

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

TENTATIVE ORDER NO. R9-2023-0131

**WASTE DISCHARGE REQUIREMENTS
FOR THE CITY OF ESCONDIDO
MEMBRANE FILTRATION AND REVERSE OSMOSIS FACILITY
SAN DIEGO COUNTY**

The City of Escondido, as described below, is subject to waste discharge requirements (WDRs) set forth in Order No. R9-2023-0131:

Table 1. Discharger Information

| | |
|------------------|--|
| Discharger | City of Escondido |
| Name of Facility | Membrane Filtration and Reverse Osmosis Facility |
| Facility Address | 901 West Washington Avenue |
| | Escondido, CA 92025 |
| | San Diego County |

Table 2. Discharge Locations

| Discharge Point | Effluent Description | Receiving Hydrologic Areas |
|-------------------------|------------------------------|--|
| Recycled Water Use Area | Demineralized recycled water | Escondido Hydrologic Subarea (HSA, 904.62) |
| Recycled Water Use Area | Demineralized recycled water | Las Lomas Muertas HSA (905.32) |
| Recycled Water Use Area | Demineralized recycled water | Bear HSA (905.24) |

Effective Date

The Order was adopted by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) and is effective on **December 13, 2023**.

I, David W. Gibson, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the San Diego Water Board on December 13, 2023.

TENTATIVE

David W. Gibson, Executive Officer

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I. FINDINGS

The San Diego Water Board, finds:

- A. **Facility Information.** The City of Escondido (Discharger) owns and operates the Membrane Filtration and Reverse Osmosis Facility (Facility), which demineralizes tertiary treated recycled water for irrigation at commercial agricultural operations. Section II of the Fact Sheet in Attachment D to this Order provides a detailed description of the Facility. Section I of the Fact Sheet also includes information regarding the permit application for the Facility.
- B. **Legal Authorities.** The San Diego Water Board issued this Order pursuant to section 13263 of the California Water Code (Water Code) and serves as WDRs that implement the San Diego Water Board's *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan).¹
- C. **Background and Rationale for Requirements.** The San Diego Water Board developed this Order based on: information submitted in the Discharger's *Hale Avenue Resource Recovery Facility Membrane Filtration/Reverse Osmosis Project Title 22 Engineering* (Engineering Report)² and *Report of Waste Discharge, Amendment to Order No. R9-2010-0032, Membrane Filtration/Reverse Osmosis (MFRO) Facility* (ROWD),³ the Basin Plan, the State Water Resources Control Board (State Water Board) policies, and other available information. The Fact Sheet contains background information and rationale for the development of requirements in this Order. The Fact Sheet and Attachments A through D are incorporated into and constitutes findings for this Order.
- D. **California Environmental Quality Act (CEQA).** The Discharger is the Lead Agency under CEQA and issued a Mitigated Negative Declaration for the construction and operation of the Facility in 2020. The Discharger's Mitigated Negative Declaration found that the construction and operation of the Facility would not have a significant effect on the environment with mitigation measures. Additional details about CEQA can be found in section III.B of the Fact Sheet.
- E. **Notification of Interested Persons.** The San Diego Water Board notified the Discharger, local agencies, and interested persons of its intent to prescribe WDRs for the discharge of waste described in this Order and provided them with an opportunity to submit written comments with recommendations. The San Diego Water Board also provided an opportunity for the Discharger, local agencies, and interested persons to submit oral comments and recommendations at a public hearing. Notification details are included in section VII.A of the Fact Sheet.

¹ The Basin Plan can be found at the following webpage:

https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/docs/R9_Basin_Plan.pdf

² Submitted pursuant to title 22 section 60323.

³ Submitted pursuant to Water Code section 13260.

F. **Consideration of Public Comment.** The San Diego Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Public Hearing details are included in section VII.C of the Fact Sheet.

IT IS HEREBY ORDERED, that, to meet the provisions contained in division 7 of the Water Code, commencing with section 13000, and applicable regulations adopted thereunder, the Discharger must comply with the requirements in this Order. The Discharger is hereby authorized to discharge demineralized recycled water subject to WDRs in this Order at the discharge locations described in Table 2.

II. DISCHARGE PROHIBITIONS

- A. Discharges of waste to land which has not been specifically described in this Order or in the ROWD, and for which valid WDRs are not in force, is prohibited.
- B. Discharges of treated or untreated solid or liquid waste to waters of the United States are prohibited unless authorized by a National Pollutant Discharge Elimination System (NPDES) permit issued by the San Diego Water Board.
- C. Discharges of treated or untreated solid or liquid waste directly or indirectly to any waters of the State (e.g., ephemeral streams and vernal pools) or other locations not specified in this Order are prohibited unless authorized by WDRs.
- D. Treatment, storage, or disposal of waste in a manner that creates pollution, contamination, or nuisance, as defined by Water Code section 13050, is prohibited.

III. DISCHARGE SPECIFICATIONS AND EFFLUENT LIMITATIONS

- A. The flowrate from the Facility must not exceed a daily maximum of 3.1 million gallons per day (MGD).
- B. Discharges of demineralized recycled water must not contain constituents in excess of the effluent limitations in Table 3. The Discharger must measure compliance at Monitoring Location Recycled Water Service Area-005 (RWS-005) as described in section III of the Monitoring and Reporting Program (MRP) in Attachment C of this Order.

Table 3. Effluent Limitations at RWS-005

| Constituent | Units | Average Annual¹ |
|--|-----------------------------|-----------------------------------|
| Boron | Milligrams per liter (mg/L) | 0.75 |
| Chloride | mg/L | 100 |
| Color Units | Apparent Color Unit (ACU) | 15 |
| Fluoride | mg/L | 1 |
| Iron | mg/L | 0.3 |
| Manganese | mg/L | 0.05 |
| Methylene Blue-Activated Substances (MBAS) | mg/L | 0.5 |
| Percent Sodium | Percentage | 60 |

| Constituent | Units | Average Annual ¹ |
|------------------------------|-------------------------------------|-----------------------------|
| pH | pH Units | 6.0 – 9.0 |
| Sulfate | mg/L | 250 |
| Total Dissolved Solids (TDS) | mg/L | 750 |
| Total Nitrogen | mg/L | 10 |
| Turbidity | Nephelometric Turbidity Units (NTU) | 5 |

¹The average annual effluent limitation must apply to the arithmetic mean of the results of all samples collected during each calendar year.

IV. WATER RECLAMATION REQUIREMENTS

- A. The Discharger must comply with the water reclamation requirements (WRRs) contained in Order No. R9-2010-0032, *Waste Discharge Requirements and Master Reclamation Permit for the City of Escondido, Hale Avenue Resource Recovery Facility* as amended by Addendum No. 1 to Order No. R9-2010-0032, *An Addendum Updating the Requirements for Ultraviolet Disinfection for the City of Escondido, Hale Avenue Resource Recovery Facility* (Order No. R9-2010-0032), for the production and purveyance of demineralized recycled water from the Facility. The WRRs in Order No. R9-2010-0032 are consistent with recommendations in the State Water Board’s Division of Drinking Water’s (DDW) *Conditional Acceptance of Title 22 Engineering Report Amendment Membrane Filtration / Reverse Osmosis Project City of Escondido* dated July 21, 2021.

V. STANDARD PROVISIONS

- A. The Discharger must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the Water Code and is grounds for (a) enforcement action; (b) termination and reissuance or modification of this Order; or (c) denial of an application for new or revised WDRs and WRRs.
- B. The Discharger must allow the San Diego Water Board or an authorized representative, upon the presentation of credentials, to:
 1. Enter upon the Discharger's premises where the regulated Facility or activity is located, conducted, or where the Discharger keeps the required records under the conditions of this Order.
 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order.
 3. Inspect at reasonable times the Facility, equipment (including monitoring and control equipment), practices, or operations that are regulated or required under this Order.
 4. 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 parameters at any location.

