

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

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**TIME SCHEDULE ORDER NO. R9-2015-0027
AS AMENDED BY ORDER NO. R9-2017-0127
REQUIRING
THE CITY OF ESCONDIDO
HALE AVENUE RESOURCE RECOVERY FACILITY
TO COMPLY WITH REQUIREMENTS PRESCRIBED IN
ORDER NUMBER R9-2015-0026
NPDES PERMIT NO. CA0108944**

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

FACTUAL BACKGROUND

1. The City of Escondido (Discharger) owns and operates the Hale Avenue Resource Recovery Facility (Facility) located at 1521 S. Hale, Avenue, Escondido, California.
2. The Facility discharges tertiary-treated wastewater to Escondido Creek, a water of the U.S., under waste discharge requirements contained in Order No. R9-2015-0026, adopted by the San Diego Water Board on June 24, 2015. Order No. R9-2015-0026 also serves as a permit under the National Pollutant Discharge Elimination System (NPDES No. CA0108944).
3. The Facility's treatment system consists of screening, grit removal, chemically enhanced primary sedimentation, aeration, secondary clarification, chlorination, flocculation, filtration, and ultraviolet light (UV) disinfection.
4. Order No. R9-2015-0026 section III.Q prohibits the discharges from the Facility to Escondido Creek unless all of the following conditions have been met:
 - a. The combined discharge to the San Elijo Ocean Outfall (SEOO) from the Facility, the San Elijo Water Pollution Control Facility, and the San Diego Gas and Electric (SDG&E), Palomar Energy Center exceeds the maximum capacity of the outfall, or the San Elijo Joint Powers Authority (SEJPA) has informed the Discharger that Facility discharge to the SEOO must be reduced to accommodate larger than normal wet weather outfall discharge flows.
 - b. The City has implemented all other wastewater management options in the City's wet weather management plan, including maximizing use of available onsite and offsite wastewater and recycled water storage.
 - c. Stream flows recorded at the County of San Diego's stream gauging station located approximately 100 yards upstream of the Facility, exceed an average flow of 300 cubic feet per second during the discharge, and are not below 100 cubic feet per second at any time during the discharge.

- d. The mouth of the San Elijo Lagoon is open or the San Diego Water Board approves otherwise.
5. Order No. R9-2015-0026 prescribes the following effluent limitations for the listed constituents in Table 1.

Table 1. Final Effluent Limitations

Constituent	Units	Effluent Limitations	
		MDEL *	AMEL **
N-Nitrosodimethylamine	µg/L	0.015	0.0077
	lbs/day	0.0008	0.0004
Total Trihalomethanes	µg/L	1.1	-
	lbs/day	0.059	-
Ammonia, Un-ionized (NH3)	mg/L	0.025	-
	lbs/day	1.3	-
Total Phosphorus	mg/L	0.1	-
	lbs/day	5.3	-
Total Nitrogen	mg/L	1	-
	lbs/day	53	-
Total Dissolved Solids	mg/L	500	-
	lbs/day	26,688	-
Manganese	mg/L	-	0.05
	lbs/day	-	3.8

* MDEL = Maximum Daily Effluent Limitation

** AMEL = Average Monthly Effluent Limitation

6. Order No. R9-2003-0394 (Previous Order) contained the following effluent limitations for the listed constituents in Table 2.

