CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD

Central Coast Regional Water Quality Control Board Website

(http://www.waterboards.ca.gov/centralcoast)

DRAFT ORDER R3-2025-0008
WASTE DISCHARGE AND WATER RECLAMATION REQUIREMENTS

FOR THE

PURE WATER MONTEREY
ADVANCED WATER PURIFICATION FACILITY AND
GROUNDWATER REPLENISHMENT REUSE PROJECT

ISSUED TO

MONTEREY ONE WATER

October 9, 2025

Monterey One Water is subject to waste discharge requirements (WDRs) and water reclamation requirements (WRRs) set forth in this Order.

Table 1. Discharger/Facility Information

Discharger	Monterey One Water
Name of Facility	Pure Water Monterey Groundwater Replenishment Reuse Project
Facility Address	14811 Del Monte Blvd., Marina, CA 93933

Table 2. Discharge Locations Regulated by this Order

Discharge Location Name and Description[1]	**Effluent Description**	**Injection Well Latitude**	**Injection Well Longitude**	**Receiving Groundwater Basin[1,2,3]**
VZW-1B, Vadose Zone Injection Well	Advanced Treated Recycled Water	36.618196	-121.814179	Salinas Valley - Seaside (3-004.08)
VZW-2, Vadose Zone Injection Well	Advanced Treated Recycled Water	36.616767	-121.816987	Salinas Valley - Seaside (3-004.08)
DIW-1, Deep Injection Well	Advanced Treated Recycled Water	36.618227	-121.814010	Salinas Valley - Seaside (3-004.08)
DIW-2, Deep Injection Well	Advanced Treated Recycled Water	36.616571	-121.817082	Salinas Valley - Seaside (3-004.08)
DIW-3, Deep Injection Well	Advanced Treated Recycled Water	36.619289	-121.810625	Salinas Valley - Seaside (3-004.08)
DIW-4, Deep Injection Well	Advanced Treated Recycled Water	36.61421	-121.819005	Salinas Valley - Seaside (3-004.08)

Discharge Location Name and Description[1]	Effluent Description	Injection Well Latitude	Injection Well Longitude	Receiving Groundwater Basin[1,2,3]
DIW-5, Deep Injection Well	Advanced Treated Recycled Water	36.624095	-121.803778	Salinas Valley - Seaside (3-004.08)
DIW-6, Deep Injection Well	Advanced Treated Recycled Water	36.625164	-121.803778	Salinas Valley - Seaside (3-004.08)
Southern Percolation Pond, Pond 1	Injection Well Backflush	36.615039	-121.818938	Salinas Valley - Seaside (3-004.08)
Northern Percolation Pond, Pond 2	Injection Well Backflush	36.624444	- 121.802436	Salinas Valley - Seaside (3-004.08)

[1] This Order also authorizes Monterey One Water to continue to provide advanced treated recycled water to Marina Coast Water District (MCWD) for non-potable reuse. The final location of MCWD use is permitted and described in MCWD's recycled water use permit (discussed further in Order section 5.3).

[2] Groundwater basin naming and numbering convention from the Department of Water Resources' Bulletin 118, the State of California's official publication on the occurrence and nature of groundwater in California. Bulletin 118 can be accessed via the Internet at the following link: https://water.ca.gov/programs/groundwater-management/bulletin-118

[3]The Central Coast Water Board's Water Quality Control Plan for the Central Coastal Basin (Basin Plan) refers to the Seaside Basin as Seaside Area 3-4.08 (Basin Plan Table 2-4).

Effective Date

This Order is effective upon adoption by the California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board). This Order was adopted on October 9, 2025, and replaces Order R3-2017-0003, *Waste Discharge Requirements and Water Recycling Requirements for the Pure Water Monterey Advanced Water*

Purification Facility and Groundwater Replenishment Project, issued to Monterey Regional Water Pollution Control Agency.[1]

Termination of Order R3-2017-0003

Order R3-2017-0003 is terminated, except for enforcement purposes. Monterey One Water is responsible for compliance with Order R3-2017-0003 prior to the adoption of Order R3-2025-0008.

I, Ryan E. Lodge, Executive Officer, hereby certify that this Order with all attachments is a full, true, and correct copy of an order adopted by the Central Coast Water Board on the date indicated above.

Ryan E. Lodge
Executive Officer

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[1] Monterey One Water (abbreviated as M1W) was formerly Monterey Regional Water Pollution Control Agency, and orders issued for this facility prior to June 2017 used the Discharger's former name.

TABLE OF CONTENTS

TABLE OF TABLES

LIST OF ATTACHMENTS

1. PROJECT INFORMATION

1.1. Monterey One Water owns and operates the Pure Water Monterey Advanced Water Purification Facility (AWPF or Facility) and associated injection wells, and monitoring wells; and owns the portion of the conveyance pipelines directly adjacent to the injection wells,[2] collectively referred to as the Pure Water Monterey Groundwater Replenishment Reuse Project (Project). The Fact Sheet, found in Attachment F and which is incorporated herein, provides a detailed description of the Project and associated permits; applicable plans, policies and regulations; rationale for the requirements; information on public outreach; and information regarding the permit application. See Figures C-1 and C-5 for Project location and schematics.

1.2. Monterey One Water is the Facility owner and is responsible for complying with all requirements of Order R3-2025-0008, *Waste Discharge and Water Reclamation Requirements for the Pure Water Monterey Advanced Water Purification Facility and Groundwater Replenishment Project* (herein referred to as this Order), including the water reclamation requirements (WRRs, Attachment D) and the monitoring and reporting program (MRP, Attachment E).

1.3. Monterey One Water, in partnership with Monterey Peninsula Water Management District (MPWMD) and Marina Coast Water District (MCWD), developed the Project to deliver advanced treated recycled water (also referred to throughout the Order as AWPF product water, AWPF effluent, purified recycled water, and municipal recycled wastewater) to replenish the Salinas Valley Groundwater Basin – Seaside Area subbasin (Seaside Basin). MPWMD manages groundwater resources in the Seaside Basin. California American Water Company (Cal-Am), a local water supplier, extracts the advanced treated recycled water previously injected by the Project from the Seaside Basin. This Order permits operation of the Project, which enables Cal-Am to reduce its diversions from the Carmel River system and reduce its use of native Seaside Basin groundwater, as required by the State Water Board's Cease and Desist Order WR 2009-0060, as amended by Order WR 2016-0016 (see Fact Sheet section 3.1.5 for additional information).

1.4. The initial Project, which was permitted under Order R3-2017-0003, *Waste Discharge Requirements and Water Recycling Requirements for the Pure*

[2] A majority of the conveyance pipeline and storage is owned and operated by Marina Coast Water District (MCWD). MCWD is required to comply with requirements related to the conveyance pipeline under Order WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water Use. MCWD and Monterey One Water have an agreement that governs inter-agency coordination regarding conveyance system and storage responsibilities.

Water Monterey Advanced Water Purification Facility and Groundwater Replenishment Project, included construction of the AWPF to produce 5.0 million gallons per day (MGD) of advanced treated recycled water and installation of injection wells, monitoring wells, and conveyance pipelines. This Order authorizes increased operating capacity of the AWPF from 5.0 MGD to 7.6 MGD, an increased injection capacity into the Seaside Basin from 3,700 acre-feet per year (AFY) to 5,750 acre-feet per year (AFY), and continued injection of 200 AFY additional water in wet and normal years to create storage reserves for future dry years. In addition, this Order authorizes new facilities to accommodate the increased injection, including a new injection well backflush pond (Pond 2, Northern Pond) and two new deep injection wells (DIW-5 and DIW-6).

1.5. Authorized locations for injection of advanced treated recycled water and surface disposal of backflush waste for the Project are summarized in Table 2 and shown in Figures C-2 and C-3.

2. FINDINGS

2.1. Legal Authorities. This Order is issued pursuant to sections 13263 and 13523 of the California Water Code (Water Code). This Order serves as waste discharge requirements (WDRs) for the discharge of waste pursuant to division 7, chapter 4, article 4 of the Water Code (commencing with section 13260) and water reclamation requirements (WRRs) for the production and use of recycled water pursuant to section 13523 of the Water Code.

2.2. Background and Rationale for Requirements. The Central Coast Water Board developed the requirements in this Order using information submitted in the Engineering Report,[3] report of waste discharge,[4] Division of Drinking Water's conditional acceptance letter,[5] and applicable water quality control plans, policies, and other available information. The Fact Sheet, Attachment F of this Order, which contains background information and rationale for the requirements in this Order, is hereby incorporated into

[3] Documents are available on the GeoTracker website under the "Site Maps/Documents" tab: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=WDR100039680. A direct link to the Pure Water Monterey final Title 22 Engineering Report is: https://geotracker.waterboards.ca.gov/view_documents?global_id=WDR100039680&document_id=6148645

[4] The application/report of waste discharge can be accessed at the following link: https://geotracker.waterboards.ca.gov/view_documents?global_id=WDR100039680&document_id=6135083

[5] The DDW conditional acceptance letter can be accessed at the following link: https://geotracker.waterboards.ca.gov/view_documents?global_id=WDR100039680&enforcement_id=6638582

and constitutes findings of this Order. Attachments A through F are also incorporated into this Order.

2.3. The Basin Plan. The Central Coast Water Board adopted the most recent version of the *Water Quality Control Plan for the Central Coastal Basin* (hereinafter Basin Plan) on June 14, 2019.[6] The Basin Plan designates beneficial uses for surface water and groundwater; establishes narrative and numeric water quality objectives that must be attained or maintained to protect the designated beneficial uses and conform with the state's antidegradation policy; and includes implementation programs and policies to achieve those objectives for all waters in the region. In addition, the Basin Plan incorporates applicable State Water Resources Control Board (State Water Board) and Central Coast Water Board plans and policies and other pertinent water quality policies and regulations.

2.3.1. The Basin Plan incorporates maximum contaminant levels (MCLs) by reference. This incorporation is prospective and includes future changes to the incorporated provisions as the changes take effect. The Basin Plan states that groundwater designated for use as domestic or municipal supply must not contain concentrations of chemicals and radionuclides in excess of MCLs. The Basin Plan also specifies concentrations that cause nuisance or adversely affect beneficial uses.

2.3.2. The Seaside Basin consists of a sedimentary sequence of three formations: Aromas Sand, Santa Margarita, and Paso Robles. The Basin Plan refers to the Seaside Basin as Seaside Area 3-4.08 (Basin Plan Table 2-4). See Figure C-4 for a conceptual cross-section showing the aquifer units.

2.3.3. The Basin Plan assigns all groundwater the beneficial uses of municipal and domestic supply, agricultural supply, and industrial use and specifies objectives for those uses. (Basin Plan section 3.3.4). The Basin Plan assigns water quality objectives to some specific basins, but there are no basin-specific objectives for the Seaside Basin (Basin Plan section 3.3.5, Table 3-6).

2.4. Indirect Potable Reuse Requirements. This Order incorporates applicable portions of the State Water Board's *Water Quality Control Policy for Recycled Water* (Recycled Water Policy) (2019) and California Code of

[6] The Basin Plan, originally adopted by the Central Coast Water Board in 1975, is periodically updated. A revised Basin Plan was adopted by the Central Coast Water Board on June 21, 2024 and State Water Board approved the revision on April 15, 2025. The Office of Administrative Law approval is currently pending as of July 2025.

Regulations (CCR) title 22, division 4, chapter 3, article 5.2, Indirect Potable Reuse: Groundwater Replenishment – Subsurface Application (Title 22).[7]

2.5. California Environmental Quality Act

2.5.1. Monterey One Water, serving as lead agency, prepared an environmental impact report (EIR) for the initial Project. Monterey One Water adopted the final EIR for Phase 1, *Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project*, on October 8, 2015.[8] The final EIR concluded that all environmental impacts considered as part of the EIR and associated with the Project would be less than significant with approved mitigation measures. Monterey One Water adopted an addendum to the final EIR and filed a notice of determination on October 31, 2017, to accommodate the conveyance system (reservoir and pipeline) owned by MCWD, and an AWPF capacity increase from 4.0 to 5.0 MGD to increase MCWD's recycle water use. In addition, the MPWMD adopted two addenda to the final EIR related to potable water system improvements by Cal-Am. To support the Pure Water Monterey project expansion, Monterey One Water adopted a supplemental EIR and filed a notice of determination on April 26, 2021. The supplemental EIR describes proposed modifications that would increase AWPF peak capacity from 5.0 MGD to 7.6 MGD, construct two additional deep injection wells (DIWs) and associated conveyance pipelines, and increase injection to the Seaside Basin by an additional 2,250 AFY. In November 2021, Monterey One Water adopted an addendum to the supplemental EIR related to changes to DIWs and filed a notice of determination on November 30, 2021.

2.5.2. The Central Coast Water Board is a responsible agency pursuant to CEQA (CEQA Guidelines, 14 Cal. Code Regs. section 15096). The Central Coast Water Board has considered the EIR addenda, the supplemental EIR, and associated documents and finds that the expanded Project will not have any potentially significant environmental effects within the Central Coast Water Board's jurisdiction; therefore, the Central Coast Water Board is not required to make any specific finding pursuant to CEQA Guidelines section 15096. In adopting this Order, the Central

[7] Most references to Title 22 in this Order refer to the uniform water recycling criteria found at California Code of Regulations (CCR), title 22, division 4, chapter 3, article 5.2. Some Title 22 references include specific sections.
[8] Monterey One Water's CEQA documentation for the Project is available at: https://purewatermonterey.org/reports-docs/cfeir/

Coast Water Board has further eliminated or substantially lessened the less-than-significant effect on water quality and therefore approves the expanded Project. More information regarding project impacts with the Central Coast Water Board's jurisdiction, as described in the EIR, subsequent addenda, and supplemental EIR, can be found in section 4.2 of the Fact Sheet.

2.6. Antidegradation Policy. The State Water Board established California's antidegradation policy in Resolution 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (Antidegradation Policy). The Antidegradation Policy requires existing quality of waters be maintained unless degradation is justified by specific findings. The Basin Plan implements and incorporates by reference the Antidegradation Policy. As discussed in section 4.5 of the Fact Sheet, the discharge regulated by this Order is consistent with the Basin Plan and Antidegradation Policy.

2.7. Recycled Water Policy. The State Water Board's *Water Quality Control Policy for Recycled Water* (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 and updated monitoring requirements for constituents of emerging concern (CECs). As part of its report of waste discharge, Monterey One Water submitted an antidegradation analysis on April 30, 2025, to demonstrate compliance with the Recycled Water Policy and Antidegradation Policy. This Order contains monitoring and reporting requirements for CECs and volumetric data that are consistent with the Recycled Water Policy. This Order complies with the Recycled Water Policy.

2.8. Response to Climate Change. The Central Coast faces the threat and the effects of climate change for the foreseeable and distant future. To proactively prepare and respond, the Central Coast Water Board has launched the Central Coast Water Board's Climate Action Initiative, which identifies how the Central Coast Water Board's work relates to climate change and prioritizes actions that improve water supply resiliency through water conservation and wastewater reuse and recycling; mitigate for and adapt to sea level rise and increased flooding; improve energy efficiency; and reduce greenhouse gas production. The Climate Action Initiative is consistent with the Governor's Executive Order B-30-15 and the State Water Board's Climate Change Resolution 2017-0012. Aligning with Resolution 2017-0012, this Order authorizes the production of advanced treated recycled water for the purpose of indirect potable reuse to help offset demand on natural groundwater supplies, mitigate seawater intrusion, and support local water supply resiliency.

2.9. Human Right to Water

2.9.1. Water Code section 106.3 establishes the policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. On January 26, 2017, the Central Coast Water Board adopted Environmental Justice and the Human Right to Water Resolution R3-2017-0004, which adopts the human right to water as a core value and affirms the realization of the human right to water and protecting human health as the Central Coast Water Board's top priorities. Consistent with the Water Code and Resolution R3-2017-0004, this Order promotes actions that advance the human right to water and discourages actions that delay or impede opportunities for communities to secure safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

2.9.2. The Order is consistent with Resolution R3-2017-0004 by authorizing the production of advanced treated recycled water for the purpose of indirect potable reuse to help improve water quality, water supply reliability, and water supply resiliency. The Order ensures that the best practicable treatment or control of the discharge is implemented to protect groundwater that serves as a source of drinking water. The Central Coast Water Board has determined that regulation of this Project, in compliance with the Order, will not pose a significant threat to water quality.

2.10. Environmental Justice

2.10.1. Environmental justice principles call for the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income in the development, adoption, implementation, and enforcement of all environmental laws, regulations, and policies that affect every community's natural resources and the places people live, work, play, and learn. The Central Coast Water Board implements regulatory activities and water quality projects in a manner that ensures the fair treatment of all people, including underrepresented communities. Underrepresented communities include but are not limited to disadvantaged communities (DACs), severely disadvantaged communities (SDACs), economically distressed areas (EDAs), tribes, environmentally disadvantaged communities (EnvDACs), and members of fringe communities. Furthermore, the Central Coast Water Board is committed to providing all stakeholders the opportunity to participate in the public process and provide meaningful input to decisions that affect communities.

2.10.2. When issuing or reissuing individual WDRs or waivers of WDRs that regulate an activity or a facility that may impact a disadvantaged or tribal community and that include a time schedule in accordance with subdivision (c) of Water Code section 13263 for achieving an applicable water quality objective or an alternative compliance path that allows time to come into compliance with water quality objectives or a water quality variance, the Central Coast Water Board must make a finding on potential environmental justice, tribal impact, and racial equity considerations. (Water Code section 13149.2, effective Jan. 1, 2023). Water Code section 189.7 requires the Central Coast Water Board to conduct outreach in disadvantaged and/or tribal communities when adopting individual waste discharge requirements. In accordance with the Central Coast Water Boards' efforts to advance racial equity, the Central Coast Water Board is also committed to developing and implementing policies and programs to advance racial equity and environmental justice so that race can no longer be used to predict life outcomes, and outcomes for all groups are improved.

