to control nonpoint source pollution. The Nonpoint Source Policy provides guidance on the statutory and regulatory authorities of the State Water Board and the Regional Boards to prevent and control nonpoint source pollution. The Nonpoint Source Policy also provides guidance on the structure of nonpoint source control implementation programs, including third-party implementation programs, and the mandatory five-key elements applicable to all nonpoint source implementation programs.

The Nonpoint Source Policy emphasizes the fact that the Regional Boards have primary responsibility for ensuring that appropriate nonpoint source control implementation programs are in place throughout the State. Regional Boards' responsibilities include, but are not limited to, regulating all current and proposed nonpoint source discharges under WDRs, Waivers, or basin plan prohibitions, or some combination of these administrative tools. The Nonpoint Source Policy further recognizes that, "given the extent and diversity" of nonpoint source discharges, the Regional Boards must be creative and

efficient in addressing nonpoint source pollution and may rely on third-party programs that are effective in reaching a large number of dischargers.

This General Order regulates waste discharges from Agricultural Operations to waters of the State as a nonpoint source program consistent with the State Water Board's Nonpoint Source Program Plan and the Nonpoint Source Implementation and Enforcement Policy. The Nonpoint Source Policy requires that any nonpoint source pollution control implementation program, including one primarily administered by a third-party group, incorporate five key elements of the Nonpoint Source Policy. This General Order incorporates all five key elements of the Nonpoint Source Policy:

a. *Key Element 1: The nonpoint source control implementation program's ultimate purpose shall be explicitly stated. Implementation programs must, at a minimum, address nonpoint source pollution in a manner that achieves and maintains water quality objectives and beneficial uses, including any applicable antidegradation requirements.*

   The purpose of this General Order is to minimize or eliminate waste discharges from Agricultural Operations into waters of the State that may be causing or contributing to exceedances of applicable federal, State, and local water quality standards. In compliance with Water Code section 13263 and with Key Element 1, this General Order sets out its ultimate purpose by establishing water quality requirements in section V. Receiving Water Limitations that prohibit discharges from causing or contributing to an exceedance of applicable water quality standards, unreasonably affecting applicable beneficial uses, or causing or contributing to a condition of pollution or nuisance. These receiving water limitations are effective immediately except where the Discharger is implementing a Water Quality Restoration Plan (WQRP) for specified waste parameters with an approved time schedule.

   To ensure that receiving water limitations are achieved and maintained, this General Order requires that Dischargers must (1) implement management practices that prevent or reduce discharges of waste that are causing or contributing to exceedances of water quality standards; and (2) to the extent reporting, monitoring data, or inspections indicate that the implemented management practices have not been effective in preventing the discharges from causing or contributing to exceedances of water quality standards, the Discharger must implement improved management practices in accordance with any applicable WQRP as described in section VI.D of this General Order.

b. *Key Element 2: The nonpoint source control implementation program shall include a description of the management measures and other program elements that are expected to be implemented to ensure attainment of the implementation program's stated purpose(s), the process to be used to select or develop management measures, and the process to be used to ensure and verify proper management measures implementation.*

   As part of California's Nonpoint Source Pollution Control Program, the State Water Board, California Coastal Commission, and other State agencies have identified five management measures relevant to nonpoint source of pollution from commercial agriculture (California's Management Measures for Polluted Runoff),[20] including: 1)

[20] California's Management Measures for Polluted Runoff can be accede on the State Water Board website at http://www.waterboards.ca.gov/water_issues/programs/nps/docs/plans_policies/nps_progplan_vii.pdf (as of May 31, 2016)

erosion and sediment control, 2) nutrient management, 3) pesticide management, 4) irrigation water management, and 5) education and outreach. Although the San Diego Water Board is prevented by Water Code section 13360 from prescribing specific management practices to be implemented, it may set forth performance standards and require Dischargers to report on what practices they have or will implement to meet those standards.

Under this General Order, Dischargers are required to implement management practices that 1) minimize waste discharge offsite in surface water; 2) minimize percolation of waste to groundwater; and 3) protect wellheads from surface water intrusion. To that end, this General Order requires each Discharger to develop and implement a Water Quality Protection Plan (WQPP) (section VI.C of this General Order) that describes and documents implemented and planned management practices to protect surface water and groundwater quality. Dischargers must implement management practices in accordance with the WQPP. If the selected management practices in the WQPP are not meeting applicable water quality standards, the Discharger must implement improved management practices in accordance with a WQRP.

c. *Key Element 3: Where a Regional Board determines it is necessary to allow time to achieve water quality requirements, the nonpoint source control implementation program shall include a specific time schedule, and corresponding quantifiable milestones designed to measure progress toward reaching the specified requirements.*

This General Order requires in section VI.D that Dischargers include a proposed time schedule in the WQRP that is as short as practicable. The schedule must include quantifiable milestones designed to measure progress toward achieving the water quality requirements. The schedule may not be longer than that which is reasonably necessary to achieve compliance with the receiving water limitations contained in section V of this General Order. Once the San Diego Water Board approves the WQRP, the Discharger must implement management practices in accordance with the proposed time schedule. This General Order also includes specific time schedules to comply with the requirements of the Rainbow Creek TMDL and the Bacteria TMDL.

d. *Key Element 4: The nonpoint source control implementation program shall include sufficient feedback mechanisms so that the Regional Board, dischargers, and the public can determine whether the program is achieving its stated purpose(s), or whether additional or different management measures or other actions are required.*

Pursuant to Key Element 4 this General Order requires sufficient monitoring and reporting to determine if existing management practices are leading to compliance with water quality requirements and requires implementation of improved water quality practices where they are not. Water Code section 13267 authorizes the San Diego Water Board to establish monitoring, reporting, and recordkeeping requirements. The monitoring and reporting program (MRP) is contained in Attachment A of this General Order. The monitoring is at the individual agricultural operation scale. Sampling done in accordance with the MRP provides feedback on the effectiveness of management practices and tracks trends in water quality in surface and ground waters influenced by Agricultural Operations by comparing water quality at the monitoring sites against water quality benchmarks.

This General Order MRP requires Dischargers to report all data to the San Diego Water Board and to electronically upload monitoring reports to databases which may be accessed by the public either through a public records request, the Geotracker website, and/or the California Environmental Data Network (CEDEN).

e. *Key Element 5: Each Regional Board shall make clear, in advance, the potential consequences for failure to achieve the nonpoint source control implementation program's stated purposes*

This General Order requires Dischargers to develop a (WQRP (section VI.D of this General Order) to identify the source(s) of the exceedance and identify actions to address the exceedance(s). Also, section VII.F of this General Order makes clear that progressive enforcement will be taken by the San Diego Water Board for violations of this General Order.

4. California Environmental Quality Act (CEQA)

The San Diego Water Board is the lead agency for the development of this General Order. In accordance with CEQA, the San Diego Water Board conducted an initial study to evaluate the potential environmental effects of the adoption and implementation of this General Order. Based on the initial study, Staff prepared a Negative Declaration (Tentative Order R9-2016-0136) because it concluded that this project would have less than significant impacts on the environment. The San Diego Water Board has reviewed the contents of the Negative Declaration and the Initial Study, written public comments, and testimony at the hearing. The Negative Declaration, and the Initial Study, as adopted is incorporated by reference into this Fact Sheet.

5. Right to Safe Drinking Water

Water Code section 106.3 requires all relevant State agencies, including the San Diego Water Board, when revising or adopting polices, regulations, and criteria, to consider "that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." Water Code section 106.3, by its terms, does not apply to the issuance of WDRS. The San Diego Water Board did however consider the human right to water established by section 106.3 in adopting this General Order. This General Order advances the human right expressed in Water Code section 106.3 because it 1) requires implementation of management practices to reduce discharge of waste to groundwater and to assess the effectiveness of such practices for the purposes of protecting beneficial uses, including drinking water supplies; 2) requires monitoring of all on-site wells that are or may be used for drinking water; and 3) requires reporting any exceedances or threatened exceedances of the MCL for nitrate to well users, to local officials, and to the San Diego Water Board.

6. Antidegradation Policy

Issuance of this General Order complies with the requirements of State Water Board Resolution 68-16 *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (Resolution 68-16 or Antidegradation Policy). Resolution 68-16 requires the San Diego Water Board to maintain high quality waters of the State unless the Board determines that any authorized degradation is consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Board's policies (e.g., quality that exceeds applicable water quality objectives).

a. Background

Basin Plan water quality objectives are developed to ensure that ground and surface water beneficial uses are protected. The quality of some State surface waters and groundwater is higher than established in Basin Plan water quality objectives. In such waters, some degradation of water quality may occur without compromising protection of beneficial uses. Resolution 68-16 was adopted in October, 1968 to address high quality waters in the State. Title 40 of the Code of Federal Regulations (40 CFR) section 131.12, the federal Antidegradation Policy, was developed in 1975 to ensure water quality necessary to protect existing uses in waters of the U.S. Resolution 68-16 applies to discharges to all high quality waters of the State, including groundwater (Water Code section 13050[e]); the federal Antidegradation Policy (40 CFR section 131.12) applies only to surface waters. The State Water Board has interpreted Resolution 68-16 to incorporate the federal Antidegradation Policy in situations where the federal policy is applicable. (State Water Board Order WQ 86-17). The application of the federal Antidegradation Policy to nonpoint source discharges (including discharges from agriculture) is limited. A number of key terms are relevant to application of the Antidegradation Policy. These terms are described below:

i. High Quality Waters

High quality waters are those surface waters or areas of groundwater that have a baseline water quality better than required by water quality control plans and policies. The baseline quality considered in making the appropriate findings is the best quality of the water since 1968, the year of the adoption of the Antidegradation Policy, or a lower level if that lower level was allowed through a permitting action that was consistent with the federal and State antidegradation policies.

ii. Best Practicable Treatment or Control (BPTC)

The Antidegradation Polity requires that, where degradation of high quality waters is permitted, best practicable treatment or control (BPTC) limits the amount of degradation that may occur. Neither the Water Code nor the Antidegradation Policy defines the term “best practicable treatment or control.” The State Water Board has provided some direction on the interpretation of BPTC, stating: “one factor to be considered in determining BPTC would be the water quality achieved by other similarly situated dischargers, and the methods used to achieve that water quality.” (See State Water Board Order WQ 2000-07, at pp. 10-11) Similarly, in a “Questions and Answers” document for Resolution 68-16[21], BPTC is interpreted to additionally include a comparison of the proposed method to existing proven technology; evaluation of performance data (through treatability studies); comparison of alternative methods of treatment or control, and consideration of methods currently used by the discharger or similarly situated dischargers. The costs of the treatment or control should also be considered.

iii. Maximum Benefit to People of the State

The State Antidegradaton Policy requires that where degradation of water quality is permitted, such degradation must be consistent with the “maximum

[21] See *Questions and Answers, State Water Resources Control Board, Resolution 68-16* (February 16, 1995) (http://www.waterboards.ca.gov/water_issues/programs/dept_of_defense/docs/5g.pdf (as of May 31, 2016).

benefit to people of the State." Only after "intergovernmental coordination and public participation" and a determination that "allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located" does 40 CFR section 131.12 allow for degradation.

iv. Waters that are Not High Quality

Where a waterbody is at or exceeding water quality objectives, it is not a high quality water and is not subject to the requirements of the State Antidegradation policy. As stated previously, data collected by the San Diego Water Board, dischargers, educational institutions, and others demonstrate that many water bodies in the San Diego Water Board are already impaired for various constituents associated with irrigated agricultural activities. This General Order is intended to improve the quality of existing waters by establishing conditions on discharges from commercial agricultural lands in order to restore impaired waters.

b. Application of Resolution 68-16 Requirements to this General Order

The determination of a high quality water within the meaning of the antidegradation policies is waterbody and constituent-specific. Very little guidance has been provided in State or federal law with respect to applying the Antidegradation Policy to a program or general permit where multiple water bodies are affected by various discharges, some of which may be high quality waters and some of which may, by contrast, have constituents at levels that already exceed water quality objectives. There is no comprehensive, waste constituent–specific information available for all surface waters and groundwater accepting agricultural operation waste discharges that would allow site-specific assessment of current conditions in the San Diego Region.[22] Likewise, there is no comprehensive historic data of conditions prior to 1968.

However, data collected by the San Diego Water Board, dischargers, regional monitoring groups and others demonstrate that water bodies within the San Diego Region are already impaired for various constituents that are or could be associated with agricultural operation activities. The constituents include but are not limited to: nutrients, sediment, and pathogens. (See section I.D.1.b of this Fact Sheet discussing pollutants associated with agricultural activities in the San Diego Region.) Those same data collection efforts also indicate that some surface water bodies within the watershed meet objectives for these constituents and would likely be considered "high quality waters" with respect to those constituents. (See section I.D.1 of this Fact sheet discussing surface water impacts associated with agricultural activities.)

Similarly, as described in section I.D.2.d of this Fact Sheet, approximately 18% of the wells sampled under the State Water Board's GAMA had a maximum nitrate level above the MCL of 45 mg/L for nitrate as NO_3. It is unknown when the degradation occurred. However, available data show that currently existing quality of certain water bodies is better than the water quality objectives; for example, deeper groundwaters, represented by municipal supply wells, are generally high quality with respect to pesticides and nitrates.