Table 2. Effluent Limitations from the Previous Order

Constituent	Units	MDEL
N-Nitrosodimethylamine	µg/L	-
	lbs/day	-
Total Trihalomethanes	µg/L	-
	lbs/day	-
Ammonia, Un-ionized (NH3)	mg/L	25
	lbs/day	1877
Total Phosphorus	mg/L	3.0
	lbs/day	225
Total Nitrogen	mg/L	35
	lbs/day	2627
Total Dissolved Solids	mg/L	1100
	lbs/day	82,566

Constituent	Units	MDEL
Manganese	mg/L	0.10
	lbs/day	7.5

7. Additionally, Discharge Specification B.9 of the Previous Order prohibits a Facility discharge to Escondido Creek contributing to an increase in nutrient loading to San Elijo Lagoon, the downstream estuarine terminus of Escondido Creek, and from contributing to an increase in biostimulation within the San Elijo Lagoon.
8. Order No. R9-2015-0026 establishes effluent limitations based on the applicable water quality objectives at the point of discharge.
9. Order No. R9-2015-0026 prescribes the effluent limitations for the constituents listed in Tables 1 and 2 that are new and/or more stringent than the effluent limitations in the Previous Order.
10. Table 3 below represents the maximum effluent concentration of the constituents listed as determined from tertiary effluent data from August 2009 through August 2013. As demonstrated by this data, the Discharger is not capable of immediate compliance with the effluent limitations for the listed constituents in Order No. R9-2015-0026.

Table 3. Effluent Data from August 2009 through August 2013

Constituent	Units	Maximum Effluent Concentration
N-Nitrosodimethylamine	µg/L	0.44
Total Trihalomethanes	µg/L	3.57
Ammonia, Un-ionized (NH ₃)	mg/L	32.6
Total Phosphorus	mg/L	0.4
Total Nitrogen	mg/L	37.4
Total Dissolved Solids	mg/L	930
Manganese	mg/L	0.13

11. Under section 303(d) of the 1972 Clean Water Act (CWA), states, territories and authorized tribes are required to develop lists of water quality limited segments. The waters on these lists do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. On October 11, 2011 the U.S. Environmental Protection Agency (USEPA) gave final approval to California's 2010 section 303(d) List of Water Quality Limited Segments. The 303(d) list includes Escondido Creek impairment listings for dichlorodiphenyltrichloroethane (DDT), enterococcus, fecal coliform, manganese, phosphate, selenium, sulfates, total dissolved solids, total nitrogen, and toxicity. Due to the impairment listing of Escondido Creek for total phosphate, manganese, total dissolved solids, and total

nitrogen, assimilative capacity of the receiving water would not be protective of the applicable water quality objective for these constituents. Thus, the discharge of wastewater from the Facility into Escondido Creek must meet the applicable water quality objectives for phosphate, manganese, total dissolved solids, and total nitrogen at the point of discharge.

12. Title 40, Code of Federal Regulations (40 CFR) section 122.44(d)(1)(i) requires effluent limitations to control all pollutants or pollutant parameters that may be discharged at a level that will cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standards. The San Diego Water Board conducted a reasonable potential analysis (RPA) to reevaluate the need for effluent limitations for certain pollutants. Final RPA results demonstrated that effluent limitations were required for ammonia, total phosphorus, total nitrogen, total dissolved solids, manganese, n-nitrosodimethylamine and total trihalomethanes.
13. Immediate compliance with the proposed effluent limitations for n-nitrosodimethylamine, total trihalomethanes, ammonia, total phosphorus, total nitrogen, total dissolved solids and manganese is infeasible.
14. The Discharger reported that the preferred method for achieving compliance with the new and/or more stringent effluent limitations is to reduce Facility wet-weather influent flows such that they are below the available capacity of the SEOO and terminate the discharge to Escondido Creek.

To implement this compliance alternative, the Discharger needs to create 12.0 million gallons per day (MGD) of net reuse or storage of the tertiary effluent. The Discharger has been making diligent progress to accomplish this goal by expanding the Discharger's recycled water system to serve agricultural users in the eastern part of the City of Escondido. This plan is known as the Recycled Water Easterly Main Extension Project (Project), and will be implemented in the following phases:

