

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

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**GENERAL WASTE DISCHARGE REQUIREMENTS ORDER
R8-2023-0006**

ORDER INFORMATION

Status: ADOPTED
Program: Irrigated Lands Regulatory Program
Discharger(s): Irrigated Lands in San Jacinto River
Watershed
County: Riverside County
Prior Order(s): R8-2021-0034 and R8-2016-0003 as
amended by R8-2017-0023

CERTIFICATION

I, JAYNE JOY, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on February 3, 2023. On August 10, 2023, a typographical error in Section D.5 referencing “subdivision 5(c)(i) or 5(c)(ii) above” was corrected to instead reference “subdivision 5(d)(i) or 5(d)(ii) above”.

JAYNE JOY
Executive Officer

GENERAL WASTE DISCHARGE REQUIREMENTS ORDER

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Acronyms and Reports

AgNMP – agricultural nutrient management plan (Finding #61)
APN – Assessor’s Parcel Number
AR – Applied-Removed
A/R – Applied/Removed
AW# - agricultural waiver number
BMP - Best Management Plan Report
BPTC – best practicable treatment or control
CAFO – concentrated animal feeding operation
CEQA – California Environmental Quality Act
C_N – crop-specific nitrogen coefficient
CWAD – Conditional Waiver of Agricultural Discharge
EDF – Electronic Deliverable Format
ELAP – Environmental Laboratory Accreditation Program
EMWD – Eastern Municipal Water District
EVMWD – Elsinore Valley Municipal Water District
Farm Plan – Water Quality Management Plan (Section D.3)
eNOI – electronic Notice of Intent
GMZs – groundwater management zones
INMP – Irrigation and Nitrogen Management Plan (Section D.4)
kg/acre – Kilograms/acre
LEAMS- Lake Elsinore Aeration and Mixing Systems
LESJWA – Lake Elsinore and San Jacinto Watershed Authority
MRP – Monitoring and Reporting Program (Attachment A)
N - nitrogen
NOA – Notice of Authorization
NOC – Notice of Confirmation
NOI – Notice of Intent
NPDES – National Pollutant Discharge Elimination System
NPS – nonpoint source
PCBs – polychlorinated biphenyls
ROWD – Report of Waste Discharge
TDS – total dissolved solids
TMDL – Total Maximum Daily Load
USEPA – U. S. Environmental Protection Agency
USFS – United States Forest Service
WDRs – Waste Discharge Requirements
WQlag Tool – Water Quality Index Agricultural Tool
WQIP – Water Quality Improvement Plan (Section F)
WQMPPR – Water Quality Management Program Report
WQTP – Water Quality Trading Program
WRCAC – Western Riverside County Agricultural Coalition

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA BASIN REGION

ORDER R8-2023-0006

GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
DISCHARGES OF WASTE FROM IRRIGATED LANDS IN THE SAN JACINTO RIVER
WATERSHED, RIVERSIDE COUNTY

FINDINGS

The Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) hereby finds as follows:

1. Discharges of waste from irrigated lands within the San Jacinto River Watershed enter or threaten to enter surface waters and/or groundwaters of the state and may cause or contribute to conditions of pollution or nuisance and/or to violation of applicable water quality objectives.
2. Discharges of waste from agricultural operations may result from tailwater releases, irrigation water leakage, irrigation system malfunctions, over-application of irrigation water, infiltration into underlying groundwater, and stormwater runoff. Discharges may contain wastes such as sediment; inorganic chemicals and compounds, such as boron, selenium, potassium, nitrogen, phosphorus, salts of metallic elements, etc.; and organic chemicals and materials, such as those that contribute to total organic carbon, including organic pesticides, organic fertilizers, etc.
3. Water Code section 13260, subdivision (a)(1), requires that any person discharging wastes or proposing to discharge wastes (other than into a community sewer system), which could affect the quality of the waters of the state, must file a report of waste discharge (ROWD). The appropriate regional water board then prescribes requirements for the discharge or proposed discharge of wastes pursuant to Water Code section 13263. General waste discharge requirements may be prescribed for discharges produced by the same or similar operations, involving the same or similar types of wastes, and requiring the same or similar treatment standards. (Wat. Code, § 13263, subd. (i).) Covered dischargers must enroll in the general waste discharge requirements in lieu of submission of an ROWD to obtain individual waste discharge requirements.
4. This Order consists of general waste discharge requirements (WDRs) regulating discharges of wastes from irrigated lands in the San Jacinto River

Watershed to prevent and address water quality impacts to waters of the state. This Order regulates owners/operators or irrigated lands (collectively, Dischargers) with the potential to discharge waste that may impact the quality of the waters of the state. This Order also establishes substantive and procedural requirements for the Coalition Group formed to assist Dischargers in complying with this Order.

5. Dischargers were previously regulated under Order R8-2016-0003, as amended by R8-2017-0023, *Conditional Waiver of Waste Discharge Requirements for Discharges from Agricultural Operations in the Watersheds of the San Jacinto River and its Tributaries, collectively the "The San Jacinto River Watershed" Riverside County (CWAD)*. The CWAD was set to expire in 2021 but was renewed by Order R8-2021-0034 until February 7, 2023. This Order supersedes the CWAD, except for enforcement purposes.

Scope and Applicability

6. This Order regulates discharges or potential discharges of waste from "Irrigated Lands" within the San Jacinto River Watershed, which means lands irrigated to produce crops or pasture for commercial purposes and includes but is not limited to lands planted for row, vineyard, pasture, field and tree crops, and nurseries. "Irrigated Lands" includes land for which any of the following are true:
 - a. The landowner or operator holds a current Operator Identification Number/Permit Number for pesticide use reporting;
 - b. The landowner or operator files federal taxes using federal Department of Treasury Internal Revenue Service Form 1040, Schedule F "Profit or Loss from Farming";
 - c. The crop is sold, including but not limited to (1) an industry cooperative, (2) harvest crew/company, or (3) a direct marketing location, such as Certified Farmers Markets.

Lands cultivated using "Dryland Farming" techniques as defined in Finding 18 are considered "Irrigated Lands" for purposes of this Order, because irrigation is used at times when necessary.

7. Discharges regulated under this Order include surface water discharges (e.g., stormwater runoff, irrigation return water, tailwater) and subsurface discharges (e.g., tile drainage and groundwater seepage). This Order does not apply to discharges of sanitary human waste or to hazardous waste as defined by California law.

8. Dischargers that own and/or operate 20 or more cumulative acres of Irrigated Lands are considered “Dischargers” for the purposes of this Order and must file a Notice of Intent (NOI) to enroll under this Order and comply with its conditions. The 20 or more cumulative acres may include lands that are irrigated or dry-farmed (see Finding 18). Irrigated Lands that amount to less than 20 cumulative acres that the Santa Ana Water Board’s Executive Officer finds high risk, can be required to file an NOI to be enrolled in this Order or to submit an ROWD for individual WDRs when notified in writing.
9. This Order does not apply to the following:
 - a. Discharges from “Non-Irrigated Lands” that rely exclusively on rainfall for irrigation. These discharges continue to be subject to Monitoring and Reporting Order R8-2020-0009.
 - b. United States Forest Service (USFS) grazing allotments with low animal density (greater than or equal to 50 acres per Animal Unit per year), and where no pesticides, herbicides, nutrients, or irrigation water are applied to the land.
 - c. Discharges from Irrigated Lands where all growing operations are conducted within buildings or in completely enclosed areas with a permanent relatively impermeable floor (e.g., concrete or asphalt paved), with no potential to discharge waste to waters of the state.
 - d. Discharges from Irrigated Lands already regulated under another order adopted by the Santa Ana Water Board or State Water Resources Control Board (State Water Board), including but not limited to concentrated animal feeding operations (CAFOs), cannabis cultivation, parks, golf courses, cemeteries, playgrounds, and recreational fields. These include but are not limited to discharges subject to regulation pursuant to Santa Ana Water Board Order No. R8-2010-0033 (NPDES No. CAS 618033),¹ *NPDES Permit and Waste Discharge Requirements for Riverside County Flood Control and Water Conservation District, The County of Riverside, and the Incorporated Cities of Riverside County within the Santa Ana Region / Area-Wide Urban Runoff Management Program* (Riverside County MS4 Permit), and State Water Board Order No. WQ 2017-0023-

¹ Order No. R8-2010-0033, NPDES NO. CAS 618033
https://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2010/10_033_rc_ms4_permit_01_29_10.pdf

DWQ,² *General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities*, as amended by Order No. WQ-2019-0001-DWQ.

Watershed Characteristics

10. The San Jacinto River Watershed covers approximately 487,900 acres or about 782 square miles of the Santa Ana River Basin. It includes Canyon Lake and Lake Elsinore and their tributaries. The San Jacinto River Watershed is depicted in **Figure 1**.
11. Approximately 735 square miles of the 782-square mile San Jacinto River Watershed drain to Canyon Lake, which was formed by construction of the Railroad Canyon Dam in 1928 and is located five miles upstream of Lake Elsinore. The area climate is characterized as semi-arid with dry and warm to hot summers and mild winters, with average precipitation of approximately 11 inches. During most years, runoff from the watershed terminates at Canyon Lake without reaching Lake Elsinore. Canyon Lake receives inflows from two sources, the San Jacinto River and Salt Creek, and the major tributary for Lake Elsinore is the San Jacinto River.
12. Based on 2021 aerial mapping, the San Jacinto River Watershed includes approximately 22,000 acres of land zoned for agriculture. About 16,800 acres are in active irrigated agricultural use on parcels greater than 20 cumulative acres. Agricultural activities include irrigated and dryland farming. Currently there are 29 Irrigated Lands dischargers enrolled in the 2016 Conditional Waiver of Agricultural Discharges (CWAD), encompassing an estimated 12,500 acres and an estimated 4,300 acres of Irrigated Lands not currently enrolled.
13. The Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) identifies groundwaters and surface waters within the Santa Ana Region, including the San Jacinto River Watershed, designates beneficial uses for those waters, establishes water quality objectives to protect those uses, and contains implementation plans for achieving the objectives.

² Order WQ 2017-0023-DWQ:

https://www.waterboards.ca.gov/water_issues/programs/cannabis/docs/finaladoptedcan-go101717.pdf

14. An updated Basin Plan was adopted by the Santa Ana Water Board on March 11, 1994 and has since been amended several times. The Basin Plan specifies the following beneficial uses for Lake Elsinore, Canyon Lake, the San Jacinto River, and Salt Creek:

Water Body	Beneficial Uses
<p style="text-align: center;">Lake Elsinore</p>	<ul style="list-style-type: none"> • Municipal and Domestic water supply (MUN)³ • Warm freshwater aquatic habitat (WARM) • Body Contact recreation (REC1) • Non-body contact recreational (REC2) • Wildlife habitat (WILD) • Commercial and Sportfishing (COMM)
<p style="text-align: center;">Canyon Lake</p>	<ul style="list-style-type: none"> • Municipal and Domestic water supply (MUN) • Warm freshwater aquatic habitat (WARM) • Body Contact recreation (REC1) • Non-body contact recreational (REC2) • Wildlife habitat (WILD) • Agricultural water supply (AGR) • Groundwater recharge (GWR) • Commercial and Sportfishing (COMM)

³ Excepted from MUN beneficial uses

Water Body	Beneficial Uses
<p>San Jacinto River:</p> <ul style="list-style-type: none"> • Reach 1 – Lake Elsinore to Canyon Lake • Reach 2 – Canyon Lake • Reach 3 – Canyon Lake and Nuevo Road • Reach 4 – Nuevo Road to North-South Mid-Section Line, T4S/R1W-S8 • Reach 5 – North-South Mid-Section Line T4S/R1W-S8 to confluence with Poppet Creek • Reach 6 – Poppet Creek to Cranston 	<ul style="list-style-type: none"> • Municipal and domestic water supply (MUN)⁴ • Agricultural water supply (AGR) • Groundwater Recharge (GWR) • Body contact recreation (REC1) • Non-body contact recreation (REC2) • Warm freshwater aquatic habitat (WARM) • Wildlife habitat (WILD) • Rare, Threatened or Endangered Species (RARE)
<p>San Jacinto River Reach 7 – Cranston Bridge to Lake Hemet</p>	<ul style="list-style-type: none"> • Municipal and domestic water supply (MUN) • Agricultural water supply (AGR) • Groundwater recharge (GWR) • Body contact recreation (REC1) • Non-body contact recreation (REC2) • Wildlife habitat (WILD) • Cold Freshwater Habitat (COLD) • Rare, Threatened or Endangered Species (RARE) • Spawning, Reproduction and Development (SPAWN)

⁴ Excepted from MUN beneficial uses

Water Body	Beneficial Uses
Salt Creek	<ul style="list-style-type: none"> • Municipal and domestic water supply (MUN)⁵ • Body contact recreation (REC1) • Non-body contact recreation (REC2) • Warm freshwater aquatic habitat (WARM) • Wildlife habitat (WILD)

Definitions

15. “Coalition Group” means any third-party (e.g., group of Dischargers, nonprofit organization, etc.) that is formed to assist Dischargers to comply with this Order and that is formally recognized as such by the Santa Ana Water Board. A Coalition Group can be formed on a geographical basis or formed with other factors in common, such as cultivating commodities. Discharger members remain responsible for compliance with this Order.
16. “Cumulative acres” means the total number of acres (rented or owned) under the control of a single Discharger within the San Jacinto River Watershed. Cumulative acres account for multiple parcels or locations that are under a single Discharger’s control that may or may not be contiguous or adjacent to one another.
17. “Dischargers” means owner(s) and/or operator(s) of Irrigated Lands who discharge, have the potential to discharge, or propose to discharge waste, which could directly or indirectly affect the quality of waters of the state. Both the landowner and the operator of the Irrigated Lands are “Dischargers” under this Order, and both are liable for noncompliance with this Order, regardless of whether the landowner or the operator is the party enrolled under this Order. A “Discharger” may be an individual, a trust, a corporation, a partnership, or other enterprise formed by a binding agreement. The term “agricultural operation” is synonymous with “Discharger.”
18. “Dryland Farming” entails management practices used by farmers in arid regions to adapt to the presence or lack of moisture available within the soil column. This technique relies on the efficient storage and use of soil moisture,

⁵ Excepted from MUN beneficial uses

rather than using regular irrigation methods to maximize crop yield. Intermittent irrigation may be used during the growing process as necessary, for example during the germination process. Lands cultivated using dryland farming techniques are considered a type of Irrigated Lands and required to be enrolled in the Order as outlined in Finding 6.