[22] Agricultural Operation discharges were regulated under a conditional waiver from 1983 through 2014, but comprehensive data as to trends under the waiver are not available.

Given the significant variation in conditions over the broad areas covered by this General Order, any application of the antidegradation requirements must account for the fact that at least some of the waters into which agricultural discharges will occur are high quality waters (for some constituents).

Adoption of this General Order is consistent with the Antidegradation Policy because it does not authorize any further degradation of the waters of the State, or require the change of any water quality standard. Dischargers who enroll in this General Order are required to protect beneficial uses, and prevent nuisance by implementing management practices. Any degradation of an existing high quality water to water that achieves water quality objectives and beneficial uses will provide maximum benefit to the people of the State because it supports economic development and is consistent with BPTC as discussed below.

c. Consistency with BPTC

Due to the numerous commodities being grown on agricultural lands and varying geological conditions within the San Diego Region, identification of a specific technology or treatment device as BPTC is not feasible. The San Diego Water Board recognizes that various factors including site-specific, crop-specific, and regional variability that affects the selection of appropriate management practices, as well as design constraints and pollution-control effectiveness of various practices. The San Diego Water Board also recognizes that Dischargers need the flexibility to choose management practices that best achieve a management practice's performance expectations given their own unique circumstances.

There is no specific set of technologies, practices, or treatment devices that can be described as achieving BPTC universally in the San Diego Region. Management practices developed for agriculture are to be used as an overall system of measures to address nonpoint source pollution sources on any given site. In most cases, not all of the practices will be needed to address the nonpoint source at a specific site. Operations may have more than one constituent of concern to address and may need to employ two or more of the practices to address the multiple sources. Where more than one source exists, the application of the practices should be coordinated to produce an overall system that adequately addresses all sources for the site in a cost-effective manner.

This General Order, therefore, establishes a set of performance standards that must be achieved and an iterative planning approach that will lead to implementation of BPTC. The iterative planning approach will be implemented as two distinct processes: 1) upfront evaluation, planning and implementation of management practices to attain compliance with applicable water quality standards; and 2) additional planning and implementation measures where degradation trends are observed that threaten to impair a beneficial use or where beneficial uses are impaired (i.e., water quality standards are not being met). Taken together, these processes are considered BPTC. To ensure that the planning and implementation processes leads to the on-the-ground implementation of the optimal practices and control measures to address waste discharges from agricultural operations, the San Diego Water Board has established performance standards discussed below.

d. Agricultural Operation Performance Standards

This General Order establishes water quality benchmarks for implementation of management practices that all Dischargers must achieve. The selection of appropriate management practices must include analysis of site-specific conditions,

waste types, discharge mechanisms, and crop types. Considering this, as well as the Water Code 13360 mandate that the San Diego Water Board not specify the manner of compliance with its requirements, the selection of the management practice must be done by the Discharger for the agricultural operation. Following are the performance standards that all Dischargers must achieve:

i. Minimize waste discharge offsite in surface water.

ii. Minimize or eliminate the discharge of sediment above background levels.

iii. Minimize percolation of waste to groundwater.

iv. Minimize excess nutrient application relative to crop need.

v. Prevent pollution and nuisance conditions in waters of the State.

vi. Achieve and maintain water quality objectives and beneficial uses.

vii. Protect wellheads from surface water intrusion.

e. Additional Planning and Implementation Measures

This General Order is designed to achieve site-specific antidegradation and antidegradation-related requirements through implementation of BPTC through planning, monitoring, evaluation, and reporting.

The data and information gathered through the WQPP and WQRP processes will result in the identification of management practices that meet the performance standards and represent BPTC. The WQPP and WQRP implements an iterative process whereby the effectiveness of any set of practices in minimizing degradation will be periodically reevaluated as necessary and/or as more recent and detailed water quality data become available. This process of reviewing data and instituting additional practices where necessary will continue to assure that BPTC are implemented and will facilitate the collection of information necessary to demonstrate the performance of the practices. This iterative process will also ensure that the highest water quality consistent with maximum benefit to the people of the State will be maintained.

In addition to the WQPP and WQRP, this General Order includes a comprehensive suite of reporting requirements that should provide the San Diego Water Board with the information it needs to determine whether the necessary actions are being taken to achieve BPTC and protect water quality, where applicable. (MRP section VI.E Quarterly Self Inspection Report and section VI.F. Annual Self-Assessment Report.)

f. Maximum Benefit to People of the State

This General Order allows limited degradation of existing high quality waters. This limited degradation is consistent with maximum benefit to the people of the State because the continued prosperity of commercial agricultural in the San Diego Region is paramount to the economic vitality of the San Diego Region. San Diego Region communities depend on agricultural operations for employment; Agriculture is key contributor to the economy in the San Diego Region. In San Diego County alone, Agricultural Operations produce more than 200 agricultural commodities, export crops to 51 nations around the world, and generate more than 1.8 billion dollars in annual value to the economy.

Moreover, this General Order includes conditions and performance standards that will work to prevent further degradation of surface and groundwater quality. The

receiving water limitations (section V), the WQPP and the WQRP (section VI) of this General Order and the MRP's requirements to track compliance with this General Order, are each designed to ensure that any degradation will not cause or contribute to exceedances of water quality standards, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

7. Water Code Section 13241

In issuing WDRs, the Water Code requires the San Diego Water Board to take the factors listed in Water Code section 13241 into consideration, including, but not limited to "(a) Past, present, and probable future beneficial uses of water; (b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto; (c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area; (d) Economic considerations; (e) The need for developing housing within the region; (f) The need to develop and use recycled water."

a. This General Order protects the beneficial uses identified in the Basin Plan. Applicable past, present, and probable future beneficial uses of waters within the San Diego Region were considered as part of the Basin Planning process and are reflected in the Basin Plan itself. Because this General Order is applicable to a wide geographic area, it is appropriate to consider beneficial uses as identified in the Basin Plan and other applicable policies, rather than those identified through a site-specific evaluation that might be appropriate for WDRs applicable to a single discharger.

b. Environmental characteristics of San Diego Region's waters have been considered in the development of this General Order.

c. This General Order provides a process to review water quality conditions that could reasonably be achieved through coordinated control of all factors which affect water quality in the area as a part of the development and implementation of the WQRP.

d. Economic Considerations

i. WDR Fees

Agricultural Operations enrolled in this General Order will pay annual WDR fees to the State Water Board. Annual WDR fees are established by the State Water Board and can be found in the California Code of Regulations (CCR) title 23, section 2200.6. The fees are assessed based on the acreage of the Agricultural Operation. The 2015-16 annual fee for Individual Dischargers are presented in Table B-6.

Table B-6. FY 2015-16 Annual Fees for Dischargers Enrolled as Individuals

Acres	Fee Rate	Minimum Fee	Maximum Fee
0 – 10	$404 + $13.50/Acre	$404	$538
11 – 100	$1,084 + $6.70/Acre	$1,084	$1,756
101 – 500	$3,033 + $3.40/Acre	$3,033	$4,715
501 or more	$6,733 + $2.70/Acre	$6,733	No Maximum Fee

ii. Structural Management Practices

Structural management practices will likely be installed to implement irrigation management, storm water management, nutrient management, and erosion control. Many Agricultural Operations have already installed relevant management practices. During inspections of Agricultural Operations in 2013, the San Diego Water Board found that 82% of the Agricultural Operations enrolled in the 2007 Waiver, and 58% of Agricultural Operations not enrolled in the 2007 Waiver had implemented management practices. Additionally, due to the high cost of water, Agricultural Operations generally use low-flow drip or micro-sprinklers. Because many Agricultural Operations have already installed appropriate structural management practices, the San Diego Water anticipates many will have relatively minor construction costs associated with management practice implementation. Therefore, the cost of construction of new management practices will only be incurred by a portion of Agricultural Operations within the San Diego Region. Table B-7 lists the anticipated structural management practices that may be installed and the cost range for design, implementation, and annual maintenance costs (assumed to be 30% of the installation cost). The costs were estimated using the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS*), San Diego County, California Field Office Technical Guide* (FOTG).[23]

The selection of the most appropriate and cost effective structural management practices will be made by the Agricultural Operation and will be based on site-specific conditions such as existing structural management practices (for example, almost all of the avocado orchards in San Diego County currently use mini-sprinklers irrigation),[24] crop type, site location, slope, soil and geology, and distance to surface water bodies. Furthermore, it is likely that the site-specific conditions may not require the construction of structural management practices, and that the structural management practices have already been deployed, either for compliance under the 2007 Waiver or as a normal operating activity.

Table B-7. Anticipated Structural Management Practices Costs

Structural Management Practice[25]	NRCS FOTG No.	Design and Implementation Cost (per acre)	Maintenance Cost
Mini-Sprinkler Irrigation System	441-2	$0 to $2,600	$0 to $780
Mulching with Natural Materials	484-1	$0 to $290	$0 to $87
Silt Fence	570-2	$0 to $770	$0 to $231
Straw Bales	570-2	$0 to $1,892	$0 to $567
Straw Wattles or Fiber Rolls	570-2	$0 to $789	$0 to $264
Filter Strip – Native Species	393-3	$0 to $345	$0 to $103
Sedimentation Basin	350-3	$0 to $12,160[26]	$0 to $3,648

[23] https://efotg.sc.egov.usda.gov/references/public/CA/FY16_Practice_Payment_Scenarios_wBookmarks.pdf.
[24] Per e-mail from Gary Bender, Ph.D., Farm Adviser Emeritus, University of California Agriculture and Natural Resources, dated May 16, 2016.
[25] The list presented in Table 3 is based on the type of agricultural activities in the San Diego Region and observations of implemented management practices made during Agricultural Operation inspections.
[26] The cost provided in NRCS FOTG 350-3 is based on one, 1,500 cubic yard earthen embankment to construct a sedimentation basin. The cost presented in Table 3 is per embankment, and not per acre

iii. Monitoring and Reporting Costs

Table B-8 summarizes the estimated costs for compliance with the monitoring and reporting requirements detailed in the MRP, Attachment B.

Table B-8. Estimated Water Quality Monitoring and Reporting Costs

Task	One-Time Cost	Annual Cost
Surface Water and Groundwater Monitoring Program Plan[27]	$2,000	--
Groundwater Monitoring, if needed	$100	--
Surface Water/Edge of Field Monitoring	--	$8,000
Prepare and Implement a WQRP, if needed[28] [29]	$2,000	$10,000
Annual Reporting[30]	--	$1,000

iv. Anticipated Costs in Relationship to Revenue

The analysis includes the economic burden of the fees and the costs associated with the installation and maintenance of new structural management practices, monitoring, and reporting.[31] These costs are summarized in Table B-9. The estimated one-time cost for a median-sized (4 acre) Agricultural Operation to comply with this General Order is approximately $4,100, and the estimated annual cost for a median-sized (4 acre) Agricultural Operation to comply with this General Order is $8,000 to $24,468.

The agricultural products most commonly grown in the San Diego Region can be broadly grouped into three categories: 1) nursery and cut flower products, 2) fruit and nuts, and 3) vegetables. Table B-10 summarizes the acres planted and the revenue from these crops in San Diego County according to the *2014 County of San Diego Crop Report*.[32] Table B-10 also lists the average per acre revenue and the estimated average revenue for a median-sized (4 acre) Agricultural Operation.

Table B-9. Summary of Estimated Costs

Cost	Individual (4 Acres)	
	One-Time Cost	Annual Cost
Annual Fee	--	$0 to $458--
Mulching with Natural Materials	--	$0 to $348
Silt Fence	--	$0 to $924
Straw Bales	--	$0 to $2,268

[27] Cost assumes a qualified consultant prepares the Surface Water and Groundwater Monitoring Program Plan.
[28] Cost assumes a qualified consultant prepares and implements the WQRP.
[29] Cost assumes the WQRP is prepared to address an exceedance of nutrients with additional monitoring to be conducted for nutrients.
[30] Cost assumes a qualified consultant prepare the Annual Report.
[31] The estimated annual maintenance costs for items that would likely be part of the normal operational activities and not specifically required by this General Orders, such as maintenance of a mini-sprinkler irrigation system is not included. Also, the maintenance for a sedimentation basin is not included as only a limited number of Agricultural Operations would likely require the construction of a sedimentation basin to comply with this General Orders.
[32] http://www.sandiegocounty.gov/content/dam/sdc/awm/docs/Crop%20Report-Final.pdf.