C. The Discharger, without regard to intent or negligence, causes or permits any hazardous substance to be discharged in or on any waters of the State, must immediately notify San Diego County Department of Environmental Health and Quality (DEHQ) and the State of California's Office of Emergency Services of the discharge. The Discharger must notify DEHQ and OES as soon as (a) the Discharger has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, in accordance with Health and Safety Code section 5411.5, and the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to title 2, Government Code, division 1, chapter 7, article 3.7 (commencing with section 8574.17). This provision does not require reporting of any discharge that is less than a reportable quantity as provided for under Water Code section 13271, subdivisions (f) and (g), (see CCR, title 23 sections 2250-2251), unless the Discharger is in violation of a prohibition in the Basin Plan.

The Discharger must also provide a written after action report to the San Diego Water Board within 5 days of the time the Discharger becomes aware of the noncompliance or unauthorized discharge. The Discharger's after-action report must describe in detail the noncompliance and its cause; the period of noncompliance, including exact dates and times; if the Discharger has not corrected the noncompliance, the anticipated time that the Discharger expects the noncompliance to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The San Diego Water Board may consider waiving the need for the after-action report on a case-by-case basis.

- D. If the Discharger, without regard to intent or negligence, causes or permits an unauthorized discharge of 50,000 gallons or more of demineralized recycled water, or 1,000 gallons or more of demineralized recycled water that is treated at a level less than disinfected tertiary recycled water, the Discharger must immediately notify the San Diego Water Board in accordance with reporting requirements in Standard Provision V.C. The Discharger must notify the San Diego Water Board as soon as (1) the Discharger has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures.
- E. This Order may be modified, rescinded and reissued, or terminated by the San Diego Water Board at any time for reasons including, but not limited to:
1. Violation of any terms or conditions of this Order,
 2. Obtaining this Order by misrepresentation or failing to disclose fully all relevant facts, and
 3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge, and
- F. The Discharger's filing of a request for the modification or rescission of this Order, or notification of planned changes or anticipated noncompliance does not stay any

condition of this Order.

- G. The Discharger must submit to the San Diego Water Board a new or amended report of waste discharge, at least 120 days prior to any proposed changes to the Facility. The Discharger must ensure that a licensed professional properly stamps and signs the report of waste discharge. The following are examples of changes that require submittal of a new or amended report of waste discharge:
1. Addition of a new process or product at the Facility resulting in a change in the character of the wastes.
 2. Significant change in the treatment or discharge method (e.g. change in the method of treatment which would significantly alter the nature of the waste).
 3. Change in the discharge area from that described in this Order.
 4. Increase in discharge flowrate beyond that specified in this Order.
 5. Other circumstances that result in a material change in character, amount, or location of the waste discharge.
 6. Any planned change in the Facility or activity which may result in noncompliance with this Order.
- H. This Order is not transferable to any party. The Discharger must ensure that the San Diego Water Board receives the written notice at least 120 days before any proposed ownership transfer takes place. The notice must include a written agreement between the existing and new dischargers containing a specific date for the transfer of this Order's responsibility and coverage between the existing and the new dischargers. This agreement must include an acknowledgment that the existing Discharger is liable for violations occurring before the transfer date and that the new discharger is liable from the transfer date and hereafter. The San Diego Water Board will consider modification or revocation and reissue of this Order to change the name of the discharger and incorporate other requirements as may be necessary.
- I. Where the Discharger becomes aware that it failed to submit any relevant facts in a report of waste discharge or submitted incorrect information in a report of waste discharge or in any report to the San Diego Water Board, the Discharger must promptly submit such facts or information.
- J. The Discharger must sign and certify all applications, reports, or information submitted to the San Diego Water Board as follows:
1. A report of waste discharge must be signed as follows for a municipality, State, federal or other public agency:
 - a. The application, Form 200, for the report of waste discharge must be signed by either a public executive officer or ranking elected official, and

- b. Any technical reports submitted with the report of waste discharge must be signed by a licensed professional performing engineering or geological judgments. The lead professional in the appropriate field must sign and affix their license stamp to the report, plan, or document by direction of the person designated in paragraph "a" of this provision.
 2. All other reports required by this Order and other information required by the San Diego Water Board must be signed by a person designated in section V.J.1. of this Order or a duly authorized representative of that person. An individual is a duly authorized representative only if all the following are true:
 - a. The authorization is made writing by a person described in section V.J.1 of this Order.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.
 - c. The written authorization is submitted to the San Diego Water Board.
 3. Any person signing a document under this section must make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment."
- K. The Discharger must maintain a copy of this Order at the Facility. This Order must be readily accessible to operating personnel at the Facility.
- L. The Discharger must comply with the MRP, and any future revisions specified by the San Diego Water Board. Monitoring results must be reported at the frequency specified in MRP.
- M. The Discharger must provide to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, rescinding and reissuing, or terminating this Order. The Discharger must also furnish to the San Diego Water Board, upon request, copies of records required to be kept by this Order.
- N. The Discharger must submit reports required under this Order to the San Diego Water Board via the GeoTracker database at <https://geotracker.waterboards.ca.gov/>. The San Diego Water Board may also request hard copies and/or electronic copies on a compact disc (CD) or universal serial bus (USB) drive or other appropriate media, including electronic mail (email). Report submittals must include a signed cover/transmittal letter that includes the Facility name, Facility contact information, and reference code

(**WDR100055799:BBushnell**), unless directed otherwise by the Executive Officer. The MRP contains additional information regarding report submittal requirements.

VI. SPECIAL PROVISIONS

- A. The Discharger shall properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) used by the Discharger to achieve compliance with conditions of this Order. Proper operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.
- B. All waste treatment, containment, and disposal facilities must be protected against a 100-year storm event as defined by the San Diego County Flood Control District (FCD).
- C. All waste treatment, containment, and disposal facilities must be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour storm event as defined by the FCD.

VII. NOTICES

- A. If any person uses, transports, or stores recycled water in a manner which creates, or threatens to create conditions of pollution, contamination, or nuisance, as defined in Water Code section 13050, the San Diego Water Board may initiate enforcement action against the Discharger, which may result in the termination of the recycled water discharge.
- B. This Order does not convey property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Discharger from liability under federal, State or local laws, nor create a vested right for the Discharger to continue the waste discharge.
- C. These requirements have not been reviewed by the United States Environmental Protection Agency and are not issued pursuant to Clean Water Act section 402.
- D. Any person aggrieved by this action of the San Diego Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations (CCR) title 23, sections 2050. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except if this date falls on a Saturday, Sunday, or State holiday, then the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of

this Order must not be affected.