19. “Industrial Hemp” (Hemp) means an agricultural product, whether grown or not, that is limited to types of the plant *Cannabis sativa* L. and any part of that plant, including the seeds of the plant and all derivatives, extracts, the resin extracted from any part of the plant, cannabinoids, isomers, acids, salts, and salts of isomers, with delta-9 tetrahydrocannabinol concentration of no more than 0.3 percent on a dry weight basis. (Health & Safety Code, § 11018.5.) Industrial Hemp is regulated by the Department of Food and Agriculture in accordance with the provisions of division 24 (commencing with section 81000) of the Food and Agricultural Code, inclusive.
20. “Irrigated Lands” has the meaning set forth in Finding 6.
21. “Mulch” is untreated or raw landscape waste and crop production byproducts consisting of leaves, grass clippings, weeds, yard trimmings, wood waste, branches and stumps, and whole plants/trees that have been chipped and ground to a reduced particle size.
22. “Non-Irrigated Lands” are lands cultivated without any artificial irrigation that rely solely on rainfall. Non-irrigated lands discharges are not covered under this Order, they are subject to Monitoring and Reporting Order R8-2020-0009.
23. “Waste” means sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with the human habitation, or of human or animal origin, or from producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal. (Wat. Code, § 13050, subd. (d).)
24. “Water Quality Trading Program” (WQTP) is a program designed to reduce pollutant loads, especially nutrients (nitrogen and phosphorus), to receiving waters in a cost-effective manner. Trading can allow one source or sources in an appropriately delineated watershed to meet their regulatory discharge obligations by using pollutant reductions generated by other source(s).
25. “Waters of the state” means any surface water or groundwater, including saline waters, within the boundaries of the state. (Wat. Code, § 13050, subd. (d).)

Program Background

26. On July 29, 2016, the Santa Ana Water Board adopted Order R8-2016-0003, *Conditional Waiver of Waste Discharge Requirements for Discharges from Agricultural Operations in the Watershed of the San Jacinto River and its Tributaries, and Canyon Lake and Lake Elsinore and Their Tributaries, Collectively "The San Jacinto River Watershed", Riverside County (CWAD)*.
27. On April 28, 2017, the Santa Ana Water Board adopted Order R8-2017-0023, amending the CWAD to extend the compliance schedule to facilitate discharger participation, encourage coalition formation, and accommodate delays in the development and implementation of the electronic Notice of Intent (eNOI) enrollment form. All other conditions and requirements in the CWAD remained unchanged.
28. To comply with the CWAD, Eastern Municipal Water District (EMWD) formed the San Jacinto Coalition for Dischargers, who were identified as recycled water users or citrus growers within the San Jacinto River Watershed. The San Jacinto Coalition obtained approval from the Santa Ana Water Board to act as Coalition Group on March 18, 2018, to represent Dischargers in meeting the groundwater requirements of the CWAD as well as to manage fee collection and payment on behalf of coalition members. As of the date of this Order, 23 Dischargers have enrolled in the San Jacinto Coalition and 6 Dischargers are not currently enrolled in a Coalition Group.
29. To comply with the CWAD and ensure attainment of water quality objectives, the San Jacinto Coalition developed a compliance program in which members were required to:
 - a. Complete and submit an individual eNOI through the State Water Board's GeoTracker database (GeoTracker);
 - b. Install, implement, and maintain management practices that protect water quality from agricultural activities on all enrolled parcels;
 - c. Where possible, utilize data management tool with parcel information (i.e., when leases or crops change, management practices change, etc.). Parcel information was required to be reviewed and updated annually;
 - d. Attend outreach and education trainings;
 - e. Pay state fees. As of 2022, the San Jacinto Coalition does not charge an additional/a separate fee to its members.

30. The San Jacinto Coalition also developed a Water Quality Management Program Plan (WQMPP) and Best Management Plan (BMP) Report, which describes the sampling and reporting plan. The San Jacinto Coalition submitted the first WQMPP and BMP Report in 2018 outlining how they will collect coalition member's data and meet the CWAD requirements.
31. The San Jacinto Coalition submitted annual reports detailing the water quality sampling and analysis results, and BMP progress. In 2019, the San Jacinto Coalition submitted their first Water Quality Monitoring Program Report (WQMPP), which included 26 Dischargers covering 11,270 acres within the San Jacinto River Watershed. The first WQMPP incorporated groundwater data, crop types, water usage, and the types and amounts of fertilizer and pesticides used.
32. The surface water reports have been provided by the Western Riverside County Agricultural Coalition (WRCAC), a non-profit entity formed to represent agricultural and dairy operations in the San Jacinto River Watershed to meet the requirements of the Lake Elsinore and Canyon Lake Total Maximum Daily Loads (TMDLs). WRCAC provides enrollees a workbook that contains instructions and the Water Quality Index Agricultural Tool (WQIag Tool). The data was collected and provided to the Santa Ana Water Board and the San Jacinto Coalition, on behalf of the WRCAC members.
33. On June 18, 2021, the Santa Ana Water Board adopted Order R8-2021-0034, which renewed the CWAD on a short-term basis until February 7, 2023. No other terms of the CWAD were changed.
34. In 2018, following a public hearing, the State Water Board adopted revisions to the Central Valley Regional Water Quality Control Board's (Central Valley Water Board) *Waste Discharge Requirements General Order for Growers Within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group* in Order WQ 2018-0002 (Eastern San Joaquin Order). The Eastern San Joaquin Order directs all regional water boards to revise the permits in their irrigated lands regulatory programs to be consistent with its precedential requirements. This Order complies with the State Water Board's directive.

Discharge Characteristics

35. The main crops in the San Jacinto River Watershed are citrus, alfalfa, wheat, corn silage, hay forage, and oats. Other smaller crops include dryland farming, turf, and various fruits, vegetables, and herbs. The primary methods of irrigation are sprinklers and micro-sprinklers, which makes up approximately 85% of the irrigations systems used in the San Jacinto River Watershed. Other irrigation

methods include drip irrigation and center pivot methods. Irrigation water is primarily recycled water provided by EMWD. Of 29 Dischargers, approximately eight Dischargers cultivating citrus, turf, dry-farming, or alfalfa, have access to groundwater via a groundwater well and one uses potable water provided by EMWD to grow herbs.

36. Discharges from Irrigated Lands in the San Jacinto River Watershed (tailwater, seepage, surface water drainage from irrigation and storm events) either percolate to the underlying aquifer or are collected into open and unlined drains. Water collected in the drains are either diverted back to the agricultural field or is ultimately discharged to the San Jacinto River and Salt Creek.
37. Discharges from Irrigated Lands in the San Jacinto River Watershed may contain high levels of salts, nutrients, pathogens, sediments, and pesticides that can adversely impact the receiving water beneficial uses.
38. Dischargers are required to implement reliable and effective management practices to control, minimize, or eliminate pollutants from their agricultural operations to surface water and groundwater. Management practices include the implementation of vegetative buffers, use of cover crops during wet season, and on-site runoff retention using berms or levees on field and other management practices.

Regulatory Considerations

39. Water Code section 13263 authorizes the Santa Ana Water Board to prescribe WDRs as to the nature of any proposed or existing discharge with relation to the conditions existing in the disposal area or receiving waters upon, or into, which the discharge is made or proposed. The WDRs must implement relevant water quality control plans (Basin Plans) and take into consideration the beneficial uses of water to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Water Code section 13241.
40. This Order establishes WDRs pursuant to division 7, chapter 4, article 4 of the Water Code for discharges that are not subject to regulation under the Clean Water Act section 402 (33 U.S.C. § 1342). This Order implements numeric and narrative water quality objectives for groundwaters, and surface waters established by the Basin Plan and other applicable state and federal laws and policies.
41. This Order constitutes a Nonpoint Source Implementation Program consistent with the requirements of the State Water Board's *Implementation and Enforcement of the Nonpoint Source Pollution Control Program* (State NPS

Policy). The State NPS Policy recognizes that nonpoint source pollution typically occurs from diffuse sources such as runoff, precipitation, atmospheric deposition, drainage, seepage, or hydrologic modification, and that prevention and minimization of pollution from these sources is the most successful form of control. The purpose of this Order is to minimize or eliminate waste discharges from Irrigated Lands to waters of the state that may be causing or contributing to exceedances of applicable federal or state water quality objectives.

42. Consistent with the State NPS Policy, Dischargers comply with this Order by implementing and improving management practices and complying with the other conditions, including monitoring and reporting requirements. This Order requires Dischargers to address impacts to water quality by evaluating the effectiveness of management practices (e.g., waste discharge treatment and control measures) and take action to improve management practices. However, implementation of management practices is not a substitute for meeting water quality objectives. If a Discharger fails to address impacts to water quality by taking the actions required by this Order, including evaluating the effectiveness of their management practices and improving as needed, the Discharger may then be subject to progressive enforcement that could include penalties. Consistent with the State NPS Policy, the Santa Ana Water Board finds that there is a high likelihood that this Order will accomplish its ultimate purpose of attaining water quality objectives and protecting beneficial uses.
43. The Santa Ana Water Board has considered the factors found in Water Code section 13241 in issuing this Order.
44. It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. Both the State Water Board and the Santa Ana Water Board recognized this right in Resolution No. 2016-0010 and Resolution R8-2019-0079, respectively. This Order supports the human right to water by requiring Dischargers to implement management practices to meet water quality objectives intended to protect water for municipal and domestic beneficial uses and to monitor and report on the effectiveness of the management practices. Additionally, periodic monitoring of on-farm drinking water wells is required.
45. Pursuant to Water Code section 13149.2, the Santa Ana Water Board has taken into account environmental justice, tribal impact, and racial equity considerations in issuing this Order. The discharges regulated by this Order may occur in the area of one or more disadvantaged communities. This Order addresses the health and environmental and social costs associated with agricultural discharge by prohibiting discharges that will cause or contribute to exceedances of water quality objectives. Where exceedances are detected,

Dischargers must implement improved management practices and may be required to implement a Water Quality Improvement Plan (WQIP) as specified in Section F. Although the WQIP may include a compliance schedule, the schedule must be no longer than reasonably necessary to achieve the receiving water limitations and include concrete, interim milestones to demonstrate progress towards compliance. Further, due to the potential severity and urgency of health issues associated with drinking groundwater with high concentrations of nitrates, this Order requires testing and monitoring of drinking water supply wells on Irrigated Lands. If drinking water exceeds 10 mg/L of nitrate+nitrite, the Discharger must promptly provide notices to well users of the exceedance.

46. Water Code section 13267 authorizes the Santa Ana Water Board to require technical and monitoring reports. Santa Ana Water Board staff have developed the Monitoring and Reporting Program (MRP), Attachment A, for the San Jacinto Coalition and its members. Individuals not enrolled in a Coalition Group are also required to conduct monitoring and reporting. The technical and monitoring reports required by this Order and the MRP are necessary to evaluate compliance with the terms and conditions of this Order and to ensure protection of waters of the state. The burden, including costs, of preparing the technical and monitoring reports bears a reasonable relationship to the need for the reports and benefits to be obtained from them.
47. This Order does not preempt or supersede the authority of municipalities, flood control agencies, agricultural commissioners, special districts, or other public agencies to prohibit, restrict, or control discharges of waste subject to their jurisdiction.
48. Pursuant to Water Code section 13263(g), the discharge of waste is a privilege, not a right. Adoption of this Order and the receipt of a Notice of Authorization (NOA) from the Executive Officer authorizing discharges does not create a vested right to continue the discharge.

Implementation of Total Maximum Daily Loads (TMDLs)

49. Section 303(d) of the federal Clean Water Act requires states to identify water bodies that do not meet water quality objectives. Each state must submit an updated list of impaired water bodies every two years to the U.S. Environmental Protection Agency (USEPA) (303(d) list of impaired waters), as well as establish priority rankings for waters on the list and develop Total Maximum Daily Loads (TMDLs) for these waters. A TMDL is a pollutant and surface water body specific control plan that must account for all sources of the pollutant that caused the water body to be listed.

50. Point and nonpoint source waste discharges in the San Jacinto River Watershed have contributed to the exceedances of some water quality objectives and impairment of some beneficial uses in both Canyon Lake and Lake Elsinore. Accordingly, both lakes are included on the federal Clean Water Act Section 303(d) list of impaired waters.⁶ Lake Elsinore is listed as impaired for nutrients, organic enrichment and low dissolved oxygen, polychlorinated biphenyls (PCBs), DDT, and toxicity. Canyon Lake is listed as impaired for nutrients.
51. To address nutrient (nitrogen and phosphorus) impairment in the lakes, on December 20, 2004, the Santa Ana Water Board adopted TMDLs for Canyon Lake and Lake Elsinore (Resolution No. 2004-0037). These Nutrient TMDLs established load allocations and waste load allocations for nitrogen and phosphorus inputs from specified sources, including agricultural activities. These TMDLs were approved by the State Water Board on May 19, 2005 (Resolution No. 2005-0038), by the Office of Administrative Law on July 26, 2005, and by the U.S. EPA on September 30, 2005, and are now being implemented.
52. The Lake Elsinore and Canyon Lake Nutrient TMDLs require responsible parties in the San Jacinto River Watershed to limit their discharges of nitrogen and phosphorus to surface waters. The Nutrient TMDLs identify the allowable discharges of nitrogen and phosphorus by source, as expressed in wasteload allocations for point sources and load allocations for non-point sources. These include load allocations for agricultural operations. Compliance with the wasteload and load allocations was to be achieved by December 31, 2021. The Santa Ana Water Board is in the process of revising the TMDLs. This Order will be revised as appropriate based on the approved revised Nutrient TMDLs.
53. In order to implement the existing Nutrient TMDL requirements and to develop effective solutions for improving water quality in Lake Elsinore and Canyon Lake, responsible agencies and stakeholders formed the Lake Elsinore and Canyon Lake TMDL Task Force (TMDL Task Force).⁷ The Lake Elsinore and

⁶ SWRCB, 2014/2016 Integrated Report
https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml

⁷ As of February 3, 2023, Task Force members include: U.S. Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Wildlife, County of Riverside, Riverside

San Jacinto Watershed Authority (LESJWA) currently serves as the Task Force administrator. To encourage timely action to achieve the TMDLs, and to foster anticipated resource expenditure efficiencies, the TMDL implementation plan encourages responsible agencies/parties, including agricultural owners/operators, to participate in TMDL implementation through the TMDL Task Force. TMDL implementation costs are apportioned among the TMDL Task Force members. However, pursuant to the TMDLs, individual agencies/parties, including agricultural owners/operators not enrolled in a Coalition Group, can elect to implement each applicable implementation task independently. The costs of such independent compliance are borne by the individual discharger(s).

54. The WRCAC represents the interests of its member agricultural operators and dairy operators on the TMDL Task Force. WRCAC has been given the responsibility by its membership to administer the coordination of responses with respect to the TMDL implementation tasks on behalf of its members and to collect from those members their apportioned share of TMDL implementation costs. WRCAC provides the funds collected to the TMDL Task Force administrator (LESJWA) to support TMDL implementation.
55. The final total phosphorus and total nitrogen loads established in the Nutrient TMDLs are shown in the table below. These are the total loads of phosphorus and nitrogen that can be allowed to enter Lake Elsinore and Canyon Lake but still restore and maintain the water quality objectives of the lakes. The TMDLs are expressed as 10-year running averages.