Cost	Individual (4 Acres)	
	One-Time Cost	Annual Cost
Straw Wattles or Fiber Rolls	--	$0 to $1,056
Filter Strip	--	$0 to $414
Surface Water and Groundwater Monitoring Program Plan	$2,000	--
Groundwater Monitoring, if needed	$100	--
Surface Water/Edge of Field Monitoring	--	$8,000
Prepare WQRP, if needed	$2,000	--
Implement a WQRP, if needed	--	$10,000
Annual Reporting	--	$1,000
Totals	$4,100	$8,000 to $24,468

Table B-10. Summary of Estimated Revenue

Crop	Harvested Acres	Annual Revenue	Annual Revenue/Acre	Annual Revenue for a 4 Acre Agricultural Operation
Nursery & Cut Flowers	12,702	$1,182,613,913	$93,105	$372,418
Fruits & Nuts	34,811	$385,988,806	$11,088	$44,353
Vegetables	4,631	$6,644,917	$1,435	$5,740

v. Opportunities for Cost Reduction

There are several ways to lessen the potential economic burden of complying with this General Order.

(a) Selection of Cost-Effective Management Practices

This analysis includes an array of possible management practices. The actual cost will be dependent on the selection made by the Agricultural Operation using site-specific considerations. Many groups/organizations, such as the University of California Cooperative Extension (UCCE) and the NRCS, can provide assistance with the selection of appropriate, cost-effective management practices.

(b) The Agricultural Operation Could Join a Third-Party Group

Agricultural Operations have the option of joining a Third-Party Group. By doing so, the cost of compliance with the MRP will be distributed amongst all of the Members of the Third-Party Group, thus vastly reducing the cost.

(c) Funding Opportunities

The San Diego Water Board and State Water Board will continue to assist the agricultural community in identifying sources of financial assistance from existing federal, State, or local programs that promote water conservation and improved water quality through increased management

practices. Funding received from grants, cost-sharing, or low-interest loans would offset some of the local growers' expenditures for compliance and implementation of this General Order, and likely reduce the estimated losses in farmland. Potential funding sources for this mitigation measure are discussed below. The programs described below are illustrative and are not intended to constitute a comprehensive list of funding sources.

(1) Federal Farm Bill

Title II of the 2014 Farm Bill (the Agricultural Act of 2014), in effect through 2018, authorizes funding for conservation programs such as the Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP). Both of these programs provide financial and technical assistance for activities that improve water quality on agricultural lands.

(2) State Water Board

The Division of Financial Assistance (DFA) administers water quality improvement programs for the State Water Board. The programs provide grant and loan funding to reduce nonpoint source pollution discharge to surface waters.

The DFA currently administers two programs that improve water quality – the Agricultural Drainage Management Loan Program and the Agricultural Drainage Loan Program. Both of these programs were implemented to address the management of agricultural drainage into surface water.

The State Water Board's Clean Water State Revolving Fund also has funding authorized through Proposition 84. It provides loan funding to a wide variety of point source and nonpoint source water quality control activities.

(3) Other Funding Programs

Other State and federal funding programs have been available in recent years to address agricultural water quality improvements. Integrated Regional Water Management grants were authorized and funded by Proposition 50 and by Proposition 84. These are administered jointly by the State Water Board and the California Department of Water Resources.

II. APPLICATION FOR COVERAGE UNDER THIS GENERAL ORDER

New and existing Agricultural Operations without coverage under Order No. R9-2016-0004, *General Waste Discharge Requirements for Discharges from Commercial Agricultural Operations for Dischargers that are Members of Third-Party Group in the San Diego Region* or individual WDRs are required to enroll under this General Order. Either the owner or operator of an Agricultural Operation may enroll under this General Order by submitting a complete NOI (Attachment G) to the San Diego Water Board. Regulatory coverage under this General Order is not effective until the San Diego Water Board approves the NOI as described in section II.D of this General Order.

Section 2200 (Annual Fee Schedule) of title 23 of the CCR requires that all discharges subject to WDRs pay an annual fee to the State Water Board.

III. RATIONALE FOR PROHIBITIONS

The Prohibitions in this General Order are based on the Water Code section 13243 and implement all waste discharge prohibitions contained in the Basin Plan, and applicable State Water Board plans and policies including the Ocean Plan. This General Order does not authorize any discharges not covered under this General Order or other WDRs.

IV. RATIONALE FOR DISCHARGE SPECIFICATIONS

A. General Discharge Specifications

Discharge specifications in this General Order are based on the Water Code, Basin Plan, and applicable State Water Board plans and policies. This General Order does not authorize any discharges not covered under this General Order or that are covered under other WDRs.

B. Waste Discharge Control Requirements

This General Order requires Dischargers to implement management practices to prevent adverse impacts to water quality from Agricultural Operations, consistent with the Nonpoint Source Policy and the Agricultural Expert Panel Report. Dischargers must 1) implement management practices that prevent or reduce discharges of waste that are causing or contributing to exceedances of water quality standards; and 2) when effectiveness evaluation or reporting, monitoring data, or inspections indicate that the implemented management practices have not been effective in preventing the discharges from causing or contributing to exceedances of water quality standards, Dischargers must implement improved management practices.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

The receiving water limitations in section V. of this General Order are based on existing water quality standards requirements found in the following water quality control plans and policies and federal regulations:

A. The Basin Plan, including beneficial uses, water quality objective, and implementation plans.

B. *The Water Quality Control Plan for Ocean Waters of California* (Ocean Plan) including beneficial uses, water quality objective, and implementation plans.

C. *The Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries* (Thermal Plan).

D. *The Water Quality Control Policy for the Enclosed Bays and Estuaries of California* (Bays and Estuary Policy).

E. *The Water Quality Control Plan for Enclosed Bays and Estuaries of California – Part 1 Sediment Quality* including beneficial uses, water quality objective, and implementation plans.

F. *The Policy for Implementation of Toxics Standards for Inland Surface Waters, and Enclosed Bays, and Estuaries of California* (State Implementation Plan or SIP).

G. The *National Toxics Rule* (NTR). [33]

H. The *California Toxics Rule* (CTR). [34,35]

[33] 40 CFR section 136.
[34] 65 Federal Register 31682-31719 (May 18, 2000), adding section 131.38 to 40 CFR.
[35] If a water quality objective and a CTR criterion are in effect for the same priority pollutant, the more stringent of the two applies.

The receiving water limitations of this General Order prohibit discharges from causing or contributing to an exceedance of applicable water quality standards, unreasonably affecting applicable beneficial uses, or causing or contributing to a condition of pollution or nuisance. The Discharger must show immediate compliance with the receiving water limitations except where the Discharger is implementing a WQRP for specified waste parameters in accordance with an approved time schedule.

VI. RATIONALE FOR ORDER REQUIREMENTS

A. General

This General Orders includes requirements and conditions in accordance with the Water Code, the Basin Plan, the Nonpoint Source Policy, and other applicable federal, State, and regional law and regulations.

B. Education

This General Order requires the Discharger to attend water quality training annually, to ensure that the Discharger is familiar with the most current information regarding management practices, water quality monitoring, and reporting.

C. Water Quality Protection Plan (WQPP)

This General Order requires the Discharger to prepare and periodically update a WQPP to document the type and location of management practices being implemented an planned to minimize or prevent the discharge of pollutants to waters of the State either directly or indirectly through irrigation water runoff and infiltration, non-storm water runoff, and storm water runoff from agricultural operations. A copy of the WQPP is required to be submitted with the NOI.

D. Water Quality Restoration Plan (WQRP)

This General Order requires the Discharger to prepare a WQRP within 90 days of exceeding a Surface Water Quality Benchmark (section V of the MRP). The WQRP is an iterative and adaptive plan intended to identify and address sources of water quality impairment. When effectiveness evaluation or reporting, monitoring data, or inspections indicate that the implemented management practices have not been effective in preventing the discharges from causing or contributing to exceedances of water quality standards, the WQRP imposes requirements on the Discharger to implement improved management practices at the Agricultural Operation.

E. Quarterly Self-Inspection Report

This General Order requires the Discharger to perform and record quarterly self-inspections to assess the operation and maintenance of installed management practices.

F. Annual Self-Assessment Report

This General Order requires the Discharger to submit Annual Self-Assessment Reports, including copies of the Quarterly Self-Inspection Reports, evidence that the Discharger completed the annual water quality training, and the Annual Surface Water and groundwater Monitoring Report to evaluate compliance with the requirements of this General Order.

VII. RATIONALE FOR THE MONITORING AND REPORTING PROGRAM (MRP; ATTACHMENT A)

Water Code section 13267 authorizes the San Diego Water Board to require technical and monitoring program reports. The MRP for this General Order provides the San Diego Water Board information to determine the effectiveness of the management practices and the effect on the quality of the waters of the State. The MRP requires Dischargers to conduct groundwater and

surface water monitoring and to develop and implement WQRPs to identify the source of a water quality standard exceedance and implement appropriate management practices to achieve compliance with the water quality standard.

The technical and monitoring reports required by this General Order are necessary to ensure that the prior harm and future threat to water quality created by discharges from Agricultural Operations (as discussed in section I.D of this Fact Sheet) are controlled, minimized and eliminated.

A. Rationale for Core Monitoring

1. Surface Water Monitoring

The Discharger is required to monitor locations where discharges from Agricultural Operations enter waters of the State according to a monitoring program approved by the Executive Officer. To the greatest extent practicable, Agricultural Operations will be required to monitor in receiving surface water (stream, creek, lake, etc.). Where Agricultural Operations do not directly or indirectly discharge into surface waters, edge-of-field monitoring is required. The parameters required to be monitored are representative of typical discharges from Agricultural Operations, and will provide an evaluation of the effectiveness of the employed management practices.

Dischargers are required to compare monitoring results and to compare the results against Water Quality Benchmarks. Water Quality Benchmarks are pollutant concentration levels and narrative water quality standards used to evaluate if management practices are effective and if additional measures are necessary to control pollutants. If results from the surface water monitoring programs indicate that applicable Water Quality Benchmarks are exceeded, the Discharger is required to prepare and submit a WQRP, as described in section VI.D of this General Order. The WQRP requires improved management practices and additional monitoring, if necessary, to achieve and document compliance with Water Quality Benchmarks.

The MRP (Attachment A) requires monitoring for chronic toxicity in surface waters in order to determine if the application of pesticides, herbicides, algaecides, and fumigants is causing or contributing to exceedances of the Basin Plan narrative water quality objective for toxicity in surface waters.

The MRP (Attachment A) requires monitoring for indicators of pathogens (known as fecal indicator bacteria) in surface waters. Compost and manure are applied to crop land to improve soil texture, add organic matter and nutrients to the soil. If not properly managed, these materials can migrate into surface waters of the State and pose a public health risk if ingested.

The MRP (Attachment A) requires monitoring for turbidity in surface waters at risk of Agricultural Operation activities like tilling and grading. These activities can lead to an increase in the migration of sediment discharges to surface waters that would violate the turbidity water quality objective, causing impacts to wildlife and aquatic habitat.

2. Groundwater Monitoring

As an initial step towards developing a groundwater quality program for Agricultural Operations, groundwater quality monitoring under this General Order is limited to areas in the San Diego Region where groundwater is a significant drinking water source. At this time, the groundwater monitoring requirements of this General Order only applies to Dischargers with drinking water supply wells located on the property of the Agricultural Operation. The purpose of the drinking water supply well program outlined below is to

identify wells that have nitrate concentrations that threaten to exceed the MCL of 45 mg/L as NO_3 and notify any well users of the potential for human health impact.

Due to the potential severity and urgency of nitrates, the Discharger is required to 1) collect an initial groundwater sample of all drinking water supply wells on the Agricultural Operation within one year of receipt of a NOA; or 2) submit existing drinking water supply well sampling data, provided sampling and testing for nitrates was completed using USEPA-approved methods at least twice during the previous five years.

Where existing data or sampling data from initial rounds of sampling indicate nitrate concentration is at or above 36 mg/L nitrate[36] as NO_3, a repeat sample must be taken within 30 days. If the retest is at or above 36 mg/L nitrate as NO^3, the Discharger must thereafter monitor the drinking water supply well for nitrate levels on an annual basis, unless an alternative sampling schedule based on trending data for the well is approved by the San Diego Water Board. If the retest is at or above 45 mg/L nitrate as NO_3, the Discharger must provide notification to the San Diego Water Board within 24 hours of learning of the exceedance and monitor the well annually for nitrate thereafter unless an alternative sampling schedule is approved by the San Diego Water Board. For drinking water wells on the Discharger's property, within 10 days of receipt of the laboratory test results over 45 mg/L, the Discharger must immediately notify all individuals using the water supply well for a drinking source of the nitrate test results and the actions to be taken. Where the Discharger is not the property owner, the San Diego Water Board will notify the users promptly.

Where existing data or sampling data from initial rounds of sampling indicate the nitrate concentration is below 36 mg/L nitrate as NO_3, the well must be resampled once every five years from that point forward unless an alternative sampling schedule is approved by the Executive Officer.

Results of the drinking water supply well monitoring must be included in the Annual Monitoring Report submitted to the San Diego Water Board. The groundwater monitoring requirement will provide the San Diego Water Board with additional information on existing conditions, identify on-site drinking water wells with nitrate concentrations that are detrimental to public health, and provide a long-term evaluation on the effectiveness of management practices in preventing or reducing the discharge of nitrates to groundwater. As with other exceedances of a water quality standard in a groundwater well, any reported nitrated exceedances may trigger the requirement for the Discharger to develop a WQRP. Sampling may cease at any drinking water well if it is taken out of service and no longer provides drinking water.