ATTACHMENT A – DEFINITIONS
ORDER NO. R9-2023-0131

Part 1. – Abbreviations

| Abbreviation | Definition |
|-----------------------|---|
| ACU | Apparent color units |
| AGR | Agricultural Supply beneficial use |
| Basin Plan | Water Quality Control Plan for the San Diego Basin |
| CCR | California Code of Regulations |
| CEQA | California Environmental Quality Act |
| CFR | Code of Federal Regulations |
| DEHQ | San Diego County Department of Environmental Health and Quality |
| DDW | State Water Board, Division of Drinking Water |
| Discharger | City of Escondido |
| ELAP | Environmental Laboratory Accreditation Program |
| Facility | City of Escondido’s Membrane Filtration/Reverse Osmosis Facility |
| FCD | San Diego County Flood Control District |
| Final MND | <i>Final Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program</i> (State Clearinghouse No. 2020039020) |
| HA | Hydrologic Area |
| HARRF | Hale Avenue Resources Recovery Facility |
| HSA | Hydrologic Subarea |
| IBPS | Intermediate Booster Pump Station |
| IND | Industrial Service Supply beneficial use |
| MBAS | Methylene blue-activated substances |
| mg/L | Milligrams per liter |
| MGD | Million gallons per day |
| MRP | Monitoring and reporting program in Attachment C of the Order |
| MUN | Municipal and Domestic Supply beneficial use |
| NPDES | National Pollutant Discharge Elimination System |
| NTU | Nephelometric Turbidity Unit |
| Order | Order No. R9-2023-0131 <i>Waste Discharge Requirements for the City of Escondido Membrane Filtration/Reverse Osmosis Facility, San Diego County</i> |
| POTW | Publicly owned treatment works |
| QA | Quality assurance |
| QC | Quality control |
| Recycled Water Policy | State Water Resources Control Board Water Quality Control Policy for Recycled Water |

| Abbreviation | Definition |
|-----------------------|---|
| ROWD | Report of waste discharge, <i>Report of Waste Discharge, Amendment to Order No. R9-2010-0032, Membrane Filtration/Reverse Osmosis (MFRO) Facility</i> |
| RO | Reverse osmosis |
| San Diego Water Board | California Regional Water Quality Control Board, San Diego Region |
| SIC | Standard Industrial Classification |
| SMR | Self-monitoring report |
| State Water Board | State Water Resources Control Board |
| TDS | Total dissolved solids |
| Title 22 | California Code of Regulations Title 22 |
| Title 23 | California Code of Regulations Title 23 |
| TON | Threshold odor number |
| TSS | Total Suspended Solids |
| µg/L | Micrograms per liter |
| USEPA | United States Environmental Protection Agency |
| Water Code | California Water Code |
| WDRs | Waste discharge requirements |
| WQOs | Water quality objectives |
| WRRs | Water recycling requirements |

See Part 2 of Attachment A (Glossary of Common Terms) for further definitions.

Part 2. – Glossary of Common Terms

Agricultural Supply

Agricultural Supply is the beneficial use of water resources as defined by the Basin Plan that includes uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.

Average

An average is the sum of measured values divided by the number of measured values.

Average Annual Effluent Limitation

The average annual effluent limitation is the highest allowable average of daily discharges over a calendar year (January-December), calculated as the sum of all daily discharges measured during a calendar year divided by the number of daily discharges during that year.

California Code of Regulations

California Code of Regulations are the official compilation and publication of the regulations adopted, amended, or repealed by state agencies pursuant to the Administrative Procedure Act. Properly adopted regulations that have been filed with the Secretary of State have the force of law.

Code of Federal Regulations

The Code of Federal Regulations (CFR) is the codification (arrangement of) the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government. The CFR is divided into 50 titles that represent broad areas subject to federal regulations. CFR, Title 40: Protection of Environment (40 CFR) is the section of that deals with United States Environmental Protection Agency (USEPA) mission of protecting human health and the environment.

Composite Sample

A composite sample is a sample composed of two or more discrete samples of at least 100 milliliters collected at periodic intervals during the operating hours of a facility over a 24-hour period. The aggregate sample will reflect the average water quality covering the compositing or sample period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

Demineralized Recycled Water

Demineralized recycled water is tertiary treated and disinfected recycled water from HARRF that the Discharger further treats with the membrane filtration and reverse osmosis to remove salts and minerals from the recycled water. The Discharger will mix the demineralized recycled water with tertiary treated and disinfected recycled water from HARRF at a ratio of 2:1. The Discharger will purvey the recycled water for use at commercial agricultural operations with salt sensitive crops such as avocados and citrus.

Grab Sample

A grab sample is an individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes. The sample is taken from a waste stream on a one-time basis without consideration of the flowrate of the waste stream and without consideration of time of day.

Facility

The Facility is the City of Escondido's Membrane Filtration and Reverse Osmosis Facility located at 901 West Washington Avenue, Escondido, CA 92025.

Industrial Service Supply

Industrial Service Supply is the beneficial use of water resources as defined by the Basin Plan for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.

Million Gallons Per Day

Million Gallons per Day (MGD) is a unit of flow commonly used for wastewater discharges. One MGD is equivalent to 1.547 cubic feet per second.

Municipal and Domestic Supply

Municipal and Domestic Supply is the beneficial use of water resources as defined by the Basin Plan that includes uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.

Publicly Owned Treatment Works

A Publicly Owned Treatment Works (POTW) is a treatment works, as defined by section 212 of the federal Clean Water Act that is owned by the State or a municipality. This definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. A POTW also includes the sewers, pipes, and other conveyances if they convey wastewater to a POTW treatment plant (40 CFR section 403.3).

Source of Drinking Water

Source of drinking water is any water, surface, or groundwater, designated as municipal and domestic supply (MUN) in the Basin Plan.

Total Nitrogen

Total Nitrogen is the sum of concentrations of ammonia, nitrite, nitrate, and organic nitrogen containing compounds expressed as nitrogen.

Waste

Waste includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

Water Quality Objectives

Water Quality Objectives are the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