- a. Phase I: Broadway to Citrus (13,800 linear feet of 24" PVC main & 15" PVC brine line)
 - b. Phase II: Citrus to microfiltration and reverse osmosis (MFRO) facility at Washington and to Hogback Reservoir
 - c. Phase III: Distribution System from Hogback Reservoir with Ponds
 - d. Phase IIIa: Hogback Reservoir Conversion
 - e. Phase IV: Brine Line, Broadway to HARFF
 - f. Phase V: MFRO and Pump Station Facility at Washington Street
15. On January 9, 2015, the Discharger submitted a time schedule to implement the necessary upgrades to comply with the requirements of Order No. R9-2015-0026 within 5.5 years. The Discharger reported that the updated schedule represented a realistic assessment of the shortest practicable time period achievable for implementing the compliance alternatives, recognizing uncertainties associated with activities or approvals that are outside the Discharger's control.

LEGAL BASIS

16. California Water Code (Water Code) section 13300 states:

“Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.”
17. The Discharger has not discharged treated effluent into the receiving waters since 2005. However, a review of monitoring data indicates that future discharge from the Facility may not consistently achieve compliance with the final effluent limitations for the parameters listed in Table 1 of this Time Schedule Order (TSO). Accordingly, pursuant to Water Code section 13300, a discharge of waste threatens to take place that would violate requirements in Order No. R9-2015-0026 prescribed by the San Diego Water Board.
18. Water Code section 13385, subdivisions (h) and (i), require the San Diego Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations.
19. Section 13385(j)(3) exempts violations of an effluent limitation from mandatory minimum penalties "where the waste discharge is in compliance with ... a time schedule order issued pursuant to section 13300, *if all of the [specified] requirements are met.*" (emphasis added).
20. In accordance with Water Code section 13385(j)(3)(B), mandatory minimum penalties do not apply to a violation of an effluent limitation where:
 - a. The waste discharge is in compliance with a TSO issued pursuant to Section 13300 or 13308;
 - b. The discharger is not able to consistently comply with the effluent limitation because it is a new, more stringent limitation that became applicable after adoption of the prior permit; new or modified control measures are necessary in order to comply with the effluent limitation; and
 - c. The new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.
21. The effluent limitations in Order No. R9-2015-0026 for the constituents listed in Table 1 of this TSO are new and/or more stringent than the previous Order. As a result, the Discharger is unable to comply with the effluent limitations. It is necessary for the Discharger to implement new or modified control measures to comply with the new and/or more stringent effluent limitations in Order No. R9-2015-0026, these control measures cannot be designed, installed, and put into operation within 30 calendar days.

22. Pursuant to Water Code section 13385(j)(3)(C), a TSO for bringing the waste discharge into compliance with the effluent limitation must be as short as possible, and shall not exceed 5 years in length.
23. Pursuant to Water Code section 13385(j)(3)(C)(ii)(II), following a public hearing, and upon a showing that the discharger is making diligent progress toward bringing the waste discharge into compliance with the effluent limitation, the San Diego Water Board may extend the time schedule for an additional period not exceeding five years in length, if the discharger demonstrates that the additional time is necessary to comply with the effluent limitation.
24. This TSO includes interim requirements and the dates for their achievement. The interim requirements include both an interim maximum daily effluent limitations for n-nitrosodimethymine, total trihalomethanes, ammonia, total phosphorus, total nitrogen, total dissolved solids, and manganese as well as actions and milestones leading to compliance with the final effluent limitations for these pollutants. Consistent with the requirements of Water Code sections 13385(j)(3)(C) and 13385(j)(3)(c)(ii)(II), this TSO has established a final compliance date that is as short as possible based on the Discharger's January 9, 2015, compliance schedule submittal and the Discharger's diligent progress in pursuing the Project.
25. Pursuant to Water Code section 13385(j)(3), full compliance with the requirements of this TSO exempts the Discharger from mandatory minimum penalties for violations of the final daily maximum effluent limitations for n-nitrosodimethymine, total trihalomethanes, ammonia, total phosphorus, total nitrogen, total dissolved solids, and manganese in Order No. R9-2015-0026 that occur after the effective date of this TSO until its expiration on July 31, 2020.
26. Pursuant to Water Code sections 13263.3(a), (d)(1)(D), and (d)(3), the Legislature finds and declares that pollution prevention should be the first step in a hierarchy for reducing pollution and managing wastes, and to achieve environmental stewardship for society. The Legislature also finds and declares that pollution prevention is necessary to support the federal goal of zero discharge of pollutants into navigable waters. The San Diego Water Board may require a discharger subject to its jurisdiction to complete and implement a pollution prevention plan if the discharger is subject to a time schedule order issued pursuant to Water Code section 13300 or 13308.
27. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, section 21000 et seq.; CEQA) pursuant to Water Code section 13389, since the adoption or modification of a NPDES permit for an existing source is statutorily exempt and this Order only serves to implement a NPDES permit (*Pacific Water Conditioning Ass'n, Inc. v. City Council of City of Riverside* (1977) 73 Cal.App.3d 546, 555-556.).