B. Rationale for Regional Monitoring

Regional monitoring provides information necessary to make assessments over large areas and serves to evaluate cumulative effects of all anthropogenic inputs from commercial agriculture. Regional monitoring can include ambient monitoring. Under the San Diego Water Board's Commercial Agricultural Operation Regulatory Program, Third-Party Groups will take the lead role in coordinating and carrying out regional monitoring. Individual Dischargers, however, are encouraged to participate in regional monitoring programs, as these programs can assist in the interpretation of core monitoring data by providing a more complete picture of natural variability and cumulative impacts in the receiving waters. This assessment in turn

[36] This concentration is 80% of the MCL for nitrate as NO_3 and is presumed to be a conservative measure of the potential for exceedances of the MCL.

allows Individual Dischargers to more effectively use core monitoring data in prioritizing actions targeting pollutants and pollutant sources.

C. Rationale for Special Studies

Special studies are directed monitoring efforts designed in response to specific management or research questions identified through either core or regional monitoring programs. Oftentimes, special studies are used to help understand core or regional monitoring results where a specific environmental process is not well understood, or to address unique issues of local importance.

If water quality monitoring data, collected as described in the MRP, indicate exceedances of applicable Water Quality Benchmarks, the Discharger must develop a WQRP as described in section VI.D of this General Order. Upon approval of the WQRP by the San Diego Water Board, the Discharger must implement targeted management practices intended to attain the Water Quality Benchmarks. Management practices may include those recommended by organizations such as NRCS and UCCE.

Examples of additional or upgraded management practices that may be implemented to address Water Quality Benchmark exceedances include, but are not limited to:

1. Nutrients
    a. Improved irrigation efficiency to reduce runoff.
    b. Certified nutrient management plans, including crop-specific applied/removed ratios for nitrogen.[37]
2. Legacy pesticides (e.g. DDT, DDE, chlordane, and dieldrin).
    a. Improved irrigation efficiency to reduce runoff.
    b. Erosion and runoff control measures.
    c. Storm water runoff filtration and/or infiltration.
3. Current use pesticides (e.g. chlorpyrifos, diazinon, and pyrethroids).
    a. Pesticide management plans.
    b. Improved irrigation efficiency to reduce runoff.
    c. Erosion and runoff control measures.
    d. Storm water runoff filtration and/or infiltration.

VIII. PUBLIC PARTICIPATION

The San Diego Water Board has considered the issuance of this General Order that will provide regulatory coverage for Agricultural Operations located within the San Diego Region. As a step in the adoption process of this General Order, the San Diego Water Board developed a Tentative General Order and encouraged public participation in the Board's proceedings to consider adoption of the Tentative General Order in accordance with the requirements of Water Code section 13167.5.

A. Notification of Public Hearing and Public Comment Period

By electronic mail dated June 13, 2016, the San Diego Water Board notified the public, stakeholders, and interested agencies of its intent to consider adoption of the Tentative

[37] The American Society of Agronomy and The National Resource Conservation Service (NRCS) certify professionals in the preparation of nutrient management plans.

General Order in a public hearing during a future Board Meeting. The San Diego Water Board also provided notice that the Tentative General Order was posted on the San Diego Water Board website and provided a period of 45 days for public review and comment.

The public also had access to the San Diego Water Board meeting agenda including all supporting documents and any changes in meeting dates and locations through the San Diego Water Board's website at: http://www.waterboards.ca.gov/sandiego/.

B. Written Comments and Responses

Interested persons were invited to submit written comments concerning the Tentative General Order as provided through the notification process. Written comments or emailed comments were required to be received in the San Diego Water Board office at 2375 Northside Drive, Suite 100, San Diego, California 92108.

To be fully responded to by staff and considered by the San Diego Water Board, the written or emailed comments were due at the San Diego Water Board office not later than 5:00 p.m. on July 29, 2016. The San Diego Water Board provided written responses to all timely received public comments on the Tentative General Order and posted the response to comments document on the San Diego Water Board's website in advance of the public hearing date.

C. Public Hearing

The San Diego Water Board held a public hearing on the Tentative General Order during its regular Board meeting on the following date and time and at the following location:

Date: DATE

Time: 9:00 AM

Location: XXX
XXX
XXX

Interested persons were invited to attend. At the public hearing, the San Diego Water Board heard and considered all comments and testimony pertinent to the discharge and the Tentative General Order. For accuracy of the record, important testimony was requested in writing.

D. Public Access to Records

Records pertinent to the San Diego Water Board's proceedings to adopt this General Order including but not limited to public notices, draft and finalized versions of the Tentative General Order, public comments received, responses to comments received, and other supporting documents are maintained by the San Diego Water Board. These records are available for public access Monday through Friday between the hours of 8:00 a.m. to 5:00 p.m. at the San Diego Water Board office.

The San Diego Water Board website contains information and instructions on how to request access and obtain copies of these records at:
http://www.waterboards.ca.gov/sandiego/about_us/contact_us/records.shtml

Before making a request to view public records in the San Diego Water Board office you may wish to determine if the information is already available on the San Diego Water Board's website at http://www.waterboards.ca.gov/sandiego/

E. California Native American Tribe Notification

Public Resources Code section 21080.3.1 requires lead agencies to provide notice and consultation for California Native American Tribes culturally affiliated with a proposed project area (Tribes). On July 23, 2015 and December 22, 2015, the San Diego Water Board provided written notice of its intent to adopt the Tentative General Order to Tribes that requested such notice. No Tribes requested consultation on this General Order.

F. Stakeholder Meetings and Public Workshops

Numerous Public Workshops were held during the development of this General Order (Table B-11). The Public Workshops were announced via postings on the San Diego Water Board's webpage and via the emails, letters, and telephone conversations.

Table B-11. Summary of Stakeholder Meetings and Public Workshops

Meeting	Topic	Date
Informal Stakeholder Workgroup	Renewal of the *Conditional Waiver of Waste Discharge Requirements for Agricultural an Nursery Operations*	July 30, 2012
Informal Stakeholder Meeting	Draft Initial Study and Environmental Checklist for *Tentative General Waste Discharge Requirements for Discharges of Waste from Commercial Agricultural and Nursery Operations within the San Diego Region*	January 22, 2014
Informal Stakeholder Meeting	*Tentative General Waste Discharge Requirements for Discharges of Waste from Commercial Agricultural and Nursery Operations within the San Diego Region*	February 19, 2014
Public Workshop No. 1	Administrative Draft of Tentative General Order No. R9-2015-0003, *General Waste Discharge Requirements for Discharges of Waste from Commercial Agricultural and Nursery Operations within the San Diego Region*	July 14, 2015
Public Workshop No. 2	Administrative Draft of Tentative General Order No. R9-2015-0003, *General Waste Discharge Requirements for Discharges of Waste from Commercial Agricultural and Nursery Operations within the San Diego Region*	July 15, 2015
Public Workshop No. 3	Administrative Draft of Tentative General Order No. R9-2015-0003, *General Waste Discharge Requirements for Discharges of Waste from Commercial Agricultural and Nursery Operations within the San Diego Region*	August 18, 2015
Public Workshop No. 4	Administrative Draft of Tentative General Order No. R9-2015-0003, *General Waste Discharge Requirements for Discharges of Waste from Commercial Agricultural and Nursery Operations within the San Diego Region*	September 10, 2015
Public Workshop No. 5	Administrative Draft of Tentative General Order No. R9-2015-0003, *General Waste Discharge Requirements for Discharges of Waste from Commercial Agricultural and Nursery Operations within the San Diego Region*	September 15, 2015
Public Workshop No. 6	Administrative Draft of Tentative General Order No. R9-2015-0003, *General Waste Discharge Requirements for Discharges of Waste from Commercial Agricultural and Nursery Operations*	September 17, 2015

Meeting	Topic	Date
	within the San Diego Region	
Public Workshop No. 6	Tentative General Order No. R9-2016-0004, *General Waste Discharge Requirements for Discharges From Commercial Agricultural Operations for Dischargers that are Members of a Third-Party Group in the San Diego Region,* and Tentative General Order No. R9-2016-0005, *General Waste Discharge Requirements for Discharges Commercial Agricultural Operations for Dischargers Not Participating in a Third-Party Group in the San Diego Region*	June 22, 2016

G. Petition for State Water Board Review

Any aggrieved person may petition the State Water Board to review the decision of the San Diego Water Board regarding this General Order in accordance with Water Code section 13320 and CCR title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the adoption date of this General Order, except that if the thirtieth day following the adoption date of this General Order falls on a Saturday, Sunday, or State holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the State Water Board website at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.shtml.

For instructions on how to file a petition for review, see the State Water Board's website at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml.

H. Additional Information

Requests for additional information or questions regarding this General Order should be directed to Barry Pulver at (619) 521-3381 or barry.pulver@waterboards.ca.gov.

ATTACHMENT C – ABBREVIATIONS AND DEFINITIONS

ABBREVIATIONS

Abbreviation	Definition
303(d) List	CWA section 303(d) List of Water Quality Limited Segments
40 CFR	title 40 of the Code of Federal Regulations
AGR	Agricultural Supply
Agricultural Waiver	2007 Conditional Waiver of Waste Discharge Requirements for Discharges from Agricultural and Nursery Operations
Antidegradation Policy	State Water Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California
A/R	Multi-year ratio of nitrogen applied to the field to nitrogen removed from the field
ASBS	Areas of Special Biological Significance
Bacteria TMDL	A Resolution Amending the Water Quality Control Plan for the San Diego Basin (9) to incorporate Revised Total Maximum Daily Loads for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region
Basin Plan	Water Quality Control Plan for the San Diego Basin
Bays and Estuaries Policy	Water Quality Control Policy for the Enclosed Bays and Estuaries of California
BIOL	Preservation of Biological Habitats of Special Significance
BMP	Best Management Practice
CCR	California Code of Regulations
CEDEN	California Environmental Data Exchange Network
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
COLD	Cold Freshwater Habitat
COMM	Commercial and Sport Fishing
CTR	California Toxics Rule
CWA	Clean Water Act
DDW	Division of Drinking Water
ELAP	Environmental Laboratory Accreditation Program
EST	Estuarine Habitat
FRSH	Freshwater Replenishment
GAMA	Groundwater Ambient Monitoring and Assessment Program
GWR	Groundwater Recharge
HA	Hydrologic Area
HAS	Hydrologic Subarea
HU	Hydrologic Unit
ILRP	Irrigated Lands Regulatory Program
IND	Industrial Service Supply
lbs/day	Pounds per Day
MCL	maximum contaminate level
mg/kg	Milligrams per kilogram
mg/L	milligrams per liter
MMRSA	Medical Marijuana Regulation and Safety Act
MP	Management Measure
MPN	Most probable number of bacterial colonies
MRP	Monitoring and Reporting Program
mS/cm	Micro siemens per cubic meter
MUN	Municipal and Domestic Supply
NOA	Notice of Applicability
NOEX	Notice of Exclusion
NOI	Notice of Intent
NOT	Notice of Termination

Abbreviation	Definition
NOV	Notice of Violation
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NTR	National Toxics Rule
NTU	Nephelometric Turbidity Units
Ocean Plan	Water Quality Control Plan for Ocean Waters of California
OCR	Optical Character Recognition
OES	Office of Emergency Services
PDF	Portable Document Format
PROC	Industrial Process Supply
QAPP	Quality Assurance Project Plan
Rainbow Creek TMDL	A Resolution Amending the Water Quality Control Plan for the San Diego Basin (9) to incorporate Total Maximum Daily Loads for Total Nitrogen and Total Phosphorus in Rainbow Creek Watershed, San Diego County, Resolution No. R9-2005-0036
RARE	Rare, Threatened, or Endangered Species
RCDs	Resource Conservation Districts
REC-1	Contact Water Recreation
REC-2	Noncontact Recreation
ROWD	Report of Waste Discharge
San Diego Water Board	California Regional Water Quality Control Board, San Diego Region
SCCWRP	Southern California Coastal Waters Research Project
SHELL	Shellfish Harvesting Beneficial Use
SIP	State Implementation Policy
SMC	Southern California Storm Water Monitoring Coalition
SPWN	Spawning, Reproduction, and/or Early Development
State Implementation Policy	Policy for Implementation of Toxics Standards for Inland Surface Waters, and Enclosed Bays, and Estuaries of California
State Water Board	State Water Resources Control Board
SWAMP	Surface Water Ambient Monitoring Program
SWRCB	State Water Resources Control Board
Thermal Plan	Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries
TMDLs	Total Maximum Daily Loads
TSS	Total Suspended Solids
U.S.	United States
UCCE	University of California Cooperative Extension
USEPA	U.S. Environmental Protection Agency
Waivers	conditional waiver of WDRs
WARM	Warm Freshwater Habitat
Water Code	California Water Code
WDID	Waste Discharge Identification
WDRs	waste discharge requirements
WILD	Wildlife Habitat
WLA	Waste Load Allocation
WQO	Water Quality Objective
WQPP	Water Quality Protection Plan
WQRP	Water Quality Restoration Plan
WQS	Water Quality Standard
µg/l	Micrograms per Liter

ABBREVIATIONS

Acute Toxicity
A measurement of the adverse effect (usually mortality) of a waste discharge or ambient water sample on a group of test organisms during a short-term exposure.