2.10.3. In support of environmental justice principles, including but not limited to Water Code sections 189.7 and 13149.2 requirements, staff has evaluated the disadvantaged community status for the Facility and the Project service area. Using 2020 census data, the

California Department of Water Resources DAC Mapping Tool[9] identifies the areas at and downstream of the Facility as not disadvantaged. Within the Project service area, there are 13 census blocks that have been identified as DACs, representing 16,470 people or 18% of the population. Six of those blocks are SDACs. The implementation of the Project will further reduce groundwater stress and increase water supply reliability for these communities. Additionally, 74% of census tracts that will benefit from the Project are in the top 30% for vulnerable communities, based on population characteristics and pollution burden indicators measured by the Cal Office of Environmental Health Hazard Assessment CalEnviroScreen tool. This represents approximately 67,500 individuals out of 91,300. The Project supports environmental justice by authorizing the production and discharge of advanced treated recycled water that will help ensure a reliable water supply for those served by the Seaside Basin.

2.10.4. Upon review of readily available information, the Central Coast Water Board finds that this Order regulates a discharge that does not disproportionately impact the water quality of an economically disadvantaged community or a tribal community. Similarly, this Order does not include a time schedule, alternative compliance path, or variance. Therefore, Water Code section 13149.2 does not apply to this permit reissuance. Nevertheless, the Central Coast Water Board has conducted outreach consistent with Water Code section 189.7 by reaching out to surrounding communities and tribal communities about this Order. Additionally, the Central Coast Water Board has considered environmental justice concerns within its authority, in accordance with the Central Coast Water Boards' efforts to advance racial equity. The Order requires the Permittee to meet water quality standards to protect public health and the environment, thereby benefiting all persons and communities within the area.

[9] The DAC Mapping Tool can be accessed online at: https://gis.water.ca.gov/app/dacs/. The tool defines a DAC as a census block with a median household income between $50,458 and $67,278 and an SDAC as a census block with a median household income below $50,458. The SDAC census blocks in the community served have median household incomes between $14,683 and $49,732. The DAC census blocks in the community served have median household incomes between $51,893 and $61,250.

2.11. Delegation of Authority. The Central Coast Water Board, by prior resolution, has delegated certain matters to its Executive Officer to act on its behalf pursuant to Water Code section 13223. Therefore, the Executive Officer is authorized to act on the Central Coast Water Board's behalf on any matter within this Order unless such delegation is unlawful under Water Code section 13223 or as otherwise explicitly stated in this Order. The Central Coast Water Board's delegated authorities to the Executive Officer include approving modifications to the WRRs in Attachment D of this Order, as appropriate, after consulting with and receiving recommendations from DDW, and approving modifications to the MRP in Attachment E.

2.12. Notification of Interested Persons. The Central Coast Water Board has notified Monterey One Water and interested agencies and persons of its intent to prescribe WDRs and WRRs for the discharge and has provided them with an opportunity to submit written comments and recommendations. The Central Coast Water Board also provided an opportunity for Monterey One Water and interested agencies and persons to submit oral comments and recommendations at a public hearing. Notification details are provided in the Fact Sheet.

2.13. Consideration of Public Comment. The Central Coast Water Board, during the public comment periods and meeting on October 9, 2025, heard and considered all comments pertaining to the discharge. Details related to public participation are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED, to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations and guidelines adopted thereunder and Title 22, division 4, chapter 3, Monterey One Water must comply with the requirements in this Order. This Order is effective upon adoption and supersedes Order R3-2017-0003. Monterey One Water is hereby authorized to produce advanced treated recycled water subject to WDRs and WRRs in this Order and discharge to the injection wells within the Seaside Basin described in Table 2 and shown in Figures C-2 and C-3. Monterey One Water is also hereby authorized to provide advanced treated recycled water for reuse by Marina Coast Water District. Monterey One Water is also authorized to discharge injection well backflush to the ponds listed in Table 2.

3. INFLUENT SPECIFICATIONS

3.1. The influent to the AWPF (AWPF Influent) must consist of secondary treated wastewater discharged from the Regional Wastewater Treatment Plant (WWTP).

4. DISCHARGE PROHIBITIONS

4.1. Use of advanced treated recycled water produced at the AWPF for direct human consumption or for the processing of food or drink intended for human consumption is prohibited.

4.2. Discharges of waste to waters of the state and uses of recycled water not specifically authorized in this Order or covered by valid WDRs and WRRs are prohibited.

4.3. 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 Central Coast Water Board.

4.4. Discharges of treated or untreated solid or liquid water directly or indirectly to any surface waters of the state (e.g., ephemeral streams and vernal pools) are prohibited unless authorized by waste discharge requirements issued by the Central Coast Water Board.

4.5. Discharges of reverse osmosis (RO) concentrate or diluted concentrate to land or waters of the state are prohibited unless authorized by an NPDES permit or WDRs issued by the Central Coast Water Board.

4.6. Treatment, storage, or disposal of waste in a manner that may cause or contribute to a condition of pollution, contamination, or nuisance, as defined by Water Code section 13050, is prohibited.

4.7. Bypass, discharge, or delivery to the authorized use areas of recycled water that has not received full advanced treatment in accordance with Title 22 and as specified in the Engineering Report or Operation Optimization Plan (OOP) is prohibited.

5. DISCHARGE FLOW LIMITATIONS AND SPECIFICATIONS

5.1. The effluent flow rate from the AWPF must not exceed a daily maximum of 7.6 MGD.

5.2. Delivery of advanced treated recycled water from the AWPF using DIW-1, DIW-2, DIW-3, DIW-4, VZW-1B, and VZW-2 into the Seaside Basin must not exceed 3,700 AFY. Total delivery of advanced treated recycled water from the AWPF (including the expanded Project wells DIW-5 and DIW-6) into the Seaside Basin must not exceed 5,950 AFY.

5.3. Injection into the DIWs must be controlled to ensure underground travel time to the nearest drinking water wells is greater than or equal to four months at all times.

5.4. Monterey One Water is authorized to deliver advanced treated recycled water to MCWD for non-potable recycle water use, pursuant to the most recent DDW-approved Title 22 Engineering Report and Attachment D, Water Reclamation Requirements. The current approved limit is 600 AFY. The water must be treated to indirect potable reuse standards, as there is one shared delivery pipeline to the injection wells and to MCWD's distribution system. MCWD's distribution and use of non-potable recycled water is authorized by Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use*.[10]

6. EFFLUENT LIMITATIONS

The following effluent limitations apply at the AWPF monitoring location "AWPF Prod Water," the location of which is described in Table E-1 of the MRP found in Attachment E to this Order.

6.1. pH. The pH of advanced treated recycled water after conveyance and near the groundwater injection operations must be greater than 6.5 and must not exceed 8.4 pH units.

6.2. Total Organic Carbon (TOC). TOC in the AWPF effluent measured as (1) the 20-week running average of all TOC results and (2) the average of the last four TOC results must not exceed 0.5 mg/L.

6.3. Total Coliform. The concentration of total coliform bacteria measured in the AWPF effluent must not exceed:

6.3.1. Seven-day median concentration of 2.2 MPN (most probable number) per 100 milliliters utilizing the results of the last seven days for which bacteriological analyses have been completed.

6.3.2. 23 MPN/100 mL in more than one sample in any 30-day period.

6.3.3. 240 MPN/100 mL in any single sample.

6.4. General Effluent Limitations. Monterey One Water must maintain compliance with the effluent limitations in Tables 3 through 8 of this Order. Additional requirements for these parameters, including follow up sampling, notifications, or suspension of subsurface application, are contained in Title 22, Article 5.2, Indirect Potable Reuse: Groundwater Replenishment – Subsurface Application.

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[10] Marina Coast Water District's notice of applicability for Order WQ 2016-0068-DDW can be accessed online at: https://geotracker.waterboards.ca.gov/view_documents?global_id=WDR100052417&enforcement_id=6446377

6.5. Table 3 includes a combination of limitations from the Basin Plan, secondary MCLs, and Title 22. The limitations are the lowest, or most protective, value from each source. Limitations in Tables 4 through 8 come from one source as noted in the table footnotes.

Table 3. Effluent Limitations at AWPF Prod Water: General

Parameter	Units	Average Annual Limitation	Maximum Daily Limitation	Instantaneous Maximum Limitation
Aluminum[2,4]	mg/L	0.2	1	-
Boron[2,3]	mg/L	0.75	5	-
Chloride[2,3]	mg/L	106	500	-
Color[2]	Apparent color unit (ACU)	15	-	-
Copper[3]	mg/L	0.2	0.5	-
Fluoride[3,4]	mg/L	1	2	-
Iron[2]	mg/L	0.3	-	-
Lead[4]	mg/L	0.015	-	-
Manganese[2]	mg/L	0.05	0.2	-
Methylene Blue activated substances (MBAS)[2]	mg/L	-	0.5	-
Methyl tert-butyl ether (MTBE)[2]	mg/L	0.005	-	-
Nitrate[4]	mg/L as N	10	-	10
Nitrate + Nitrite[4]	mg/L as N	10	-	10
Nitrite[4]	mg/L as N	1	-	1
Total nitrogen[5]	mg/L	-	10	-

Parameter	Units	Average Annual Limitation	Maximum Daily Limitation	Instantaneous Maximum Limitation
Odor[2]	Threshold odor number (TON)	3	-	-
Sodium[3]	mg/L	69	-	-
Silver[2]	mg/L	0.1	-	-
Sulfate[2]	mg/L	250	500	-
Thiobencarb[2]	mg/L	0.001	-	-
Total dissolved solids (TDS)[2]	mg/L	500	1000	-
Zinc[3,2]	mg/L	2.0	25	-

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

[2] Parameters with secondary MCLs established in Title 22, section 64449, Tables 64449-A and 64449-B.

[3] Parameters with water quality objectives established in the Basin Plan.

[4] Parameters with primary MCLs established in Title 22, section 64431, Table 64431-A or action level from Lead and Copper Rule.[11]

[5] Parameters established in Title 22, section 60320.210.

Table 4. Effluent Limitations at AWPF Prod Water: Inorganic Chemicals with Primary MCLs

Parameter [1]	Units	Running 4-Week Average[2]
Aluminum	mg/L	1
Antimony	mg/L	0.006
Arsenic	mg/L	0.010

[11] On June 7, 1991, the U.S. Environmental Protection Agency (US EPA) issued the Lead and Copper Rule (LCR) to protect public health and minimize lead and copper in drinking water. The State Water Board, through the Division of Drinking Water (DDW), enforces the federal LCR through the California Lead and Copper Rule (CA LCR). More information on the Lead and Copper Rule can be accessed online at: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/lead-copper-rule/background.html.

Parameter [1]	Units	Running 4-Week Average[2]
Asbestos (for fibers exceeding 10 micrometers [µm] in length)	Million fibers per liter (MFL)	7
Barium	mg/L	1
Beryllium	mg/L	0.004
Cadmium	mg/L	0.005
Chromium (hexavalent)	mg/L	0.010
Chromium (total)	mg/L	0.05
Cyanide	mg/L	0.15
Mercury	mg/L	0.002
Nickel	mg/L	0.1
Perchlorate	mg/L	0.006
Selenium	mg/L	0.05
Thallium	mg/L	0.002

[1] Parameters with primary MCLs established in Title 22, section 64431, Table 64431-A.

[2] Arithmetic mean of all samples collected during the four-week period.

Table 5. Effluent Limitations at AWPF Prod Water: Volatile Organic Chemicals (VOCs) with Primary MCLs

Parameter [1]	Units	Running 4-Week Average[2]
Benzene	mg/L	0.001
Carbon tetrachloride	mg/L	0.0005
1,2-Dichlorobenzene	mg/L	0.6
1,4-Dichlorobenzene	mg/L	0.005
1,1-Dichloroethane	mg/L	0.005
1,2-Dichloroethane	mg/L	0.0005
1,1-Dichloroethylene	mg/L	0.006
cis-1,2-Dichloroethylene	mg/L	0.006
trans-1,2-Dichloroethylene	mg/L	0.01
Dichloromethane	mg/L	0.005
1,2-Dichloropropane	mg/L	0.005
1,3-Dichloropropene	mg/L	0.0005
Ethylbenzene	mg/L	0.3
MTBE	mg/L	0.013
Chlorobenzene	mg/L	0.07
Styrene	mg/L	0.1
1,1,2,2-Tetrachloroethane	mg/L	0.001

Parameter [1]	Units	Running 4-Week Average[2]
Tetrachloroethylene	mg/L	0.005
Toluene	mg/L	0.15
1,2,4-Trichlorobenzene	mg/L	0.005
1,1,1-Trichloroethane	mg/L	0.200
1,1,2-Trichloroethane	mg/L	0.005
Trichloroethylene	mg/L	0.005
Trichlorofluoromethane	mg/L	0.15
1,1,2-Trichloro-1,2,2-Trifluoroethane	mg/L	1.2
Vinyl chloride	mg/L	0.0005
Xylenes, Total (o, m, p)	mg/L	1.750[3]

[1] Parameters with primary MCLs established in Title 22, section 64444, Table 64444-A

[2] Arithmetic mean of all samples collected during the four-week period.

[3] The MCL is for either a single isomer or the sum of the isomers.

Table 6. Effluent Limitations at AWPF Prod Water: Synthetic Organic Chemicals (SOCs) with Primary MCLs

Parameter[1]	Units	Running 4-Week Average[2]
Alachlor	mg/L	0.002
Atrazine	mg/L	0.001
Bentazon	mg/L	0.018
Benzo(a)pyrene	mg/L	0.0002
Carbofuran	mg/L	0.018
Chlordane	mg/L	0.0001
2,4-Dichlorophenoxyacetic acid	mg/L	0.07
Dalapon	mg/L	0.2
1,2-Dibromo-3-chloropropane	mg/L	0.0002
Di(2-ethylhexyl)adipate	mg/L	0.4
Di(2-ethylhexyl)phthalate	mg/L	0.004
Dinoseb	mg/L	0.007
Diquat	mg/L	0.02
Endothall	mg/L	0.1
Endrin	mg/L	0.002
Ethylene dibromide	mg/L	0.0005
Glyphosate	mg/L	0.7
Heptachlor	mg/L	0.00001

Parameter[1]	Units	Running 4-Week Average[2]
Heptachlor epoxide	mg/L	0.00001
Hexachlorobenzene	mg/L	0.001
Hexachlorocyclopentadiene	mg/L	0.05
Gamma BHC (Lindane)	mg/L	0.0002
Methoxychlor	mg/L	0.03
Molinate	mg/L	0.02
Oxamyl	mg/L	0.05
Pentachlorophenol	mg/L	0.001
Picloram	mg/L	0.5
Polychlorinated biphenyls (PCBs)	mg/L	0.0005
Simazine	mg/L	0.004
Thirobencarb	mg/L	0.07
Toxaphene	mg/L	0.003
1,2,3-Trichloropropane	mg/L	0.000005
2,3,7,8-Tetrachlorodibenzodioxin (Dioxin)	mg/L	3×10^{-8}
2-(2, 4, 5-Trichlorophenoxy) propionic acid (Silvex)	mg/L	0.05

[1] Parameters with primary MCLs established in Title 22, section 64444, Table 64444-A.

[2] Arithmetic mean of all samples collected during the four-week period.

Table 7. Effluent Limitations at AWPF Prod Water: Disinfection Byproducts with Primary MCLs

Parameter[1]	Units	Running 4-Week Average[2]
Total trihalomethanes (TTHMs)[3] Bromodichloromethane Bromoform Chloroform Dibromochloromethane	mg/L	0.080

Haloacetic acids (HAA5)[3] Monochloroacetic acid Dichloroacetic acid Trichloroacetic acid Monobromoacetic acid Dibromoacetic acid	mg/L	0.060
Bromate	mg/L	0.010
Chlorite	mg/L	1.0

[1] Parameters with primary MCLs established in Title 22, section 64533, Table 64533-A

[2] Arithmetic mean of all samples collected during the four-week period.

[3] Limit is based on the sum of the species (i.e., total trihalomethanes or total haloacetic acids)

Table 8. Effluent Limitations at AWPF Prod Water: Radionuclides with Primary MCLs

Parameter[1]	Units	Running 4-Week Average[2]
Combined radium-226 and radium-228	Picocuries per liter (pCi/L)	5
Gross alpha particle activity (excluding radon and uranium)	pCi/L	15
Uranium	pCi/L	20
Beta/photon emitters	millirem/year	4
Strontium-90	pCi/L	8
Tritium	pCi/L	20,000

[1] Parameters with primary MCLs established in Title 22, section 64442 and 64443, Table 64442 and 64443.

[2] Arithmetic mean of all samples collected during the four-week period.

7. AWPF PROCESS LIMITATIONS

The following limits are a subset of requirements that are also included in Attachment D. The limits are included here as they are not subject to change without Order revisions and to consolidate significant operational limits in the Order.

7.1. Turbidity. Consistent with Title 22, section 60301.320(b), the combined membrane filter effluent turbidity must not exceed 0.2 nephelometric turbidity units (NTU) more than 5 percent of the time within a 24-hour period or 0.5 NTU at any time.

7.2. Pathogenic Microorganism Control. Monterey One Water must operate the Project such that the municipal recycled water used for groundwater recharge and replenishment receives treatment that achieves at least 12-log enteric virus reduction, 10-log *Giardia* cyst reduction, and 10-log *Cryptosporidium* oocyst reduction, pursuant to Title 22, section 60320.208

7.3. 1,4 Dioxane. The ultraviolet/advanced oxidation process (UV/AOP) must be operated as designed and described in the Engineering Report and the OOP to meet Title 22, section 60320.201 requirements, providing a minimum of 0.5-log reduction of 1,4-dioxane.