County Flood Control and Water and Water Conservation District, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside, Menifee, Wildomar, Beaumont, Eastern Municipal Water District, Elsinore Valley Municipal Water District, and WRCAC (on behalf of most concentrated animal feed operators and irrigated/drylands/non-irrigated lands agricultural operators within the San Jacinto River Watershed).

Water Body	Phosphorus	Nitrogen
Lake Elsinore	28,584 kg/year	239,025 kg/year
Canyon Lake	8,691 kg/year	37,735 kg/year

56. The phosphorus allocations established in the Nutrient TMDLs for Lake Elsinore were calculated based on the assumption that an aeration and mixing system was installed and would be operated, which would result in a thirty-five percent (35%) reduction in the internal loading of phosphorus from sediment in Lake Elsinore.⁸ The Lake Elsinore Aeration and Mixing System (LEAMS) was installed and is operating as designed to reduce the internal loading of phosphorus (and nitrogen) from sediment in Lake Elsinore. To date, funding for the implementation, operation, and maintenance of this system has been provided primarily by the City of Lake Elsinore and Elsinore Valley Municipal Water District (EVMWD). Funding commitments for the LEAMS system were made by the City and EVMWD to: (a) offset phosphorus and nitrogen in recycled water discharges by EVMWD to the Lake to maintain a stable lake level; and (b) to allow the implementation of the aeration and mixing system as soon as possible and thereby facilitate water quality and beneficial use improvements in Lake Elsinore. Without this system or an alternative approved nutrient reduction strategy, there would be no assimilative capacity for phosphorus inputs to Lake Elsinore and therefore no external inputs of nutrients to the lake would be permitted. Stakeholders, which include agricultural operators, determine level of participation annually in the LEAMS program through the Lake Elsinore and Canyon Lake TMDL Task Force.
57. A TMDL offset program has also been approved and initiated in Canyon Lake since 2013. Aluminum sulfate ("alum") binds with phosphorus thereby preventing excess algae growth in the lake. The program involves a semi-annual, large-scale alum application program to offset excess phosphorus. This is designed to cause phosphorus limitation of algae growth (i.e., a single nutrient control strategy).

⁸ California Regional Water Quality Control Board, Santa Ana Region. "Lake Elsinore and Canyon Lake Nutrient Total Maximum Daily Loads." March 26, 2004; revised April 21, 2004. p. 60ff. "Phosphorus Load Capacity for Lake Elsinore Based on Proposed Interim Target."

58. The total allowable phosphorus and nitrogen loads for Lake Elsinore and Canyon Lake are allocated among the sources of these constituents to the lakes. Wasteload allocations are specified in the Nutrient TMDLs for point source inputs, including recycled water and urban runoff. Load allocations are specified in the Nutrient TMDLs for nonpoint source inputs of phosphorus and nitrogen to the lakes. Load allocations are specified for: (a) internal releases of these nutrients from sediments at the bottom of the lakes; (b) atmospheric deposition; (c) agricultural discharges; (d) forest and open space runoff; and (e) septic systems discharges. For Lake Elsinore, phosphorus and nitrogen load allocations were also established for inputs from Canyon Lake.
59. The Lake Elsinore and Canyon Lake Nutrient TMDLs for total phosphorus and total nitrogen load allocations assigned to agricultural discharges are shown in the table below. The allocations are expressed as 10-year running averages.

Water Body	Phosphorus	Nitrogen
Lake Elsinore	60 kg/year	213 kg/year
Canyon Lake	1,183 kg/year	7,583 kg/year

60. The Nutrient TMDLs also include an implementation plan that identifies a series of required actions by the responsible parties, including agricultural owners/operators, to achieve the TMDLs and load allocations. A key task required is the establishment of a Nutrient Water Quality Monitoring Program (Task 4) that includes watershed-wide monitoring (Task 4.1), as well as in-lake monitoring for both Lake Elsinore (Task 4.2) and Canyon Lake (Task 4.3). The TMDL Task Force, including WRCAC, is implementing the Nutrient Water Quality Monitoring Program in compliance with this requirement. The program was first approved by the Santa Ana Water Board through Resolution No. R8-2006-0031, and revisions to the program were subsequently approved through Resolution No. R8-2011-0023 and Resolution No. R8-2012-0052.
61. Another task included in the implementation plan for the Nutrient TMDLs is the development of one or more agricultural nutrient management plans (AgNMP), either by individual agricultural operators or by agricultural operators coordinating as a Coalition Group (Task 5). The AgNMP(s) are to include proposed plans and schedules for the implementation of the following:
- a. Implementation of nutrient controls, BMPs and reduction strategies designed to meet load allocations;
 - b. Evaluation of the effectiveness of BMPs;

- c. Development and implementation of compliance monitoring; and
- d. Development and implementation of focused studies that will provide the following data and information:
 - i. inventory of crops grown in the watershed;
 - ii. amount of manure and/or fertilizer applied to each crop with corresponding nitrogen and phosphorus amounts; and
 - iii. amount of nutrients discharged from croplands.

The Nutrient TMDLs provide that, when and where necessary to implement the AgNMP(s), the Santa Ana Water Board may issue WDRs. This Order serves as WDRs for all enrollees and constitutes their approved AgNMP under the Nutrient TMDLs, as this Order addresses and implements all the required elements listed above.

- 62. Compliance with the agricultural load allocations assigned in the TMDLs may be achieved by demonstrating that the nitrogen and phosphorus loads from Irrigated Lands discharges meet the numbers specified for “Agriculture” in Tables 6-1q and 6-1r of the Basin Plan, using representative surface water monitoring data and Santa Ana Water Board-approved modeling procedures. Alternatively, compliance may be achieved by demonstrating that the total combined waste load allocations and load allocations meet the targets specified in Table 6-1p of the Basin Plan. Where the nitrogen and total phosphorus loads exceed the TMDL load allocations specified for agriculture or the total combined waste load allocations and load allocations for the TMDLs, Dischargers may offset excess loading through an offset program approved by the Santa Ana Water Board’s Executive Officer. Dischargers may also demonstrate compliance through participation in a WQTP among agricultural operators or between agricultural operators and urban dischargers, if the WQTP is approved by the Santa Ana Water Board’s Executive Officer.
- 63. Participation in the TMDL Task Force through WRCAC enables WRCAC members to fulfill the TMDL implementation tasks in an efficient manner collectively as a group. Those Dischargers that are not members of WRCAC or a similar third-party group will be responsible for individual surface water monitoring and individually demonstrating compliance with the Nutrient TMDLs.

Implementation of Total Dissolved Solids/Nitrogen (TDS/N) Plan

- 64. On January 22, 2004, the Santa Ana Water Board adopted Resolution No. R8-2004-0001, amending the Basin Plan to incorporate an updated TDS and

Nitrogen Management Plan for the Santa Ana Region. The amendments included establishing revised boundaries for groundwater subbasins, revised nomenclature to identify groundwater subbasins as groundwater management Zones (GMZs), revised TDS and nitrate-nitrogen water quality objectives for the GMZs, and updated findings of TDS and nitrate-nitrogen assimilative capacity in the GMZs. These amendments were approved by the State Water Board on October 1, 2004, and by the Office of Administrative Law on December 23, 2004. The surface water standards provisions of the amendments were approved by the U.S. EPA on January 20, 2007. The Salt and Nutrient Management Plan in the Basin Plan has since been updated several times through various Basin Plan amendments.

65. The TDS and Nitrogen Management Plan in the Basin Plan incorporates “maximum benefit” TDS and nitrate-nitrogen objectives for the San Jacinto Upper Pressure GMZ and enables implementation of a comprehensive maximum benefit implementation plan known as the Hemet/San Jacinto Water Management Plan (adopted through Resolution No. R8-2010-0039).
66. With the exception of the San Jacinto Upper Pressure GMZ, for which maximum benefit objectives and a maximum benefit implementation plan have been established, all GMZs in the San Jacinto River Watershed lack assimilative capacity for both TDS and nitrate-nitrogen, i.e., the ambient TDS and nitrate-nitrogen quality conditions exceed the applicable water quality objectives (see Figure 1). The Santa Ana Water Board considers the allocation of assimilative capacity created in the San Jacinto Upper Pressure GMZ by the implementation of the maximum benefit objectives and associated implementation plan only to waste discharges by those agencies/parties responsible for the maximum benefit implementation plan. Absent assimilative capacity for TDS and/or nitrate-nitrogen in GMZs, waste discharges to these management zones must be held to the applicable TDS and/or nitrate-nitrogen objectives established for each GMZ.

The recycled water supplied by EMWD to Irrigated Lands is regulated pursuant to WDRs Order R8-2008-008, as amended by Order R8-2014-0016. Among other things, the WDRs set effluent limitations for TDS and TIN in recycled water from EMWD's water reclamation facilities based on the groundwater quality objectives of the underlying GMZs. Where TDS/TIN discharges are in excess of effluent limitations, the WDRs allow EMWD to offset these discharges, and EMWD is currently implementing a series of approved programs to do so.

67. Pursuant to this Order, Irrigated Lands discharges must not cause or contribute to violations of groundwater quality objectives for TDS and nitrate-nitrogen in groundwater. This Order requires Dischargers to: (1) collect data on the nitrogen and TDS quality of their discharges to groundwater; (2) evaluate the

effects of ongoing agricultural operations on underlying groundwater; (3) implement management practices to minimize nitrate and TDS discharges; and (4) evaluate the efficacy of the management practices implemented and use the results to revise and adapt those management practices as needed. This is a complex challenge for the Irrigated Lands community with 8 different underlying GMZs, multiple cropping systems, site specific variabilities, various irrigation source water suppliers and soil classifications and, in many cases, limited available groundwater monitoring data. Where necessary, Dischargers may be required to offset discharges that are in excess of water quality objectives.

68. Manure is a significant potential source of TDS and nitrogen wastes. When applied to land for use as a fertilizer, it may contribute to water quality degradation in underlying groundwater. This Order prohibits application of manure to lands within the San Jacinto River Watershed, unless applied pursuant to an Irrigation and Nitrogen Management Plan and at agronomic rates as detailed in Section G of this Order.

Antidegradation Analysis

69. State Water Board Resolution 68-16, titled *Statement of Policy with Respect to Maintaining High Quality Waters in California* (Resolution 68-16), generally prohibits the Santa Ana Water Board from authorizing discharges that will result in the degradation of high quality waters, unless it is demonstrated that any change in water quality will (a) be consistent with maximum benefit to the people of the state, (b) not unreasonably affect beneficial uses, and (c) not result in water quality less than that prescribed in state and regional policies (e.g., the violation of one or more water quality objectives). Further, any activities that result in discharges to such high quality waters are required to use the best practicable treatment or control (BPTC) of the discharge necessary to avoid a pollution or nuisance and to maintain the highest water quality consistent with the maximum benefit to the people of the state.
70. High quality waters are surface waters or areas of groundwater that have a baseline water quality better than required by water quality control plans and policies. The baseline for this determination is generally 1968, the date of adoption of Resolution 68-16. In the context of a nonpoint source control program for agricultural discharges, a water body by water body and pollutant by pollutant determination of the quality as of the baseline of 1968 is impractical and not required by applicable law. *“Instead, regional water boards must conduct a general assessment of the existing water quality data that is reasonably available.”* (Eastern San Joaquin Order, p. 78.) The Santa Ana Water Board has reviewed the available data and determined that some water bodies in the region are of high quality for constituents expected to be found in

agricultural discharges. Additional data will become available as the monitoring and reporting requirements of this Order are implemented.

71. This Order includes conditions and performance standards that will minimize any degradation to waters of the state. Some limited degradation to high quality waters may occur as a result of discharges from Irrigated Lands subject to this permit. Such limited degradation is:
- a. Consistent with maximum benefit to the people of the state; Agriculture is a generator of economic activity and employment in the area and provides food for the region and beyond. Limited degradation of high-quality waters to accommodate agricultural activity is therefore consistent with the maximum benefit of the people of the state. However, there are significant societal costs associated with agricultural activity where water bodies have been allowed to degrade below water quality objectives through historic practices. These costs include the burdens associated with nitrate contamination of drinking water. Existing data on exceedances of nitrate objectives in the groundwater in the area covered by Irrigated Lands in the San Jacinto River Watershed are inconclusive, but suggest that widespread nitrate contamination of groundwater from Irrigated Lands found in other parts of the state is not necessarily present. With regard to surface water, TMDLs are in place for Lake Elsinore and Canyon Lake to address nutrient impairment in these water bodies. This Order addresses environmental and societal costs associated with exceedances of water quality objectives, as discussed in subsection (b) below.
 - b. Will not unreasonably affect beneficial uses and will not result in water quality less than that prescribed in state and regional policies. This Order addresses the health, environmental, and social costs associated with agricultural discharges by prohibiting discharges that will cause or contribute to exceedances of water quality objectives, unreasonably affect applicable beneficial uses, or cause or contribute to a condition of pollution or nuisance. To detect exceedances and ensure that appropriate management practices are implemented to address exceedances, this Order requires extensive monitoring and reporting. The fact that exceedances and degradation may continue for a finite period of time consistent with a compliance schedule while Dischargers implement the requirements of this Order, including the requirements of Water Quality Improvement Plans (WQIP), is consistent with Water Code section 13263's allowance for a time schedule for dischargers to achieve water quality objectives and is not a violation of Resolution 68-16. This Order also requires sampling of on-farm drinking water wells to ensure that users

of the wells are not drinking water exceeding nitrate contamination health levels.

72. The BPTC requirements of Resolution 68-16 are met through a combination of upfront planning and implementation at the farm level; regional monitoring and assessments to determine whether trends in degradation are occurring; and regional planning and on-farm implementation when trends in degradation are identified. Dischargers need to conduct an on-farm evaluation to determine whether their management practices are protective of water quality. Dischargers must also prepare and implement a farm-specific irrigation and nitrogen management plan. Through the process of learning about effective management practices, evaluating their own practices, and implementing improved practices, Dischargers are expected to achieve BPTC, where applicable. The State Water Board determined in the Eastern San Joaquin Order that the types of requirements that have been incorporated into this Order constitute BPTC.
73. This Order also requires Dischargers to implement monitoring and assessment programs for both surface water and groundwater. These monitoring and assessment programs are required to determine compliance with water quality objectives and whether any trends in water quality improvement or degradation are occurring. If trends in such degradation are identified that could result in impacts to beneficial uses, a WQIP must be prepared by the Coalition Group(s) and/or individual Discharger. The plan must identify management practices that will be implemented to address exceedances of water quality objectives or trends in degradation and include an evaluation of the effectiveness of those practices in addressing the degradation. Failure to implement practices or address the exceedances or degradation in accordance with the schedule proposed in the approved plan may result in further direct regulation by the Santa Ana Water Board or progressive enforcement actions.