Water Recycling

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

ATTACHMENT B –FACILITY MAPS AND FIGURES
ORDER NO. R9-2023-0131

FIGURE B-1
MEMBRANE FILTRATION/REVERSE OSMOSIS FACILITY LOCATION AND CONVEYANCE

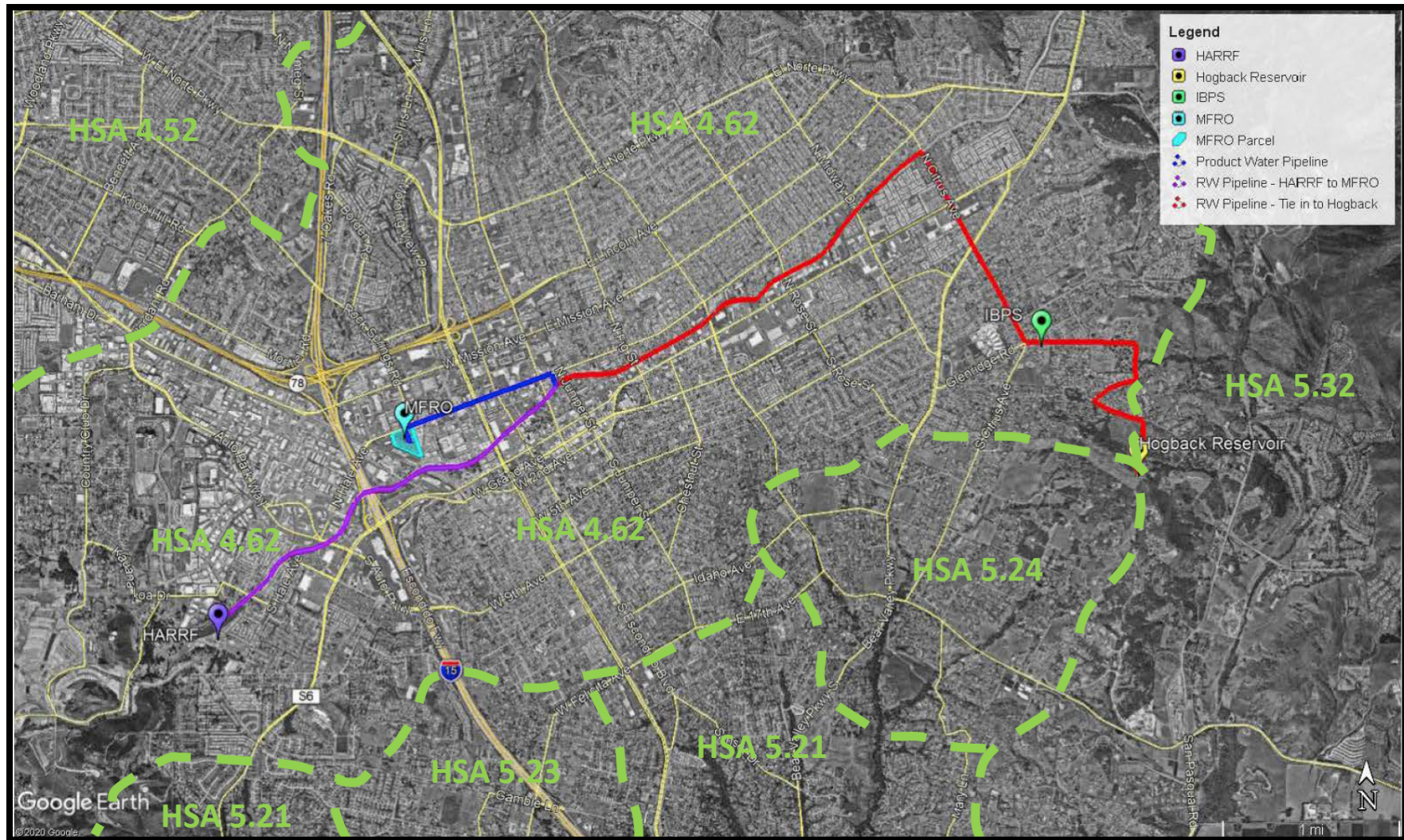


Figure is from the City of Escondido's *Report of Waste Discharge, Amendment to Order No. R9-2010-0032, Membrane Filtration/Reverse Osmosis (MFRO) Facility (ROWD)*. Acronyms defined in Attachment A - Definitions.

FIGURE B-2
MEMBRANE FILTRATION/REVERSE OSMOSIS FACILITY SITE LAYOUT



Figure is from the ROWD.

FIGURE B-3
MEMBRANE FILTRATION/REVERSE OSMOSIS FACILITY PROCESS FLOW DIAGRAM

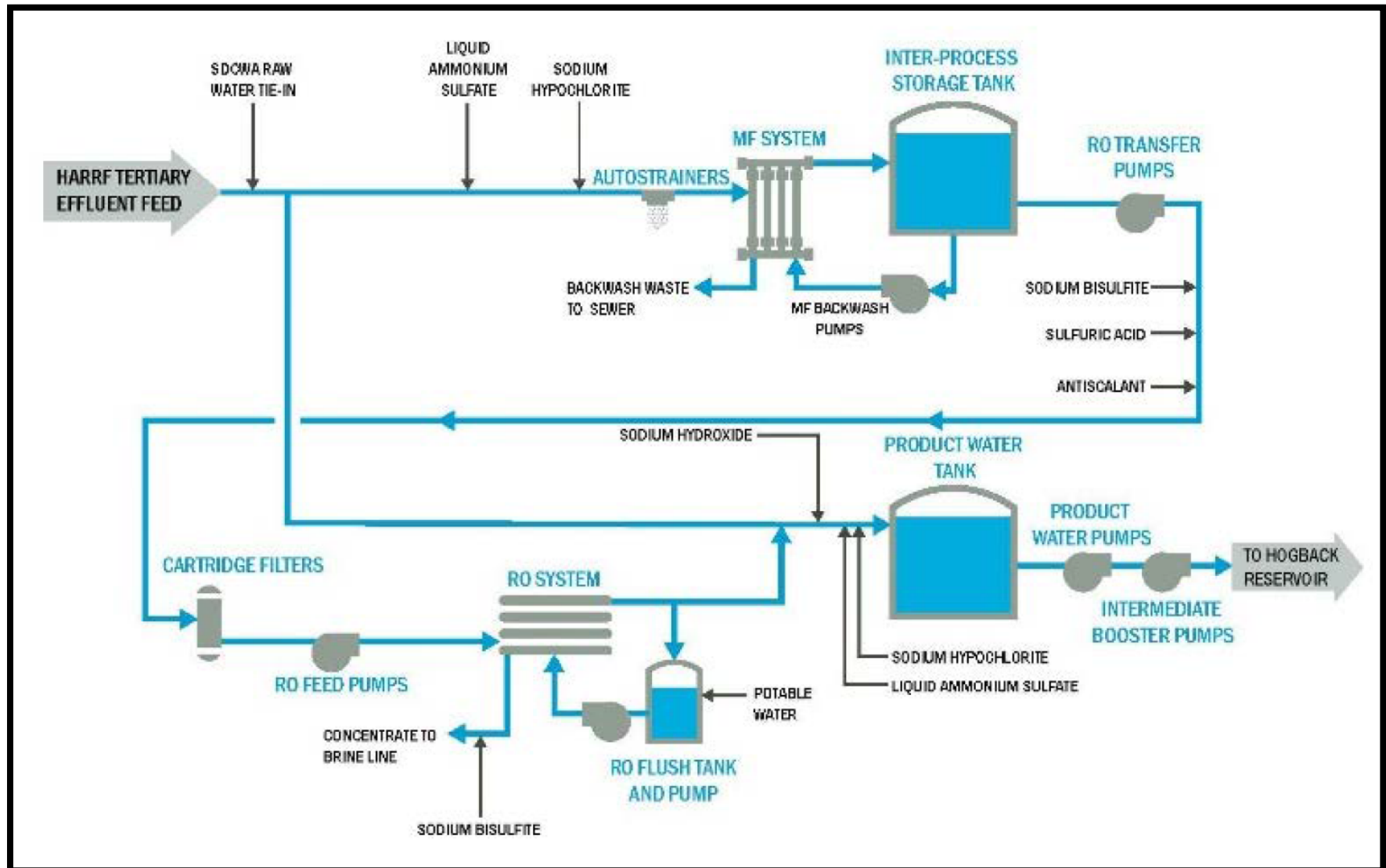


Figure is from the ROWD. Acronyms defined in Attachment A - Definitions

**ATTACHMENT C – MONITORING AND REPORTING PROGRAM
ORDER NO. R9-2023-0131**

I. FINDINGS

- A. This Monitoring and Reporting Program (MRP) is issued to the City of Escondido (Discharger) pursuant to California Water Code (Water Code) sections 13267 and 13383, which authorize the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) to require technical and monitoring reports.
- B. This MRP requires the Discharger to provide information to determine compliance with Order No. R9-2023-0131, *Waste Discharge Requirements for the City of Escondido Membrane Filtration/Reverse Osmosis Facility, San Diego County* (Order). This MRP also requires the Discharger to provide information to the San Diego Water Board to assess the potential impacts of the discharge to groundwater quality and to protect beneficial uses of the groundwater. The San Diego Water Board Executive Officer can modify this MRP as appropriate.
- C. This MRP establishes requirements for the Discharger to conduct routine or episodic self-monitoring of the discharges regulated under this Order at specified effluent and receiving water monitoring locations. This MRP requires the Discharger to report the results to the San Diego Water Board with information necessary to evaluate discharge characteristics and compliance status.