7.4. TOC, RO Permeate. Per Title 22, section 60320.201(a)(2), during the first 20 weeks of operation of the expanded Project, TOC in the RO permeate from the new RO unit must be monitored at least weekly. TOC concentrations must not exceed 0.25 mg/L in at least 95% of the samples collected during this period.

8. GROUNDWATER LIMITS

8.1. Basin Plan. Monterey One Water must manage the discharge so that it does not adversely affect beneficial uses of groundwater or cause an exceedance of water quality objectives in section 3.3.4 of the Basin Plan. The Basin Plan objectives are included herein as enforceable receiving water limits. These Basin Plan objectives include:

8.1.1. General objectives for taste and odor and radioactivity for all groundwaters;

8.1.2. Objectives for bacteria and organic chemicals, inorganic chemicals, disinfection byproducts, and radionuclides established as drinking water maximum contaminant levels (MCLs) as defined in Title 22, division 4, chapter 15 and included in this Order in Tables 3 through 8.

8.1.3. Objectives for agricultural supply, including irrigation and livestock watering, found in Tables 3-1 and 3-2 of the Basin Plan.

8.1.4. The limits are also included in Tables 3 through 8. Compliance with these groundwater limits is based on the running annual arithmetic mean concentration, except for total coliform, nitrate, and nitrite. The limit for total coliform is based on the 7-day median. The limits for nitrate and nitrite are instantaneous maximums.

9. NOTIFICATION LEVELS

9.1. Notification levels (NLs) are health-based advisory levels established by DDW for parameters in drinking water without MCLs. Monterey One Water must monitor parameters with NLs at the effluent from the AWPF (AWPF Prod Water) as described in Table E-1 of the MRP. The Central Coast Water Board does not use NLs for compliance determination. If DDW elevates an NL to an MCL, the Central Coast Water Board will use that MCL for compliance determination. Regardless, Monterey One Water must report an exceedance of an NL to DDW within 72 hours. (See Title 22, section 60320.220(b) for additional requirements when an NL is exceeded.)

9.2. Table 9 lists the parameters with NLs at the time of adoption of this Order. Monterey One Water must maintain an updated list of parameters with NLs and monitor these parameters as DDW issues NLs and response levels (RLs) for additional parameters pursuant to California Health and Safety Code section 116455.

Table 9. Notification Levels (NL)

Parameter	Units	NL
Boron	mg/L	1
n-Butylbenzene	mg/L	0.26
sec-Butylbenzene	mg/L	0.26
tert-Butylbenzene	mg/L	0.26
Carbon disulfide	mg/L	0.16
Chlorate	mg/L	0.8
2-Chlorotoluene	mg/L	0.14
4-Chlorotoluene	mg/L	0.14
Diazinon	mg/L	0.0012
Dichlorodifluoromethane (Freon 12)	mg/L	1
1,4-Dioxane	mg/L	0.001
Ethylene glycol	mg/L	14
Formaldehyde	mg/L	0.1
HMX (Octogen)	mg/L	0.35
Isopropylbenzene	mg/L	0.77
Manganese	mg/L	0.5
Methyl isobutyl ketone	mg/L	0.12
Naphthalene	mg/L	0.017
N-Nitrosodiethylamine (NDEA)	mg/L	0.00001
N-Nitrosodimethylamine (NDMA)	mg/L	0.00001
N-Nitrosodipropylamine (NDPA)	mg/L	0.00001
Perfluorobutanesulfonic acid (PFBS)	Nanograms per liter (ng/L)	500

Parameter	Units	NL
Perfluorohexanesulfonic acid (PFHxS)	ng/L	3
Perfluorooctanesulfonoic acid (PFOS)	ng/L	6.5
Perfluorooctanoic acid (PFOA)	ng/L	5.1
Propachlor	mg/L	0.09
n-Propylbenzene	mg/L	0.26
1,3,5-Trinitroperhydro-1,3,5-triazine (RDX)	mg/L	0.0003
Tertiary butyl alcohol (TBA)	mg/L	0.012
1,2,4-Trimethylbenzene	mg/L	0.33
1,3,5-Trimethylbenzene	mg/L	0.33
2,4,6-Trinitrotoluene (TNT)	mg/L	0.001
Vanadium	mg/L	0.05

10. GENERAL REQUIREMENTS

10.1. Project infrastructure must be adequately protected from inundation and damage by storm flows.

10.2. Recycled water use or disposal by Monterey One Water must not result in earth movement in geologically unstable areas.

10.3. Monterey One Water must at all times properly operate and maintain all treatment facilities and control systems and related appurtenances that it uses or installs to achieve compliance with the conditions in this Order. Proper operation and maintenance include effective performance, adequate operator staffing and training, and adequate laboratory process controls, including appropriate quality assurance procedures.

10.4. Monterey One Water must maintain a Notification and Response Plan (NRP) to address any unanticipated divergence from regulatory limits in the advanced treated recycled water or in groundwater caused by recharge of advanced treated recycled water. The NRP must include communication protocols with regulatory agencies and affected public water systems and procedures for assessing results and making decisions on appropriate responses and for procuring a safe interim drinking water supply as required by Title 22. As specified in section 4.3 of Attachment D, an addendum to the revised NRP providing additional information on activation and operation of an intertie between Cal-Am and MCWD systems must be approved by DDW prior to start of delivery of product water from the expanded AWPF to the new injection wells.

11. WATER RECLAMATION REQUIREMENTS

11.1. Monterey One Water must comply with the WRRs contained in Attachment D.[12] Attachment D is incorporated by reference into this Order.

11.2. Any violation of a term in this Order that is identical to a condition included in the WRRs in Attachment D will constitute a single violation.

11.3. The WRRs, including any subsequent revisions, are an enforceable component of this Order. The Central Coast Water Board, in concurrence with DDW, may revise the WRRs as needed to reflect changes in facility design, treatment processes, or in response to operational issues. These revisions may occur independently and more frequently than revisions to the Order itself. Monterey One Water must comply with the most current version of the WRRs, as issued or revised by the Central Coast Water Board.

12. INJECTION WELL BACKFLUSH DISCHARGE REQUIREMENTS

12.1. Monterey One Water is authorized to discharge backflush wastes from operations of the DIWs into percolation ponds Pond 1 (Southern Pond) and Pond 2 (Northern Pond), shown in Figure C-2 and C-3. The DIWs are periodically backflushed to maintain injection capacity.

12.2. Monterey One Water must comply with requirements in Order section 4, Discharge Prohibitions and section 8, Groundwater Limits for this discharge to land. (Title 22 recycled water requirements do not apply.)

12.3. In compliance with the design capacity[13] provided by Monterey One Water, the volume of wastes held in Pond 1 must not exceed 2 acre-feet. The volume of wastes held within Pond 2 must not exceed 4 acre-feet.

12.4. Monterey One Water must maintain pond percolation and monitor the ponds as described in the OOP. The waste levels must be connected to a supervisory control and data acquisition (SCADA) alarm for high level notification. If waste levels are consistently high, Monterey One Water must conduct pond maintenance (e.g., ripping) to maintain adequate storage capacity.

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[12] Attachment D includes DDW's current, as of the date of this Order, recommended conditions included in its *Conditional Acceptance of the Pure Water Monterey Groundwater Replenishment Project Engineering Report (2790002-710)*, issued August 28, 2025.

[13] Pond capacity and design details are described in supplemental application information, which can be accessed at the following link:
https://geotracker.waterboards.ca.gov/getfile?filename=/regulators%2Fdeliverable_documents%2F6516202628%2FRE_%20MW1%20draft%20WDR%20-%20outstanding%20questions.pdf

12.5. Monterey One Water must maintain the ponds to control breeding of mosquitoes, prevent offsite odors, and prevent nuisance conditions.

13. MONITORING AND REPORTING REQUIREMENTS

13.1. Pursuant to Water Code section 13267, Monterey One Water must comply with the MRP (Attachment E), and future revisions thereto, and all notification and general reporting requirements of this Order. The Central Coast Water Board may revise the MRP as necessary to address changes in monitoring requirements, analytical methods, or site conditions. Such revisions may occur more frequently than revisions to this Order. Monterey One Water must comply with the most current version of the MRP, as issued or revised by the Central Coast Water Board and/or its Executive Officer.

13.2. Monterey One Water is required to provide technical monitoring reports because it is the owner and operator responsible for the recycled water use and waste discharge and compliance with the Order. The burden, including the cost of any such reports ($500,000 to $600,000 annually for all monitoring and reporting requirements associated with this Order), is reasonably related to the need for the information in the reports and the benefits received from the reports. Specifically, the Central Coast Water Board needs this information to determine Monterey One Water's compliance with this Order, assess the need for further investigation or enforcement action, and to protect public health and safety and the environment.

13.3. If there is any conflict between provisions stated in the MRP and the Central Coast Water Board's *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*[14] (Standard Provisions), the provisions stated in the MRP prevail.

13.4. The MRP may be modified by the Central Coast Water Board's Executive Officer; however, any such modified requirements must still achieve the MRP's primary purpose, which is to detect violations, confirm effective treatment, and to ensure that neither excessive degradation in the aquifer nor adverse impacts to beneficial uses occurs.

[14] The latest version of Standard Provisions is available at: https://www.waterboards.ca.gov/centralcoast/board_decisions/docs/wdr_standard_provisions_2013.pdf

14. PROVISIONS

14.1. Monterey One Water must comply with all conditions of this Order. Failure to comply with provisions or requirements of this Order or violation of other applicable laws or regulations governing discharges from this facility may subject Monterey One Water to (a) administrative civil liability, criminal penalties, and other enforcement remedies; (b) termination and/or modification of this Order; and (c) denial of an application for new or revised WDRs. Additionally, certain violations may subject Monterey One Water to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

14.2. Monterey One Water must comply with the Central Coast Water Board's Standard Provisions, and any updates to the Standard Provisions adopted by the Central Coast Water Board, unless exempted in writing by the Central Coast Water Board's Executive Officer.

14.3. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order and Standard Provisions, the provisions stated in this Order prevail.

14.4. Violation Notifications. Monterey One Water must notify the Central Coast Water Board and DDW by telephone or electronic means as soon as Monterey One Water becomes aware, but no later than 24 hours after, of any violation or any other adverse condition that may endanger health or the environment.[15] Written confirmation must follow to the Central Coast Water Board and DDW within five working days from date of notification. Unless waived by the Executive Officer, the report must include, but not be limited to, the following information as appropriate:

14.4.1. The nature and extent of the violation;

14.4.2. The date and time when the violation started, when compliance was achieved, and when injection was suspended and restored, as applicable;

14.4.3. The duration of the violation;

14.4.4. The cause(s) of the violation;

14.4.5. Any corrective and/or remedial actions that have been taken and/or will be taken with a time schedule for implementation to prevent future violations; and

[15] Monterey One Water must also comply with notification requirements for specific pollutants as specified in Title 22 article 5.3 and as described in the MRP.

14.4.6. Any impact of the violation.

14.5. If Monterey One Water causes, permits or becomes aware of, regardless of intent or negligence, an unauthorized discharge of 50,000 gallons or more of advanced treated recycled water, or 1,000 gallons or more of recycled water treated to a level less than advanced treated recycled water, it must immediately notify the Central Coast Water Board[16]. Notification must be made as soon as: (1) Monterey One Water becomes aware of the discharge, (2) notification is possible, and (3) notification can occur without substantially impeding cleanup or other emergency response efforts. Unauthorized discharges below these thresholds must be documented in the next scheduled self-monitoring report, including the estimated volume, cause, response actions taken, and any measures implemented to prevent recurrence.

14.6. Any person who, 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 the County of Monterey Environmental Health Bureau (EHB) and California Office of Emergency Services (OES) of the discharge. Monterey One Water must notify EHB and OES as soon as (a) Monterey One Water 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 Title 23 sections 2250-2251), unless Monterey One Water is in violation of a prohibition in the Basin Plan.

[16] Monterey One Water must report spills that occur anywhere in the distribution system, including components owned by Marina Coast Water District.

14.7. Except for a discharge that is in compliance with this Order, any person who, without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the state, or discharged or deposited where the oil or petroleum product is or probably will be discharged in or on any waters of the state must immediately notify OES of the discharge. Monterey One Water must notify OES as soon as (a) Monterey One Water 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 the spill reporting provision of the state oil spill contingency plan adopted pursuant to Government Code Title 2, division 1, chapter 7, article 3.7 (commencing with section 8574.1). This requirement does not require reporting of any discharge that is less than 42 gallons unless the discharge is also required to be reported pursuant to Clean Water Act section 311 or the discharge is in violation of a Basin Plan prohibition.

14.8. Monterey One Water must notify the Central Coast Water Board, as soon as possible, of planned changes to the facility, treatment processes, or operations that could reasonably be expected to affect compliance with any requirement of this Order. Notification does not pause, suspend, or excuse Monterey One Water's responsibility to comply with this Order.

14.9. Upon loss, failure, or reduction of treatment capacity or quality of the AWPF, Monterey One Water must, to the extent necessary to maintain compliance with this Order, control production and/or control all discharges until the AWPF is restored or until an alternative method of treatment is provided. This provision applies, for example, when the primary source of power to the AWPF has failed or is reduced and backup power sources are insufficient.

14.10. Monterey One Water must ensure that all site operating personnel are familiar with the contents of the Order, the MRP, the WRRs, the OOP, and the Engineering Report. Monterey One Water must at a minimum document training provided to all new site operating personnel and refresher training annually to ensure it meets this requirement. A copy of this Order and technical reports required by the MRP must be kept at the AWPF for reference by operating personnel.

14.11. At least 120 days prior to any proposed changes to the Project that require permit revisions, Monterey One Water must submit a report of waste discharge and engineering report or addenda to the existing report of waste discharge and engineering report to the Central Coast Water Board and DDW (pursuant to Water Code section 13522.5 and Title 22 section 60323) for review, response, and approval. The report of waste discharge and engineering report (or addenda) must be prepared, stamped, and signed by a qualified engineer licensed in California. The following are examples of changes that require submittal of a new or amended report of waste discharge and engineering report:

14.11.1. Addition of a significant industrial waste discharge to a discharge of domestic sewage or addition of a new process or product by an industrial facility resulting in a change in the character of the AWPF product water.

14.11.2. Significant change in the treatment or discharge method (e.g., change in the method of treatment that would significantly alter the nature of the AWPF product water).

14.11.3. Change in the discharge area from that described in the findings of this Order.

14.11.4. Increase in discharge flow rate beyond that specified in this Order.

14.11.5. Addition of monitoring, injection, and/or production wells not described in this Order.

14.11.6. Other circumstances that result in a material change in character, amount, or location of the waste discharge.

14.11.7. Any planned change in the AWPF or other activity that may result in noncompliance with this Order.

14.11.8. Any material change or proposed change in character, location, or volume of recycled water or its uses.

14.12. Monterey One Water must sign and certify all applications, reports, or information submitted to the Central Coast Water Board as follows. A report of waste discharge must also be signed as follows:

14.12.1. If the submittal is on behalf of a municipality, state, federal or other public agency, it must be signed by either a public executive officer or ranking elected official.

14.12.2. A licensed professional engineer, geologist, or similarly qualified individual may sign and stamp technical documents (e.g., reports or plans) if the following conditions are met: performing engineering or geological judgments

14.12.2.1. The professional is authorized in writing by a person meeting the criteria in section 14.12.1 above;

14.12.2.2. The written authorization identifies either a specific individual or a position with responsibility for the overall operation of the regulated facility or activity.

14.12.2.3. The authorization is submitted to the Central Coast Water Board using the Designation of Duly Authorized Representative form.

14.13. All other reports required by this Order and other information required by the Central Coast Water Board must be signed by a person designated in section 14.12 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:

14.13.1. The authorization is written by a person described in section 14.12 of this Order.

14.13.2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

14.13.3. The written authorization is submitted to the Central Coast Water Board using the Central Coast Water Board's Designation of Duly Authorized Representative form.

14.14. 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."

14.15. This Order does not exempt Monterey One Water from compliance with any other laws, regulations, or ordinances that may be applicable, it does not legalize the recycling and use facilities, and it leaves unaffected any further constraint on the use of recycled water at certain sites that may be contained in other statutes or required by other agencies.

14.16. This Order does not alleviate the responsibility of Monterey One Water to obtain other necessary local, state, and federal permits to construct or operate facilities necessary for compliance with this Order, nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency.

14.17. This Order may be modified, revoked and reissued, or terminated for cause, including but not limited to, failure to comply with any condition in this Order; endangerment of human health or environment resulting from the permitted activities in this Order; obtaining this Order by misrepresentation or failure to disclose all relevant facts; or acquisition of new information that could have justified the application of different conditions if known at the time of Order adoption. The filing of a request by Monterey One Water for modification, revocation and reissuance, or termination of the Order or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

14.18. Monterey One Water must furnish, within a reasonable time, any information the Central Coast Water Board or DDW may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. Monterey One Water must also furnish the Central Coast Water Board, upon request, with copies of records required to be kept under this Order for at least three years.

14.19. In an enforcement action, it cannot be a defense for Monterey One Water that it would have been necessary to halt or to reduce the permitted activity to maintain compliance with this Order.

14.20. If the Central Coast Water Board or DDW directs Monterey One Water to suspend surface and/or subsurface discharge of advanced treated recycled water due to noncompliance with this Order, surface and/or subsurface discharge must not resume until Monterey One Water has obtained approval from the Central Coast Water Board and DDW.

15. NOTICES

15.1. If any user of recycled water authorized under this Order—including contractors, subcontractors, distributors, or end users—uses, transports, or stores recycled water in a manner that causes or threatens to cause pollution, contamination, or nuisance as defined in Water Code section 13050, the Central Coast Water Board may initiate enforcement actions against Monterey One Water. Such enforcement may include revocation of coverage under this Order, monetary penalties, or termination of authorization to discharge recycled water.