California Environmental Quality Act

74. Adoption of this Order constitutes a “project” pursuant to the California Environmental Quality Act (CEQA), Public Resources Code, section 21000 et seq. The Santa Ana Water Board is the lead agency for this project under CEQA.
75. On July 29, 2016, the Santa Ana Water Board adopted the CWAD, waiving WDRs for discharges of waste from Irrigated Lands in the San Jacinto River Watershed and adopted the programmatic Mitigated Negative Declaration under CEQA under Resolution R8-2016-0003.

76. The 2016 Mitigated Negative Declaration describes the potential environmental impacts associated with implementation of water quality management practices and impacts to agricultural resources (e.g., loss of production farmland). This Order has substantially similar requirements to the CWAD and continues the Irrigated Lands Program for the San Jacinto River Watershed, with the only difference being the addition of new or revised monitoring and reporting requirements. These new or revised monitoring and reporting requirements will not result in an adverse physical change to the environment, nor are there substantial changes in the surrounding circumstances, which would require major revisions to the 2016 Negative Declaration or significant new information, as that term is used in CEQA. The 2016 Negative Declaration for the CWAD constitutes the environmental analysis under CEQA for this Order and no subsequent environmental document is required pursuant to California Code of Regulations, title 14, section 15162.

Public Participation

77. The Santa Ana Water Board has notified interested agencies and persons of its intent to adopt this Order and provided them with an opportunity for a public hearing and to submit comments.
78. On February 3, 2023, the Santa Ana Water Board, in a public meeting, heard and considered all comments pertaining to this Order.

REQUIREMENTS

IT IS HEREBY ORDERED, pursuant to Water Code sections 13263 and 13267, that Orders R8-2016-0003, R8-2017-0023 and R8-2021-0034 are rescinded upon adoption of this Order, except for enforcement purposes, and in order to meet provisions contained in division 7 of the Water Code and regulations adopted there under, Dischargers and Coalition Group(s) shall comply with the following:

A. Coverage Requirements

1. **Eligible Dischargers.** This Order regulates Dischargers that own or operate Irrigated Lands and applies to discharges or potential discharges of waste from Irrigated Lands, as specified in Findings 6 through 9. Dischargers who were enrolled in R8-2016-0003, as amended by R8-2017-0023 and renewed by Order R8-2021-0034, as of the effective date of this Order are automatically enrolled for a period of one year from the effective date of this Order pending receipt of a Notice of Confirmation.
2. **Electronic Notice of Intent.** Enrollment in this Order requires the submittal of an eNOI through GeoTracker, pursuant to Water Code section 13260.

- a. Prior to any discharge or commencement of activities that may cause a discharge, including land preparation prior to crop production, any Discharger proposing to control or own an operation that has the potential to discharge waste that could directly or indirectly reach waters of the state and/or affect the quality of any surface water and/or groundwater must submit an eNOI.
 - b. New Dischargers shall submit a completed eNOI within 60 days before the discharge commences, unless permission for a later date has been granted by the Santa Ana Water Board's Executive Officer.
 - c. Upon receipt of a completed eNOI form, the Executive Officer shall:
 - i. Determine the applicability of this Order to the individual Discharger;
 - ii. Notify the individual Discharger and the administrator of a Coalition Group, if applicable, whether the Discharger is authorized to discharge under the terms and conditions of the Order. An NOA will be issued if appropriate. The discharge shall not commence until receipt of the Executive Officer's NOA to discharge.
 - d. The eNOIs shall be updated at least once a year if there is a change in property ownership, grower contact information, email contact information, or if the parcels farmed by the enrollee change.
3. **Notice of Confirmation.** Within one year of the effective date of this Order, each Discharger previously enrolled under Order R8-2016-0003 shall provide a Notice of Confirmation (NOC) that includes statement certifying that the Discharger is aware of the requirements of this Order and of the Discharger's responsibility to comply and shall be signed by the Discharger. Dischargers who are not members of a Coalition Group must submit the NOC directly to the Santa Ana Water Board. Dischargers who are members of a Coalition Group may submit the NOC directly to the Coalition Group. The Coalition Group shall maintain a copy of each signed NOC and make it available to the Santa Ana Water Board upon request. The Coalition Group shall report whether it has received a NOC from each new or existing member in the annual membership report.
4. **Transferability.** Coverage under this Order is not transferable to any person except after completion and submittal of a new eNOI to the Santa Ana Water Board and receipt of a written NOA from the Santa Ana Water Board's Executive Officer. Dischargers who voluntarily discontinue participation in a Coalition Group or who are removed from the Coalition Group, but who

continue agricultural operations on Irrigated Lands, shall submit a new eNOI for individual participation in this Order.

5. **Termination of Coverage.** Dischargers may terminate coverage under this Order by providing a 30-day written notice to the Santa Ana Water Board's Executive Officer and, if applicable, notice to the Coalition Group. At a minimum, the written notice must include the reason for terminating coverage (e.g., transfer of ownership, Discharger ceased farming operation, Discharger obtained an individual WDR, etc.). The Discharger shall continue to comply with this Order until the Santa Ana Water Board notifies the Discharger in writing that coverage has been terminated. In the event that the Santa Ana Water Board issues an individual permit with more specific requirements to a Discharger, the applicability of this Order to that Discharger is automatically terminated, except for enforcement purposes, on the effective date of the individual permit.

B. Prohibitions

1. The discharge of waste to waters of the state, other than from Irrigated Lands as defined in Findings 6 through 9, is prohibited.
2. The discharge of hazardous waste, as defined in California Code of Regulations, title 23, section 2521, subdivision (a), is prohibited.
3. The discharge of waste (e.g., fertilizer, fumigants, pesticides) to groundwater via backflow through any water supply well is prohibited.
4. The discharge of waste from Irrigated Lands that are not enrolled in this Order or other orders adopted by the Santa Ana Water Board or State Water Board is prohibited. Only discharges of waste from eligible agricultural operations are authorized by this Order.
5. The discharge of waste shall be free of substances in concentrations which are toxic, or that produce detrimental physiological responses in human, plant, animal or aquatic life.
6. The discharge of recycled water onto lands not owned or controlled by the Discharger is prohibited..
7. The disposal of manure to land is prohibited. Disposal of manure is defined as the final deposition of manure that does not comply with the minimum requirements specified in Section G.

8. The application of manure to Irrigated Lands in excess of agronomic rates is prohibited.
9. The discharge of oil, grease, and floating material (liquids, solids, foam, and scum) or suspended material in amounts that create a nuisance or adversely affect beneficial uses is prohibited.
10. If the National Weather Service predicts a 40% or greater chance of rainfall in the forecast within 72 hours, application of chemical fertilizers (including nitrogen carriers of herbicides for foliar application), manure, and herbicides and other pesticides to Irrigated Lands is prohibited.
11. The discharge of waste containing TDS and/or nitrate-nitrogen concentrations in excess of water objectives is prohibited, unless a plan, approved by the Executive Officer, is implemented to offset the excess TDS and nitrate-nitrogen discharges to the GMZs.

C. Receiving Water Limitations⁹

1. Surface Receiving Water Limitations

- a. Wastes discharged from Irrigated Lands in the San Jacinto River Watershed shall not cause or contribute to an exceedance of applicable water quality objectives for surface waters, unreasonably affect applicable beneficial uses, or cause or contribute to a condition of pollution or nuisance.

2. Groundwater Receiving Water Limitations

- a. Wastes discharged from Irrigated Lands in the San Jacinto River Watershed shall not cause or contribute to an exceedance of applicable water quality objectives in the underlying groundwater, unreasonably affect applicable beneficial uses, or cause or contribute to a condition of pollution or nuisance.

⁹ These limitations are effective immediately except where Dischargers are implementing an approved WQIP for a specified waste parameter in accordance with an approved time schedule authorized pursuant to Section F of this Order.

D. Requirements – Dischargers

1. Enrollment Type

- a. Compliance with this Order shall be achieved individually or, where allowed by this Order, may be achieved through actions by a Coalition Group. Discharger compliance with the requirements of this Order as a member of a Coalition Group is contingent on the payment of apportioned TMDL fees and, if applicable, Coalition Group administrative fees to the approved Coalition Group Administrator.
- b. Both owner and operators of Irrigated Lands have responsibility for compliance with the conditions of this Order.

2. Management Practices

- a. Dischargers must (1) implement management practices that prevent or control discharges of waste that are causing or contributing to exceedances of water quality objectives; 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 objectives, Dischargers must implement improved management practices.
- b. Pursuant to Water Code section 13360, this Order does not specify the design, location, type of construction, or particular manner of management practices compliance, and Dischargers can use any appropriate management practice to comply with the requirements of this Order. Dischargers are encouraged to consult with the State Water Board's Nonpoint Source Management Measures Encyclopedia, or other sources.¹⁰

3. Water Quality Management Plan

- a. Dischargers shall develop and implement an individual Water Quality Management Plan (Farm Plan) to identify the type and location of management practices currently used on their Irrigated Lands and additional management practices based on current conditions needed to minimize or prevent the discharge of waste to waters of the state

¹⁰ https://www.waterboards.ca.gov/water_issues/programs/nps/encyclopedia/

through irrigation water runoff and infiltration, non-stormwater runoff, and stormwater runoff.

- b. Dischargers with the potential to cause erosion and discharge sediment that may degrade surface waters shall implement sediment and erosion control practices. Dischargers must indicate whether they are implementing sediment and erosion control practices in their Farm Plan.
- c. Dischargers must use the Farm Plan Template approved by the Santa Ana Water Board's Executive Officer. At a minimum, the Farm Plan Template shall include the following:
 - i. The name, business address, mailing address, email address, and phone number of the farmland owner;
 - ii. The name, business address, mailing address, email address, and phone number of the farm grower/operator (if different from those for the previous item)
 - iii. Information regarding the location of farm, including: (1) the address, (2) the Assessor's Parcel Number(s) (APN) and the county in which each parcel is located, and (3) the agricultural waiver number (AW#);
 - iv. The number of wells and well IDs associated with each enrolled APN and if the wells are used as a drinking water well;
 - v. The total acreage under cultivation;
 - vi. Crop(s) grown or product(s) produced;
 - vii. A list of agricultural chemicals typically applied to the crops at the operation, including but not limited to, fertilizers and organic amendments, pesticides, and fumigants;
 - viii. A list of the management practices used on each crop for the annual cycle and an indication of whether sediment and erosion control practices are being implemented;
 - ix. A description of any subsurface drainage collection system;
 - x. The location of discharge point(s) and the type of discharge(s) (surface and/or subsurface discharges); and
 - xi. The name of the receiving surface waters (if known) to which irrigation runoff, stormwater runoff, and non-stormwater runoff from the operation is discharged.
- d. Dischargers who are members of a Coalition Group shall submit the individual Farm Plan to the Coalition Group. An updated Farm Plan must be prepared and submitted to the Coalition Group by **May 1, 2024** and by **May 1** annually thereafter. Dischargers who are not

members of a Coalition Group must submit the Farm Plan by **September 15, 2024** and by **September 15** annually thereafter directly to the Santa Ana Water Board's Executive Officer.

- e. A copy of the Farm Plan shall be maintained at the Discharger's farming headquarters or primary place of business.
- f. Dischargers shall ensure that all management practices identified in the Farm Plan are properly operated and maintained. Dischargers shall periodically evaluate the effectiveness of the management practices and shall make modifications to the Farm Plan, as necessary, when monitoring indicates waste discharges have not been adequately addressed in the Farm Plan. When required by the Santa Ana Water Board's Executive Officer, each Discharger shall develop a proposed WQIP designed to address deficiencies in management practices, improve the quality of waste discharges from their agricultural operation, and achieve compliance with water quality objectives in the receiving waters.

4. Irrigation and Nitrogen Management Plan and Summary Report

- a. Dischargers shall implement management practices that minimize excess nitrogen application relative to crop need. Proper nutrient management will work to reduce excess plant nutrients, such as nitrogen, from reaching state waters. Nitrogen management must take site-specific conditions into consideration in identifying steps that will be taken and practices that will be implemented to minimize nitrate movement through surface runoff and leaching past the root zone.
- b. Dischargers must prepare and implement an Irrigation and Nitrogen Management Plan (INMP) for each field^{1112[OBJ]} and submit the INMP

¹¹ Where this Order requires reporting by field, Dischargers may report data for a portion of a field or for multiple fields provided that the reported area has (1) the same crop type, (2) the same fertilizer inputs, (3) the same irrigation management, and (4) the same management practices. In no case should a reported area exceed a total size of 500 acres, and different crop types must always be reported separately even if they are within the same reporting area.

¹² The Santa Ana Water Board's Executive Officer may also approve alternative reporting areas for Dischargers in areas with highly intensive cropping practices,

Summary Report for the previous crop¹³

- c. Dischargers must use the INMP Template approved by the Santa Ana Water Board's Executive Officer. The Executive Officer may approve the use of multi-year INMPs for categories of crops that have consistent irrigation and nitrogen planning from year to year. Multi-year plans cannot exceed three years in length, and if the Discharger decides to vary from the plan during its implementation period, a new INMP must be prepared and implemented. Dischargers using multi-year INMPs must submit INMP Summary Reports annually.
- d. The INMP must include calculations for an Applied/Removed (A/R) ratio for nitrogen and an Applied-Removed (AR) difference for nitrogen, as defined in the equations below. The A/R ratio is the ratio of total Nitrogen Applied (from sources including, but not limited to, organic amendments, synthetic fertilizers, manure, and irrigation water) to the total Nitrogen Removed (including all harvested materials and nitrogen annually sequestered in permanent wood for perennial crops). The A-R difference is the difference of total Nitrogen Applied and the total Nitrogen Removed.

$$\text{A/R Ratio} = \frac{\text{Nitrogen Applied (from any source, including fertilizers, irrigation)}}{\text{Nitrogen Removed (via harvest, etc.)}}$$

$$\text{A-R Difference} = \text{Nitrogen Applied} - \text{Nitrogen Removed}$$

including multiple rotations of different crops in the same location within a single year, unpredictable crop types and harvesting based on rapidly shifting market demand, and variable management practices adjusting to weather and field conditions. The alternative reporting area must provide meaningful data and balance the level of detail with the reporting burden similar to the field approach. In no case should a reported area exceed a total size of 640 acres, and different crop types must always be reported separately, even if they are within the same reporting area, to allow for evaluation of the effectiveness of management practices with regard to each individual crop type grown.

¹³ Pursuant to the Eastern San Joaquin Order, this requirement does not apply to Members where applied nitrogen is not expected to seep below the root zone in amounts that could impact groundwater and is further not expected to discharge to surface water. Any category of dischargers (such as growers of a particular crop or growers in a particular area) must receive approval of the Executive Officer for this exception to apply.