II. GENERAL MONITORING PROVISIONS

- A. The Discharger must ensure samples and measurements collected as required by the Order and this MRP are representative of the volume and nature of the monitored discharge. The Discharger must collect all samples at the monitoring points specified in this MRP and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. The Discharger must not change monitoring locations prior to notifying and receiving approval from the San Diego Water Board.
- B. The Discharger must select and use appropriate flowrate measurement devices and methods, consistent with accepted scientific practices to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The Discharger must install, calibrate, and maintain the devices to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices must be capable of measuring flowrates with a maximum deviation of 5 percent from true discharge rates throughout the range of expected discharge volumes.
- C. The Discharger must ensure that the laboratory performing analyses required by this MRP are accredited by the State Water Resources Control Board (State Water Board, Division of Drinking Water Environmental Laboratory Accreditation Program (ELAP) for the analytical method used. The Discharger must use a laboratory capable of producing and providing quality assurance and quality control (QA/QC) records for San Diego Water Board review. The director of the laboratory whose name appears on the ELAP certification shall supervise all analytical work in their laboratory and shall sign all reports submitted to the San Diego Water Board.

- D. The Discharger must monitor for all constituents according to United States Environmental Protection Agency (USEPA) test procedures approved in title 40 Code of Federal Regulations, part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants, as amended, unless other test procedures have been specified in this MRP.
- E. If the Discharger monitors any pollutants more frequently than required by this MRP, using approved test procedures, or as specified in this MRP, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharger's monitoring report. The Discharger must also report the increased frequency of monitoring.
- F. The Discharger must retain records of all monitoring information, all calibration and maintenance records, all original strip chart and/or electronic recordings for continuous monitoring instrumentation, and copies of all reports required by this MRP. The Discharger must maintain records for a minimum of five years from the date of the sample, measurement, report, or application. The San Diego Water Board may extend this period during any unresolved litigation regarding this discharge. The Discharger must ensure that monitoring records include the following:
 - 1. The date, exact place, and time of sampling or measurements,
 - 2. The individual(s) who performed the sampling or measurements,
 - 3. The date(s) analyses were performed,
 - 4. The individual(s) who performed the analyses,
 - 5. The analytical techniques or methods used, and
 - 6. The results of such analyses.
- G. The Discharger, per manufacture guidelines, must properly and routinely maintain and calibrate all monitoring instruments and devices used to comply with this MRP.
- H. The Discharger must sign and certify all applications, reports, or information submitted to the San Diego Water Board as detailed in section VI.J of the Order.
- I. The Discharger must identify all missing or non-valid monitoring or sampling results in submitted monitoring reports. All instances of missing or non-valid results must include an explanation of their root cause and the steps the Discharger has or will take to prevent future instances. Missing or non-valid results may be considered violations of the MRP that could result in enforcement action depending on the frequency of such instances and efforts by the Discharger to prevent such failures.

III. MONITORING LOCATIONS

The Discharger must establish Recycled Water Service Area-005 (RWS-005) monitoring location after where the Discharger comingles demineralized and tertiary treated recycled

water and prior to discharge from the recycled water service system. Effluent monitoring at RSW-005 will be used to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in the Order.

IV. MONITORING REQUIREMENTS

- A. The Discharger must monitor the effluent from the Facility at RWS-005 as described in section III of the MRP for the parameters listed in Table C-1 below:

Table C-1. Effluent Monitoring at RWS-005

| Constituents | Units | Sample Type | Minimum Sample Frequency |
|--|-------------------------------------|---------------------------|---------------------------------|
| Chloride | mg/L | 24-hour composite or grab | Semiannual |
| Color Units | Apparent Color Unit (ACU) | 24-hour composite or grab | Semiannual |
| Flowrate | Million gallons per day (MGD) | Recorder | Continuous |
| Iron | mg/L | 24-hour composite or grab | Semiannual |
| Manganese | mg/L | 24-hour composite or grab | Semiannual |
| Methylene Blue-Activated Substances (MBAS) | mg/L | 24-hour composite or grab | Semiannual |
| Odor | Threshold Odor Number (TON) | 24-hour composite or grab | Semiannual |
| Percent Sodium | Percentage | 24-hour composite or grab | Semiannual |
| pH | pH Units | 24-hour composite or grab | Semiannual |
| Sulfate | mg/L | 24-hour composite or grab | Semiannual |
| Total Dissolved Solids (TDS) | mg/L | 24-hour composite or grab | Semiannual |
| Total Nitrogen | mg/L | 24-hour composite or grab | Semiannual |
| Turbidity | Nephelometric Turbidity Units (NTU) | 24-hour composite or grab | Semiannual |

V. SELF-MONITORING REPORTS

- A. The Discharger must submit the results of all other monitoring required by this MRP in Self-Monitoring Reports (SMRs) to the San Diego Water Board via the State Water Board's GeoTracker system at <http://geotracker.waterboards.ca.gov/> (GeoTracker). The Discharger must upload SMRs on or prior to the SMR due dates set forth in Table D-4. The Discharger must:
1. Submit all SMRs with the following indexing number in the header and subject line: **WDR100055799:BBushnell** for all SMRs submitted to the San Diego Water Board.
 2. Divide documents larger than 400 megabytes (MB) into separate files at logical places in the report to keep the file sizes under 400 MB.
 3. Submit laboratory analytical data for all samples in Electronic Deliverable Format.
 4. Report the latitude and longitude of all sampling locations for which data are reported.
- B. The Discharger must provide the San Diego Water Board with the following items when requested: a hard copy of the complete SMR, a hard copy of the cover/transmittal letter, a hard copy of oversized drawings or maps, and an electronic copy of the complete SMR (see section V.N of the Order – Standard Provisions).
- C. The Discharger must provide the San Diego Water Board, when requested, a complete copy (in a text-searchable PDF file) of all documents including signed transmittal letters, professional certifications, and all data presented in the SMR. Upon receipt of the documents, the San Diego Water Board must use the date and time that the document was uploaded into GeoTracker to determine compliance with the regulatory due dates specified in the Order.
- D. The Discharger must summarize all reported data in a tabular format. The reports must present data to clearly illustrate whether the Facility is operating in compliance with discharge specifications and effluent limitations.
- E. The Discharger must attach a cover letter to the SMR that includes the signature and certification requirements in sections V.J.2 and V.J.3 of the Order. The information contained in the cover letter must clearly identify violations of the Order; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions if not already corrected. For identified violations, the letter must include a description of the requirement in the Order that was violated and a description of the violation.
- F. Any report submitted by the Discharger presenting new analytical data is required to include the complete laboratory analytical report(s). The laboratory director must sign the laboratory analytical report and contain:

- a. A complete sample analytical report,
- b. A complete laboratory Quality Assurance/Quality Control (QA/QC) report,
- c. A discussion of the QA/QC data, and
- d. A transmittal letter indicating whether the director of the laboratory supervised all the analytical work, and containing the following statement, “All analyses were conducted at a laboratory certified for such analyses in accordance with current USEPA procedures.”