15.2. 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 Monterey One Water from liability under federal, state or local laws, nor create a vested right for Monterey One Water to continue the waste discharge.

15.3. These requirements have not been reviewed by the United States Environmental Protection Agency (USEPA) and are not issued pursuant to Clean Water Act section 402.

15.4. Any person aggrieved by this action of the Central Coast Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 title 23, section 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 https://www.waterboards.ca.gov/publicnotices/petitions/waterquality 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 provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the Order is not affected.

16. REOPENER

16.1. The Central Coast Water Board may reopen this Order to include the most scientifically relevant and appropriate limitations for this discharge, including a revised Basin Plan limit based on monitoring results, antidegradation studies, or other Central Coast Water Board or State Water Board policy.

16.2. This Order may be reopened to modify limitations for pollutions to protect beneficial uses, based on new information not available at the time this Order was adopted, including additional monitoring, reporting and trend analysis documenting aquifer conditions.

16.3. After additional monitoring, reporting, and trend analysis documenting aquifer conditions, this Order may be reopened to ensure the groundwater is protected in a manner consistent with state and federal water quality laws, policies, and regulations.

16.4. This Order may be reopened to incorporate any new regulatory requirements for sources of drinking water or injection of recycled water for groundwater recharge to aquifers that are used as a source of drinking water, that are adopted after the effective date of this Order.

16.5. This Order may be reopened upon determination by DDW that treatment or disinfection of Monterey One Water's advanced treated recycled water is not sufficient to protect human health.

17. ENFORCEMENT

17.1. The Central Coast Water Board is authorized to enforce the requirements of this Order under several provisions of the California Water Code, including but not limited to sections 13261, 13265, 13268, 13300, 13301, and 13350. In addition, this Order is subject to the enforcement provisions contained in Division 7, Chapter 7 of the California Water Code, which governs water reclamation. Among other things, violations of this Order may result in administrative civil liability, cleanup and abatement orders, time schedule orders, cease and desist orders, or referral to the Attorney General for judicial enforcement.

ATTACHMENT A
DEFINITIONS

Table A-1. Abbreviations

Abbreviation	Definition
µg/L	Micrograms per liter
µm	Microns or micrometers
40 CFR	Title 40, Code of Federal Regulations
ACU	Apparent color units
AFY	Acre-feet per year
AGR	Agricultural supply beneficial use
Antidegradation Policy	The State Water Board established California's Antidegradation Policy in Resolution 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California
AOP	Advanced oxidation process
AWPF	Advanced Water Purification Facility
AWPF Influent	Monitoring location. Secondary effluent pumped to Advanced Water Purification Facility (AWPF) (i.e., Ozone System Influent). Sample collected prior to the ozone injection at the AWPF.
AWPF Prod Water	Monitoring location. Purified and stabilized water after chloramination and prior to injection (Final full advanced-treated water produced by the AWPF for injection).
AWT	Advanced water treatment
AWT3	Advanced water treatment grade 3 operator certification
AWT5	Advanced water treatment grade 5 operator certification
AWTO	Advanced water treatment operator
AWWA	American Water Works Association
Basin Plan	Water Quality Control Plan for the Central Coastal Basin
BOD5	Biochemical oxygen demand (5-Day @ 20°C)
BPTC	Best practicable treatment and control

Abbreviation	Definition
CCR	California Code of Regulations
CEC	Constituents of emerging concern
Central Coast Water Board	Central Coast Regional Water Quality Control Board
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
DDT	Dichlorodiphenyltrichloroethane
DDW	State Water Board, Division of Drinking Water
Dioxin	2,3,7,8-tetrachlorodibenzodioxin
DIT	Direct integrity test
DIW-1	A deep injection well screened in the Santa Margarita aquifer. See Figure C-2.
DIW-2	A deep injection well in the Santa Margarita aquifer. See Figure C-2.
DIW-3	A deep injection well in the Santa Margarita aquifer with the highest injection capacity among the wells, with operational limits set by pump and motor size for backflushing.
DIW-4	A deep injection well in the Santa Margarita aquifer. See Figure C-2.
DIW-5	A deep injection well in the Santa Margarita aquifer. See Figure C-2.
DIW-6	A deep injection well in the Santa Margarita aquifer. See Figure C-2.
EC	Electrical conductivity
EHB	County of Monterey Environmental Health Bureau
EIR	Environmental impact report
ELAP	Environmental Laboratory Accreditation Program
Engineering Report	Title 22 engineering report

Abbreviation	Definition
EPA	United States Environmental Protection Agency
EW-3	Future extraction well 3, located northwest of DIW-5
EW-4	Future constructed extraction well 4, located northwest of DIW-6
Final EIR	Final Environmental Impact Report for the Pure Water Monterey Project
Freon 12	Dichlorodifluoromethane
GPM	Gallons per minute
GRRP	Groundwater Replenishment Reuse Project
Health and Safety Code	California Health and Safety Code
HAA5	The group of five haloacetic acids: dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, and trichloroacetic acid.
HFPO-DA	Hexafluoropropylene oxide dimer acid; “GenX chemicals”
HMX	Octogen
Lindane	Gamma BHC
Log	Logarithm to the base 10
LRV	Log reduction value
MBAS	Methylene blue-activated substances
MCL	Maximum contaminant level
MFE	Membrane filtration treatment unit effluent
MFF	Membrane filtration treatment unit feed water
MFL	Million fibers per liter
mg/L	Milligrams per liter
MGD	Million gallons per day
MIT	Membrane integrity testing
mJ/cm2	Millijoules per centimeter squared

Abbreviation	Definition
MW-1D	Deep monitoring well 1 located adjacent to deep injection well 1 (DIW-1), screened in the Santa Margarita aquifer
MW-1AD	Deep monitoring well 1AD located northwest and downgradient from DIW-1, screen in the Santa Margarita aquifer
MW-1AS	Shallow monitoring well 1A, located northwest and downgradient from DIW-1, screened in the Paso Robles aquifer
MW-1S	Shallow monitoring well 1S located onsite near VZW-1B, screened in the Paso Robles aquifer
MW-2D	Deep monitoring well 2, located adjacent to deep injection well 2 (DIW-2), screened in the Santa Margarita aquifer
MW-2AD	Deep monitoring well 2A, located north and downgradient from DIW-2, screened in the Santa Margarita aquifer
MW-2AS	Shallow monitoring well 2A, located east and downgradient from DIW-2, screened in the Paso Robles aquifer
MW-3AD	Deep monitoring well, located north and downgradient from DIW-5 and DIW-6, screened in the Santa Margarita aquifer
MPN	Most probable number
MRP	Monitoring and reporting program
MTBE	Methyl-tert-butyl ether
MUN	Municipal and domestic supply beneficial use
NDEA	N-nitrosodiethylamine
NDMA	N-nitrosodimethylamine
NDPA	N-nitrosodi-n-propylamine
NL	Notification level
NMOR	N-nitrosomorpholine
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric turbidity unit
OES	California Office of Emergency Services

Abbreviation	Definition
OOP	Operation Optimization Plan; a plan required pursuant to title 22 section 60320.222 that describes the current operations, maintenance, analytical methods, monitoring and reporting that must be conducted to meet the requirements of title 22, Article 5.2 Indirect Potable Reuse.
Order	Order R3-2025-0008, Waste Discharge and Water Reclamation Requirements, Pure Water Monterey Groundwater Replenishment Reuse Project, Monterey One Water
PCBs	Polychlorinated biphenyls
pCi/L	Picocuries per liter
PDR	Pressure decay rate
PDT	Pressure decay test
PFAS	Per- and polyfluoroalkyl substances
PFBS	Perfluorobutanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PFNA	Perfluorononanoic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
Project	Pure Water Monterey Groundwater Replenishment Reuse Project. Includes all aspects of the project owned and operated by Monterey One Water including the AWPF, conveyance pipelines, and injection and monitoring wells.
PS Codes	Primary station codes
Pure Water Monterey Project	Includes all aspects of the project owned and operated by Monterey One Water including the AWPF, conveyance pipelines, and injection and monitoring wells.
QA	Quality assurance
QAPP	Quality assurance project plan
QC	Quality control

Abbreviation	Definition
RDX	1,3,5-trinitroperhydro-1,3,5-triazine
Recycled Water Policy	State Water Resources Control Board Water Quality Control Policy for Recycled Water
Regional Water Boards	Regional Water Quality Control Boards
Regional WWTP	Monterey One Water's regional wastewater treatment plant. The facility includes a biological secondary process, comprised of non-nitrifying trickling filters, bioflocculation (solids contact), and clarification.
RL	Reporting Limits
ROWD	Report of waste discharge
RO	Reverse osmosis
ROC	Reverse osmosis concentrate
ROF	Reverse osmosis treatment unit feed water
ROP	Reverse osmosis treatment unit product water
SCADA	Supervisory control and data acquisition
SIC	Standard industrial classification
Silvex	2-(2,4,5-trichlorophenoxy)propionic acid
SOC	Synthetic organic chemicals
SOP	Standard operating procedure
SPP	Spill prevention plan
Standard Provisions	Standard Provisions and Reporting Requirements for Waste Discharge Requirements
State Water Board	State Water Resources Control Board
SWIP	Seawater intrusion prevention wells
TBA	Tertiary butyl alcohol
TDS	Total dissolved solids
Title 22	California Code of Regulations title 22

Abbreviation	Definition
Title 23	California Code of Regulations title 23
TNT	2,4,6-trinitrotoluene
TOC	Total organic carbon
TON	Threshold odor number
TSS	Total suspended solids
TTF	Tertiary treatment facility
TTHMS	Total trihalomethanes
USEPA	United States Environmental Protection Agency
UV	Ultraviolet
UV/AOP	Ultraviolet advanced oxidation process
UVF	Ultraviolet treatment unit feed water
UVI	Ultraviolet intensity
UVP	Ultraviolet treatment unit product water
UVT	Ultraviolet transmittance
VOC	Volatile organic compounds
VZW-1B	Vadose zone injection well 1B located near DIW-1 injects water into the unsaturated Aromas Sand formation. The water table is near the top of the underlying Paso Robles aquifer. The injected water enters the unsaturated (vadose) zone and percolates down to the water table.
VZW-2	Vadose zone injection well 2 located near DIW-2 injects water into the unsaturated Aromas Sand formation. The water table is near the top of the underlying Paso Robles aquifer. The injected water enters the unsaturated (vadose) zone and percolates down to the water table.
Water Code	California Water Code
WDRs	Waste discharge requirements
WQOs	Water quality objectives

Abbreviation	Definition
WRRs	Water recycling requirements

Glossary of Common Terms

Advanced Treated Recycled Water
Advanced treated recycled water is the final effluent of the AWPF that is injected into groundwater in the Seaside Basin. Also referred to throughout the Order as AWPF product water, AWPF Prod Water, AWPF effluent, purified recycled water, or municipal recycled wastewater.

Advanced Water Purification Facility (AWPF)
The AWPF is Monterey One Water's Pure Water Monterey Advanced Water Purification Facility located at 14811 Del Monte Blvd., Marina, CA 93933.

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, also commonly referred to as the mean.

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 measurements during a calendar year divided by the number of daily measurements during that year.

Biochemical Oxygen Demand
BOD is a measurement of the amount of oxygen utilized by the decomposition of organic material, over a specified period (usually five days, i.e. BOD5) in a wastewater sample; it is used as a measurement of the readily decomposable organic content of a wastewater.

California Code of Regulations
The CCR is 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.

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

Clean Water Act
The CWA is legislation passed by the U.S. Congress to control water pollution, formally referred to as the Federal Water Pollution Control Act of 1972 or Federal Water Pollution

Control Act Amendments of 1972 (Public Law 92-500), 33 U.S.C. 1251 et. seq., as amended by: Public Law 96-483; Public Law 97-117; Public Laws 95-217, 97-117, 97-440, and 100-04.

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 is the section of the CFR (40 CFR) that deals with USEPA's 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 samples, 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.

Daily Maximum Effluent Limitation
The daily maximum effluent limitation is the highest allowable daily discharge of a pollutant.

Dichlorodiphenyltrichloroethane
DDT is the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

Effluent

In this Order, effluent refers to treated water from a specific process or from the AWPF, which is also referred to throughout the Order as AWPF product eater, AWPF Prod Water, AWPF effluent, purified recycled water, or municipal recycled wastewater.

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.

Injection Well
An injection well is a subsurface device that discharges advanced treated recycled water into the groundwater within the groundwater basin.

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

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

Maximum Contaminant Level
MCLs are standards set by the United States Environmental Protection Agency for drinking water quality. In California, MCLs are also established by the State Water Resources Control Board, Division of Drinking Water (DDW), and may be more stringent than federal standards. An MCL is the legal threshold limit on the amount of a substance that is allowed in public water systems under the Safe Drinking Water Act. MCL is for either a single isomer or the sum of the isomers.

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.

Polychlorinated biphenyls
PCBs are the sum of polychlorinated biphenyls whose analytical characteristics resemble those of Aroclor 1016, Aroclor 1221, Aroclor 1232, Aroclor 1242, Aroclor 1248, Aroclor 1254, and Aroclor 1260.

Percent Reduction
Percent reduction is a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the average values of the raw wastewater influent pollutant concentrations to the AWPF and the average values of the effluent pollutant concentrations for a given time period.

Pure Water Monterey
Pure Water Monterey is the AWPF and all associated conveyance infrastructure and injection and monitoring wells.

Recycled Municipal Wastewater
Recycled municipal wastewater is defined in Title 22 section 60301.690 as recycled water that is the effluent from the treatment of wastewater of municipal origin.

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 Chlorine Residual
The total amount of chlorine present in a sample. This is the sum of the free chlorine residual and the residual consisting of chlorine that is combined with ammonia, nitrogen, or nitrogenous compounds (chloramines).

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

Total Trihalomethanes
Total trihalomethanes is the sum of bromoform, chloroform, bromodichloromethane, and dibromochloromethane.

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 parameters or characteristics that 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
PROCESS FLOW DIAGRAM

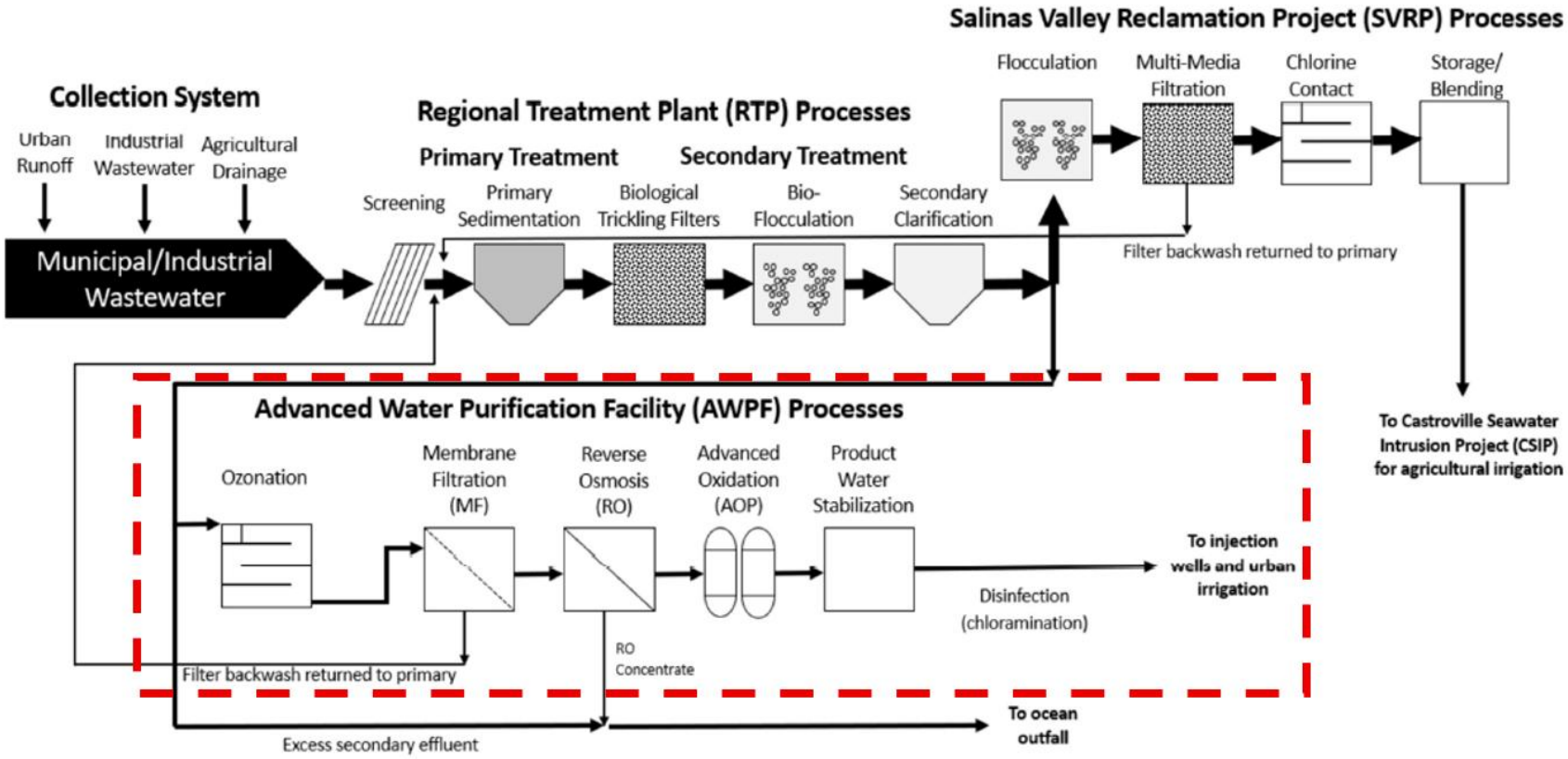

Figure B-1. Regional Wastewater Treatment Plant, Advanced Water Purification Facility, and Salinas Valley Reclamation Project process flow schematic. Dashed box is general portion covered by this Order.