Total Nitrogen Removed shall be determined, in part, by multiplying a Discharger's crop yield by a crop-specific nitrogen coefficient, C_N , which represents the amount of nitrogen in the harvested crop. For some crops, the data needed to develop the C_N coefficient may not yet be available. The Coalition Group is directed to determine, through nitrogen removed testing and research, the most appropriate C_N coefficients for converting crop yield to nitrogen removed for approval by the Santa Ana Water Board's Executive Officer.

Nitrogen Removed (lbs/acre) = Crop Yield (units/acres) x C_N (lbs/unit)

- e. Notwithstanding the provision above, with the approval of the Executive Officer, the following Dischargers may initially report the A value only in the INMP:
 - i. Growers that operate in areas where (1) evidence of no or very limited nitrogen impacts to surface or groundwater exist, (2) have minimal nitrogen inputs, and (3) have difficulty measuring yield.
 - ii. Diversified socially disadvantaged growers, as defined by the Farmer Equity Act of 2017¹⁴ who has (1) a maximum total acreage of 45 acres, (2) a crop annual sales of less than \$350,000, and (3) a crop diversity greater than 0.5 crops per acre (one crop for every two acres).
- f. The Santa Ana Water Board is not requiring that each Dischargers INMP be certified by an irrigation and management planning specialist at this time. However, Dischargers notified by the Santa Ana Water Board because of outlier conditions, individually or through the Coalition Group, must work with an irrigation and management planning specialist for certification of the next INMP prepared following notification. On their next INMP Summary Report, these Dischargers must also report that they were notified as outliers for the reported AR data and reflect additional or improved management practices implemented to address potential over-application of nitrogen.
- g. Dischargers shall prepare an INMP by **September 15, 2023** and by **September 15** annually thereafter, unless using a multi-year INMP. Starting on **September 15, 2024**, Dischargers must submit the INMP Summary Reports annually either to the Coalition Group if they are

¹⁴ Food & Agr. Code, § 512, subd. (b)

members or directly to the Santa Ana Water Board if they are not members.

- h. A copy of the INMP shall be maintained at the Discharger's farming operations headquarters or primary place of business.
- i. Dischargers must use the INMP Summary Report Template approved by the Santa Ana Water Board's Executive Officer. At a minimum, the INMP Summary Report shall contain:
 - i. Crop year;
 - ii. Owner/Management name;
 - iii. Assessor's Parcel Number (APN);
 - iv. Field identifier;
 - v. Acreage for each field identified;
 - vi. Crop type;
 - vii. Crop age (permanent crops);
 - viii. Irrigation method;
 - ix. Irrigation management practices implemented;
 - x. Nitrogen management practices implemented;
 - xi. Total acreage;
 - xii. Nitrogen Applied (lbs/acre); and
 - (A) Irrigation water
 - (B) Synthetic fertilizers
 - (C) Organic amendments
 - xiii. Crop yield (for Coalition Group members, units specified by Coalition Group)

5. Lake Elsinore and Canyon Lake Nutrient TMDLs Compliance

- a. Dischargers shall implement tasks that are identified in approved TMDL implementation plans and that are assigned, in whole or in part, to agricultural operators in the Lake Elsinore and Canyon Lake Nutrient TMDLs. Dischargers are encouraged to fulfill these obligations as part of a third-party group, such as WRCAC, but may also fulfill these obligations individually. Discharger compliance with TMDL requirements as part of a third-party group is contingent on the payment of apportioned TMDL Task Force fees to the approved group administrator.
- b. Dischargers shall implement a Nutrient Water Quality Monitoring Program that includes watershed-wide monitoring, as well as in-lake monitoring for both Lake Elsinore and Canyon Lake, identified as Tasks 4, 4.1, 4.2 and 4.3 in the Nutrient TMDLs.

- i. Dischargers may conduct this monitoring as a group. The TMDL Task Force, including WRCAC, is implementing a Nutrient Water Quality Monitoring Program pursuant to this requirement that the Santa Ana Water Board approved in Resolution No. R8-2006-0031, as amended by Resolution Nos. R8-2011-0023 and R8-2012-0052. Dischargers may therefore comply with this requirement through participation in WRCAC.
 - ii. Alternatively, **within 90 days** from issuance of this Order, Dischargers proposing to comply individually with this requirement must submit a proposed Nutrient Water Quality Monitoring and Reporting Program for approval by the Santa Ana Water Board's Executive Officer that incorporates Tasks 4 through 4.3 of the Lake Elsinore and Canyon Lake Nutrient TMDLs.
- c. Dischargers shall comply with the terms and conditions of this Order, which serves as the approved AgNMP under the Lake Elsinore and Canyon Lake Nutrient TMDLs (Task 5).
 - d. For Dischargers who are members of WRCAC or a similar third-party group, compliance with the load allocation for agriculture specified in the Nutrient TMDLs may be achieved by demonstrating one of the following annually by **September 15**:
 - i. The nitrogen and phosphorus loads from discharges from Irrigated Lands meet the numbers specified for "Agriculture" in Tables 6-1q and 6-1r of the Basin Plan, using representative monitoring data and Santa Ana Water Board-approved modeling procedures;
 - ii. The total combined wasteload allocations and load allocations meet the numbers specified in Table 6-1p of the Basin Plan, using representative monitoring data and Santa Ana Water Board-approved modeling procedures; or
 - iii. The TMDL numeric targets specified Table 6-1n of the Basin Plan are attained.

Discharges in excess of the numeric loads in subdivision 5(d)(i) or 5(d)(ii) above may be offset through an offset program approved by the Santa Ana Water Board's Executive Officer. Dischargers may also comply through participation in a WQTP among agricultural operators

or between agricultural operators and urban dischargers, if the WQTP is approved by the Santa Ana Water Board's Executive Officer.

- e. For Dischargers who are not members of WRCAC or a similar third-party group, individual compliance with the load allocations for agriculture specified in the Nutrient TMDLs require demonstrating that discharges of waste from Irrigated Lands owned or controlled by the Discharger meet the numeric nitrogen and phosphorus loads for "Agriculture" in Tables 6-1q and 6-1r proportional to that Discharger, using representative monitoring data and Santa Ana Water Board-approved modeling procedures. This demonstration must be made annually by **September 15**. The Discharger shall calculate the proportional load allocated to the Discharger as an individual in Tables 6-1q and 6-1r; the method of calculation is subject to review and approval by the Executive Officer.

6. Education and Outreach Events

- a. Dischargers shall participate in not less than two hours of outreach and educational events annually. Educational events may include, but are not limited to, training on nonpoint source pollution control, development and use of management practices, and water quality management on agricultural operations. This may include sediment transport management, irrigation practices, fertilizer and pesticide management, nutrient and manure management, and other pertinent topics.
- b. Educational programs are subject to approval by the Santa Ana Water Board's Executive Officer. Dischargers or the Coalition Group shall submit proposed educational programs to the Santa Ana Water Board for approval, providing the name, date, and topic of the program. If possible, proposed educational programs will be submitted a minimum of 30 days before the date of training. The Santa Ana Water Board shall provide written notification of its approval or disapproval for each proposed education program in a timely manner to allow Dischargers sufficient time to enroll in approved programs.
- c. Dischargers and the Coalition Group(s) shall keep records of attendance at approved education programs and shall report participation in approved training programs to the Santa Ana Water Board annually by **September 15**.

7. On-Farm Drinking Water Well Testing

- a. Due to the potential severity and urgency of health issues associated with drinking groundwater with high concentrations of nitrates, Dischargers shall conduct testing and monitoring for nitrate of all drinking water supply wells present on Discharger's property.
- b. Dischargers must initiate sampling of drinking water supply wells located on their property as described below. The initial sampling event must be completed in time to allow for the results to be submitted to the Santa Ana Water Board by **September 15, 2023** and annually on **September 15**.
 - i. **Initial Testing.** Initially, Dischargers must conduct annual drinking water supply well sampling for nitrates for three years. In lieu of one or more of these three annual tests, Dischargers may submit one or more annual drinking water supply well sampling results from one or more of the five prior years, provided sampling and testing for nitrates was completed using USEPA-approved methods and by an Environmental Laboratory Accreditation Program (ELAP) certified laboratory.
 - ii. **Continued Testing.** Dischargers must continue conducting annual drinking water supply well sampling for nitrates, unless the nitrate concentration is below 8 mg/L nitrate+nitrite as nitrogen (N) in three consecutive annual samples, in which case Dischargers may conduct sampling once every five years going forward. An alternative sampling schedule based on trends for nitrate for each well may be required by the Executive Officer at any time.
 - iii. **Exceedances.** If groundwater monitoring determines that water in any well that is used for drinking water exceeds 10 mg/L of nitrate+nitrite as N, the Discharger must provide notice to the users within 10 days of learning of the exceedance and send a copy of the notice to the Santa Ana Water Board. If the Discharger is not the owner of the Irrigated Lands, the Discharger may provide notice instead to the owner within 24 hours of learning of the exceedance, and the owner must provide notice to the users within nine days and send a copy of the notice to Santa Ana Water Board.
- c. For notifications of exceedances, Dischargers must use the Drinking Water Notification Template approved by the Santa Ana Water Board's Executive Officer. At a minimum, the template shall contain the following:

- i. A statement notifying users of the exceedance;
- ii. Educational materials and/or fact sheets regarding the potential health risks and steps that should be taken for protection; and
- iii. A signature block, to be signed by the Discharger or landowner, certifying that a copy of the Drinking Water Notification Template has been provided to affected users.

The template will be made available in an appropriate set of languages and designed to be understood by low-literacy populations. A copy of the signed template shall be sent to the Santa Ana Water Board and retained by the Discharger or landowner, as appropriate.

- d. Groundwater samples must be collected using proper sampling methods, chain-of custody, and quality assurance/quality control protocols. Groundwater samples must 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 must 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.
- e. All drinking water supply well monitoring data, including any existing data, is to be submitted in Electronic Deliverable Format (EDF), through GeoTracker, to the Santa Ana Water Board by the testing laboratory. The data submitted shall include the APN where the drinking water supply well is located.

8. Surface and Groundwater Monitoring and Reporting

- a. Dischargers shall perform either individual monitoring or participate in representative monitoring of surface water and groundwater as part of a Coalition Group and/or WRCAC to assess the water quality of discharges on receiving waters of the state.
- b. Monitoring of surface water and groundwater must be sufficiently representative to:
 - i. Assess the effects of the waste discharges on the surface waters and groundwaters of the state;

- ii. Evaluate the efficacy of and inform adaptive management of farm management practices in reducing or eliminating discharges of pollutants to waters of the state;
 - iii. Determine compliance with applicable load allocations established in TMDLs;
 - iv. Evaluate TDS and nitrogen discharges and the need for and magnitude of offset measures to assure that waste discharges do not cause or contribute to exceedances of TDS and nitrate-nitrogen water quality objectives in groundwater;
 - c. Surface water monitoring and reporting requirements can be satisfied through either:
 - i. Membership in an approved Coalition Group or third-party group that conducts representative monitoring that complies with the requirements outlined in Section D.8.b above. Membership in WRCAC and participation in WQlag Tool meets this requirement. WRCAC has an approved surface water monitoring and reporting program, which was approved on December 17, 2019. Reporting from WRCAC pursuant to this program is submitted to the Santa Ana Water Board and the San Jacinto Coalition.
 - ii. **Within 90 days** following the issuance of this Order, any Dischargers not participating in the approved WRCAC surface water monitoring and reporting program must submit a Surface Water Quality Monitoring Workplan for approval by the Executive Officer that complies with the requirements outlined in Section D.8.b above.
 - d. Groundwater monitoring and reporting requirements can be satisfied through either:
 - i. Membership in an approved Coalition Group that conducts representative monitoring that complies with the requirements outlined in Section D.8.b above. The San Jacinto Coalition conducts representative groundwater monitoring on behalf of its members.
 - ii. **Within 90 days** following the issuance of this Order, any Dischargers not participating in a Coalition Group must submit a Groundwater Quality Monitoring Workplan for approval by the

Executive Officer that complies with the requirements outlined in Section D.8.b above. The Executive Officer may exempt Dischargers from this requirement if:

1. They are unable to join a Coalition Group; and
2. Groundwater monitoring already conducted by a Coalition Group is representative of discharges from Irrigated Lands that the Discharger owns or controls.

Dischargers seeking this exemption must submit a written request to the Executive Officer explaining why they meet the above criteria and include parcel map(s) of farming operation(s) with notations of all known groundwater monitoring wells within 0.5 mile of each farm location.

9. Fees

- a. Dischargers shall pay an annual fee to the State Water Board in compliance with the WDRs fee schedule set forth in the California Code of Regulations, title 23, section 2200.6. The Coalition Group is responsible for collecting these fees from its members and submitting them to the State Water Board on their behalf. Dischargers who are not members of a Coalition Group are responsible for submitting payment for state fees directly to the State Water Board.
- b. Dischargers participating in this Order are not exempt from paying their proportional share of fees for TMDL implementation activities carried out by the TMDL Task Force unless a Discharger elects to conduct TMDL implementation activities individually. In that case, the Discharger is individually responsible for the costs associated with TMDL implementation.

E. Requirements – Coalition Group

1. Authorization

- a. The San Jacinto Coalition is currently the only approved Coalition Group in the San Jacinto River Watershed and is automatically authorized to represent members under this Order. Other potential Coalition Groups wishing to act as third-party representatives must follow the procedures outlined below in Section E.9.

- b. A Coalition Group that is approved to represent members under this Order is responsible for managing fee collection and payment, managing communications between members and the Santa Ana Water Board, and for fulfilling monitoring and reporting requirements on behalf of its members, including but not limited to, conducting surface water and/or groundwater monitoring, conducting regional monitoring, and preparing reports for submission.
- c. The Coalition Group is not responsible or liable for an individual Discharger's compliance with the terms of this Order or the Water Code.

2. Membership Reporting

- a. By **September 15, 2023** and by **September 15** annually thereafter, the Coalition Group shall submit to the Santa Ana Water Board a list of all its current members with associated waste discharge identification (WDID) numbers and APNs. The list shall specifically identify any new members or any members terminated since the last reporting period.
- b. As part of the annual membership list submittal, the Coalition Group shall identify members who have failed to fulfil the following requirements of this Order as they become applicable:
 - i. Submit a Notice of Confirmation (Section A.3);
 - ii. Implement water quality management practices (Section D.2);
 - iii. Submit a complete Farm Plan (Section D.3);
 - iv. Submit a complete annual INMP Summary Report (Section D.4);
 - v. Provide confirmation of participation in at least one education and outreach event (Section D.6);
 - vi. Pay the required fees (Section D.9); or
 - vii. Respond to an information request associated with any applicable provisions of this Order.

3. Templates for Members

- a. The Santa Ana Water Board intends to coordinate with the Coalition Group and agricultural groups/experts to develop templates that will be

provided to Dischargers. Templates may be used by the Coalition Group through electronic means such as through provided database software.