G. The Discharger must report monitoring results in each SMR based on the sampling frequency, monitoring period, and due dates specified in Table C-2:

Table C-2. Monitoring Periods and Reporting Schedule

| Sampling Frequency | Start of Monitoring Period | Monitoring Period | SMR Due Date |
|--------------------------|----------------------------|---|------------------------|
| Continuous | December 13, 2023 | Continuous at all times | Submit with annual SMR |
| Semi-Annual | January 1, 2024 | January 1 through June 30 July 1 through December 31 | Submit with annual SMR |
| Annual | January 1, 2024 | January 1 through December 1 | February 1 |
| Annual Volumetric Report | January 1, 2024 | January 1 through December 1 | April 1 |

VI. VOLUMETRIC REPORTING REQUIREMENTS

- A. The Discharger must submit an annual volumetric report to the State Water Board by April 30 of each year. The Discharger must submit the annual volumetric report containing monthly data in electronic format via GeoTracker. The Discharger must report in accordance with each of the items in section 3 of the State Water Board’s *Water Quality Control Policy for Recycled Water (Recycled Water Policy)* as described below:
 - 1. Influent. Monthly total volume of wastewater collected and treated by the Facility.
 - 2. Production. Monthly volume of wastewater treated, specifying level of treatment.
 - 3. Discharge. Monthly volume of treated wastewater discharged to ocean waters and specifying level of treatment.
 - 4. Reuse. Monthly volume of recycled water distributed.
 - 5. Reuse Categories. Annual volume of treated wastewater distributed for beneficial use in compliance with California Code of Regulations title 22 in each of the reuse

categories listed below:

- a. Agricultural irrigation: pasture or crop irrigation.
- b. Landscape irrigation: irrigation of parks, greenbelts, and playgrounds; school yards; athletic fields; cemeteries; residential landscaping, common areas; commercial landscaping; industrial landscaping; and freeway, highway, and street landscaping.
- c. Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses.
- d. Commercial application: commercial facilities, business use (such as laundries and office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered.
- e. Industrial application: manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered.
- f. Other non-potable uses: including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, and recreational impoundments.
- g. Groundwater recharge: the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of drinking water supply for a public water system. This includes surface or subsurface applications, except use of recycled water for seawater intrusion barrier.

VII. ONE TIME REPORTING DUE DATES

The Discharger is required to submit the following reports:

Table C-3. One Time Reporting Schedule

| Report Type | Reference Section | Report Due Date |
|---------------------------|--------------------------|---|
| Noncompliance Report | Order section V.C | 5 days after noncompliance |
| Report of Waste Discharge | Order section V.G | 120 days prior to proposed major change |
| Transfer of Ownership | Order section V.H | 120 days prior to proposed change |

**ATTACHMENT D – FACT SHEET
ORDER NO. R9-2023-0131**

This Fact Sheet includes background information, legal requirements, technical rationale, for Order No. R9-2023-0131, *Waste Discharge Requirements for the City of Escondido, Membrane Filtration/Reverse Osmosis Facility, San Diego County (Order)* and the directives in the Monitoring and Reporting Program (MRP) in Attachment C of the Order. This Fact Sheet with the Findings in section I of the Order serves as the basis for the requirements of the Order. This Fact Sheet is incorporated into and constitutes findings for the Order and MRP.

I. ORDER INFORMATION

- A. Table D-1 below, supplements Table 1 of the Order with additional administrative information related to the City of Escondido’s Membrane Filtration/Reverse Osmosis Facility (Facility).

Table D-1. Facility Information

| | |
|--|--|
| WDID | 9 000003903 |
| Discharger | City of Escondido |
| Name of Facility | Membrane Filtration/Reverse Osmosis Facility |
| Facility Address | 901 West Washington Avenue, Escondido, CA 92025 |
| Facility Contact, Title and Phone | Kyle Morgan, Deputy Director of Utilities/Wastewater, 760-839-6290 |
| Authorized Person to Sign and Submit Reports | Christopher W. McKinney, Deputy City Manager/Director of Utilities |
| Mailing Address | 201 N. Broadway, Escondido, CA 92025 |
| Billing Address | 201 N. Broadway, Escondido, CA 92025 |
| Type of Facility | Publicly Owned Treatment Works (POTW) |
| Threat to Water Quality | 3 |
| Complexity | B |
| Permitted Facility Discharge Flowrate (Comingled Flow) | 3.1 million gallons per day (MGD) |
| Facility Design Treatment Capacity | 2.0 MGD |
| Watersheds | Escondido Hydrologic Sub Area (HSA), 904.62, Las Lomas Muertas HSA 905.32, and Bear HSA 905.24 |
| Receiving Water Type | Groundwater |

- B. The Discharger submitted the *Report of Waste Discharge, Amendment to Order No. R9-2010-0032, Membrane Filtration/Reverse Osmosis (MFRO) Facility (ROWD)* pursuant to California Water Code (Water Code) section 13260. The ROWD requested an amendment to Order No. R9-2010-0032 *Waste Discharge Requirements and Master Reclamation Permit for the City of Escondido, Hale Avenue Resource Recovery Facility* (Order No. R9-2010-0032) to incorporate requirements for the Facility and to modify the color effluent limitation in Order No. R9-2010-0032. The San Diego Water Board reviewed the ROWD and determined that it did not include sufficient information to modify the color effluent limitation in Order No. R9-2010-0032. The San Diego Water Board chose to issue separate waste discharge requirements (WDRs) for the Facility

while the Discharger collects additional information to justify the requested modification of the color effluent limitation established in Order No. R9-2010-0032. The Discharger also submitted the *Hale Avenue Resource Recovery Facility Membrane Filtration/Reverse Osmosis Project Title 22 Engineering* (Engineering Report) to demonstrate compliance with California Code of Regulations (CCR) title 22, division 4 (title 22). The Discharger submitted the ROWD in March of 2023 and the Engineering Report in December 2020.

II. FACILITY DESCRIPTION

The Discharger is responsible for providing potable water treatment and delivery services, and wastewater collection and treatment for the Discharger's domestic, commercial, and irrigation customers. The Discharger operates the Hale Avenue Resource Recovery Facility (HARRF) for wastewater treatment and recycled water production. The Discharger will divert up to 3.1 MGD of recycled water produced at HARRF to the Facility that will provide additional treatment to lower the salt and mineral concentration of the recycled water. The Facility will increase recycled water use by creating a demineralized recycled water supply that can irrigate salt-sensitive crops at commercial agricultural operations within the Escondido HSA (904.62), the Las Lomas Muertas HSA (905.32), and the Bear HSA (905.24).

A. Wastewater Treatment

- 1. Hale Avenue Resource Recovery Facility.** The HARRF provides secondary treatment for up to 18 MGD of residential, commercial, and industrial wastewater generated within the City of Escondido. HARRF can treat up to 9 MGD of wastewater to tertiary disinfected recycled water standards, and its purveyance and non-potable reuse, are regulated pursuant to Order No. R9-2010-0032. The Discharger sends secondary treated effluent from the HARRF to the San Elijo Ocean Outfall (SEOO). The discharge from HARRF to SEOO are separately regulated pursuant to Order No. R9-2018-0002, National Pollutant Discharge Elimination System (NPDES) No. CA0107981, *Waste Discharge Requirements for the City of Escondido, Hale Avenue Resource Recovery Facility, and Membrane Filtration/Reverse Osmosis Facility, Discharge to the Pacific Ocean Through the San Elijo Ocean Outfall* (Order No. R9-2018-0002). Recycled water produced at the HARRF is predominantly used for power generation with a small portion being used for landscape irrigation. The Discharger plans to send up to 3.1 MGD of recycled water from HARRF to the Facility of which 2.0 MGD will be demineralized and mixed back with the remaining 1.1 MGD of recycled water.
- 2. Membrane Filtration/Reverse Osmosis Facility.** The Discharger constructed the Facility to demineralize recycled water from HARRF for irrigation reuse at commercial agricultural operations. The Facility's treatment process consists of membrane filtration (MF), reverse osmosis (RO) demineralization, posttreatment stabilization, chemical storage and feed systems, a blended product water storage tank and pump station, and ancillary facilities. The Facility does not produce any biosolids. The Facility will produce approximately 2 MGD of demineralized RO

product water (RO permeate) which the Discharger will blend with approximately 1.1 MGD of recycled water from HARRF to create 3.1 MGD of blended recycled water for distribution to commercial agricultural operations.

The Discharger will send the Facility's waste residuals such as MF backwash and membrane cleaning wastes to the sanitary sewer for treatment at HARRF. The Discharger will send the Facility's RO concentrate to a brine pipeline for direct conveyance to the SEOO as allowed by and in accordance with Order No. R9-2018-0002.