ATTACHMENT C
MAPS AND CROSS SECTIONS

Figure C-1. Map of project facilities and infrastructure.

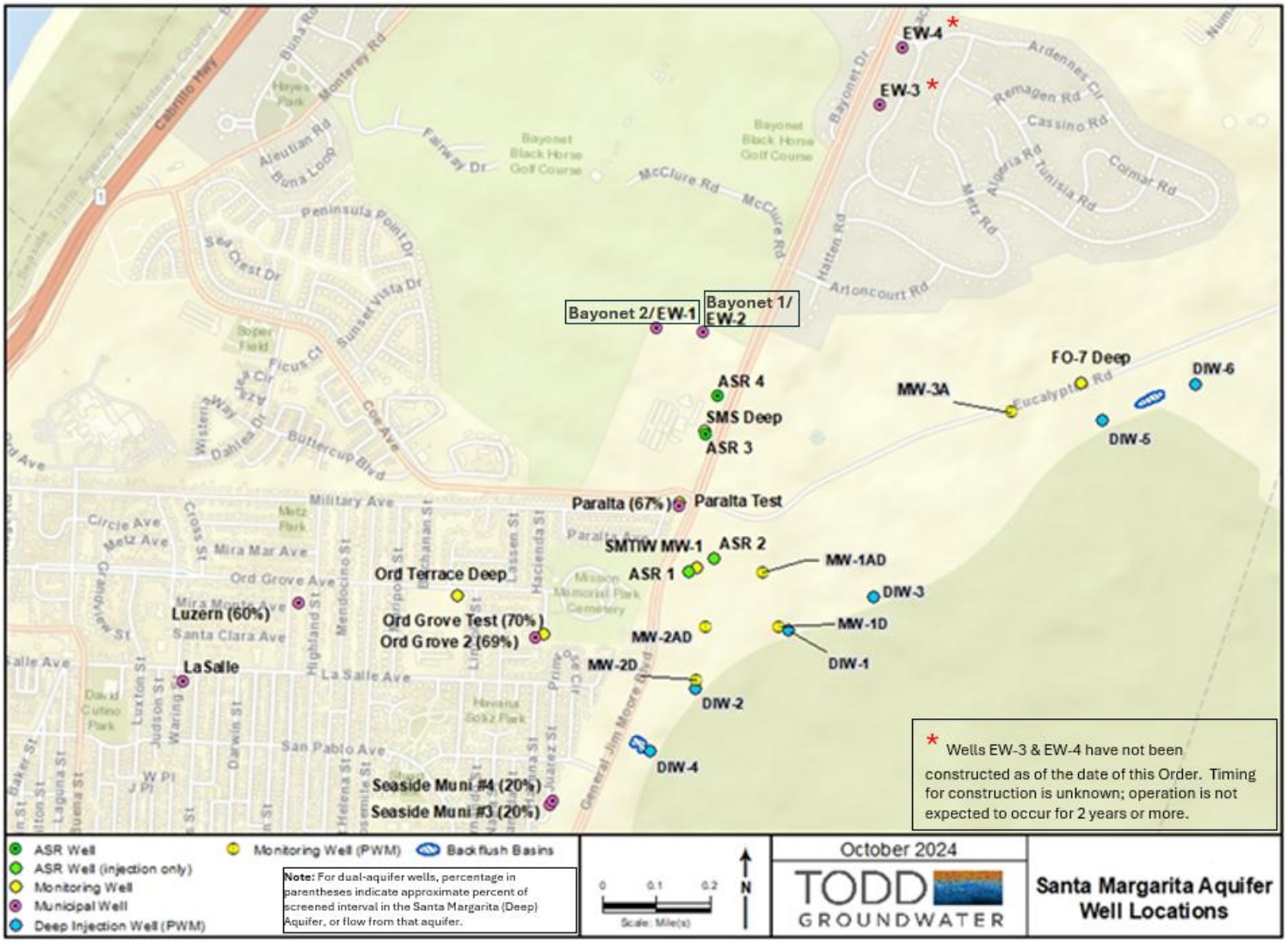

Figure C-2. Wells in the Santa Margarita aquifer in the Project area (DIW-1, DIW-2, DIW-3, DIW-4, DIW-5, and DIW-6, the permitted discharge locations, are shown in blue circles)

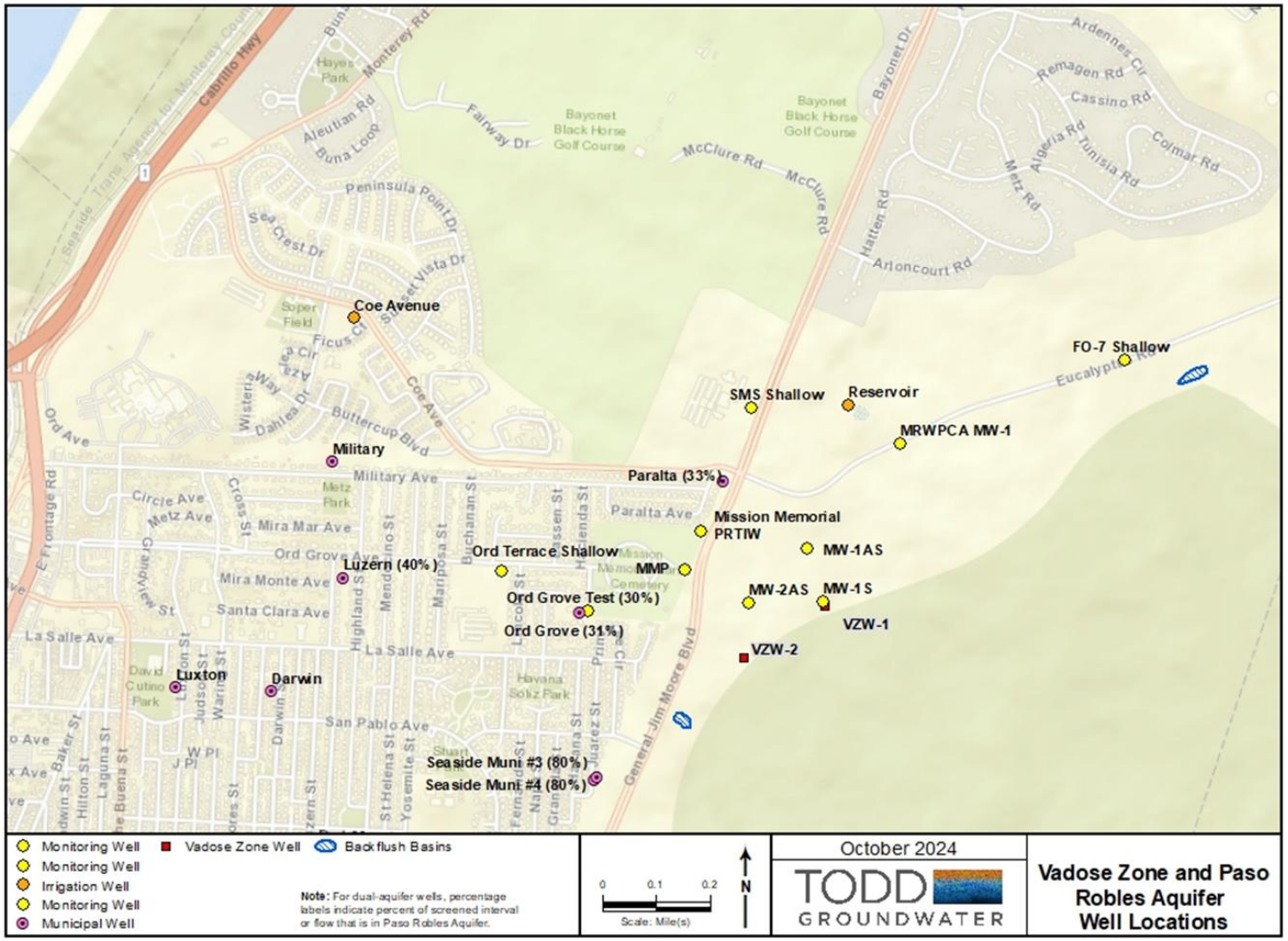

Figure C- 3. Wells in the Paso Robles aquifer in the Project area (VZW-1B and VZW-2, the permitted discharge locations, are shown in red squares; blue permitted backflush ponds)

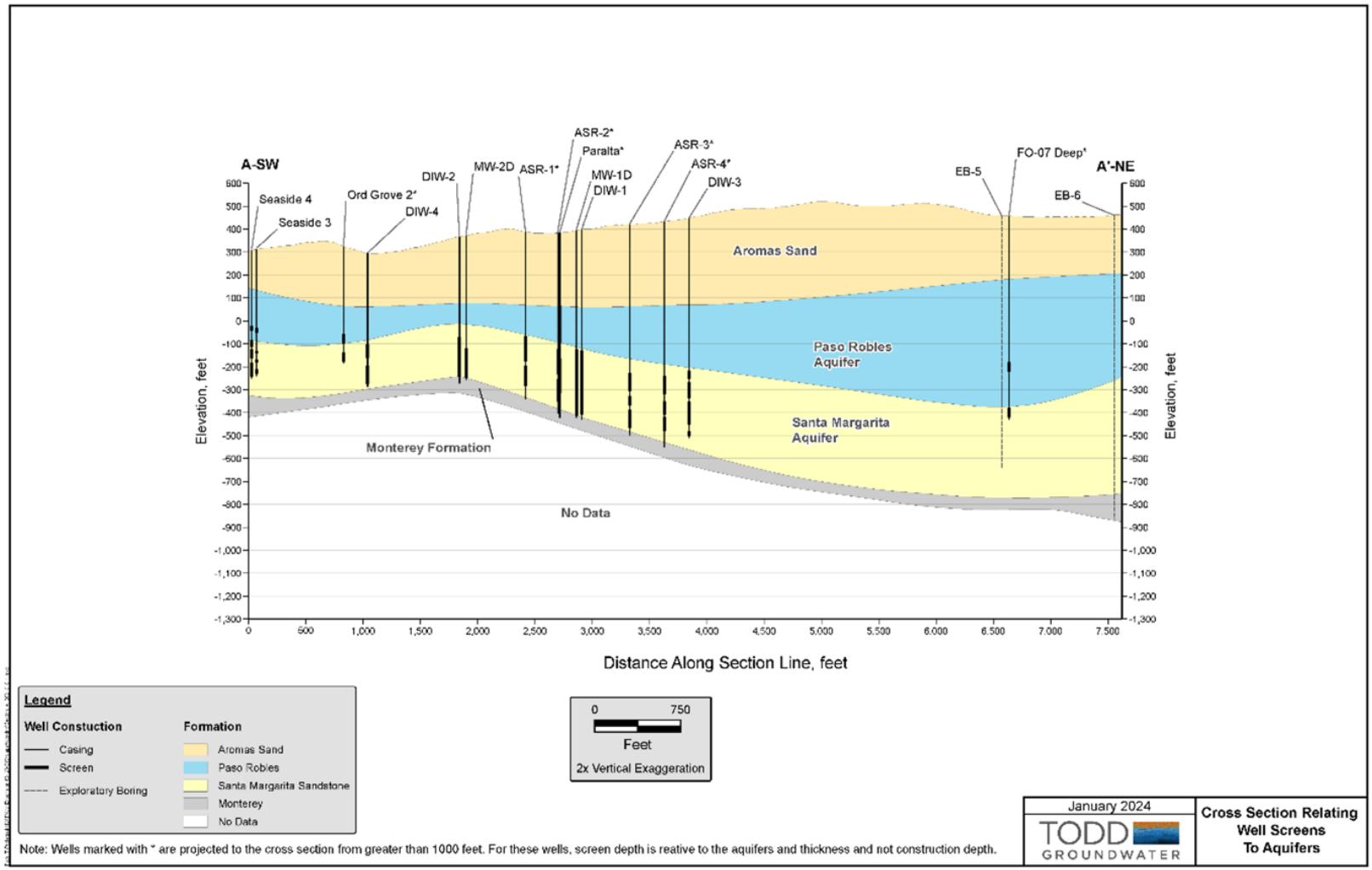

Figure C-4. Conceptual cross-section showing the aquifer units of the Seaside Basin where injection and extraction occurs. Figure is from the 2025 Monterey One Water Pure Water Monterey Groundwater Replenishment Project Engineering Report.

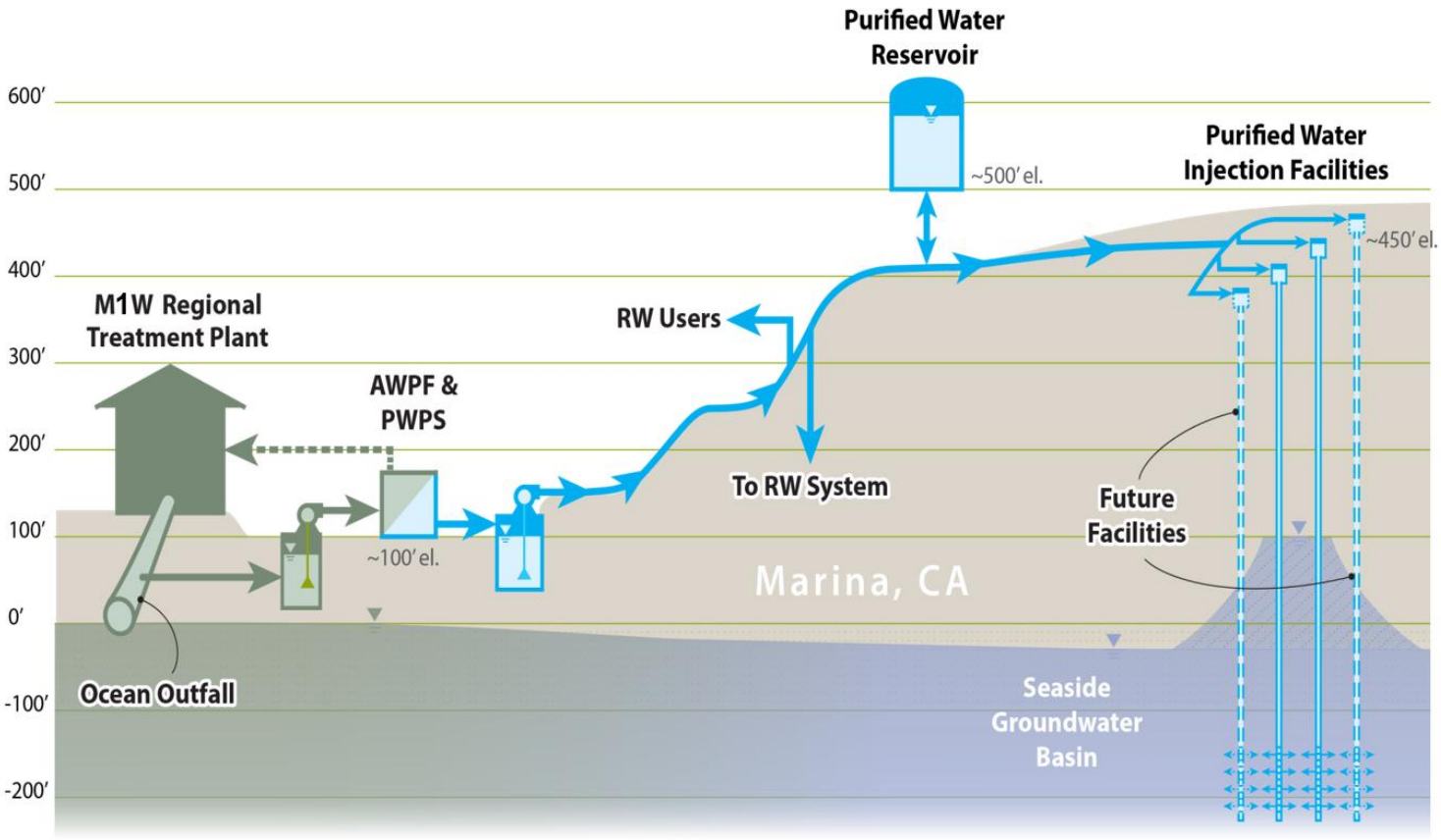

Figure C-5. Schematic of distribution system with relative elevations.