Agricultural Operation
Any agricultural business or trade activity, including farms, nurseries, and orchards, that produces crops with the intent to make a profit. The San Diego Water Board presumes an intent to make a profit if at least one of the following criteria is met:

1. The owner or operator files a federal Department of Treasury Internal Revenue Service Form 1040 Schedule *F Profit or Loss from Farming* with their federal taxes.
2. The owner or operator receives agriculture water use rates or has been given an agricultural water use variance from their water purveyor.
3. The owner or operator of the Agricultural Operation holds a current Operator Identification Number/Permit Number from a local County Agricultural Commissioner for pesticide use reporting.

Areas of Special Biological Significance (ASBS)
Those areas designated by the State Water Resources Control Board (State Water Board) as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of STATE WATER QUALITY PROTECTION AREAS.

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)
The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Chlordane
Shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

Chronic Toxicity Tests
A measurement of the sub-lethal effects of a discharge or ambient water sample (e.g. reduced growth or reproduction). Certain chronic toxicity tests include an additional measurement of lethality.

Clean Water Act (CWA)
The Federal Water Pollution Control Act enacted by Public Law 92-500 as amended by Public Laws 95-217,95-576,96-483, and 97-117; 33 USC 1251 et seq.

Daily Discharge
Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

DDT
Shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

Degradation
Any measurable adverse change in water quality.

Detected, but Not Quantified (DNQ)
Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes
Shall mean the sum of 1,2- and 1,3-dichlorobenzene.

Discharger
Any owner or operator of an Agricultural Operation that discharges, or threatens to discharge, wastes associated with agricultural activities into waters of the State in the San Diego Region.

Dredged Material
Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil."

Enclosed Bays
Indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

Endosulfan
The sum of endosulfan-alpha and -beta and endosulfan sulfate.

Estuaries and Coastal Lagoons are waters at the mouths of streams that serve as mixing zones for fresh and ocean waters during a major portion of the year. Mouths of streams that are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open ocean to the upstream limit of tidal action but may be considered to extend seaward if significant mixing of fresh and salt water occurs in the open coastal waters. The waters described by this definition include but are not limited to the Sacramento-San Joaquin Delta as defined by Section 12220 of the California Water Code, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

Groundwater
Water in the ground that is in the zone of saturation. The upper surface of the saturate zone is called the water table.

Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

HCH shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

Impaired water body
A surface water body that is not attaining water quality standards and is identified on the State Water Board's Clean Water Act section 303(d) list.

Initial Dilution
The process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the San Diego Water Board whichever results in the lower estimate for initial dilution.

Inland Surface Waters
The surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation
The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation)

Instantaneous Minimum Effluent Limitation
The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Irrigated Lands
Land irrigated to produce crops, pasture, or agricultural products for commercial purposes**.**

Irrigation return flow or runoff
Surface and subsurfa**ce water which leaves the field** following application of irrigation water

Kelp Beds
For purposes of the bacteriological standards of the Ocean Plan, are significant aggregations of marine algae of the genera Macrocystis and Nereocystis. Kelp beds include the total foliage canopy of Macrocystis and Nereocystis plants throughout the water column.

Management Practices to protect water quality
A practice or combination of practices that is the most effective and practicable (including technological, economic, and institutional considerations) means of controlling nonpoint pollutant sources at levels protective of water quality.

Mariculture
The culture of plants and animals in marine waters independent of any pollution source.

Material
(a) In common usage: (1) the substance or substances of which a thing is made or composed (2) substantial; (b) For purposes of the Ocean Plan relating to waste disposal, dredging and the disposal of dredged material and fill, MATERIAL means matter of any kind or description which is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See also, DREDGED MATERIAL.

Maximum Daily Effluent Limitation (MDEL)
The highest allowable daily discharge of a pollutant.

Member
A Discharger who belongs to a Third-Party Group.

Method Detection Limit (MDL)
The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 C.F.R. part 136, Attachment B.

Minimum Level (ML)
The concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Monitoring
Monitoring undertaken in connection with assessing water quality conditions, and factors that may affect water quality conditions. Monitoring includes, but is not limited to, water quality monitoring undertaken in connection with agricultural activities, monitoring to identify short and long-term trends in water quality, nutrient monitoring, active inspections of operations, and management practice implementation and effectiveness monitoring. The purposes of monitoring include, but are not limited to, verifying the adequacy and effectiveness of the General Order's requirements, and evaluating each Member's compliance with the requirements of the General Order.

Natural Light
Reduction of natural light may be determined by the San Diego Water Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the San Diego Water Board**.**

Non-Storm Water Discharge
Any discharge that is not composed entirely of storm water**.**

Nuisance
"Nuisance" means anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with

the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. (3) Occurs during, or as a result of, the treatment or disposal of waste. [Water Code section 13050(m)]

Nutrient
Any element taken in by an organism which is essential to its growth and which is used by the organism in elaboration of its food and tissue.

Not Detected (ND)
Those sample results less than the laboratory's MDL.

Ocean Waters
The territorial marine waters of the state as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the state could affect the quality of the waters of the state, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters.

Off-property discharge
The discharge or release of waste beyond the boundaries of the agricultural operation or to water bodies that run through the agricultural operation.

Perched groundwater
Groundwater separated from an underlying body of groundwater by an unsaturated zone**.**

PAHs (polynuclear aromatic hydrocarbons)
The sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene

PCBs (polychlorinated biphenyls)
The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

Pollutant
"Pollutant" means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean: (a) Sewage from vessels; or (b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources. NOTE: Radioactive materials covered by the Atomic Energy Act are those encompassed in its definition of source, byproduct, or special nuclear materials. Examples of materials not covered include radium and accelerator-produced isotopes. See Train v. Colorado Public Interest Research Group, Inc., 426 U.S. 1 (1976). (40 CFR 122.2).

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of Ocean Plan Table 1 pollutants through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The San Diego Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution
Pollution" means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses. (B) Facilities which serve these beneficial uses. "Pollution" may include "contamination." [Water Code section 13050(l)].

Receiving Waters
Surface water or groundwater that receives or has the potential to receive discharges of waste from agricultural operations.

Reported Minimum Level
The reported ML (also known as the Reporting Level or RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the San Diego Water Board either from Appendix II of the Ocean Plan in accordance with section III.C.5.a. of the Ocean Plan or established in accordance with section III.C.5.b. of the Ocean Plan. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the reported ML.

Requirements of applicable water quality control plans
Water quality objectives, prohibitions, total maximum daily load implementation plans, or other requirements contained in water quality control plans adopted by the San Diego Water Board or the State Water Board and approved according to applicable law.

San Diego Water Board
As used in the General Order the term "San Diego Water Board" is synonymous with the term "Regional Board" as defined in Water Code section 13050(b) and is intended to refer to the California Regional Water Quality Control Board for the San Diego Region as specified in Water Code Section 13200.

Shellfish
Organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e., mussels, clams and oysters).

Significant Difference
Defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

Six-Month Median Effluent Limitation
The highest allowable moving median of all daily discharges for any 180-day period.

State Water Quality Protection Areas (SWQPAs)
Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolutions 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

Storm Water
Includes storm water runoff, snowmelt runoff, and storm water surface runoff and drainage. It excludes infiltration and runoff from agricultural land.

TCDD Equivalents
The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

Third-Party Group
An organization approved by the San Diego Water Board to represent and assist Dischargers in carrying out the terms and conditions of this General Order.

Total Maximum Daily Load (TMDL)
From the Code of Federal Regulations (CFR), 40 CFR 130.2(i), a TMDL is: “The sum of the individual WLAs [wasteload allocations] for point sources and LAs [load allocations] for nonpoint sources and natural background. … TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. …”.

Toxicity
Refers to the toxic effect to aquatic organisms from waste contained in an ambient water quality sample.

Toxicity Reduction Evaluation (TRE)
A study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

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 as defined in Water Code section 13050(d). Wastes from agricultural operations that conform to this definition include, but are not limited to, earthen materials (such as soil, silt, sand, clay, rock), inorganic materials (such as metals, salts, boron, selenium, potassium, nitrogen, phosphorus), organic materials such as pesticides, and biological materials, such as pathogenic organisms**.**

Waste discharges from agricultural operations
The discharge or release of waste to surface water or groundwater. Waste discharges to surface water include, but are not limited to, irrigation return flows, tailwater, drainage water, subsurface (tile) drains, storm water runoff flowing from irrigated lands, aerial drift, and overspraying of pesticides. Waste can be discharged to groundwater through pathways including, but not limited to, percolation of irrigation or storm water through the subsurface, backflow of waste into wells (e.g., backflow during chemigation), discharges into unprotected wells and dry wells, and leaching of waste from tailwater ponds or sedimentation basins to groundwater. A discharge of waste subject to the General Order is one that could directly or indirectly reach waters of the State, which includes both surface waters and groundwaters.

Water Quality Benchmark
Discharge prohibitions and narrative or numeric surface water quality objectives, a water quality objective 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 Criteria
Levels of water quality required under section 303(c) of the Clean Water Act that are expected to render a body of water suitable for its designated uses. Criteria are based on specific levels of pollutants that would make the water harmful if used for drinking, swimming, farming, fish production, or industrial processes. The California Toxics Rule adopted by USEPA in April 2000 sets numeric water quality criteria for non-ocean surface waters of California for a number of toxic pollutants.

Water Quality Objectives
Defined in Water Code section 13050 as “limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specified area.” Water quality objectives may be either numerical or narrative and serve as water quality criteria for purposes of section 303 of the Clean Water Act.

Water quality problem
Exceedance of an applicable water quality standard or a trend of degradation that may threaten applicable Basin Plan beneficial uses.

Water Quality Standards
Provision of state or federal law that consist of the designated beneficial uses of a waterbody, the numeric and narrative water quality criteria that are necessary to protect the uses of that particular waterbody, and an antidegradation statement. Water quality standards include water quality objectives in the San Diego Water Board Basin Plan, water quality criteria in the California Toxics Rule and National Toxics Rule adopted by USEPA, and/or water quality objectives in other applicable State Water Board plans and policies. Under section 303 of the Clean Water Act, each state is required to adopt water quality standards.

Water Recycling
The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

Waters of the State
Any surface water or groundwater, including saline waters, within the boundaries of the State. [Water Code section 13050(e)]