- b. The Coalition Group may work with Santa Ana Water Board staff in the development of the templates below, and shall make those templates available to its members within **60 days** of receiving final approval of the templates from the Santa Ana Water Board's Executive Officer:
 - i. **Farm Plan Template.** Requirements for the Farm Plan Template are described above in Section D.2.c.
 - ii. **INMP and INMP Summary Report Templates.** Requirements for the INMP and INMP Summary Report Templates are described above in Section D.7.c.
 - iii. **Drinking Water Notification Template.** Requirements for the Drinking Water Notification Template are described above in Section D.4.i.
- c. If desirable, differing templates may be created for different agricultural commodity groups.

4. Monitoring and Reporting Program

a. Groundwater Monitoring

- i. The Coalition Group shall conduct required water quality monitoring and assessments in conformance with quality assurance/quality control requirements in this Order and the MRP (Attachment A), and provide a timely and complete submittal of any reports required.
- ii. Within **180 days** of adoption of this Order, the Coalition Group shall submit for review and approval to the Santa Ana Water Board's Executive Officer a Groundwater Trend Monitoring Plan, as described in Section IV of the MRP, Attachment A.

b. Surface Water Monitoring

- i. WRCAC is currently the only entity implementing an approved surface water monitoring and reporting plan on behalf of its members, in meeting the Lake Elsinore and Canyon Lake TMDL requirements of this Order. Reporting from WRCAC pursuant to

this program is submitted to the Santa Ana Water Board and the San Jacinto Coalition annually.

c. Compliance Program Reporting

i. The Coalition Group shall submit its members' INMP summary data and Farm Plan data anonymously to the Santa Ana Water Board in compliance with the schedule in Section V.C. of the MRP (Attachment A).

ii. Outliers

1. Within three years after the nitrogen removal coefficients C_N have been approved by the Santa Ana Water Board's Executive Officer, those members who are outliers in nitrogen application shall be identified by the Coalition Group annually based on the last three years of data submitted in the INMP Summary Report.
2. The Coalition Group shall propose an approach, to be approved by the Santa Ana Water Board's Executive Officer, that defines a set of outlier members with whom the Coalition Group will follow up. The Coalition Group may choose to apply that approach annually for a period of years to determine outliers, or the Coalition Group may propose and seek approval of a different approach each year

iii. Confidentiality

1. The Coalition Group shall develop: (1) anonymous member identification numbers and (2) anonymous APN identification numbers for the reporting of members' data. The Coalition Group shall maintain and track the IDs from year to year.
2. The Coalition Group shall submit Farm Plan data using the anonymous Member ID.
3. The Coalition Group shall submit INMP Summary Report data using anonymous Member ID, anonymous APN ID, and township.
4. The Santa Ana Water Board's Executive Officer may require that the Coalition Group directly provide data for individual Dischargers (without anonymous identifiers) in connection with

the implementation of a WQIP, as described in Section F below, particularly where the data suggests that the Discharger(s) are not improving their management practices.

5. On-Farm Drinking Water Monitoring

- a. The Coalition Group, on behalf of its members, may conduct testing and monitoring of drinking water supply wells present on their members' property. The San Jacinto Coalition does not conduct this testing on behalf of its members.

6. Education and Outreach

- a. The Coalition Group may conduct education and outreach activities to inform members of program requirements and water quality problems identified by the Coalition Group or the Santa Ana Water Board. A record of all members who attend shall be kept and used to fulfill the reporting requirements of Section V.D.
 - i. Outreach events and materials shall include information on nitrogen application practices and the potential impact of nitrates on groundwater, including drinking water quality. Outreach events and materials are encouraged to be provided in multiple languages as appropriate depending on the anticipated Discharger audience.
 - ii. The Coalition Group is encouraged to provide Members with information on water quality management practices that will address water quality problems and minimize the discharge of wastes from Irrigated Agricultural Lands and provide informational materials on potential environmental impacts of water quality management practices.
 - iii. When an education and outreach activity is provided by a Coalition Group an annual summary of education and outreach activities shall be provided to the Santa Ana Water Board. The annual summary shall include copies of the educational and management practices information provided to the growers. The annual summary must report the total number of growers who attended the outreach events and describe how growers could obtain copies of the materials presented at these events.

- b. The Coalition Group must inform members who are outliers for reported AR data that they are potentially over-applying nitrogen to their fields and must follow up with members, as appropriate.

7. Fees

- a. The Coalition Group shall collect the fees from members required by the State Water Board pursuant to the fee schedule contained in California Code of Regulations, title 23, section 2200.6. The Coalition Group is responsible for submitting all fees collected directly to the State Water Board on behalf of its members.

8. Termination of Representation

- a. If a Coalition Group wishes to terminate its role as a third-party representative, the Coalition Group shall submit a notice of termination letter to the Santa Ana Water Board and all of the Coalition Group's members. Termination of the Coalition Group will occur no earlier than 30 days from submittal of the notice of termination letter.
- b. The notice of termination shall inform members of their obligation to find a new, approved Coalition Group representative or to comply as an individual enrollee. At a minimum, the written notice must include:
 - i. The proposed termination date;
 - ii. The reason for termination (e.g. dissolution, merger, etc.);
 - iii. Evidence that written notice (e.g. certified mail, email, etc) was provided to all members of the Coalition Group of the proposed termination; and
 - iv. Any successor and assign(s) seeking to assume responsibility under this Order;
- c. The Coalition Group shall continue to comply with this Order until the Santa Ana Water Board notifies it in writing that coverage has been terminated.

9. New Coalitions

- a. New Coalition Group(s) shall obtain written approval from the Santa Ana Water Board's Executive Officer prior to assisting Dischargers with compliance with this Order.

- b. In evaluating whether to approve a new Coalition Group, the Executive Officer will consider the following factors:
 - i. The ability of the third party to carry out the identified Coalition Group responsibilities.
 - ii. Whether the third party is a legally defined entity (i.e., non-profit corporation; local or state government; Joint Powers Authority) or has a binding agreement among multiple entities that clearly describes the mechanisms in place to ensure accountability to its members.
 - iii. Whether the third party has binding agreements with any subsidiary group (e.g., a sub-watershed group) to ensure any third-party responsibilities carried out by the subsidiary group, including the collection of fees, are done transparently and with accountability to the third party.
 - iv. Whether the third party has a governance structure that includes a governing board of directors composed in whole or in part of members, or otherwise provides members with a mechanism to direct or influence the governance of the third party through appropriate by-laws.
- c. If the Executive Officer determines that the Coalition Group applicant has the capacity to satisfactorily carry out the Coalition Group responsibilities, the Santa Ana Water Board's Executive Officer will issue an NOA. The new Coalition Group shall comply with the relevant terms and conditions of this Order upon receipt of the NOA.

F. Water Quality Improvement Plan

1. The Santa Ana Water Board may require an individual Discharger to prepare a WQIP if (a) there is a water quality exceedance or (b) a trend of degradation of water quality is identified that threatens a beneficial use in receiving waters affected by discharges of waste from Irrigated Lands.
2. The WQIP shall contain the following information:
 - a. For each constituent that indicates an exceedance or a trend of water quality degradation that could threaten a beneficial use, the WQIP shall include a graph showing the concentrations over time (from available data) and a trend analysis for the constituent.

- b. The WQIP 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 is impacting or threatens to impact a beneficial use(s). The WQIP shall also include a list and map location of Discharger(s) in the geographic area addressed in the WQIP.
 - c. The WQIP shall identify management practices currently being implemented and additional or improved management practices that will be implemented by designated Dischargers to prevent or minimize the discharge of any waste that is causing or contributing to the exceedance or trend of water quality degradation. The WQIP shall also include a brief justification for selecting specific management practices.
 - d. The WQIP shall include a schedule for the implementation and completion of all tasks described in the WQIP. 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 C of this Order. If the schedule exceeds one year, the schedule must include interim annual milestones that demonstrate progress towards completion of the WQIP tasks and compliance with the applicable receiving water limitations of this Order.
 - e. The WQIP shall include a monitoring and reporting program to provide feedback on WQIP progress and its effectiveness in achieving compliance with the applicable receiving water limitations of this Order.
3. The WQIP must be approved by the Santa Ana Water Board's Executive Offer prior to implementation. The Discharger or Coalition Group may propose changes and revisions to the WQIP as necessary, subject to approval by the Executive Offer prior to implementation.
4. The Coalition Group shall work cooperatively with the Santa Ana Water Board to ensure all members are taking necessary steps to address exceedances or degradation identified by the Coalition Group or the Santa Ana Water Board.

G. Land Application of Mulch, Compost, and Manure

1. Land application of mulch and compost is allowable for soil amendment at Irrigated Lands enrolled in the Order, provided that the following minimum requirements are met:
 - a. Mulch and compost application rates shall be consistent with California Department of Resources Recycling and Recovery's (CalRecycle) regulations for land application of mulch and compost. (Cal. Code Regs., tit. 14, § 17852 et seq.) Dischargers are also encouraged to consult the Natural Resources Conservation Service Conservation Practice Standard for mulching ([Code 484](#)), which provides a list of management practices in the application of mulch to improve moisture management, prevent excessive erosion and improve plant productivity and health.
 - b. Land application of mulch and/or compost shall generally be limited to 12 inches total accumulated application depth in a 12-month period. This limit is subject to site-specific conditions. For example, a reduced application depth may be necessary to protect beneficial uses of a receiving water body, or a greater application depth may be allowed where justified by agronomic circumstances.
2. Any land application of manure at agricultural operations enrolled in this Order shall meet the following minimum requirements:
 - a. The land application shall be conducted in accordance with a farm-specific INMP that is certified by an irrigation and nitrogen management specialist.
 - b. For dry-solid manure, application rate shall not exceed 12 dry tons/acre or 17.5 tons/acre at 33% moisture in a 12-month period. Application of manure to Irrigated Lands in excess of 12 dry tons per acre per year (of 17.6 tons per acre per year at 33% moisture) requires approval of the Executive Officer and an explanation of the type of crop and the number of times it is harvested per year shall be submitted.
 - c. The manure shall be incorporated into the soil after application. Incorporation is not required where it is inconsistent with a management practice that has been recommended or identified in a certified INMP.

- d. At a minimum, one crop must be grown on the lands on which the manure is applied during the 12-month period following the land application of manure.
3. Stockpiling of mulch, compost or manure shall not exceed 60 days prior to the land application of the stockpiled material¹⁵. Stockpiled material is not to be used for resale purposes.

H. General Provisions

1. **Noncompliance.** Dischargers shall comply with all of the conditions of this Order. Noncompliance is a violation of the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) and grounds for: (1) an enforcement action; (2) termination, revocation and reissuance, or modification of these waste discharge requirements; or (3) denial of an Order renewal application, or a combination thereof. Coalition Group(s) shall also comply with all relevant conditions of this Order.
2. **Enforcement – Dischargers.** Under this Order, Coalition Group(s) are tasked with assisting its members in carrying out certain terms and conditions of this Order. However, members and any non-member owner or operator, continue to bear ultimate responsibility for complying with this Order. The Santa Ana Water Board reserves the right to take any enforcement action authorized by law. Accordingly, failure to timely comply with any provisions of this Order may subject Dischargers to enforcement action. Such actions include, but are not limited to, the assessment of administrative civil liability pursuant to Water Code sections 13323, 13268, and 13350, a Time Schedule Order (TSO) issued pursuant to Water Code section 13308, or referral to the California Attorney General for recovery of judicial civil liability.
3. **Enforcement – Coalition Group(s).** Failure to comply with the applicable terms and conditions of this Order may result in revocation of approval to act as a Coalition Group. Affected Dischargers would be required to join an approved Coalition Group or obtain individual coverage.
4. **Reporting of Noncompliance.** Dischargers shall report any noncompliance that may endanger human health or the environment. Information shall be provided orally to the Santa Ana Water Board office and the Office of

¹⁵ This requirement does not apply to the normal operations of commercial nurseries and onsite management practices, such as composting which may include green waste stockpiling longer than 60 days.

- Emergency Services within twenty-four (24) hours of when the Discharger becomes aware of the incident. If noncompliance occurs outside of business hours, the Discharger shall leave a message on the Santa Ana Water Board's office voicemail. A written report shall also be provided within five (5) business days of the time that the Discharger becomes aware of the incident. The written report shall contain a description of the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and the steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance.
5. **Duty to Mitigate.** Dischargers shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment.
 6. **Pesticide Management.** Dischargers must comply with all applicable instructions regarding the management and use of registered pesticides, including requisite applicator training, use of application rates specified on product labels, and proper disposal methods for pesticide containers.
 7. **Inspection and Entry.** The Santa Ana Water Board is authorized to conduct an inspection of agricultural operations to ascertain whether the terms of this Order are being met. The inspection(s) shall be conducted with the consent of the Discharger, or, if the consent is withheld, with a duly issued warrant. In the event of an emergency affecting public health or safety, an inspection may be performed without the consent of the Discharger or issuance of a warrant. Subject to these requirements, the Santa Ana Water Board or an authorized representative shall be allowed to:
 - a. Upon reasonable notice, enter the Discharger's premises regulated by this Order, or the place where records are kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, records kept under the conditions of this Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order, or as otherwise authorized by the Water Code; and,
 - d. To photograph, sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the Water Code, any substances or condition at any location under the Discharger's control.
 8. **Records Retention.** Dischargers and Coalition Group(s), as appropriate, shall retain copies of all reports required by this Order and the associated

MRP. Records shall be maintained for a minimum of ten years from the date of the sample, measurement, report, or application. Records may be maintained electronically, and the Coalition Group must store back up files in a secure, offsite location managed by an independent entity. This period may be extended during the course of any unresolved litigation or when requested by the Santa Ana Water Board's Executive Officer.

9. **Claims for Exemption from Public Disclosure.** If the Coalition Group and/or a Discharger asserts that all or a portion of a report submitted pursuant to this Order is subject to an exemption from public disclosure (e.g., due to proprietary or trade secret information), the Coalition Group and/or Discharger must provide an explanation of how those portions of the reports are exempt from public disclosure. The Coalition Group and/or Discharger must clearly indicate on the cover of the report (typically an electronic submittal) that all or a portion of the report is exempt from public disclosure, submit a complete report with those portions that are asserted to be exempt in redacted form, and submit separately (in a separate electronic file) unredacted pages (to be maintained separately by staff). Santa Ana Water Board staff will determine whether any such report or portion of a report qualifies for an exemption from public disclosure. If staff disagrees with the asserted exemption from public disclosure, staff will notify the Discharger prior to making such report or portions of such report available for public inspection.
10. **Signature and Certification.** All documents and reports requested herein shall be signed and dated by a duly authorized representative and shall contain a statement by the Discharger, or as appropriate by an authorized representative of the Discharger (e.g., Coalition Group representative), certifying under penalty of perjury under the laws of the State of California, that the report is true, complete, and accurate.
11. **Other Applicable Laws.** This Order does not authorize the violation of any federal, state, or local law or regulation, nor does it prevent imposition of additional standards, requirements, or conditions by any other regulatory agency.
12. **Modification, Revocation, Termination.** This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by a Discharger for an Order modification, revocation and issuance, or termination, or a Discharger's notification of planned changes or anticipated noncompliance, does not stay any condition of this Order. Causes for modification include, but are not limited to, the violation of any term or condition contained in this Order, a material change in the character, location, or volume of discharge, a change in land application plans, or the adoption of new laws or regulations by the State Water Board, Santa Ana Water Board

- (including revisions to the Basin Plan), California Legislature, or federal government.
13. **Property Rights.** This Order does not convey any property rights or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the Discharger from liability under federal, state, or local laws, nor do they create a vested right for the discharger to continue the waste discharge.
14. **Effective Date.** This Order becomes effective upon the date of adoption by the Santa Ana Water Board.