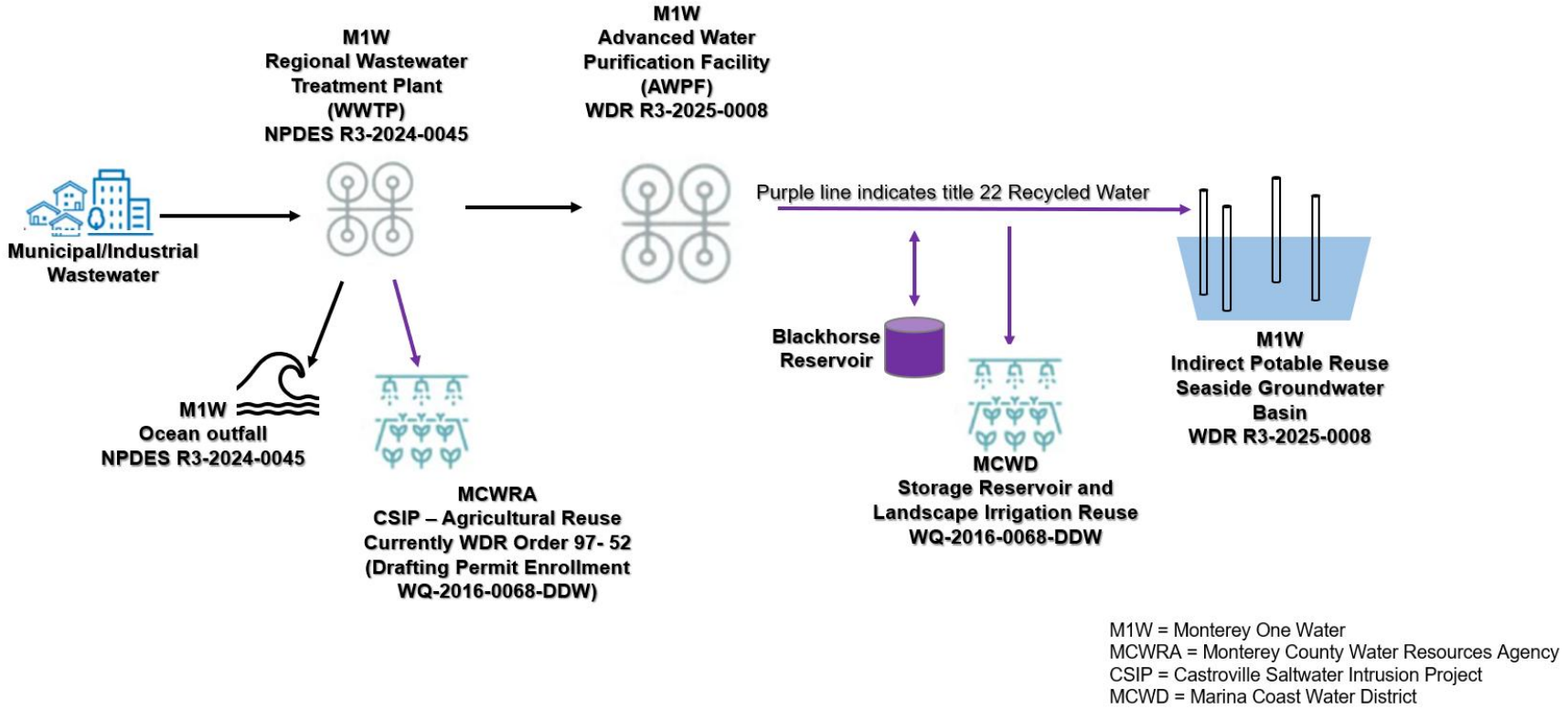

Figure C-6. Schematic of the Project and associated dischargers and permits

ATTACHMENT D
WATER RECLAMATION REQUIREMENTS
ORDER R3-2025-0008

TABLE OF CONTENTS

TABLE OF TABLES

In accordance with section 11 of this Order, Monterey One Water must comply with the following water reclamation requirements (WRRs).

The requirements below are from[1] State Water Resources Control Board (State Water Board) Division of Drinking Water (DDW) *Conditional Acceptance of the Pure Water Monterey Groundwater Replenishment Project Engineering Report (2790002-710)*, issued August 28, 2025. Pure Water Monterey Advanced Water Purification Facility (AWPF or Facility) and associated injection wells, monitoring wells, and conveyance pipelines, are collectively referred to as the Pure Water Monterey Groundwater Replenishment Reuse Project or "Project."

1. GENERAL REQUIREMENTS

1.1. Monterey One Water must comply with all components of California Code of Regulations, title 22, division 4, chapter 3, article 5.2, Indirect Potable Reuse: Groundwater Replenishment using Subsurface Application.

1.2. Delivery of flows from the AWPF using DIW-1, DIW-2, DIW-3, DIW-4, VZW-1B[2], and VZW-2 into the Seaside groundwater water basin must not exceed 3,700 AFY. Total delivery of flows from the AWPF, including the expanded Project wells DIW-5 and DIW-6, into the Seaside groundwater basin must not exceed 5,950 AFY.

1.3. Per Title 22, section 60320.200(g), Monterey One Water must demonstrate that all treatment processes are installed and can be operated to achieve their intended function described in the Engineering Report and Operation Optimization Plan (OOP). As described in the Engineering Report section 3.2, Monterey One Water must provide a copy of the expanded AWPF commissioning plan that includes verification of operation integration, supervisory control and data acquisition (SCADA) system integration, commissioning process, performance tests, and checks for regulatory compliance. Prior to the start of delivery of product water from the expanded AWPF to the injection wells, Monterey One Water must demonstrate to DDW that the alarms and associated responses, including automatic diversion, retreatment, and shutdown, are functional and in conformance with the OOP during an on-site inspection.

[1] With minor modifications to format, syntax, and style to maintain consistency with the Order and other attachments.
[2] VZW-1B was also referred to as VZB-1 in the Engineering Report. Initially, the borehole for VZB-1 well was not successfully drilled and was abandoned. VZB-1B ultimately replaced VZB-1.

1.4. Monterey One Water must provide a map of the Project site to DDW, the Central Coast Water Board, County of Monterey Environmental Health Bureau (EHB), Monterey Peninsula Water Management District (MPWMD), and any other local well-permitting authorities containing the required information provided in Title 22, sections 60320.200(e)(1) through (4).

1.4.1. Monterey One Water must provide DDW and the Central Coast Water Board with a copy of the adopted resolution or local ordinances adopted by local well-permitting authorities for the following:

1.4.1.1. Restriction of new well construction in the boundary representing a zone of controlled private and municipal drinking water well construction, the greatest of horizonal and vertical distances reflecting the retention times required pursuant to Title 22, sections 60320.208 and 60320.224;

1.4.1.2. Requirement for potential future private and municipal drinking or non-drinking water wells located in a secondary boundary representing a zone of potential controlled well construction, which includes but are not limited to further study and potential mitigating activities.

1.4.2. Monterey One Water must notify DDW and the Central Coast Water Board in writing of any proposals for new well constructions within zones described in 1.4.1.1 and 1.4.1.2 above, within 30 calendar days of approval of a well construction permit by the respective well-permitting authorities, along with, if any, a description of conditions (such as further study or mitigating activities) placed on the approval.

1.4.3. A revised map and associated resolution or ordinance must be prepared and provided to DDW, Central Coast Water Board, EHB, MPWMD, and any other local well-permitting authorities, when conditions change such that the previous map no longer accurately reflects the project operations.

1.5. Monterey One Water must notify DDW and the Central Coast Water Board and submit documentation deemed necessary by or as requested by DDW for any changes to any portion of the Project operations described in the Engineering Report. This includes but is not limited to increased AWPF advanced treated recycled water delivery to the Marina Coast Water District (MCWD) recycled water distribution system or injection wells; changes to monitoring wells or injection wells; changes to AWPF treatment processes; introduction of new sources to the AWPF; and any changes to California American Water Company (Cal-Am) drinking water well operation that may impact the Project's underground retention time.

1.6. The Project has a recycled water contribution of 1.0. No diluent water has been proposed or approved for the Project.

2. WASTEWATER SOURCE CONTROL

2.1. Recycled municipal wastewater used for the Project must meet the requirements in California Code of Regulations, title 22, sections 60320.206 – Wastewater Source Control.

2.2. Any updates to the source control plans, local limits, and pretreatment program addressing water sources for the Project must be provided to the DDW and the Central Coast Water Board.

2.3. Monterey One Water must provide a written confirmation to DDW and Central Coast Water Board stating that all of the required actions and program improvements provided in the 2022 Pretreatment Compliance Audits have been completed. If incomplete or in progress, Monterey One Water must provide a schedule for anticipated completion.

3. AWPF REQUIREMENTS

3.1. Per Title 22, section 60320.201(a)(2), during the first 20 weeks of operation of the expanded Project, reverse osmosis (RO) permeate must be monitored at least weekly for total organic carbon (TOC) for the new RO unit. TOC concentrations must be no greater than 0.25 mg/L in at least 95% of the samples.

3.2. The ultraviolet/advanced oxidation process (UV/AOP) must be operated as designed and described in the Engineering Report and the OOP to meet Title 22, section 60320.201 requirements, providing a minimum of 0.5-log reduction of 1,4-dioxane.

3.3. Within 60 days of completing the first 12-month full-scale operation and operational monitoring of the advanced treatment process for the expanded Project, Monterey One Water must submit a report to DDW and the Central Coast Water Board pursuant to Title 22, sections 60320.201(f) and (g).

3.4. Per Title 22, section 60320.201(h), Monterey One Water must perform calculations to document proper on-going performance of the RO and advanced oxidation processes in the quarterly reports. State the percentage of results of the quarter's monitoring, conducted pursuant to Title 22, sections 60320.201(b) and (e), that did not meet the surrogate or operational parameter limits. State in the quarterly report if the limits were exceeded by greater than 10% of time for each quarter.

3.5. Monterey One Water proposes to follow a tiered monitoring approach for the RO system. Pathogen reduction through the RO system may be demonstrated via the tiered monitoring approach. Monterey One Water must report calculated surrogate reduction values from all tiers and indicate which tier is used for reporting pathogen log reduction. Monterey One Water must include an updated example form and sample calculation for the surrogate reduction in the OOP for DDW acceptance.

3.5.1. Tier 1: Daily samples of the combined RO feed stream and effluent stream of each RO train must be analyzed at least every 24 hours for strontium. The RO log reduction value (LRV) credit will be calculated daily by the reduction in strontium concentration demonstrated by the lowest LRV from the RO trains (i.e., using the highest RO effluent strontium concentration). DDW Environmental Laboratory Accreditation Program (ELAP) has updated FOT 103 Toxic Chemical Elements in Drinking Water to include Elemental Strontium. Strontium analysis must be performed by laboratories with current ELAP accreditation. The results of strontium analysis must be available within 24 hours. If strontium data are unavailable, the RO LRV credit must be determined by the second tier.

3.5.2. Tier 2: Continuous TOC monitoring (at least once every 15-minutes) of the combined RO feed stream and the combined RO effluent stream. The RO LRV credit will be calculated based on the average daily reduction in TOC. If first tier (strontium) and second tier (TOC) data are unavailable, the RO LRV credit must be determined by the third tier.

3.5.3. Tier 3: Continuous electrical conductivity (EC) monitoring (at least once every 15 minutes) of the combined RO feed stream and effluent stream of each RO train. The RO LRV credit must be calculated based on the minimum daily EC reduction, if first tier (strontium) and second tier (TOC) data are unavailable.

3.6. Pursuant to Title 22, section 60320.201(b), Monterey One Water must perform an on-going performance monitoring that indicates when the integrity of the process has been compromised. Monterey One Water must update the RO monitoring program elements in the OOP and include at least the following elements:

3.6.1. Determination of baseline integrity test values for intact membranes during commissioning of the Advanced Water Purification Facility (AWPF).

3.6.2. Determination of lower and upper control limits for each surrogate to be used for integrity testing. Perform surrogate mass balance calculations for the RO treatment system to provide the basis for lower and upper control limit values. Provide a response plan for exceedances of lower and upper control limits.

3.6.3. Monterey One Water includes vessel EC probing (i.e., vessel integrity) as an example of corrective actions in response to treatment failures. Include a description on the vessel sampling plan and breach response proposal.

3.7. Consistent with Title 22, section 60301.320(b), the combined membrane filter effluent turbidity must not exceed the following limits: 0.2 nephelometric turbidity units (NTU) more than 5 % of the time within a 24-hour period and 0.5 NTU at any time. Exceedance of turbidity limits must trigger an automatic reliability feature (i.e., failed membrane unit to be placed offline automatically) and corresponding corrective action(s) as described in the OOP. Discrete turbidity readings must be recorded at a set interval to determine compliance with the turbidity requirements and limits. Averaging cannot be utilized for the determination of compliance with turbidity limits. Monterey One Water must propose the frequency of the discrete turbidity readings and its justification for the selection in the updated OOP.

3.8. Consistent with Title 22, section 60301.230(b), the median concentration of total coliform bacteria measured in the AWPF effluent must not exceed a most probable number (MPN) of 2.2 per 100 milliliters (mL) utilizing the bacteriological results of the last seven days for the which analyses have been completed, and the number of total coliform bacteria shall not exceed an MPN of 23 per 100 mL in more than one sample in any 30-day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 mL.

3.9. Monterey One Water will be utilizing ultrafiltration for its membrane filtration system installed upstream of the RO process. Membrane integrity testing using a pressure decay test (PDT), must be performed on each unit of the membrane train(s) on a minimum frequency of once every 24 hours of operation and when turbidity limits exceed as stated in section 3.7, above. The membrane filtration process must be equipped with apparatus to perform daily direct integrity test (DIT). The PDT rate must not exceed the manufacturer specified decay rate approved by DDW and must be reflected in the OOP and SCADA setpoints. The following apply to the DIT:

3.9.1. The pathogen LRV for *Giardia* cysts and *Cryptosporidium* oocysts must be calculated and the values recorded after the completion of

each DIT.[3] The *Giardia* cysts and *Cryptosporidium* oocysts LRV is 4 and virus LRV is zero as described in the Engineering Report. The maximum LRV credit given for *Giardia* cysts and *Cryptosporidium* oocysts is subject to DDW's conditional acceptance for the specific membrane used and must be described in the O

3.9.2. The DIT must have a resolution that is responsive to an integrity breach on the order of 3 microns (µm) or less.

3.9.3. Daily calculations of the LRV must be based on a pressure decay rate (PDR) value with an ending pressure that provides a resolution of 3 µm or less.

3.9.4. The DIT must have a sensitivity to verify an LRV equal to or greater than 4.0.

3.9.5. If a membrane unit fails DIT, the membrane unit must be removed from service, repaired, and have acceptable DIT results prior to being placed back into service.

3.10. NDMA and sucralose are performance surrogates for RO and must be analyzed quarterly both prior to the RO and after RO prior to the AOP.

4. RESPONSE RETENTION TIME

4.1. Pursuant to Title 22, section 60320.224(c), a tracer study utilizing an added or intrinsic tracer must be implemented under hydraulic conditions representative of normal Groundwater Replenishment Reuse Project (GRRP) operation to confirm the Engineering Report's estimated retention time from DIW-5 and DIW-6. Monterey One Water must submit a tracer study protocol for DDW and Central Coast Water Board approval prior to conducting a tracer study. The tracer study must be initiated prior to the end of the third month of injection of AWPF product water into DIW-5 and DIW-6. Results of the tracer study must be approved by DDW and the Central Coast Water Board.

4.2. The Project must be operated in a manner that is protective of the water systems' drinking water supply well sources. The current and proposed injection from all DIWs must be controlled to ensure underground travel time to the nearest drinking water wells is more than or equal to 4.0 months at all times.

[3] DDW's *Conditional Acceptance of the Pure Water Monterey Groundwater Replenishment Project Engineering Report (2790002-710)*, issued August 28, 2025, references "MIT" instead of "DIT" in this section. This has been adjusted.

4.2.1. Based on the information provided in the Engineering Report, the following rolling volumetric injection limits are required for DIW-1, DIW-2, DIW-3, and DIW-4.

Table 1. Injection Limits at Specific Wells

Well	Rolling 4-month average injection limit (acre-ft/month)
DIW-1	29
DIW-2	53
DIW-3	170
DIW-4	118

4.2.2. DDW and the Executive Officer of the Central Coast Water Board may approve an alternative injection limit should permanent changes occur to the drinking water well operations (e.g., the drinking water well is decommissioned or destroyed).

4.3. Monterey One Water submitted the Notification and Response Plan (NRP) dated February 28, 2025, including the supporting "Potable Water Wheeling Agreement" between Cal-Am and MCWD. Monterey One Water is preparing an addendum to the NRP providing additional information on activation and operation of an intertie between Cal-Am and MCWD systems for submittal to DDW. The addendum must be approved by DDW prior to start of delivery of product water from the expanded AWPF to the injection wells.

4.3.1. Monterey One Water must perform notifications and response actions described in its latest DDW-approved NRP, including necessary coordination with Cal-Am and MCWD to provide an alternate source of drinking water supply to all users of a producing drinking water, that as a result of the Project's operation as determined by DDW is impacted as described in Title 22, section 60320.200(b).

4.3.2. The NRP is effective once it is signed by all signatories and is approved by DDW.

4.3.3. The NRP must be effective and in place for the entire duration of Project operation.

4.3.4. Monterey One Water must notify DDW and the Central Coast Water Board of any modifications of the NRP and obtain subsequent DDW approval as required by Title 22, section 60320.200(b).

5. PATHOGENIC MICROORGANISM CONTROL

5.1. Monterey One Water must operate the Project such that the municipal recycled water used for groundwater recharge and replenishment achieves at least 12-log enteric virus reduction, 10-log *Giardia* cyst reduction, and 10-log *Cryptosporidium* oocyst reduction pursuant to Title 22, section 60320.208.

5.2. In a monthly report provided to DDW and the Central Coast Water Board, M1W must report "Yes" or "No" for each day as to whether the total required pathogenic microorganism log reductions (12-logs virus, 10-logs *Giardia* cyst, and 10-logs *Cryptosporidium* oocyst) have been achieved based on the overall treatment train LRV. The overall treatment train LRV for *Cryptosporidium* oocyst, *Giardia* cyst and virus is the sum of LRV for each treatment process for each pathogen. An overall treatment train LRV must be provided daily unless the AWPF is offline for a 24-hour period.

5.3. Per Title 22, section 60320.208(h), if the required *Cryptosporidium* oocyst, *Giardia* cyst, and virus reduction are not met based on the required on-going monitoring detailed in the DDW-approved OOP, within 24 hours of being aware, Monterey One Water must investigate the cause and initiate corrective actions.

6. REPORTING

6.1. Monterey One Water operates a multi-barrier treatment facility to comply with the requirements of Title 22, division 4, article 5.2. Monitoring for the purpose of chemical and pathogen log reduction calculation and demonstration must be reported electronically to DDW and Central Coast Water Board monthly. Monthly reports are due by the 15th day of the following month in a reporting format approved by DDW and Central Coast Water Board. Deviations from the approved monthly report format must be resubmitted in writing by Monterey One Water for review and approval by DDW and Central Coast Water Board. Updated monthly report format must be documented as an update to the OOP.