FIGURE D-1

MAP OF THE SAN DIEGO REGION AND WATERSHEDS

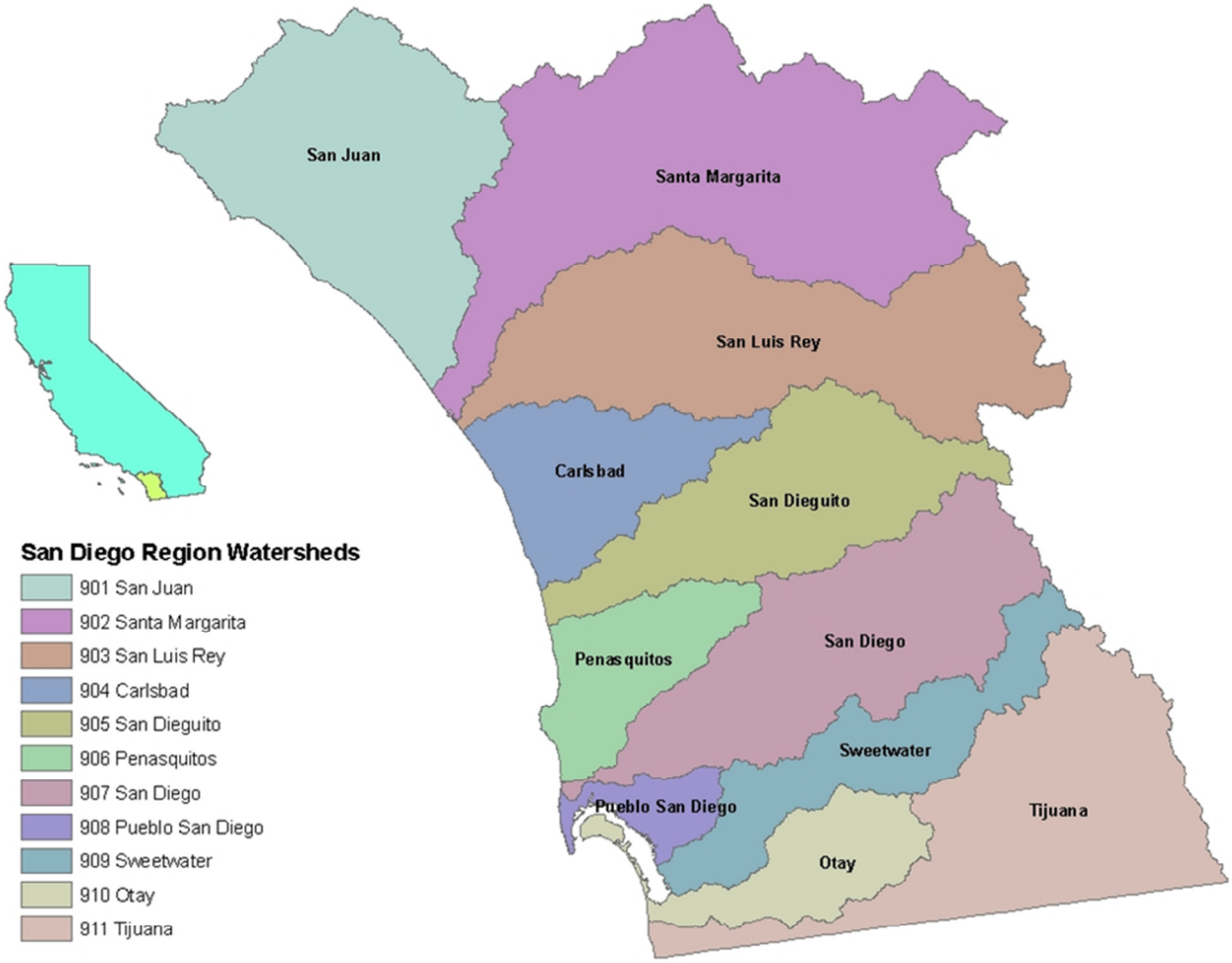
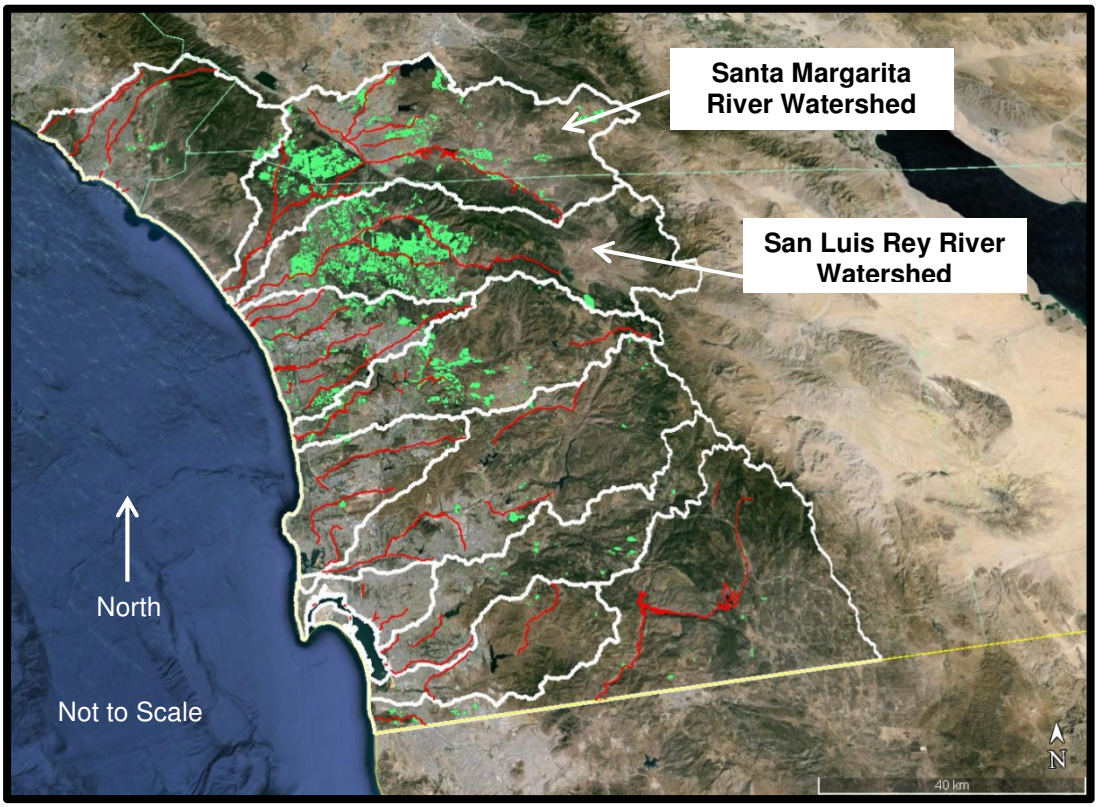


FIGURE D-2

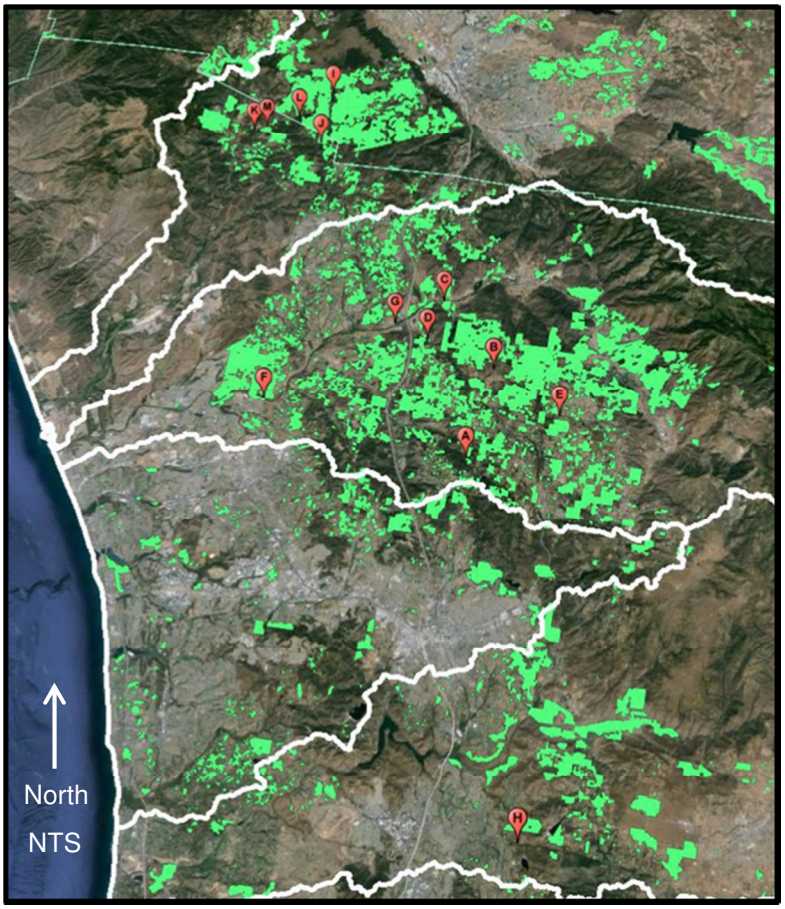
LOCATION OF AGRICULTURAL OPERATIONS AND CLEAN WATER ACT SECTION 303(D) LIST OF WATER QUALITY LIMITED SEGMENTS WITHIN THE SAN DIEGO REGION



Green ashading indicates areas of agricultural activity as indicated on landuse maps prepared by the Counties of San Diego, Riverside, and Orange.
Red lines indicate location of CWA Section 303(d) Water Quality Limited Segments.
White lines indicate watershed boundaries.

FIGURE D-4

LOCATION OF REGIONAL BIOASSESSMENT MONITORING STATIONS



Map Location	Monitoring Location Designation	Latitude	Longitude	Watershed
A	903S01717	33.233704	-117.093917	San Luis Rey
B	903S02457	33.296406	-117.085561	San Luis Rey
C	903S02933	33.340147	-117.132327	San Luis Rey
D	903S01909	33.311289	-117.138853	San Luis Rey
E	903S00693	33.269344	-117.031468	San Luis Rey
F	903S02145	33.255783	-117.250061	San Luis Rey
G	903S00457	33.319562	-117.165622	San Luis Rey
H	905S01174	33.016775	-117.01646	San Dieguito
I	902S03401	33.487242	-117.255378	Santa Margarita
J	902S01161	33.446616	-117.255324	Santa Margarita
K	902S11593	33.450428	-117.311695	Santa Margarita
L	902S01097	33.464602	-117.277966	Santa Margarita
M	902E00888	33.45407	-117.30182	Santa Margarita

I. IMPAIRED WATERBODIES

The federal Clean Water Act (CWA) gives states the primary responsibility for protecting and restoring water quality. In California, the State Water Resources Control Board (State Board) and nine Regional Water Quality Control Boards (Regional Boards) are the agencies with the primary responsibility for implementing the CWA, including developing and implementing programs to achieve water quality standards. Water quality standards include designated beneficial uses of waterbodies, criteria or objectives (numeric or narrative) which are protective of those beneficial uses, and policies to limit the degradation of water bodies. The water quality standards for waterbodies in the San Diego Region are primarily contained in the Water Quality Control Plan for the San Diego Basin (Basin Plan).

CWA Section 303(d) requires each state to develop, update, and submit to the U. S. Environmental Protection Agency (USEPA) a list of “impaired or threatened” waterbodies, or segments, which either do not meet, or not expected to meet, water quality standards. Impaired waterbodies, or segments on the 303(d) list, must be addressed through the development of TMDLs or by other means as described in the State’s Water Quality Control Policy for Addressing Impaired Waters (Impaired Waters Policy).

The San Diego Water Board adopted the 2008 CWA Sections 305(b) and 303(d) Integrated Report on Evaluation of Surface Water Quality and Listing of Impaired Water Body Segments for the San Diego Region (2008 Integrated Report) on December 16, 2009. The final 2008 Integrated Report was incorporated into the statewide 2010 Integrated Report that was approved by the State Board on August 4, 2010. On November 12, 2010, USEPA approved the 2008-2010 CWA Section 303(d) List that includes listings for the San Diego Region. Table E-1 lists waterbodies on the 303(d) List where agriculture is listed as a pollutant source.

Table E-1. 303(d) Waterbodies, Agriculture Identified as a Source of the Pollutant

Watershed	Waterbody Name	Pollutant
San Juan	Arroyo Trabuco Creek	Diazinon
		Nitrogen
Santa Margarita	De Luz Creek	Nitrogen
	Redhawk Channel	Chlorpyrifos
	Santa Margarita Lagoon	Eutrophic
San Luis Rey	San Luis Rey River, Lower	Total Dissolved Solids
San Dieguito	Felicita Creek	Total Dissolved Solids
	Lake Hodges	Nitrogen
		Phosphorus
	Kit Carson Creek	Total Dissolved Solids
Penasquitos	Mission Bay North of Rose Creek	Eutrophic
San Diego	Forester Creek	Phosphorus
		Total Dissolved Solids
Tijuana	Morena Reservoir	Ammonia as Nitrogen
		Color
	Tijuana River	Pesticides

Table E-2 lists waterbodies on the 303(d) List where the pollutant is associated with agricultural activities; Agricultural Operations are known to be located in the vicinity of the listed waterbodies, and the source of the pollutant is listed as unknown nonpoint source.

Table E-2. 303(d) Waterbodies, Pollutants Associated with Agricultural Activities

Watershed	Waterbody	Pollutant
San Juan	Aliso Creek	Phosphorus
		Nitrogen
	Arroyo Trabuco Creek	Phosphorus
	Prima Deshecha Creek	Phosphorus
	San Juan Creek	1,1-Dichloro-2,2-bis(p-chlorophenyl) ethylene (DDE)
		Phosphorus
		Nitrogen
Santa Margarita	Long Canyon Creek	Chlorpyrifos
	Murrieta Creek	Chlorpyrifos
		Nitrogen
		Phosphorus
	Redhawk Channel	Diazinon
		Nitrogen
		Phosphorus
	Santa Gertrudis Creek	Chlorprifos
		Phosphorus
	Santa Margarita River, Lower	Phosphorus
		Nitrogen
	Santa Margarita River, Upper	Phosphorus
	Temecula Creek	Chlorpyrifos
		Phosphorus
San Luis Rey	San Luis Rey River, Lower	Phosphorus
		Nitrogen
	San Luis Rey River, Upper	Nitrogen
Carlsbad	Agua Hedionda Creek	Phosphorus
		Nitrogen
	Buena Creek	Dichlorodiphenyltrichloroethane (DDT)
		Nitrate and Nitrite
		Phosphorus
	Buena Vista Lagoon	Nutrients
	Cottonwood Creek	DDT
		Phosphorus
	Encinitas Creek	Phosphorus
	Escondido Creek	DDT
		Phosphate
		Nitrogen
	San Marcos Creek	DDE
		Phosphorus
	San Marcos Lake	Ammonia as Nitrogen
		Nutrients
		Phosphates

II. TMDL OVERVIEW

A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards (numeric targets), and an allocation of that load among the various sources of that pollutant. Pollutant sources are characterized as either point sources that receive a wasteload allocation (WLA) or nonpoint sources that receive a load allocation (LA). TMDLs must also account for seasonal variations in water quality, and include a margin of safety

(MOS) to account for uncertainty in predicting how well pollutant reductions will result in meeting water quality standards.

There are five steps in developing a TMDL:

A. Involve Stakeholders

Stakeholders are involved at the beginning of the process in order to provide input to the Regional Boards on the development of TMDLs. Stakeholders can be the general public, business interests, government entities, environmental groups, or anyone concerned with a particular water body.