28. The San Diego Water Board notified the Discharger and interested agencies and persons of its intent to issue this TSO concerning compliance with WDRs and provided them with an opportunity to submit their written comments and recommendations pursuant to Water Code Section 13167.5.
29. The San Diego Water Board, in a public meeting , heard and considered all comments on this matter

IT IS HEREBY ORDERED that, pursuant to the Water Code sections 13300 and 13385(j)(3), the Discharger, as operator of the Facility, shall comply with the time schedules set forth below to ensure compliance with the effluent limitations of Order No. R9-2015-0026, NPDES No. CA0108944. Except as modified or superseded by the TSO requirements and provisions set forth below, all of the findings, prohibitions, provisions, and other requirements of Order No. R9-2015-0026, NPDES No. CA0108944 remain in full force and effect.

A. INTERIM EFFLUENT LIMITATIONS

The Discharger shall comply with the following interim effluent limitations, including mass limitation, on the effective date of this TSO. Except as modified or superseded by the interim effluent limitations set forth below, all of the effluent limitations in Order No. R9-2015-0026 remain in full force and effect:

Table 4. Interim Effluent Limitations

Constituent	Units ¹	Daily Maximum
N-Nitrosodimethylamine	µg/L	0.44
	lbs/day	0.023
Total Trihalomethanes	µg/L	3.57
	lbs/day	0.191
Ammonia, Un-ionized (NH ₃)	mg/L	32.6
	lbs/day	1,740
Total Phosphorus	mg/L	3
	lbs/day	160
Total Nitrogen	mg/L	37.4
	lbs/day	1,996
Total Dissolved Solids	mg/L	1,100
	lbs/day	58,714
Manganese	mg/L	0.1
	lbs/day	5

¹ The Mass Emission Rate (MER) limits in this TSO were calculated using a flow rate of 6.4 MGD and the indicated concentration values. When the discharge flow rate is lower than 6.4 MGD, the MER limits shall be correspondingly lower.

B. COMPLIANCE SCHEDULE

The Discharger shall complete all compliance tasks no later than the specified dates set forth in in Table 5 below.