6.2. In accordance with Title 22, section 60320.218, the AWPF effluent must be sampled for TOC at least weekly prior to injection. Monterey One Water must report the weekly TOC results, the 20-week running average of all TOC results, and the average of the last four results in a quarterly report. The analytical results of the TOC monitoring performed pursuant Title 22, section 60320.218 shall not exceed 0.5 mg/L.

6.3. Monterey One Water must submit an annual report to the DDW and the Central Coast Water Board no later than six months after the end of each calendar year, meeting the requirements of Title 22, section 60320.228 subsection (a). Monterey One Water must update the Engineering Report meeting the requirements of Title 22, section 60320.228 subsection (b) and submit it to the DDW and the Central Coast Water Board at least every five years.

6.4. Monterey One Water must perform monitoring, reporting, and actions in the event of discovery or exceedances of chemical or contaminant limits in accordance with Title 22, sections 60320.201 subsection (i), 60320.210, 60320.212, 60320.220, and 60320.226. Pursuant to Title 22, section 60320.220 subsections (a)(1) and (a)(2), Monterey One Water must perform quarterly monitoring for the Priority Toxic Pollutants (chemicals listed in 40 CFR section 131.38) and DDW specified chemicals in the advanced treated recycled water and the groundwater (from the downgradient monitoring wells):

6.4.1. Chemicals detected in RO permeate:[4]

6.4.2. Quinoline, 2,3,5,6-tetrachloroterephthalate (DCPA), and chloropicrin. Monitoring in the advanced treated recycled water must be conducted prior to RO, after RO prior to the advanced oxidation process (AOP), and after AOP prior to injection to recharge facilities.

6.4.3. Albuterol, erythromycin, carbadox, fluoxetine, caffeine, iohexol, and triclosan. Monitoring in the advanced treated recycled water must be conducted prior to injection to recharge facilities.

6.4.4. Pesticides of local interest: chloropyrifos and chlorothalonil. Monitoring in the advanced treated recycled water must be conducted prior to injection to recharge facilities.

6.5. Each quarter, Monterey One Water must sample and analyze the advanced treated recycled water for chemicals having drinking water notification levels (NLs) in accordance with Title 22, section 60320.220 subsection (b). As of May 2025, the latest version of the NLs list is dated November 1, 2022, and is available on the State Water Board webpage: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/NotificationLevels.html

[4] Pure Water Monterey Groundwater Replenishment Project: Advanced Water Treatment Facility Piloting Report, Draft Report – January 2016

6.6. Annually, Monterey One Water must submit to DDW and the Central Coast Water Board a summary of coordination activities with MCWD on the operation and maintenance of the product water pipeline and the Purified Water Reservoir (Blackhorse Reservoir) necessary for protection of the AWPF product water for injection. At a minimum, Monterey One Water must be kept informed of the status of testing and maintenance of backflow preventers on the product water pipeline, occurrence of backflow incidents (if any), and maintenance activities of the Purified Water Reservoir.

6.7. In addition to monitoring data submittal requirements to the Central Coast Water Board, Monterey One Water must use DDW-provided Primary Station Codes (PS Codes) to electronically submit monitoring results from the AWPF monitoring points and groundwater monitoring wells. Data produced and reports submitted for analysis required by Title 22, division 4, article 5.2 must be generated by a laboratory accredited by ELAP. The laboratory must hold a valid certificate of accreditation for the analytical test methods validated for intended use and approved by DDW. The laboratories performing the analyses must submit the results electronically to DDW's database by the tenth day of the following month in which analysis was completed. Bacteriological data cannot at this time be transmitted electronically to DDW. A summary of bacteriological results must be e-mailed to dwpdist05@waterboards.ca.gov and ddwrecycledwater@waterboards.ca.gov once a month, by the 10th of each month.

6.8. If a result of the monitoring performed pursuant to Title 22, section 60320.201(i) or section 60320.212 exceeds a contaminants' primary maximum contaminant level (MCL) or action level (for lead and copper), Monterey One Water shall collect another sample within 72 hours of notification of the result and then have it analyzed for the contaminant as confirmation. If the average of the initial and confirmation sample exceeds the MCL or action level, or the confirmation sample is not collected and analyzed pursuant to section 60320.212, Monterey One Water must notify DDW and the Central Coast Water Board and perform subsequent monitoring in accordance with section 60320.212(d).

6.9. If the annual average of the results of the monitoring performed pursuant to Title 22, section 6030.201(i) or section 60320.212 exceeds a contaminant's secondary MCL, Monterey One Water must initiate quarterly monitoring of the advanced treated recycled water for the contaminant and perform subsequent actions in accordance with section 60320.212(e).

6.10. If a result of the monitoring performed pursuant to Title 22, section 60320.201(i) or section 60320.220(b) exceeds a contaminant's notification level (NL), Monterey One Water shall collect another sample within 72 hours of notification of the result and then have it analyzed for the contaminant as confirmation. If the average of the initial and confirmation sample exceeds the NL, or the confirmation sample is not collected and analyzed pursuant to section 60320.220(b), Monterey One Water must notify DDW and the Central Coast Water Board and perform subsequent monitoring in accordance with section 60320.220(b).

6.11. Monterey One Water must report the total injection volume into the Seaside Basin on a monthly basis as follows:

6.11.1. Injection volume to each Project injection well in acre-foot per month.

6.11.2. A four-month rolling average of Project injection volume to each injection well in acre-foot per month.

6.11.3. Total injection volume from all Project injection wells to date.

6.12. Monterey One Water must provide a volumetric summary on the makeup of source waters (which may include but are not limited to municipal wastewater, agricultural washwater, bypass industrial wastewater discharged from the City of Salinas industrial wastewater system, Blanco Drain, and Reclamation Ditch) entering the Regional Treatment Plant in the annual report to DDW and Central Coast Water Board required per Title 22, section 60320.228(a). At a minimum, the summary must include discussion of the following items:

6.12.1. The priority of source water usage for the period reported and the basis for the priority.

6.12.2. A summary of monthly volume for each source water type.

6.12.3. An evaluation of which demand scenario best fit the volumes observed during reporting period (Drought, Normal/Wet Full Reserve, Normal/Wet Building Reserve).

7. OPERATIONS OPTIMIZATION PLAN

7.1. Monterey One Water must operate the Project in accordance with the OOP, reviewed and accepted by DDW prior to start of operations, pursuant to Title 22 section 60320.222. Monterey One Water must submit a draft OOP to DDW and Central Coast Water Board prior to delivery of product water from the expanded AWPF to the injection wells. The draft OOP may be amended and finalized after the completion of full-scale startup and commissioning testing. The final OOP

must be submitted to DDW no later than 90 days after the completion of startup and commission testing and incorporate any changes as directed by DDW.

7.2. The OOP must always be representative of the current operations, maintenance, staffing, analytical methods, monitoring, and reporting of the Project in accordance with Title 22, section 60320.222.

7.3. In accordance with Title 22, section 60320.222(b), during the first year of the delivery of product water from the expanded AWPF to the injection wells, and at all times thereafter, all treatment processes must be operated in a manner providing optimal reduction of all chemical and contaminants. Within six months of optimizing treatment processes, and anytime thereafter operations are optimized that results in a change in operation, Monterey One Water must update the OOP to include such changes in operational procedures and submit the OOP for review and acceptance by DDW.

7.4. At a minimum, the OOP must identify and describe the operations, maintenance, analytical methods, monitoring necessary for the Project to meet the requirements of Title 22, division 4, chapter 3, article 5.2, and the reporting of monitoring results to the DDW and the Central Coast Water Board. The OOP must include, at a minimum, the following elements:

7.4.1. Operation plan (including any calculations needed for the validation of unit process's pathogen log reduction credits per Title 22, section 60320.208(c), chemical dosage calculations, injection well back-flushing, start-up, and shutdown procedures).

7.4.2. Preventative maintenance program (including prevention of cross connections, prevention of bypass treatment, equipment repair and replacement, UV lamp fouling, replacement program for membranes, instrumentation maintenance, and calibration).

7.4.3. Water quality monitoring program (including analytical methods, associated instrumentation, and PS-codes for monitoring locations).

7.4.4. Contingency plans (including responses to process upsets, power interruptions, off-spec water, water quality exceedances, and contact information for key personnel and agencies), and emergency response plan.

7.4.5. Records (including records related to preventative maintenance program, contingency plan, sample templates for maintenance logs and monthly report, lessons learned to optimize treatment) and reporting (including procedures for reporting monitoring results,

reports, process upsets, power interruptions, off-spec water, and water quality exceedances).

7.4.6. Process controls quick reference guide for operators in (1) the main treatment control center and (2) in the OOP that include, at a minimum, the following elements of reliability features:

7.4.6.1. The alarm setpoints that trigger responses other than automatic diversion, retreatment, or shutdown (non-critical; critical control limits as defined during normal operations).

7.4.6.2. The alarm setpoints that trigger automatic reliability features: diversion, retreatment, or shutdown (critical alarms).

7.4.6.3. For each alarm, include the associated response and the associated instrumentation include the following: instrument tag, description, type (i.e., low, low-low, etc.), setpoint/trigger value, effect, time delay, and if the setpoint/trigger value is hardcoded.

7.4.6.4. The required frequency of calibration for any critical instrumentation, along with instrumentation tag and description, that has a setpoint measurement associated with a critical alarm.

7.4.7. The alarm setpoints, specifically for critical alarms the security access for changing the critical alarm set points. A standard operating procedure shall be referred to for the critical alarm set points maintenance and changes when required. This may include requirement of a programmer and/or SCADA software integrator to make the critical alarm set point change, higher level management staff (e.g., Operations manager, etc.) with elevated SCADA login access or privileges to make critical alarm set point change, etc.

7.4.8. Actions taken or changes that have been made to the AWPF to optimize the treatment process and/or the AWPF since the January 2021 version of the OOP.

7.5. Monterey One Water must update the OOP to incorporate any future revisions to chemical monitoring lists (e.g., MCLs, NLs) when communicated by DDW.

8. LABORATORY ANALYSES

8.1. Per Title 22, section 60320.204, all laboratory analyses for contaminants having a primary or secondary MCL must be conducted using a drinking water method approved by DDW for the contaminant and by a laboratory accredited by the State Water Board Environmental Laboratory Accreditation Program (ELAP) for the analytical method used. Analyses for parameters other than those having primary or secondary MCLs must be described in the approved OOP. For analysis of chemicals not having primary or secondary MCL, Monterey One Water shall first consider using an approved drinking water method for the analyte(s) and if an approved drinking water method is not available for the analyte(s), Monterey One Water may consider using an approved wastewater method subject to review and approval by DDW which must be described in the approved OOP.

9. CROSS-CONNECTION CONTROL PROGRAM

9.1. Any undesired or unintended reversal of flow of water or other liquids, gases, or other substances into the AWPF's product water lines, including product water delivery pipelines into the injection wells, are prohibited. Any such undesired or unintended reversal of flow must be reported to the Central Coast Water Board and DDW within 24 hours of the Monterey One Water's knowledge of the incident.

9.2. The AWPF must be inspected for possible cross-connections of potable water, wastewater, recycled water, chemicals, and other waste or non-potable piping systems prior to operation of the expanded AWPF and once every year thereafter. Piping systems must be inspected for possible cross-connections after making any modification to the AWPF plumbing system. The AWPF must have internal protection from cross-connections.

9.2.1. The cross-connection inspections must be performed by an individual with a valid and current Cross-Connection Program Specialist certification issued by a certifying organization recognized by the State Water Board pursuant to the State Water Board Cross Connection Control Policy Handbook.

9.2.2. Monterey One Water must submit a written report documenting the result of the initial inspection with the program submitted to DDW. Subsequent inspection results must be included in the annual reports.

9.3. Monterey One Water must submit a comprehensive cross-connection control survey report for the expanded AWPF to DDW and the Central Coast Water Board prior to delivery of product water from the expanded AWPF to the injection wells. The cross-connection control survey report must be submitted as a standalone document, separate from and prior to the submittal of the OOP. Any deficiencies and recommendations identified in the survey report must be addressed and resolved prior to delivery of product water to the injection wells. Subsequent cross-connection control surveys must be conducted annually.

9.4. The AWPF must be designed to prevent any inadvertent or improper cross-connections between the potable water, industrial or process water, wastewater, recycled water, chemical, or other waste or non-potable systems. Potential points of vulnerability between the potable water, industrial or process water, wastewater, recycled water, chemical, and other on-site waste or non-potable piping systems must be identified in the OOP. The OOP must include procedures for routine inspection of these potential points of vulnerability, as well as reporting procedures if inadvertent or improperly designed cross-connections are discovered.

ATTACHMENT E
MONITORING AND REPORTING PROGRAM
ORDER R3-2025-0008

TABLE OF CONTENTS

TABLE OF TABLES

1. FINDINGS

1.1. This monitoring and reporting program (MRP) is issued to Monterey One Water, which operates the Pure Water Monterey Groundwater Replenishment Project (Project), pursuant to California Water Code (CWC) section 13267, which authorizes the Central Coast Water Board to require technical and monitoring reports. Title 22, division 4 also requires monitoring and reporting to confirm compliance with Title 22 regulations.

1.2. The data required by this MRP provide information to determine compliance with Order R3-2025-0008, *Waste Discharge and Water Reclamation Requirements for Pure Water Monterey Groundwater Replenishment Reuse Project* (Order). The MRP requirements also provide information to the Central Coast Regional Water Quality Control Board (Central Coast Water Board) to assess groundwater quality and to protect beneficial uses. The Central Coast Water Board Executive Officer can modify this MRP as appropriate.

1.3. This MRP establishes conditions for Monterey One Water to conduct routine and episodic self-monitoring of the discharges regulated under this Order at specified AWPF influent, internal operations, AWPF effluent (in this case, effluent is advanced treated recycled water or, “product” or “purified” water), and receiving water monitoring locations. This MRP requires Monterey One Water to report the results to the Central Coast Water Board with the information necessary to evaluate discharge characteristics and compliance status.

2. GENERAL MONITORING PROVISIONS

Monterey One Water 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. All samples must be collected at the monitoring points specified in this MRP. Monterey One Water must not change monitoring locations prior to notifying and receiving approval from the Central Coast Water Board for the proposed change.

2.1. Methods

2.1.1. Monterey One Water 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. Monterey One Water must install, calibrate, and maintain the devices according to manufacturer recommendations to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Flow measurement devices must be calibrated at least annually to ensure accuracy within ±10%.

2.1.2. In accordance with Title 22 section 60320.204, Monterey One Water must ensure that all laboratories conduct analyses for parameters with a primary or secondary maximum contaminant level (MCLs) using a drinking water method for the parameter approved by State Water Resources Control Board's (State Water Board's) Division of Drinking Water (DDW). If there are no approved drinking water methods available for a parameter, the method used must be authorized by DDW and must be described in Monterey One Water's operation optimization plan (OOP).

2.1.3. Monterey One Water must ensure that monitoring for all parameters that do not have a primary or secondary MCL be conducted according to USEPA test procedures approved by ELAP for the analytical method used, or according to methods approved in 40 Code of Federal Regulations (CFR) part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants, as amended, unless other test procedures have been specified in Monterey One Water's OOP. Analyses for all parameters must be described in Monterey One Water's OOP.

2.1.4. Where multiple USEPA-approved methods are available, drinking water (500 series) or wastewater (600 series) methods may be used as appropriate.

2.1.5. Laboratories analyzing monitoring samples must be ELAP-certified under Water Code section 13176 and must include quality control data with their reports.

2.1.6. If Monterey One Water monitors any parameters more frequently than required by this MRP, using approved test procedures, the results of this monitoring must be included in the calculation and reporting of the data submitted in Monterey One Water's monitoring report. Monterey One Water must also report the increased frequency of monitoring.

2.1.7. Monterey One Water must properly and routinely maintain and calibrate all monitoring instruments and devices per manufacturer guidelines used to comply with this MRP.

2.1.8. For all bacterial analyses, sample dilutions must be performed so the range of values extends from 1 to 800. The detection methods used for each analysis must be reported with the results of the analyses.

2.2. Data Submittal and Record Retention

2.2.1. Monterey One Water must retain records of all monitoring information, including all calibration and maintenance records with all original strip chart and/or electronic recordings to SCADA historian SCADA historian for continuous monitoring instrumentation, copies of all reports required by this MRP, and records of all data used to complete the implementation for this MRP. Monterey One Water must maintain records for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during any unresolved litigation regarding this discharge or as required by the Central Coast Water Board. Records of monitoring information must include the following:

2.2.1.1. The date, exact place, and time of sampling or measurements,

2.2.1.2. The individual(s) who performed the sampling or measurements,

2.2.1.3. The date(s) analyses were performed,

2.2.1.4. The individual(s) who performed the sampling, analyses, and/or other measurements,

2.2.1.5. The analytical techniques or methods used, and

2.2.1.6. The results of such analyses.

2.2.1.7. A complete sample analytical report.

2.2.1.8. A complete laboratory Quality Assurance/Quality Control (QA/QC) report.

2.2.1.9. A discussion of the QA/QC data.

2.2.2. Any report submitted by Monterey One Water presenting new analytical data is required to include the complete laboratory analytical report(s). The laboratory director or supervisor must sign the laboratory analytical report.

2.2.3. Monterey One Water must sign and certify all applications, reports, or information submitted to the Central Coast Water Board as detailed in sections 14.12 and 14.13 of the Order.

2.2.4. Monterey One Water 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 Monterey One Water has or will take to prevent future instances. Missing or non-valid results may be considered violations of the MRP, which could result in enforcement action,

depending on the frequency of such instances and efforts by Monterey One Water to prevent such failures.

2.2.5. Except as otherwise specified in this MRP, Monterey One Water may request reduced sampling and reporting frequency for parameters in accordance with Title 22 and the water reclamation requirements (WRRs) in Attachment D of the Order after receiving written approval from the Central Coast Water Board for the reduction. The Central Coast Water Board will consult with DDW on all Title 22 related monitoring requirement changes. See section 7 of the MRP.