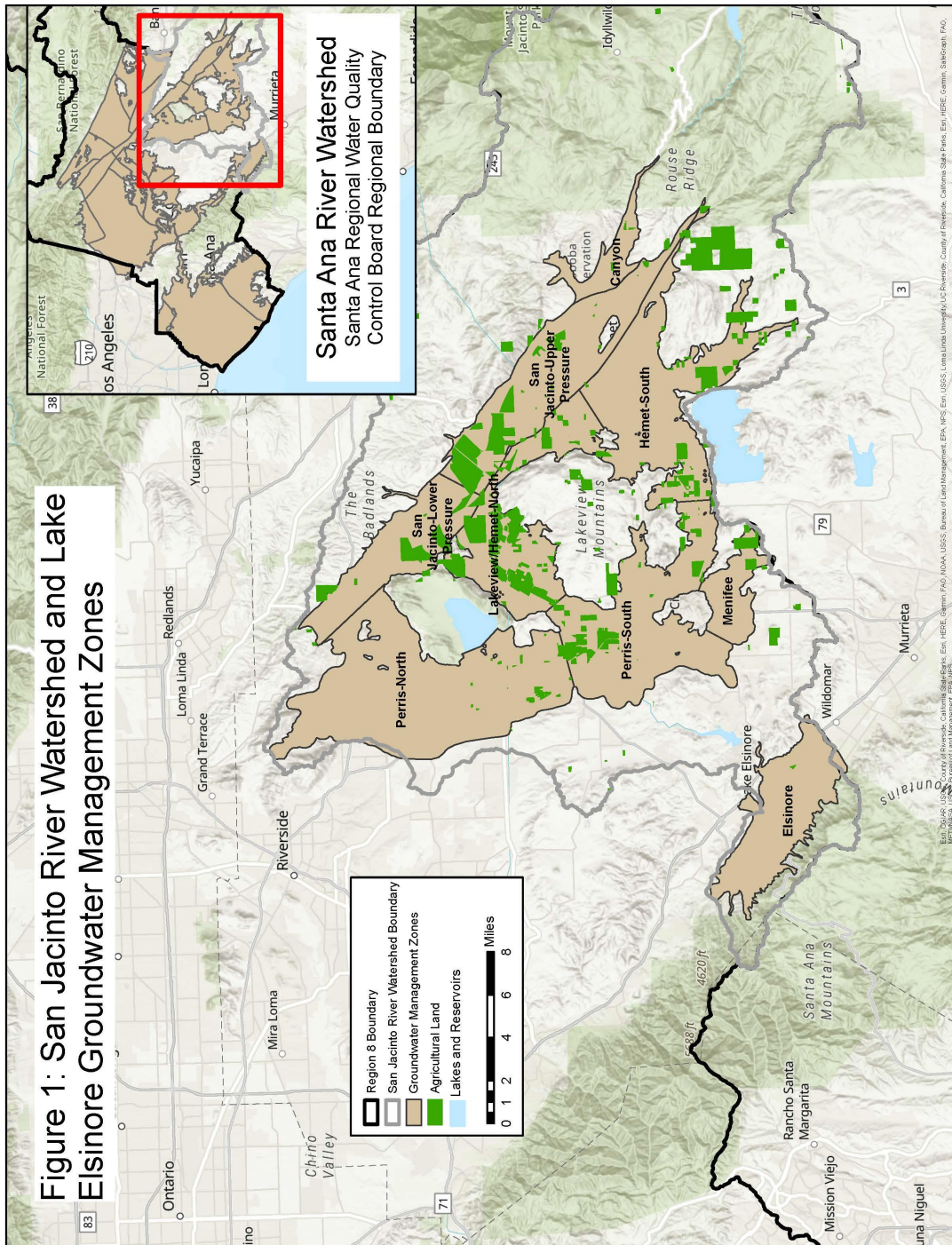
Administrative Review

Any person aggrieved by this Santa Ana Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. To be timely, the petition must be received by the State Water Board by 5:00 pm on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday or state holiday, the petition must be received by the State Water Board by 5:00 pm on the next business day. The law and regulations applicable to filing petitions are available on the [State Water Board website](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) (http://www.waterboards.ca.gov/public_notices/petitions/water_quality). Copies will also be provided upon request.

Order Attachments

Attachment A – Monitoring and Reporting Program

**FIGURE 1—SAN JACINTO RIVER WATERSHED AND LAKE ELSINORE
GROUNDWATER MANAGEMENT ZONES**



ATTACHMENT A—MONITORING AND REPORTING PROGRAM
TO ORDER R8-2023-0006
GENERAL WASTE DISCHARGE REQUIREMENTS FOR
DISCHARGES OF WASTE FROM IRRIGATED LANDS IN THE
SAN JACINTO RIVER WATERSHED, RIVERSIDE COUNTY

I. INTRODUCTION

This Monitoring and Reporting Program (MRP) is required pursuant to Water Code section 13267, which authorizes the California Regional Water Quality Control Board, Santa Ana Region (Santa Ana Water Board) to require preparation and submittal of technical and monitoring reports. This MRP includes requirements the San Jacinto Coalition, a third-party representative entity assisting individual Irrigated Lands operators and owners that are members of the Coalition Group and enrolled under the *General Waste Discharge Requirements for Discharges of Waste from Irrigated Lands in the San Jacinto River Watershed, Riverside County*, Order R8-2023-0006 (Order). The requirements of this MRP are necessary to monitor Member compliance with the provisions of the Order and determine whether state waters receiving discharges from Members are meeting water quality objectives.

This MRP establishes specific groundwater monitoring, reporting, and electronic data deliverable requirements for the San Jacinto Coalition. Due to the variable nature of Irrigated Lands operations, monitoring requirements for groundwaters will be periodically reassessed to determine if changes should be made to better represent Irrigated Lands discharges to state waters. The monitoring schedule will also be periodically reassessed so that constituents are monitored during application and/or release timeframes, when constituents of concern are most likely to affect water quality. The San Jacinto Coalition (Coalition) must not implement any changes to this MRP unless the Santa Ana Water Board or its Executive Officer issues a revised MRP.

This MRP conforms to the goals of the Nonpoint Source (NPS) Program as outlined in the *Plan for California's nonpoint source pollution control program* by:

1. tracking, monitoring, assessing, and reporting program activities;
2. ensuring consistent and accurate reporting of monitoring activities;
3. targeting NPS Program activities at the watershed level;
4. coordinating with public and private partners; and
5. tracking implementation of management practices to improve water quality and protect existing beneficial uses.

Groundwater monitoring must provide sufficient data to describe Irrigated Lands' impacts on groundwater quality and to determine whether existing or newly implemented management practices comply with the receiving water limitations of

the Order. Groundwater monitoring shall include a comprehensive suite of constituents (also referred to as “parameters”) monitored periodically in a manner that allows for an evaluation of the condition of a water body and determination of whether Irrigated Lands operations in the San Jacinto River Watershed are causing or contributing to any groundwater quality problems.

II. GENERAL MONITORING REQUIREMENTS

1. Samples and measurements taken for the purpose of monitoring shall be representative of the volume and nature of the discharge or receiving water sampled and shall be collected at monitoring points approved by the Santa Ana Water Board’s Executive Officer.
2. 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.
3. Groundwater monitoring, sample preservation, and analysis shall be performed in accordance with the latest edition of USEPA’s *Test Methods for Evaluating Solid Waste*, SW-846, unless another method is specified in this MRP. The Santa Ana Water Board’s Executive Officer may approve equivalent test procedures at her or his discretion.
4. Laboratory data must quantify each constituent down to the approved reporting levels for specific constituents. All analytical data shall be reported with method detection limits (MDLs) and with either the reporting level or limits of quantitation (LOQs) according to 40 Code of Federal Regulations part 136, Appendix B.
5. All analyses shall be conducted by a laboratory certified to perform such analyses by the State Water Resources Control Board (State Water Board), Division of Drinking Water’s Environmental Laboratory Accreditation Program (ELAP). Certified laboratories can be found at the web link: www.waterboards.ca.gov/elap.
6. Monitoring data collected to meet the requirements of the Order must be collected and analyzed in a manner that ensures the quality of the data. The San Jacinto Coalition must follow sampling and analytical procedures as specified in the approved Monitoring Program Quality Assurance Project Plan (QAPP).

7. The San Jacinto Coalition shall retain records of all monitoring information, copies of all reports required by the Order, and records of all data used to complete the application for the Order, for a period of **at least 10 years** from the date of the sample, measurement, report or application. Records may be maintained electronically, and back up files must be stored in a secure, offsite location managed by an independent entity. Records of monitoring information shall include:
 - a. The date, time, and location that the sample was taken;
 - 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; and
 - f. The results of such analyses.
8. To the extent feasible, all technical reports, information, and data required by this MRP must be submitted electronically in a format specified by the Santa Ana Water Board's Executive Officer.
9. This MRP requires the San Jacinto Coalition to collect information from its Members and allows the San Jacinto Coalition to report the information to the Santa Ana Water Board in a summary format. The San Jacinto Coalition must submit specific Member information collected as part of the Order and this MRP when requested by the Executive Officer or as specified in the Order.

This MRP becomes effective upon adoption of Order R8-2023-0006. The Executive Officer may revise this MRP as necessary. Upon the effective date of this MRP, the San Jacinto Coalition, on behalf of the individual Members, shall implement the monitoring and reporting below.

III. GROUNDWATER QUALITY MONITORING REQUIREMENTS

The San Jacinto Coalition shall collect sufficient data to describe Irrigated Lands impacts on groundwater quality and to determine whether existing or newly-implemented management practices comply with the groundwater receiving water limitations of the Order. The evaluation of groundwater quality required by this

MRP focuses on two primary areas: (1) groundwater trend monitoring and (2) drinking water supply well monitoring.

The purpose of the groundwater quality trend monitoring program is to determine current water quality conditions of groundwater relevant to Irrigated Lands and develop long-term groundwater quality information that can be used to evaluate the regional effects of Irrigated Lands practices. The purpose of the drinking water supply well program is to identify drinking water wells that have nitrate concentrations that threaten to exceed the maximum contaminant level (MCL) of 10 mg/L of nitrate + nitrite as N and notify any well users of the potential for human health impacts.

A. Groundwater Quality Trend Monitoring

The San Jacinto Coalition shall develop a network of groundwater monitoring of well(s) that will be representative of the geographic area where agriculture activities occur by Coalition members. The Coalition shall propose the locations of the sampling wells in a Groundwater Trend Monitoring Plan, subject to approval of the Executive Officer.

The rationale for the distribution of trend monitoring wells shall be included in the workplan, and should consider the following:

- a. The variety of agricultural commodities produced by Coalition members (particularly those commodities comprising the most irrigated agricultural acreage), and
- b. The areas where agricultural discharges are contributing significant recharge to urban and rural communities where groundwater serves as a significant source of drinking water.

Details for wells proposed for groundwater monitoring shall include:

1. GPS coordinates;
2. Physical address of the property on which the well is situated (if available);
3. California state well number (if known);
4. Well depth;
5. Top and bottom perforation depths;
6. A copy of the water well drillers log, if available;
7. Depth of standing water (static water level), if available (this may be obtained after implementing the program); and
8. Well seal information (type of material, length of seal).

Monitoring wells shall be sampled, at a minimum, annually at the same time of the year and analyzed at least for the indicator parameters identified in Table A-1 below:

Table A-1: Groundwater Trend Monitoring Constituents and Minimum Frequency

Trend Monitoring Constituents	Units	Analysis Type	Frequency
Nitrate as Nitrogen	mg/L	Laboratory	Annually
Total Dissolved Solids (TDS)	mg/L	Laboratory	Annually

Once the trend monitoring has been approved and is being implemented, the results of trend monitoring shall be included in the San Jacinto Coalition's annual monitoring reports and shall include a map of the sampled wells, tabulation of the analytical data, and time concentration charts. Groundwater monitoring data is to be submitted electronically to the State Water Board's GeoTracker database and to the Santa Ana Water Board.

IV. GROUNDWATER TREND MONITORING PLAN

The San Jacinto Coalition shall prepare and submit a detailed Groundwater Trend Monitoring Plan to implement the groundwater monitoring requirements specified in this MRP. The Groundwater Trend Monitoring Plan is required under Section E of the Order and shall be submitted for approval by the Executive Officer in accordance with the schedule set forth in that section.

At a minimum, the Groundwater Trend Monitoring Plan shall contain the following:

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

- 2. Quality Assurance Project Plan (QAPP)** - A QAPP describing the objectives and organization of the proposed groundwater monitoring, 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 Santa Ana Water Board's monitoring goals and objectives. The QAPP shall meet the State Water Board's 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. The Executive Officer must approve the QAPP prior to implementation. A QAPP template is available at the [SWAMP website](#).
- 3. Monitoring Locations** - A list of the monitoring locations. The monitoring locations shall meet the monitoring location requirements listed in Section III.A of this MRP. The Groundwater Trend Monitoring Plan shall describe the characteristics of each sampling site, including nearby crop type and cultivation practices, and shall provide an appropriately scaled map of the monitoring locations and GPS coordinates for each monitoring location. The Groundwater Trend Monitoring Plan shall also provide the supporting scientific rationale for the selection of each monitoring location including a demonstration that the proposed locations are appropriate for evaluating the effects of irrigation runoff, stormwater, and non-stormwater discharges from Irrigated Lands, and for evaluating the success of management practices.
- 4. Monitoring Constituents** - 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 of this MRP.
- 5. Monitoring Frequency** - The frequency and approximate dates of monitoring. Groundwater monitoring shall be conducted at the frequency specified in Table A-1 of this MRP.
- 6. Monitoring Team** - A description of the monitoring team and analytical laboratories, including names, titles, qualifications, and contact information of key personnel. Changes to the monitoring team should be included in the Annual Monitoring Report (Section V.D of this MRP).

V. REPORTING REQUIREMENTS

Reports and notices shall be submitted in accordance with Section H of the Order,

General Provisions.