Table 5. Time Schedule

Task No.	Compliance Date	Compliance Task
1	1/4/2016	Begin construction of Phase I recycled water mains.
2	1/4/2016	Complete design of Phase II recycled water mains.
3	1/4/2016	Begin design of Phase III storage ponds.
4	1/4/2016	Complete design of Phase IV brine line.
5	1/4/2016	Begin design of Phase V microfiltration and reverse osmosis (MFRO) facility.
6	1/2/2017	Complete construction of Phase I recycled water mains.
7	7/31/2018	Begin construction of Phase II recycled water mains.
8	7/31/2018	Complete design of Phase III storage ponds.
9	1/2/2017	Complete design of Phase IIIa reservoir conversion.
10	10/1/2018	Complete design of Phase V MFRO facility.
11	10/1/2018	Begin construction of Phase IV brine line.
12	1/2/2019	Begin construction of Phase V MFRO facility.
13	1/2/2020	Complete construction of Phase II recycled water mains.
14	7/1/2019	Begin construction of Phase III storage ponds.
15	1/2/2019	Begin construction of Phase IIIa reservoir conversion.
16	1/2/2020	Complete construction of Phase IIIa reservoir conversion.
17	1/2/2020	Complete construction of Phase IV brine line.
18	10/1/2020	Complete construction of Phase V MFRO facility.
19	10/1/2020	Initiate Phase V MFRO facility startup/testing.
20	1/4/2021	Complete construction of Phase III storage ponds.
21	1/4/2021	Complete MFRO startup and testing.
22	1/4/2021	Begin full operation of MFRO, conveyance, and seasonal storage facilities.
23	1/4/2021	Terminate discharge to Escondido Creek.

C. POLLUTION PREVENTION PLAN

The Discharger shall prepare and submit a pollution prevention plan work plan with a time schedule for implementation for approval of the Executive Officer within 120 days of adoption of this TSO, pursuant to Water Code section 13263.3(d)(3).

D. COMPLIANCE SCHEDULE REPORTING REQUIREMENTS

1. The Discharger shall prepare and submit the following to the San Diego Water Board within 30 days after each compliance date specified in Table 5 of this TSO:
 - a. A written submission detailing compliance or noncompliance with the specific schedule date and task;
 - b. If noncompliance is being reported, the written submission shall contain a description of the noncompliance and its cause, steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance; and the anticipated time the noncompliance is expected to continue. The Discharger shall also notify the San Diego Water Board within 30 days by letter when it returns to compliance with the time schedule.
2. The Discharger shall prepare and submit quarterly progress reports of efforts taken by the Discharger towards completing the milestones specified in Table 5 of this TSO and terminating the discharge to Escondido Creek. The reports shall summarize 1) the progress to date; 2) the activities conducted during that quarter; 3) the activities planned for the upcoming quarters; 4) information regarding all delays encountered or anticipated that may affect the future schedule for completion of the actions required; and 5) a description of all efforts made to mitigate those delays or anticipated delays. The reports shall also state whether or not the Facility was in compliance with the interim effluent limitations during the reporting period. Each quarterly report shall be received by the San Diego Water Board by the 15th day of the first month following the reporting period (January 15, April 15, July 15, and October 15). The first progress report shall be received by the San Diego Water Board by October 15, 2015, and will cover the months of August 1, 2015 through September 30, 2015. Submission of these progress reports shall continue until compliance is achieved.

E. PROVISIONS

1. All technical and monitoring reports required by this TSO are in accordance with Water Code sections 13267 and 13383. The San Diego Water Board needs this information to determine compliance with the TSO and Order No. R9-2015-0026. The Discharger is already subject to similar reporting requirements pursuant to Order No. R9-2015-0026. Therefore, the burdens, including costs, of these reports bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

2. Any person signing a document submitted under this TSO shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

3. If the Discharger fails to comply with any provision of this TSO, the San Diego Water Board may take any further action authorized by law. The Executive Officer, or his/her delegee, is authorized to take appropriate enforcement action pursuant, but not limited to, Water Code sections 13350 and 13385. The San Diego Water Board may also refer any violations to the Attorney General for judicial enforcement, including injunction and civil monetary remedies.
4. The San Diego Water Board may reopen this TSO at its discretion or at the request of the Discharger, if warranted. Lack of progress towards compliance with this TSO may be cause for the San Diego Water Board to modify the conditions of this TSO.
5. This TSO becomes effective on August 1, 2015 and expires on July 31, 2020.

I, David W. Gibson, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, San Diego Region, on June 24, 2015, as amended by Order No. R9-2017-0127 on December 13, 2017.



David W. Gibson
Executive Officer