B. Assess Water Body

Pollution sources and amounts, or "loads," are identified for various times of the year, and the overall effect of these loads on the water body is determined.

C. Determine the Total Load and Develop Allocations

The total pollutant load and allocations of pollutant load for all sources are established to ensure water quality standards are met and beneficial uses are attained. TMDLs can address single pollutants or combinations of pollutants. The sum of the allocations must result in the water body attaining the applicable water quality standards.

D. Develop Implementation Plan

An Implementation Plan is developed which describes the approach and activities to be undertaken to ensure the allocations are met and identification of parties responsible for carrying out the actions. The Implementation Plan may include a Non-TMDL Alternative. A Non-TMDL Alternative includes actions, as required by other regulatory actions other than a TMDL that will result in the attainment of water quality objectives.

E. Amend the Basin Plan

As required by Federal law, TMDLs are incorporated into the Basin Plans. The Basin Plan is a legal document that describes how a Regional Board would manage water quality. The TMDLs must be formally incorporated into the Basin Plan to be part of the basis for Regional Board actions. Basin Plan amendments are adopted through a public process that requires approval of the TMDLs by a Regional Board, the State Board, the Office of Administrative Law, and USEPA Region 9.

III. TMDLS APPLICABLE TO DISCHARGES FROM AGRICULTURAL OPERATIONS IN THE SAN DIEGO REGION

A. Rainbow Creek TMDL

1. Administrative Record

   The Rainbow Creek TMDL was adopted by the San Diego Water Board on February 9, 2005, and approved by the State Water Board on November 16, 2005; the Office of Administrative Law (OAL) on February 1, 2006; and the USEPA on March 22, 2006. The Rainbow Creek TMDL became effective on February 1, 2006.

2. Attainment Date

   The attainment date contained in the Rainbow Creek TMDL is December 31, 2021.

3. Problem Statement

Nitrate concentrations in Rainbow Creek exceed the water quality objective for municipal supply (MUN), and total nitrogen and total phosphorus concentrations exceed the water quality objectives for biostimulatory substances threatening to unreasonably impair the warm freshwater habitat (WARM), cold freshwater habitat (COLD), and wildlife habitat (WILD) beneficial uses of Rainbow Creek. Excessive nutrients in Rainbow Creek promote the growth of algae in localized areas, creating a nuisance condition that unreasonably interferes with aesthetics and water contact (REC-1) and non-water contact (REC-2) beneficial uses and threatens to impair WARM, COLD and WILD beneficial uses. Runoff from agriculture, nursery, and residential land uses contribute to increased pollutant nutrients in Rainbow Creek as a result of storm water runoff, irrigation return flows, and groundwater contributions to the creek.

4. Numeric Targets

Numeric targets interpret and implement water quality standards (i.e., numeric and narrative water quality objectives and beneficial uses). Numeric targets are established at levels that will ensure attainment of water quality objectives and the protection of beneficial uses. The numeric targets for nutrients are intended to achieve the water quality objective for nitrates and the narrative water quality objective for stimulation of algal and emergent plant growth by nutrients. Water quality objectives are established for nitrates, total nitrogen, and total phosphorus to meet drinking water standards in the short-term, and to reduce existing periodic algal blooms and prevent future eutrophic conditions.

Table E-3 presents the applicable numeric targets.

Table E-3. Numeric Targets for Rainbow creek watershed

Constituent	Numeric Target milligrams per liter (mg/L)
Nitrate (as N)	10
Total Nitrogen	1
Total Phosphorus	0.1

5. Source Assessment

A source assessment was conducted to identify all known sources of nutrients that contribute to the loading of nutrients into Rainbow Creek. As shown on Table E-4, the primary source of nutrients into Rainbow Creek is from Agricultural Operations.

Table E-4. Calculated Annual Nutrient Surface Water Loads to Rainbow Creek

Land Use	Nitrogen		Phosphorus	
	Calculated Load (kg/yr)	% of Total Calculated Load	Calculated Load (kg/yr)	% of Total Calculated Load
Agriculture	1,974	74%	126	48%
Park	7	>1%	0.2	>1%
Residential	650	24%	125	48%
Urban	53	2%	11.2	4%
Total	**2,662**	**100%**	**262**	**100%**

6. Load Allocations (LAs) Assigned to Agriculture

The LAs for total nitrogen and total phosphorus for Rainbow Creek are shown in Table E-5.

Table E-5. Rainbow Creek TMDL LAs for Nutrients

Source	2009		2013		2017		2021	
	Load Allocation		Load Allocation		Load Allocation		Load Allocation	
	TN	TP	TN	TP	TN	TP	TN	TP
	kilograms per year (kg/yr)							
Commercial nurseries	390	20	299	16	196	10	116	3
Agricultural fields	504	28	386	21	253	14	151	4
Orchards	607	50	465	37	305	24	182	6

7. Implementation Plan

The Rainbow Creek TMDL includes an Implementation Plan for attainment of the required load allocations. Agricultural Operations within the Rainbow Creek Watershed must comply with the following requirements:

Agricultural Operations in the Rainbow Creek Watershed must report annually, through the Annual Self-Assessment Report (Annual Report), regarding the effectiveness of best management practice planning, implementation, and effectiveness in reducing nutrient loading to surface waters and groundwater.

Members located within the Rainbow Creek watershed, a tributary of the Santa Margarita River in hydrologic subareas 902.22 and 902.23, must implement applicable elements of the Rainbow Creek Nutrient Reduction Management Plan (Rainbow Creek NRMP; http://www.waterboards.ca.gov/sandiego/water_issues/programs/irrigated_lands/docs/Final-NRMP-2008.pdf) developed by the County of San Diego and incorporated by this reference as if set forth in full herein.

B. Bacteria TMDL

1. Administrative Record

The Bacteria TMDL was adopted by the San Diego Water Board on February 10, 2010, and approved by the State Water Board on December 14, 2010; OAL on April 4, 2011; and USEPA on June 22, 2011. The Bacteria TMDL became Effective on April 4, 2011.

2. Attainment Date

a. Attain Dry Weather TMDL: April 4, 2021.

b. Attain Wet Weather TMDL: April 4, 2031.

3. Problem Statement

Bacteria in the waters of the beaches and creeks addressed by this TMDL have exceeded numeric water quality objective for total, fecal, and/or enterococci bacteria (collectively referred to as indicator bacteria). These exceedances of the water quality objective for indicator bacteria are shown in the monitoring data for beach segments where such data exist. Other beaches were consistently posted with health advisories and/or closed. These exceedances and postings threaten and impair the REC-1 and REC-2 beneficial uses. All inland surface waters and coastal marine waters in the San Diego Region are designated with both REC-1 and REC-2 beneficial uses.

Although water quality objectives for REC-1 and REC-2 beneficial uses are written in terms of density of indicator bacteria colonies, the actual risk to human health is caused

by the presence of disease-causing pathogens. When the risk to human health from pathogens in the water is so great that beaches are posted with health advisories or closure signs, the quality and beneficial use of the water are impaired.

4. Numeric Targets

Different REC-1 water quality objectives were used as the basis for wet weather and dry weather allowable load (i.e., TMDL) calculations because the bacteria transport mechanisms to receiving waters are different under wet and dry weather conditions. Because wet weather conditions, or storm flow, are episodic and short in duration, and characterized by rapid wash-off and transport of high bacteria loads, with short residence times, from all land use types to receiving waters, the single sample maximum water quality objective were appropriate for use as wet weather numeric targets. For dry weather conditions, because dry weather runoff is not generated from storm flows, is not uniformly linked to every land use, and is more uniform than stormflow, with lower flows, lower loads, and slower transport, making die-off and/or amplification processes more important, the geometric mean water quality objective were appropriate for use as dry weather numeric targets. Wet weather TMDL calculations were based on the REC-1 single sample maximum water quality objective while dry weather TMDL calculations were based on REC-1 geometric mean water quality objective. Table E-6 contains the wet weather numeric targets, and Table E-7 contains the dry weather numeric targets.

Table E-6. Bacteria TMDL Wet Weather Numeric Targets

Indicator Bacteria	Numeric Target (MPN/100 mL)[1,2]	Allowable Exceedance Frequency[1]
Fecal coliform	400[2]	22%
Total coliform	10,000[3]	22%
Enterococci	104[4] / 61[5]	22%

Notes:

1. MPN = Most Probable Number of bacteria colonies
2. mL = Milligrams per liter
3. Total coliform single sample maximum water quality objective for REC-1 use at beaches and the point in creeks that discharges to beaches.
4. Enterococci single sample maximum water quality objective for REC-1 use in creeks established and designated as “moderately or lightly used” in the Basin Plan and at beaches downstream of those creeks, as well as all other beaches.
5. Enterococci single sample maximum water quality objective for REC-1 use in creeks not established and designated as “moderately or lightly used” in the Basin Plan and at beaches downstream of those creeks (“designated beach” frequency of use; applicable to San Juan Creek and downstream beach, Aliso Creek and downstream beach, Tecolote Creek, Forrester Creek, San Diego River and downstream beach, and Chollas Creek).

Table E-7. Bacteria TMDL Dry Weather Numeric Targets

Indicator Bacteria	Numeric Target (MPN/100 ml)[1,2]	Allowable Exceedance Frequency[1]
Fecal coliform	200[2]	0%
Total coliform	1000[3]	0%
Enterococci	35[4] / 33[5]	0%

Notes:

1. Percent of dry days (i.e., days with less than 0.2 inch of rainfall observed on each of the previous 3 days) allowed to exceed the dry weather numeric targets.
2. Fecal coliform 30-day geometric mean water quality objective for REC-1 use in creeks and at beaches.
3. Total coliform 30-day geometric mean water quality objective for REC-1 at beaches and the point in creeks that discharges to beaches.
4. Enterococci 30-day geometric mean water quality objective for REC-1 at beaches.
5. Enterococci 30-day geometric mean water quality objective for REC-1 use in impaired creeks and beaches downstream of those creeks (applicable to San Juan Creek and downstream beach, Aliso Creek and downstream beach, Tecolote Creek, Forrester Creek, San Diego River and downstream beach, and Chollas Creek).

5. Load Allocations (LAs) Assigned to Agricultural Operations

The LAs for identified watersheds are shown in Tables E-8 and E-9.

Table E.8. Bacteria TMDL LAs for Indicator Bacteria

Watershed	Indicator Bacteria	Wet Weather Bacteria Load (Billion MPN/year) [1]		Dry Weather Bacteria Load (Billion MPN/month) [1]	
		Existing	Load Allocation	Existing	Load Allocation
Lower San Juan HSA (901.27)	Fecal Coliform	3,275,477	2,855,570	0	0
	Total Coliform	18,499,884	14,946,372	0	0
	Enterococcus[2]	1,151,266	839,040	0	0
San Luis Rey HU (903.00)	Fecal Coliform	20,687,954	20,041,659	0	0
	Total Coliform	117,360,800	110,768,160	0	0
	Enterococcus	6,881,755	6,077,514	0	0
San Marcos HA (904.50)	Fecal Coliform	11,199	9,073	0	0
	Total Coliform	122,414	99,809	0	0
	Enterococcus	7,825	6,246	0	0
San Dieguito HU (905.00)	Fecal Coliform	11,872,240	11,698,811	0	0
	Total Coliform	69,551,416	66,570,499	0	0
	Enterococcus	4,423,566	4,082,010	0	0

Notes:

1. MPN = Most probable number of bacteria colonies
2. See Table E.9 for Alternative Wet Weather Enterococcus Load Allocation for Agriculture

Table E-9. Bacteria TMDL Alternative Wet Weather Enterococcus Bacteria Load Allocation

Watershed	Existing Load (Billion MPN/year)[1]	Load Allocation (Billion MPN/year) [1]
Lower San Juan HSA (901.27)	1,151,266	841,564

Notes:

1. MPN = Most probable number of bacteria colonies

6. Implementation Plan

The Implementation Plan for the Bacteria TMDL specifies that when Waste Discharge Requirements are adopted for nonpoint source discharges, such as discharges from Agricultural Operations, that they be consistent with the TMDLs and LAs. Agricultural Operations in the identified watersheds must report annually, through the Annual Report, regarding the effectiveness of management practice planning, implementation, and effectiveness in reducing bacteria loading to surface waters and groundwater.

ATTACHMENT F –PROHIBITIONS CONTAINED IN THE OCEAN PLAN AND BASIN PLAN

Discharges from Agricultural Operations shall not cause receiving waters to exceed the following limitations:

I. Ocean Plan Discharge Prohibitions

A. The Discharge of any radiological chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.

B. Waste shall not be discharged to designated Areas of Special Biological Significance (ASBS) except as provided in Chapter III.E. of the Ocean Plan.

C. Pipeline discharge of sludge to the ocean is prohibited by federal law; the discharge of municipal and industrial waste sludge directly to the ocean, or into a waste stream that discharges to the ocean, is prohibited. The discharge of sludge digester supernatant directly to the ocean, or to a waste stream that discharges to the ocean without further treatment, is prohibited.