A. Annual Submittal of Groundwater Monitoring Results

Each year, following approval and implementation of the Groundwater Trend Monitoring Plan, the San Jacinto Coalition shall submit groundwater field measurements and laboratory analysis results as they are available in an electronic format. The annual groundwater monitoring data results shall include the following for the required reporting period:

1. An Excel workbook containing all data records (groundwater data). The workbook shall contain, at a minimum, those items detailed in the most recent version of the Coalition's approved Monitoring Program Plan and QAPP.
2. Electronic copies of all field sheets (upon request).
3. Electronic copies of all applicable laboratory analytical reports. (upon request)
4. For chemistry data, provide errors and explanation, for the following:
 - a. A lab narrative describing quality control failures;
 - b. Analytical problems and anomalous occurrence;
 - c. If any data is missing from the annual data report, the submittal must include a description of the missing data and the date it will be submitted to the Santa Ana Water Board
 - d. All sample results for contract and subcontract laboratories with units, Reporting Limits and Method Detection Limits (upon request)
 - e. Sample preparation, extraction and analysis dates (upon request); and
 - f. Results for all quality control samples including all field and laboratory blanks, lab control spikes, matrix spikes, field and laboratory duplicates, and surrogate recoveries (upon request);
 - g. If any data is missing from the annual data report, the submittal must include a description of the missing data and the date it will be submitted to the Santa Ana Water Board.

B. Annual Submittal of Management Practice (Farm Plan) Data

By **September 15, 2024**, and by **September 15 annually** thereafter, the Coalition shall submit to the Santa Ana Water Board management practice implementation data from the most recently submitted Farm Plans by Coalition members.

The following data shall be reported to the Santa Ana Water Board for each field:

1. Anonymous Member ID
2. Crop: If the Member has more than one field of a given crop, these may be identified by crop plus a number (e.g., tomato1, tomato2)

3. Irrigation method
4. Irrigation practices
5. Pest management practices
6. Sediment and erosion management practices
7. Whether there are irrigation wells
8. Whether there are abandoned wells

C. Annual Submittal of Irrigation and Nitrogen Management Summary Data

The Coalition shall submit certain data from the prior year's Irrigation and Nitrogen Management Plan (INMP) Summary Reports and certain additional calculations in three tables in Excel workbook format.

The Coalition shall submit the Individual Field Applied (A) and Removed (R) Data by Anonymous Member ID Table beginning **September 15, 2024** and **annually** thereafter. The Coalition shall submit Individual Field AR Data by Anonymous APN ID Table beginning **September 15, 2024** and **annually** thereafter. The Coalition shall submit Groundwater Management Zone (GMZ) AR Data Table information beginning **September 15, 2024** and **annually** thereafter.

The Coalition shall calculate the following values and convert them to per acre values as indicated:

Total Nitrogen Removed

The Total Nitrogen Removed shall be calculated from the total amount of material removed (harvested/sequestered) and multiplied by a crop-specific coefficient, C_N . The Coalition shall determine, through literature review, nitrogen removed testing, and research, the most appropriate C_N coefficients for converting crop yield to Nitrogen Removed. The Coalition INMP Summary Report shall show C_N coefficients for crops that cover 86% of acreage within the Coalition's boundaries in time to calculate Total Nitrogen Removed values based on yield values reported in the INMP Summary Reports due **September 15, 2024**. By **September 15, 2027**, for the crops that cover the remaining 14% of acreage within the Coalition's boundaries, it is acceptable to use estimated C_N coefficients based on similar crop types and/or through use of appropriate scientific literature. The methods used to establish C_N coefficients must be approved by the Executive Officer. Until C_N coefficients have been established for a particular crop, the Member will only report the crop yield in the INMP. Nitrogen Removed includes nitrogen removal via harvest and nitrogen sequestered in permanent wood of perennial crops.

Nitrogen Applied/Nitrogen Removed Ratio (A/R Ratio)

The A/R ratio shall be reported as the ratio of Total Nitrogen Applied to Total Nitrogen Removed.

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

For each field for which three consecutive years of A/R ratio is available, the multi-year A/R ratio shall be reported as the ratio of Total Nitrogen Applied to Total Nitrogen Removed for the three prior consecutive years.

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

The A-R difference shall be reported as the numerical difference between Total Nitrogen Applied and Total Nitrogen Removed. The Coalition shall review each Member's INMP Summary Reports and independently calculate and report both the A/R ratio and the A-R difference for the current reporting cycle (A/R1 year and A-R1 year). Beginning the third year of reporting, for those locations with data available for three years, the Coalition shall calculate and report a three-year running total for both the A/R ratio and the A-R difference (A/R3 year and A-R3 year). The formulas for the A/R ratios and A-R differences are shown in the equations below.

$$\text{A/R Ratio} = \frac{\text{Nitrogen Applied (from any source, including fertilizers, irrigation)}}{\text{Nitrogen Removed (via harvest, etc.)}}$$
$$\text{A-R Difference} = \text{Nitrogen Applied} - \text{Nitrogen Removed}$$

The following data shall be reported to the Santa Ana Water Board in three tables:

Table 1: Individual Field-Level AR Data by Anonymous Member ID Table: One entry is made for each field or management unit reported.

1. Anonymous Member ID: Each Anonymous Member ID may be associated with more than one field;
2. Crop: If the Member has more than one field of a given crop, these may be identified by crop plus a number (e.g. citrus₁, citrus₂)¹⁶;
3. Nitrogen applied via fertilizers (lbs/acre);
4. Nitrogen applied via organics and compost (lbs/acre);

¹⁶ The Santa Ana Water Board recognizes that, if multiple crop types are grown in the same field over the course of a year or over several years, variations on field nomenclature and crop reporting will be necessary. For example, the field could be identified as the same field in an extra column and an extra row could be added for each crop. In addition, the three-year A/R target range would likely need to be expressed as a weighted average of the crops grown during the three years.

5. Nitrogen applied via irrigation water (lbs/acre);
6. Total Nitrogen applied (lbs/acre) [sum of nitrogen from fertilizer, organics/compost, and irrigation water];
7. Nitrogen removed per acre (lbs/acre);
8. A/R ratio;
9. A-R difference (lbs/acre); and
10. 3-year A/R ratio, if available.

Table 2: Individual Field-Level AR Data by Anonymous APN ID Table: An entry for a field or management unit may be repeated if there is more than one Anonymous APN ID associated with the field or management unit.

1. Anonymous APN ID: List on a separate line each Anonymous APN ID assigned to parcels the field overlays completely or partially;
2. Associated groundwater basin or subbasin;
3. Crop: If there is more than one field of a given crop in the APN, these may be identified by crop plus a number (e.g. tomato1, tomato2);
4. Nitrogen applied via fertilizers (lbs/acre);
5. Nitrogen applied via organics and compost (lbs/acre);
6. Nitrogen applied via irrigation water (lbs/acre);
7. Total Nitrogen applied (lbs/acre) [sum of nitrogen from fertilizer, organics/compost, and irrigation water];
8. Nitrogen removed per acre (lbs/acre);
9. A/R ratio;
10. A-R difference (lbs/acre); and
11. 3-year A/R ratio, if available.

Table 3: Groundwater Management Zone-Level Aggregated AR Data Table:

1. -GMZ_ and range;
2. Crop;
3. Total acreage: sum for all the acreage for each unique crop within the GMZ (acres);
4. Total nitrogen applied via fertilizer: sum for all acreage for each unique crop (total lbs);
5. Total nitrogen applied via organics and compost: sum for compost for each unique crop (total lbs);
6. Total nitrogen applied via irrigation water: sum for all acreage for each unique crop (total lbs);
7. Total nitrogen applied for each unique crop (total lbs) [sum of nitrogen from fertilizer, organics/compost, and irrigation water];
8. Total nitrogen removed for each unique crop (total lbs);
9. A/R ratio for each unique crop; and
10. A-R difference for each unique crop (total lbs).

Outliers - The San Jacinto Coalition shall identify the entries in the Table 1 above that the Coalition considers to be outliers for the AR data and which are subject to follow up actions. The methodology used to make the outlier determination must be approved by the Santa Ana Water Board's Executive Officer.

D. Annual Monitoring Report (AMR)

The Annual Monitoring Report (AMR) shall be submitted by **September 15** every year. The AMR shall cover the monitoring periods from the previous calendar year. The AMR shall include the following components:

1. Signed transmittal letter;
2. Title page;
3. Table of contents;
4. Executive summary;
5. Description of the Coalition's covered geographical area;
6. Monitoring objectives and design;
7. Sampling site/monitoring well descriptions and rainfall records for the time period covered under the AMR;
8. Location map(s) of sampling sites/monitoring wells, crops, and land uses;
9. Results of all groundwater analyses arranged in tabular form so that the required information is readily discernible;
10. Discussion of data relative to water quality objectives, and where applicable, Water Quality Improvement Plan milestones (as provided by the Coalition members);
11. Sampling and analytical methods used;
12. Summary of Quality Assurance Evaluation results (as identified in the most recent version of the Coalition's approved QAPP);
13. Summary of exceedances of water quality objectives/trigger limits occurring during the reporting period
14. Actions taken to address water quality exceedances that have occurred, including but not limited to, revised or additional management practices implemented (as provided by the Coalition members);
15. Evaluation of monitoring data to identify spatial trends and patterns;
16. Summary of management practice information collected as part of the Farm Plans;
17. Summary of INMP Summary Report data;
18. Summary of education and outreach activities; and
19. Summary of surface water monitoring (as provided by WRCAC)
20. Conclusions and recommendations.

Additional clarifications necessary for some of the above report components are described below:

Report Component (1) —Signed Transmittal Letter

A transmittal letter shall accompany each report. The transmittal letter shall be submitted and signed in accordance with the requirements of Section H of the Order, General Provisions.

Report Component (8) — Location Maps

Location map(s) showing the sampling sites/monitoring wells, crops, and land uses within the Coalition’s geographic area must be included in the AMR. GIS shapefile or geodatabase of monitoring site and monitoring well information must include Global Positioning System (GPS) coordinates shall be provided upon request. The map(s) must contain a level of detail that ensures they are informative and useful. GPS coordinates must be provided as latitude and longitude in the decimal degree coordinate system (at a minimum of five decimal places). The datum must be either WGS 1984 or NAD83, and clearly identified on the map. The source and date of all data layers must be identified on the map(s). All data layers/shapefiles/geodatabases included in the map shall be submitted with the AMR.

Report Component (9) – Tabulated Results

In reporting monitoring data, the Coalition shall arrange the data in tabular form so that the required information is readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with the data collection requirements of the MRP.

Report Component (10) — Data Discussion to Illustrate Compliance

The report shall include a discussion of the Coalition’s compliance with the data collection requirements of the MRP. If a required component was not met, an explanation for the missing data must be included. Results must also be compared to water quality objectives for ground water.

Report Component (12) — Quality Assurance Evaluation (Precision, Accuracy and Completeness)

A summary of precision and accuracy results (both laboratory and field) is required in the report. Acceptance criteria for all measurements of precision and accuracy must be identified. The Coalition must review all quality assurance/quality control (QA/QC) results to verify that protocols were followed and identify any results that did not meet acceptance criteria. A summary table or narrative description of all QA/QC results that did not meet water quality objectives must be included. Additionally, the report must include a discussion of how the failed QA/QC results affect the validity of the

reported data and the corrective actions to be implemented.

In addition to precision and accuracy, the Coalition must also calculate and report completeness. Completeness includes the percentage of all quality control results that meet acceptance criteria, as well as a determination of project completeness. The Coalition may ask the laboratory to provide assistance with evaluation of their QA/QC data.

Report Component (15) — Evaluation of Monitoring Data

The Coalition must evaluate its monitoring data in the AMR in order to identify potential trends and patterns in groundwater quality that may be associated with waste discharge from Irrigated Lands. As part of this evaluation, the Coalition must analyze all readily available monitoring data that meet program quality assurance requirements to determine deficiencies in monitoring for discharges from Irrigated Lands and whether additional sampling locations are needed. If deficiencies are identified, the Coalition must propose a schedule for additional monitoring or source studies. Upon notification from the Executive Officer, the Coalition must monitor any parameter in a watershed that lacks sufficient monitoring data (i.e., a data gap should be filled to assess the effects of discharges from Irrigated Lands on water quality).

Report Component (16) – Summary of Management Practices

The Coalition will aggregate and summarize information collected from management practices implementation. The summary of management practice data must include a quality assessment of the collected information by township GMZ (e.g., missing data, potentially incorrect/inaccurate reporting), and a description of corrective actions to be taken regarding any deficiencies in the quality of data submitted, if such deficiencies were identified.

Report Component (17) – INMP Summary Report Evaluation

In addition to submitting the INMP Summary Report data, the Coalition shall submit an evaluation comparing individual field data collected from the Members' INMP Summary Reports. These comparisons shall include the ratio

of Nitrogen Applied¹⁷ to Nitrogen Removed and the difference between Nitrogen Applied and Nitrogen Removed for crops in the watershed. Nitrogen Applied includes nitrogen from any sources, including, but not limited to, organic amendments, synthetic fertilizers, and irrigation water.

The Coalition's evaluation of both the $A/R_{1 \text{ year}}$ and $A/R_{3 \text{ year}}$ ratios must include, at a minimum, a comparison of A/R ratios by crop type. As directed by the Executive Officer, initial further evaluations within each crop type comparing the irrigation method, the soil conditions, and the farming operation size shall be developed. The Coalition shall evaluate the corresponding $A-R_{1 \text{ year}}$ and $A-R_{3 \text{ year}}$ differences by crop type. The Coalition shall also evaluate any other A/R ratio or A-R difference comparisons as directed by the Executive Officer. For each comparison, the Coalition must identify the mean and the standard deviation as well as develop a histogram plot of the data. A box and whisker plot comparing the A/R ratio and A- R difference for each comparison, or equivalent tabular or graphical presentation of the data approved by the Executive Officer, may also be used. The summary of nitrogen management data must include a quality assessment of the collected information (e.g., missing data, potentially incorrect/inaccurate reporting). Spreadsheets showing the calculations used for data evaluation must also be submitted to the Executive Officer. The Coalition may include any recommendations regarding future A/R ratio target values.

Report Component (19) – Summary of Surface Water Monitoring

The surface water monitoring reports are provided by Western Riverside County Agricultural Coalition (WRCAC), a third-party group formed to represent agricultural and dairy operations in the San Jacinto River Watershed meet the requirements of the Lake Elsinore and Cayon Lake TMDL. WRCAC provides enrollees a workbook that contains instructions and the Water Quality Index Agricultural Tool (WQIag Tool). The data was collected and provided to the Santa Ana Water Board and the San Jacinto Coalition on behalf of the WRCAC members.

¹⁷ For some crops, the information needed to determine nitrogen removed may not be readily available. This will be determined through N removed research and crop yield will serve as a placeholder until nitrogen removed data is made available.