3. **Conveyance Piping.** The conveyance line for the demineralized recycled water blended with tertiary-treated recycled water extends eastward in the City of Escondido and discharges into Hogback Reservoir, which serves as the principal storage reservoir for the demineralized recycled water blended with tertiary disinfected recycled water.

B. Discharge Locations

1. **Recycled Water Use Sites.** The Discharger's agricultural sites using the demineralized recycled water are within the eastern portion of the Escondido HSA (904.62). Other potential users are in the Bear HSA (905.24) and the Las Lomas Muertas HSA (905.32). For this reason, the Order regulates the use of demineralized recycled water within all three HSAs (904.62, 905.24, and 905.32).
2. **Escondido Land Outfall.** The Discharger sends the RO concentrate effluent from the Facility to the Pacific Ocean via the SEOO pursuant to Order No. R9-2018-0002.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the Order are based on the requirements and authorities described in this section.

- A. **Governor's Water Supply Strategy 2022.** Governor Newsom's "*California's Water Supply Strategy, Adapting to a Hotter, Drier Future*", focuses on supporting local efforts to conserve, capture, recycle, and de-salt enough water to allow California communities to prosper in a hotter and drier climate. The adoption of the Order is consistent with the Governor's Water Supply Strategy because it supports the use of recycled wastewater to partially replace the need for potable water for agricultural irrigation.
- B. **California Environmental Quality Act (CEQA).** The Discharger prepared the *Final Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program* (State Clearinghouse No. 2020039020) (Final MND)¹ for the City of Escondido's Membrane Filtration/Reverse Osmosis Facility in April 2020. The Final City of Escondido MND concluded that all environmental impacts associated with the Facility will be less than significant with mitigation. The Discharger, as the lead agency, filed a notice of

¹ The Final MND is available at the following location: City of Escondido Planning Division, 201 N. Broadway, Escondido, California 92025.

determination with the State of California’s Office of Planning and Research on March 2, 2020.

The San Diego Water Board, as a responsible agency, reviewed and considered the information contained in the Final MND related to matters within the San Diego Water Board’s jurisdiction in issuing this Order. The Order requires implementation of waste discharge requirements. Compliance with the conditions in the Order will ensure protection of applicable water quality objectives and beneficial uses. The San Diego Water Board independently finds that the impacts on hydrology and water quality from the construction and operations of the Facility will be less than significant with mitigation. The San Diego Water Board filed a notice of determination on September 18, 2023, in accordance with CEQA Guidelines section 15096(i).

- C. **Water Reclamation Statute.** The California Legislature declared in Water Code section 13511, that a substantial portion of the future water requirements of the State of California (State) may be economically met by the beneficial use of recycled water. The Legislature also expressed in Water Code section 13512, the State’s intent to undertake all possible steps to encourage development of water recycling facilities so that recycled water may be made available to help meet the growing water requirements of the State. The adoption of the Order is consistent with the Legislature’s declaration because it facilitates the use of recycled water to supplement potable water supplies.
- D. **Water Quality Control Plan.** The San Diego Water Board’s *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan)² designates beneficial uses, establishes water quality objectives (WQOs), and contains implementation programs and policies to achieve those objectives for all waters. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. The Order implements the Basin Plan by prescribing requirements for the production, reuse, and disposal of recycled water that will not adversely impact water quality, beneficial uses, human health, or the environment.

The Discharger proposes to discharge demineralized recycled water within the Escondido HSA (904.62), and within the Bear HSA (905.24) and the Las Lomas Muertas HSA (905.32), which are both part of the Hodges Hydrologic Area (HA) (905.20). Beneficial uses of groundwaters designated in the Basin Plan for the Escondido HSA and Hodges HA (905.20) are municipal and domestic supply (MUN), agricultural supply (AGR), and industrial service supply (IND).

- E. **Recycled Water Policy.** The purpose of the State Water Board’s *Water Quality Control Policy for Recycled Water* (Recycled Water Policy)³ is to increase the production and

² The Basin Plan can be found at the following webpage:

https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/docs/R9_Basin_Plan.pdf

³ The Recycled Water Policy can be found at the following webpage:

https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf

use of recycled water from wastewater sources in a manner that implements State and federal water quality laws and protects public health and the environment. The Recycled Water Policy provides requirements for the Regional Water Quality Control Boards (Regional Water Boards), proponents of recycled water projects, and the public regarding the methodology and appropriate criteria for the State Water Board and the Regional Water Boards to use when issuing permits for recycled water projects. The State Water Board first adopted the Recycled Water Policy on February 3, 2009; and amended the policy on January 22, 2013, and December 11, 2018. The 2018 Amendment, effective April 8, 2019, included permitting guidance for groundwater recharge projects, updated monitoring requirements for CECs, and volumetric reporting of recycled water use.

- F. **Antidegradation Policy.** The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (Resolution No. 68-16).⁴ Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings.

In an arid climate, such as the climate that exists in the San Diego Region, the maximum benefit to the people of the State can only be achieved by ensuring long and short-term protection of economic opportunities, public health, and environmental protection. To do that, water uses must be better matched to water quality and use of local supplies must be encouraged to the extent possible, including reusing water that would otherwise flow to the ocean. The use of demineralized recycled water for irrigation at commercial agricultural operations improves the overall water supply availability and helps to ensure that other water sources will continue to be available for human uses and for instream uses for fish and wildlife. It also reduces the need to discharge wastewater to the Pacific Ocean.

The Discharger provided in the ROWD analytical data documenting that concentrations of constituents in the demineralized recycled water will be below WQOs and the ambient concentration in the groundwater. Furthermore, the discharge specifications and effluent limitations in section III of the Order are at or below the WQOs in the Basin Plan. The Order complies with Resolution No. 68-16, and the San Diego Water Board does not expect degradation of groundwater from the discharge of demineralized recycled water for non-potable use.

- G. **Other Plans, Policies, and Regulations.** Pursuant to Order No. 2014-0057-DWQ, NPDES Permit No. CAS000001, *General Permit for Storm Water Discharges Associated with Industrial Activities* (Storm Water Order),⁵ sewage treatment plants are classified as Standard Industrial Classification (SIC) code 4952 or Sewerage Systems, per Occupational Safety and Health Administration. SIC code 4952 is a regulated SIC

⁴ The Anti-Degradation Policy can be found at the following webpage:

https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf

⁵The IGP can be found at the following webpage:

https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/industrial/2014indgenpermit/order.pdf

Codes required to enroll under the Storm Water Order.

IV. RATIONALE FOR DISCHARGE PROHIBITIONS, DISCHARGE SPECIFICATIONS AND EFFLUENT LIMITATIONS

This Order establishes requirements based on the Basin Plan, Recycled Water Policy, and title 22 for the reuse demineralized recycled water discharged to land from the Facility.