D. The by-passing of untreated wastes containing concentrations of pollutants in excess of those of Table 1 or Table 2 [of the Ocean Plan] is prohibited.

II. Basin Plan Discharge Prohibitions

A. The discharge of waste to waters of the State in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance as defined in California Water Code (CWC) section 13050, is prohibited.

B. The discharge of waste to land, except as authorized by waste discharge requirements (WDRs) of the terms described in CWC section 13264 is prohibited.

C. The discharge of pollutants or dredged or fill material to waters of the U.S. except as authorized by an National Pollutant Discharge Elimination System (NPDES) permit or a dredged or fill material permit (subject to the exemption described in CWC section 13376) is prohibited.

D. Discharges of recycled water to lakes or reservoirs used for municipal water supply or to inland surface water tributaries thereto are prohibited, unless this San Diego Water Board issues an NPDES permit authorizing such a discharge; the proposed discharge has been approved by the State Water Board's Division of Drinking Water and the operating agency of the impacted reservoir; and the Discharger has an approved fail-safe long-term disposal alternative.

E. The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. Allowances for dilution may be made at the discretion of the San Diego Water Board. Consideration would include stream flow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of secondary effluent would probably be permitted if stream flow provided 100:1 dilution capability.

F. The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the Discharger is prohibited, unless the discharge is authorized by the San Diego Water Board.

G. The dumping, deposition, or discharge of waste directly into waters of the State, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited unless authorized by the San Diego Water Board.

H. Any discharge to a storm water conveyance system that is not composed entirely of stormwater is prohibited unless authorized by the San Diego Water Board. [The federal regulations, 40 CFR section 122.26(b)(13), define storm water as storm water runoff, snow melt runoff, and surface runoff and drainage. 40 CFR section 122.26(b)(2) defines an illicit discharge as any discharge to

a storm water conveyance system that is not composed entirely of storm water except discharges pursuant to an NPDES permit and discharges resulting from fire fighting activities.] [Section 122.26 amended at 56 FR 56553, November 5, 1991; 57 FR 11412, April 2, 1992].

I. The unauthorized discharge of treated or untreated sewage to waters of the State or to a storm water conveyance system is prohibited.

J. The discharge of industrial wastes to conventional septic tank/ subsurface disposal systems, except as authorized by the terms described in CWC section 13264, is prohibited.

K. The discharge of radioactive wastes amenable to alternative methods of disposal into the waters of the State is prohibited.

L. The discharge of any radiological, chemical, or biological warfare agent into waters of the State is prohibited.

M. The discharge of waste into a natural or excavated site below historic water levels is prohibited unless the discharge is authorized by the San Diego Water Board.

N. The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity or discoloration in waters of the State or which unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.

O. The discharge of treated or untreated sewage from vessels to Mission Bay, Oceanside Harbor, Dana Point Harbor, or other small boat harbors is prohibited.

P. The discharge of untreated sewage from vessels to San Diego Bay is prohibited.

Q. The discharge of treated sewage from vessels to portions of San Diego Bay that are less than 30 feet deep at MLLW is prohibited.

R. The discharge of treated sewage from vessels, which do not have a properly functioning U.S. Coast Guard certified Type 1 or Type II marine sanitation device, to portions of San Diego Bay that are greater than 30 feet deep at mean lower low water is prohibited.

ATTACHMENT G – NOTICE OF INTENT

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
2375 Northside Drive, Suite 100, San Diego, CA 92108
Phone (619) 516-1990 · Fax (619) 516-1994

Notice of Intent Application Package for Coverage Under
Order No. R9-2016-0005, General Waste Discharge Requirements for Discharges from Commercial Agricultural Operations for Dischargers Not Participating in a Third-Party Group in the San Diego Region

This application package constitutes a Notice of Intent (NOI) pursuant to obtain coverage under General Order No. R9-2016-0005. You must provide complete factual information for each item requested below and include additional sheets as necessary to provide the information required under section III.C of the General Order. If you have any questions on the completion of any part of the NOI application, please contact the San Diego Water Board at 2375 Northside Drive, Suite 100, San Diego, CA 92108, Phone (619) 516-1990, or Fax (619) 516-1994.

AGRICULTURAL OPERATION INFORMATION

Name:		
Address:	City:	Zip:
Phone No.:	Email:	
Assessor Parcel Number(s), use additional sheets if needed:		Total Size of Agricultural Operation: _____Acres
Types of crops grown, use additional sheets if needed:		

LAND OWNER INFORMATION

Name:		
Mailing Address:		
City:	State:	Zip:
Phone No.:	Email:	

AGRICULTURAL OPERATION - OWNER INFORMATION

Name:		
Mailing Address:		
City:	State:	Zip:
Phone No.:	Email:	

OPERATOR INFORMATION

Name:		
Mailing Address:		
City:	State:	Zip:
Phone No.:	Email:	

WATER QUALITY PROTECTION PLAN

Is a complete Water Quality Protection Plan attached as required in section III.C of the General Order? □Yes. □ No. If no, provide explanation in the box below or in an attachment to this form.

CERTIFICATION

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 submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:_____Date:_____

Printed Name:_____Title:_____

ATTACHMENT H – NOTICE OF TERMINATION

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
2375 Northside Drive, Suite 100, San Diego, CA 92108
Phone (619) 516-1990 · Fax (619) 516-1994

Notice of Termination Application Package for Coverage Under Order No. R9-2016-0005, General Waste Discharge Requirements for Discharges from Commercial Agricultural Operations for Dischargers Not Participating in a Third-Party Group in the San Diego Region

This form constitutes a Notice of Termination (NOT) pursuant to section II.G of Order No. R9-2016-0005. You must provide complete factual information on each item requested below and additional sheets as necessary to provide the information requested. If you have any questions on the completion of any part of the NOT, please contact the San Diego Water Board at 2375 Northside Drive, Suite 100, San Diego, CA 92108, Phone (619) 516-1990, or Fax (619) 516-1994.

AGRICULTURAL OPERATION INFORMATION

Name of Operation:	Address:	
Owner/Operator Name:	City	Zip
Mailing Address:	Phone No.:	
City:	State:	Zip:
Assessor Parcel Number(s):		

REASON FOR TERMINATION (check all that apply)

☐ A new owner or operator has taken over responsibility for the Agricultural Operation, and transfer of coverage under this General Order is not requested.

☐ The Member (Discharger) no longer owns or operates an Agricultural Operation that meets the enrollment criteria specified in sections I.G of the General Order.

☐ The Member (Discharger) has applied for and obtained coverage under individual Waste Discharge Requirements (WDRs) or other applicable WDRs for the Agricultural Operation.

☐ Joined New Third-Party Group as of _____.

Name of New Third-Party Group: _____.

CERTIFICATION

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 submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:_____ Date:_____

Printed Name: _____ Title:_____

ATTACHMENT I - QUARTERLY SELF-INSPECTION REPORT

Order No. R9-2016-0004, General Waste Discharge Requirements for Discharges from Commercial Agricultural Operations for Dischargers Not Participating in a Third-Party Group in the San Diego Region

AGRICULTURAL OPERATION INFORMATION

Name of Agricultural Operation:		
Address:	City:	Zip:
APN:		
Owner/Operator:	Phone No.:	
Address:	City:	Zip:

INSPECTION INFORMATION

Inspection Conducted by:		Phone No:
Inspection Date:	Inspection Time:	Was it Raining?:

OBSERVATIONS – Attach photographs to form

Irrigation System Inspection Items	Yes	No	NA	Comments
Was irrigation system inspected?				
Was system operating when inspected?				
Were photos taken? (if yes please attach the photos)				
Were leaks/overspray observed?				
Does irrigation runoff remain on the property?				
Were repairs to irrigation system made?				
Other observations?				

Structural Management Practices	Yes	No	NA	Comments
Were management practices used to control runoff and erosion on the property inspected?				
Photos taken (if yes attach)?				
Does irrigation, non-storm water, and storm water runoff remain on the property?				
Are the management practices used to protect compost piles from oversaturation and leachate production in good operating condition?				
Is a 100 foot buffer between compost piles and waterbodies maintained?				
Was erosion observed on roadways?				
Are management practices implemented for proper handling, storage, disposal and management of pesticides, fertilizer, and other chemicals?				
Are pesticides, herbicides and fertilizers shall be applied in accordance with the manufacturer's label?				
Were repairs made?				
Other observations?				

CERTIFICATION

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 submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:_____ Date:_____

Printed Name: _____ Title:_____

ATTACHMENT J - ANNUAL SELF-ASESSMENT REPORT

Order No. R9-2016-0005, General Waste Discharge Requirements for Discharges from Commercial Agricultural Operations for Dischargers Not Participating in a Third-Party Group in the San Diego Region

FOR YEAR ENDING: _____

PART A - FACILITY INFORMATION:

Name:		
Address:		City:
Zip:	Contact Person:	No. of Irrigated Acres:
Telephone:	Email:	
Assessor Parcel Number(s):		
Type of crops grown on each parcel:		

PART B - PROPERTY OWNER

Name:		
Mailing Address:		
City:	State:	Zip:
Telephone:	Fax:	Email:

PART C - AGRICULTURAL OPERATION OWNER

Name:		
Mailing Address:		
City:	State:	Zip:
Telephone:	Fax:	Email:

PART D - AGRICULTURAL OPERATION - OPERATOR INFORMATION

Name:		
Mailing Address:		
City:	State:	Zip:
County	State:	Zip:
Telephone:	Fax:	Email:

PART E - EDUCATIONAL REQUIREMENT SPECIFICATIONS

Name of Organization providing Water Quality Training:_____

Name of Individual taking Water Quality Training:_____

☐Owner ☐Operator ☐Other: _____

Date annual water quality management training completed: _____

Include copy of certification of completion.

PART F - ASSOCIATION COMMUNICATION REQUIREMENT

Was regular contact with local Farm Bureau, UCCE, NRCS, and/or regional RCDs so you stay informed of the latest management practices and developments with water quality issues? ☐Yes ☐No. If yes, attach proof of contact. If no, provide explanation why.

PART G - QUARTERLY SELF-INSPECTIONS

Inspections were conducted on the following dates: Include copies of Inspection Reports_____

_____

PART H – WATER QUALITY PROTECTION PLAN AMENDMENTS

Were amendments made to the Water Quality Protection Plan? ☐Yes ☐No. If yes, attach copy.

PART I - RECORDS MANAGEMENT

Identify whether the following records are being maintained for the Agricultural Operation and are capable of being reviewed during an inspection by the San Diego Water Board. For any record marked "No" or "n/a", provide, as an attachment, a brief explanation/justification.

Pesticide use report	☐Yes ☐No ☐N/A
City/County agricultural inspection reports	☐Yes ☐No ☐N/A
National Organic Program certification inspection reports (if applicable)	☐Yes ☐No ☐N/A
Self-Inspection Forms	☐Yes ☐No ☐N/A
Groundwater quality monitoring data (well data, if applicable)	☐Yes ☐No ☐N/A

PART J - INCIDENTS OF NONCOMPLIANCE

Provide a listing of each incident of noncompliance during the annual monitoring period and, for each incident of noncompliance, the cause, the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

Part K - CERTIFICATION

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 submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:_____ Date:_____

Printed Name: _____ Title:_____

INSTRUCTIONS

Annual Self-Assessment Report

PART A – FACILITY INFORMATION

Complete all boxes in Part A. List all parcels enrolled in General Order No. R9-2016-0005. Include additional pages if needed

PART B – PROPERTY OWNER INFORMATION

Complete all boxes in Part B.

PART C – AGRICULTURAL OPERATION OWNER INFORMATION

Complete all boxes in Part C.

PART D – OPERATOR INFORMATION

Complete all boxes in Part D.

PART E – EDUCATIONAL REQUIREMENT

List name of Water Quality Education provider, date training complete, and attach copy of proof of completion of educational education. If the training was completed by the Owner or Operator listed in Parts C or D, check appropriate box. If training was not completed by the Owner or Operator listed in Parts C or D, include name of person taking training and relationship to the Agricultural Operation.

PART F – ASSOCIATION COMMUNICATION REQUIREMENT

Provide documentation of regular contact with local Farm Bureau, UCCE, NRCS, and/or regional RCDs so you stay informed of the latest management practices and developments with water quality issues. Documentation may include copies of newsletters, information handouts, screen shots of webpages, or meeting notes. If regular contact was not made, provide an explanation why it wasn't. Use additional pages if needed.

PART G – QUARTERLY SELF-INSPECTIONS

List dates that the Quarterly Self-Inspections were conducted and attach copies of the Quarterly Self-Inspections forms.

PART H – WATER QUALITY PROTECTION PLAN AMENDMENTS

Attach amendments made to the Water Quality Protection Plan.

PART I -RECORDS MANAGEMENT

Indicate what records have been received and are available for review by the San Diego Water Board.

PART J- INCIDENTS OF NONCOMPLIANCE

On a separate sheet include a list of all incidents of noncompliance the cause, the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance..

PART K -CERTIFICATION

The Owner or Operation of the Agricultural Operation must complete, sign, and date where indicated.