- A. **Discharge Prohibitions.** This Order establishes discharge prohibitions for the Facility as listed in section III of this Order.
1. **Discharge Prohibition III.A.** The Basin Plan prohibits the discharge of waste to land, which has not been specifically described in this Order or in the ROWD, and for which valid WDRs are not in force. This prohibition ensures no discharges to land occur without appropriate WDRs.
 2. **Discharge Prohibition III.B.** The Basin Plan prohibits discharges of treated or untreated solid or liquid waste to waters of the United States unless authorized by an NPDES permit. This prohibition ensures that no discharges to waters of the United States occur without an appropriate NPDES permit and WDRs.
 3. **Discharge Prohibition III.C.** The Basin Plan prohibits the discharge of treated or untreated solid or liquid waste directly or indirectly to any waters of the State (including ephemeral streams and vernal pools) unless authorized by WDRs. This prohibition ensures that no discharges to waters of the State of California occur without appropriate WDRs.
 4. **Discharge Prohibition III.D.** The Basin Plan prohibits the treatment, storage, or disposal of waste in a manner that creates pollution, contamination, or nuisance. This prohibition ensures that the operation of the Facility does not cause pollution, contamination, or nuisance, as defined by Water Code section 13050.
- B. **Discharge Specifications and Effluent Limitations.** The Order establishes discharge specifications and effluent limitations based on the basin specific WQOs for the Escondido HSA and Hodges HA, which includes Bear HSA (905.24) and the Las Lomas Muertas HSA (905.32). Table D-2 (from Table 3-10 of the Basin Plan). The Discharger requested effluent limitations lower than the WQOs for total dissolved solids (TDS) and chloride (Cl) to comply with water quality standards needed for irrigation of salt sensitive crops.

Table D-2. Basin-Specific Groundwater WQOs

| CONSTITUENT ¹ (mg/L or as noted) | | | | | | | | | | | | |
|--|-----|-----------------|-----|-----------------|-----|------|------|------|------|------------|---------------|-----|
| (Concentrations not to be exceeded more than 10% of the time during any one-year period) | | | | | | | | | | | | |
| TDS | Cl | SO ₄ | %Na | NO ₃ | Fe | Mn | MBAS | B | ODOR | TURB (NTU) | COLOR (UNITS) | F |
| Escondido HSA (904.62): | | | | | | | | | | | | |
| 1,000 | 300 | 400 | 60 | 45 | 0.3 | 0.05 | 0.5 | 0.75 | None | 5 | 15 | 1.0 |
| Hodges HA (905.20): | | | | | | | | | | | | |
| 1,000 | 400 | 500 | 60 | 45 | 0.3 | 0.05 | 0.5 | 0.75 | None | 5 | 15 | 1.0 |

¹The constituents are as follows: total dissolved solids (TDS), chlorides (Cl), sulfate (SO₄), percent sodium (%Na), nitrate (NO₃), iron (Fe), manganese (Mn), methylene blue-activated substances (MBAS), boron (B), turbidity (TURB), and fluoride (F).

C. **Water Reclamation Requirements.** Water Code section 13523 requires the San Diego Water Board to consult and receive recommendations from the State Water Board’s Division of Drinking Water (DDW) and prescribe water reclamation requirements for water proposed to be used as recycled water. DDW provided recommendations in the *Conditional Acceptance of Title 22 Engineering Report Amendment Membrane Filtration/Reverse Osmosis Project City of Escondido* letter issued July 21, 2021, to the Discharger. The San Diego Water Board reviewed DDW’s recommendations and incorporated the recommendation into the Order. The San Diego Water Board prescribed water reclamation requirements for the Discharger in Order No. R9-2010-0032 for the discharge of recycled water produced at HARRF. The Order requires that the discharge of demineralized recycled water complies with the water reclamation requirements in Order No. R9-2010-0032 as recommended by DDW.

V. RATIONALE FOR PROVISIONS

A. **Standard Provisions.** The standard provisions contain requirements that allow the San Diego Water Board to enforce this Order. Provisions include need for inspection, spill and emergency reporting, records maintenance, and reporting of changes. Standard provisions apply to all WDRs and are consistent with San Diego Water Board findings. The standard provisions incorporate the reporting requirements in Water Code sections 13271 and 13529.2.

B. **Special Provisions.** These requirements ensure the Discharger operates the Facility properly within design parameters and protects the Facility from storm events to not cause or contribute to a condition of pollution or nuisance and to protect beneficial uses.

C. **Notices.** The Order includes notices to inform the Discharger of administrative issues.

VI. RATIONALE FOR MONITORING AND REPORTING PROVISIONS

- A. The purpose of the MRP is to determine and ensure compliance with discharge specifications, effluent limitations, and other requirements established in this Order. The MRP also helps the San Diego Water Board and the Discharger to assess treatment efficiency, characterize effluent quality, ensure protection of water quality objectives and beneficial uses of the groundwater basins, and minimize the effects of the discharge on receiving water quality. The MRP also specifies requirements concerning the proper use, maintenance, methods, and the monitoring type intervals and frequency necessary to provide data that are representative of the activities and discharges regulated under this Order.
- B. The San Diego Water Board issued the MRP pursuant to Water Code section 13267 and 13383, which authorize the San Diego Water Board to require dischargers to submit technical and monitoring reports. The San Diego Water Board estimates the cost associated with the implementation of the monitoring and reporting requirements of the Order range from \$5,000 to \$50,000. The San Diego Water Board needs the technical and monitoring reports submitted by the Discharger to determine compliance with the Order and to ensure protection of water quality and beneficial uses. The San Diego Water Board has assessed this MRP to reduce and eliminate unnecessary or overlapping monitoring and reporting requirements where appropriate. The burden of providing the required reports, including the costs, bears a reasonable relationship for the need for the reports and the benefits to be obtained from the reports when considering the nature and possible consequences of the discharge. The San Diego Water Board Executive Officer can modify this MRP as appropriate pursuant to Water Code sections 13267 and 13383.
- C. The Recycled Water Policy requires monitoring and reporting of volumetric data as prescribed in the MRP. The State Water Board uses the volumetric data to track and report to the public the percentage of wastewater recycled throughout the State.

VII. PUBLIC PARTICIPATION

- A. **Notification of Interested Parties.** The San Diego Water Board notified the Discharger and interested agencies and persons of its intent to adopt the Order consistent with Water Code section 13167.5 and made the Order available on its website. Furthermore, the San Diego Water Board provided the public with an opportunity to submit written comments and recommendations. The San Diego Water Board provided notification through the San Diego Water Board website and board meeting agenda publication.
- B. **Written Comments.** The staff determinations in the Order are tentative until the San Diego Water Board adopts the Order. The San Diego Water Board invited interested persons to submit written comments concerning the Order as provided through the notification process. The San Diego Water Board requested written comments be submitted via email to sandiego@waterboards.ca.gov in Portable Document Format (PDF) or Microsoft Word format by 5:00 p.m. on Wednesday, October 18, 2023, and addressed to Brandon Bushnell. Staff fully responded to the comments received at the

San Diego Water Board office by 5:00 p.m. on Monday, August 28, 2023, and the San Diego Water Board considered the comments.

- C. **Public Hearing.** The San Diego Water Board held a public hearing on the tentative Order during its regular meeting on the following date and time and at the following location:

Date: **December 13, 2023**

Time: **9:00 a.m.**

Location: **San Diego Regional Water Quality Control Board
San Diego Water Board Meeting Room
2375 Northside Drive, Suite 108
San Diego, CA 92108**

Video broadcast of meetings are available at:
<https://cal-span.org/>

The San Diego Water Board invited interested persons to attend the public hearing. The San Diego Water Board heard at the public hearing any oral public testimony by interested persons, if any, pertinent to the discharge, and the Order. The San Diego Water Board requested interested persons to submit any important testimony in writing for accuracy of the record. The San Diego Water Board required persons interested in providing oral testimony at the public hearing to register to participate in the public hearing on the Order.

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

- E. **Information and Copying.** The ROWD, related documents, tentative Order, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday, except holidays. Copying of documents may be arranged through the San Diego Water Board by calling (619) 516-1990.

- F. **Register of Interested Persons.** Any person interested in being placed on the mailing list for information regarding this Order should contact Brandon Bushnell via phone at

(619) 521-0844 or by email at brandon.bushnell@waterboards.ca.gov, reference this Facility, and provide a name, address, phone number, and email address.