2.2.6. For the purposes of this MRP, sample types shall be defined as follows:

2.2.6.1. Grab Sample: A grab sample is a discrete sample collected at a single point in time and at a specific location. It represents the water quality at that moment and location only. Grab samples must be collected and preserved in accordance with the approved method and within the holding time specified for the target analyte(s).

2.2.6.2. Composite Sample: A composite sample is a combination of individual aliquots collected either at equal time intervals (time-composite) or proportional to flow (flow-composite) over a specified sampling period. Composite samples are used to represent average conditions over time and must be collected and preserved in accordance with the method requirements and holding time for the analyte(s) of concern.

2.2.7. All reports to the State Water Board's Geotracker must reference Order R3-2025-0008. Monterey One Water must submit compliance monitoring reports as stand-alone documents, separate from other technical reports.

2.2.8. All reports must be submitted as a portable data format (PDF) file and uploaded electronically to the State Water Board's Geotracker database. Upon request, the data must be provided in excel format.

2.2.9. Monterey One Water must use DDW-provided Primary Station Codes (PS Codes) to electronically submit monitoring results from the advanced treated recycled water and groundwater monitoring wells to DDW's database.

2.2.10. Data produced and reports submitted for analysis required by Title 22, Division 4, Article 5.2 must be generated by a laboratory accredited by ELAP. The laboratory must hold a valid certificate of

accreditation for the analytical test methods validated for intended use and approved by DDW. The laboratories performing the analyses must submit the results electronically to DDW's database by the tenth day of the following month in which analysis was completed.

2.2.11. Bacteriological data cannot at this time be transmitted electronically to DDW. A summary of bacteriological results must be e-mailed to dwpdist05@waterboards.ca.gov once a month, by the 10th of each month.

3. MONITORING LOCATIONS

3.1. Monterey One Water must establish the monitoring locations described in Table E-1 and shown in Figure E-1. to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order. Should the need for a change in sampling station(s) arise in the future, Monterey One Water must seek approval of the proposed station by the Central Coast Water Board Executive Officer prior to use or cessation of use.

3.2. Following well construction, Monterey One Water must coordinate with Cal-Am to obtain groundwater monitoring data from select downgradient extraction wells (EW-3 and EW-4) to assess potential geochemical changes associated with the operation of the new injection wells DIW-5 and DIW-6. Sampling must be conducted at a frequency specified in Table E-14.

Table E-1. Summary of Monitoring Locations

Monitoring Location Name (Sample ID)	Reporting Database	Geotracker Field Point Class	Latitude/ Longitude[1]	Primary Station Code	Monitoring Location Description
AWPF Influent	Geotracker	TPS	36.7070/ -121.7711	CA2790002_301_301	Secondary effluent pumped to Advanced Water Purification Facility (AWPF) (i.e., Ozone System Influent). Sample collected prior to ozone injection at the AWPF.

Monitoring Location Name (Sample ID)	Reporting Database	Geotracker Field Point Class	Latitude/ Longitude[1]	Primary Station Code	Monitoring Location Description
AWPF Prod Water	Geotracker /CLIP[2]	TPS	36.7062/ -121.7725	CA2790002_300_300	Purified and stabilized water after chloramination and prior to injection (i.e., final full advanced-treated water produced by the AWPF for injection).[3]
MFE[4]	N/A	N/A	N/A	N/A	MF effluent for MF process performance.
RO Feed[4]	N/A	TPS	36.7069/ -121.7722	CA2790002_302_302	Reverse osmosis (RO) feed for RO process performance.
RO Perm	N/A	TPS	36.7068/ -121.7725	CA2790002_303_303	RO permeate for RO process performance.
UVF	N/A	N/A	--	--	Influent for ultraviolet advanced oxidation process (UV/AOP) performance.
UVP	N/A	N/A	--	--	Effluent for UV/AOP process performance.

Monitoring Location Name (Sample ID)	Reporting Database	Geotracker Field Point Class	Latitude/ Longitude[1]	Primary Station Code	Monitoring Location Description
MW-1S	Geotracker /CLIP	AMB	36.6183/-121.8143	CA2790002_204_204	Shallow monitoring well 1, located northwest and downgradient from DIW-1, screened in the Paso Robles aquifer
MW-1AS	Geotracker /CLIP	AMB	36.6197/ -121.8145	CA2790002_204_206	Shallow monitoring well 1A, located northwest and downgradient from DIW-1, screened in the Paso Robles aquifer
MW-1D	Geotracker /CLIP	AMB	36.6183/ -121.8143	CA2790002_203_203	Deep monitoring well 1A, located adjacent to deep injection well 1 (DIW-1), screened in the Santa Margarita aquifer
MW-1AD	Geotracker /CLIP	AMB	36.6198/ -121.8149	CA2790002_205_205	Deep monitoring well 1A located northwest and downgradient of DIW-1, screened in the Santa Margarita aquifer

Monitoring Location Name (Sample ID)	Reporting Database	Geotracker Field Point Class	Latitude/ Longitude[1]	Primary Station Code	Monitoring Location Description
MW-2AS	Geotracker /CLIP	AMB	36.6182/ -121.8168	CA2790002_209_209	Shallow monitoring well 2A, located north and downgradient of DIW-2, screened in the Paso Robles aquifer
MW-2D	Geotracker /CLIP	AMB	36.6168/ -121.8171	CA2790002_207_207	Deep monitoring well 2, located adjacent to deep injection well 2 (DIW-2), screened in the Santa Margarita aquifer
MW-2AD	Geotracker /CLIP	AMB	36.6182/ -121.8168	CA2790002_210_210	Deep monitoring well 2A, located north and downgradient of DIW-2, screened in the Santa Margarita aquifer
MW-3AD	Geotracker /CLIP	AMB	36.62429/-121.8068	CA2790002_216_216	Deep zone downgradient monitoring for new injection wells DIW-5 and DIW-6
EW-3	Geotracker CLIP	EW-3	Not yet installed	Not yet assigned	Newly constructed extraction well 3, located northwest of DIW-5

Monitoring Location Name (Sample ID)	Reporting Database	Geotracker Field Point Class	Latitude/ Longitude[1]	Primary Station Code	Monitoring Location Description
EW-4	Geotracker CLIP	EW-4	Not yet installed	Not yet assigned	Newly constructed extraction well 4, located northwest of DIW-6

[1] Horizontal datum for monitoring well locations is North American Datum of 1983 (NAD83) (2011), California State Lane Zone III

[2] CLIP denotes California Laboratory Intake Portal, refer to Order Attachment D for additional information

[3] All samples must be collected at the latitude/longitude of the AWPF Prod Water immediately after treatment pursuant to title 22, article 5.2 section 60320.201 (i). The pH must be sampled at the AWPF Prod Water location for operational and performance evaluation. Additionally, pH must be sampled immediately prior to injection at DIW-4 and DIW-6, to evaluate compliance with pH effluent limitation in Order Section 6.1.

[4] MFE and RO Feed samples can be collected at the same location but should be reported under different monitoring location names.

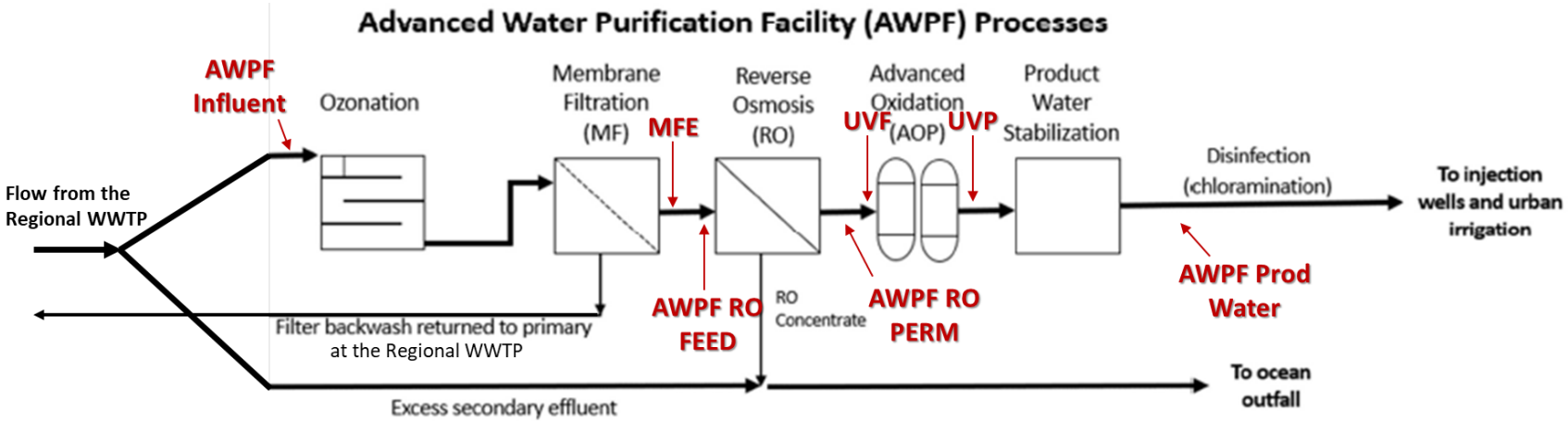

Figure E-1. Sample locations for the Pure Water Monterey Advanced Water Purification Facility (AWPF). Figure adapted from the 2025 Monterey One Water Pure Water Monterey Groundwater Replenishment Project Engineering Report

4. MONITORING REQUIREMENTS

4.1. Influent Monitoring

Monterey One Water must monitor influent to the AWPF in accordance with Table E-2. The date and time of sampling (as appropriate) must be reported with the analytical values determined

Table E-2. Influent and Process Monitoring

Parameter	Sample Location	Units	Sample Type	Minimum Sampling Frequency
Instantaneous Maximum Flow	AWPF Influent	Millions of gallons per day (MGD)	Flow meter / totalizer	Continuous
Maximum Daily Flow	AWPF Influent	MGD	Flow meter / totalizer	Monthly
Mean Daily Flow[1]	AWPF Influent	MGD	Calculated	Monthly
pH	AWPF Influent	pH units	Recorder	Continuous
Turbidity	AWPF Influent	NTU	Metered	Continuous
5-Day Biochemical Oxygen Demand (BOD5)	AWPF Influent	Milligrams per liter (mg/L)	24-hour composite	Quarterly
Total Dissolved Solids (TDS)	AWPF Influent	mg/L	24-hour composite	Quarterly
Total Organic Carbon (TOC)	AWPF Influent	mg/L	24-hour composite	Weekly
Ammonia-N	AWPF Influent	mg/L	24-hour composite	Monthly
Boron	AWPF Influent	mg/L	24-hour composite	Monthly

Parameter	Sample Location	Units	Sample Type	Minimum Sampling Frequency
Chloride	AWPF Influent	mg/L	24-hour composite	Monthly
Sodium	AWPF Influent	mg/L	24-hour composite	Monthly
Sulfate	AWPF Influent	mg/L	24-hour composite	Monthly
Nitrate	AWPF Influent	mg/L as N	24-hour composite	Monthly
Nitrite	AWPF Influent	mg/L as N	24-hour composite	Monthly
Total Kjeldahl Nitrogen	AWPF Influent	mg/L as N	24-hour composite	Monthly
Total Nitrogen[2]	AWPF Influent	mg/L	24-hour composite	Monthly

[1] Mean daily flow is calculated as the sum of flows that occurred during each day of the month divided by the number of days in the month.
[2] Total nitrogen includes nitrate, nitrite, ammonia, and organic N.

4.2. Log Reduction Value and Process Control Monitoring

Monterey One Water is required to monitor the membrane filtration (MF), reverse osmosis (RO), and ultraviolet/advanced oxidation process (UV/AOP) treatment components to verify chemical and pathogen log reduction performance and to ensure that each treatment barrier is functioning properly. Monitoring must be conducted in accordance with the parameters and frequencies specified in Table E-3 to demonstrate compliance with section 3, AWPF Requirements and section 5, Pathogenic Microorganism Control of Attachment D, Water Reclamation Requirements. Performance data for the MF, RO, and UV/AOP systems must be summarized and submitted in monthly monitoring reports.

4.2.1. Reverse Osmosis Monitoring

4.2.1.1. Monterey One Water must implement a tiered monitoring approach for the RO system. Monterey One Water must report

calculated surrogate reduction values from all applicable tiers and clearly indicate which tier is used to report the pathogen log reduction and include an example form and sample calculation for the surrogate reduction in the OOP for DDW acceptance.

4.2.1.2. Not all three monitoring tiers need to be reported daily. If monitoring is not conducted for a particular tier (e.g., strontium), Monterey One Water may indicate “Not Applicable” for that tier on the reporting form.

4.2.1.3. Tier 1: Monterey One Water must analyze the combined RO feed and effluent streams from every RO train for strontium. Monterey One Water must use the train with the least reduction (i.e., highest effluent strontium level) to calculate the daily log reduction value (LRV) credit. DDW ELAP has updated FOT 103, Toxic Chemical Elements in Drinking Water, to include elemental strontium. Strontium analysis must be performed by laboratories with current ELAP accreditation.[1] The results of strontium analysis must be available within 24 hours. If strontium data are unavailable, the RO LRV credit must be determined by the second tier (TOC) or third tier (EC).

4.2.1.4. Tier 2: Continuous TOC monitoring (at least once every 15 minutes) of the combined RO feed stream and the combined RO effluent stream. The RO LRV credit will be calculated using the average daily reduction in TOC. If Tier 1 (strontium) and Tier 2 (TOC) data are unavailable, the RO LRV credit must be determined by Tier 3.

4.2.1.5. Tier 3: If data for strontium (Tier 1) or TOC (Tier 2) are unavailable or invalid, Monterey One Water must use electrical conductivity (EC) as a surrogate to calculate the LRV credit. Monterey One Water must continuously monitor EC every 15 minutes in the combined RO feedwater and combined RO effluent streams for each RO train. To ensure a conservative estimate of RO performance, the lowest daily percent reduction in EC across all trains must be used to determine the LRV credit. Although EC is a less selective surrogate for pathogen removal than strontium or TOC, its use is recognized in the absence of Tier 1 and Tier 2 data, consistent with guidance

[1] Monterey One Water will obtain total strontium results the same day of sampling and the measured RO LRV will be reported for that calendar day.

from DDW and the surrogate monitoring framework established in Attachment A of the 2018 Recycled Water Policy.

4.2.2. Membrane Integrity Testing

Membrane integrity testing using a pressure decay test (PDT) must be performed on each unit of the membrane train on a minimum frequency of once every 24 hours of operation and when turbidity limits are exceeded as stated in WRRs Attachment D, section 3.9.

Table E-3. Log Reduction Value and Process Control Monitoring

Parameter	Monitoring Location(s)	Units	Sample Type	Minimum Sampling Frequency
Total LRV	MFE, RO Perm, UVP	Sum of the log10 reduction achieved from the credited treatment barriers (MF, RO, UV/AOP, chloramine treatment in conveyance, and underground retention time)	Calculated	Daily
Total LRV	MFE, RO Perm, UVP	Achieved LRV targets – yes/no	Calculated	Daily
MFE Turbidity	MFE	Nephelometric turbidity units (NTU)	Continuous	Daily
RO LRV Tier	RO Perm	Tier used for LRV (1, 2, or 3)	Recorded	Daily
RO Total Organic Carbon (TOC)	RO Feed, RO Perm	Daily average and daily maximum in mg/L	Continuous	Daily
1,4-dioxane	UVF, UVP	mg/L	Grab	Quarterly
Sucralose	RO Feed, RO Perm, AWPF Prod Water	µg/L	Grab	Quarterly

Parameter	Monitoring Location(s)	Units	Sample Type	Minimum Sampling Frequency
NDMA	RO Feed, RO Perm, AWPF Prod Water	µg/L	Grab	Quarterly

4.3. Effluent (Advanced Treated Recycled Water) Monitoring

4.3.1. Monterey One Water must monitor effluent at the AWPF to:

4.3.1.1. Verify compliance with Order conditions;

4.3.1.2. Detect operational issues and support performance optimization; and

4.3.1.3. Provide data on recycled water quality and flow to support interpretation of water quality and biological monitoring results

4.3.2. Monterey One Water must monitor and report the volume of AWPF effluent injected into each permitted injection well. Daily injection volumes must be recorded for each individual well.

4.3.3. If any effluent flow limit is exceeded, Monterey One Water must notify the Central Coast Water Board as described in the Order, section 14.4 Violation Notifications.

4.3.4. Monterey One Water must monitor the effluent leaving the AWPF for the parameters listed in Table E-4 below to demonstrate compliance with the Order. Representative samples must be collected and analyzed for the following parameters at frequencies specified herein.

Table E-4. Effluent Monitoring at AWPF Prod Water

Parameter	Units	Sample Type	Minimum Sampling Frequency
Instantaneous Max Flow	MGD	Flow meter / totalizer	Continuous
Maximum Daily Flow	MGD	Flow meter / totalizer	Daily

Parameter	Units	Sample Type	Minimum Sampling Frequency
Mean Daily Flow	MGD	Calculated	Daily
Total chlorine residual	mg/L	Recorder	Continuous
EC	µmhos/cm	Recorder	Continuous or daily
Aluminum[1]	mg/L	Grab	Monthly
Boron[2]	mg/L	Grab	Quarterly
Chloride[3,2]	mg/L	Grab	Quarterly
Color Units[3]	Apparent color unit (ACU)	Grab	Quarterly
Copper[3]	mg/L	Grab	Quarterly
EC	µmhos/cm	Grab	Monthly
Fluoride[1]	mg/L	Grab	Monthly
Iron[3]	mg/L	Grab	Quarterly
Lead	mg/L	Grab	Quarterly
Manganese[3]	mg/L	Grab	Quarterly
Methylene Blue Activated Substances (MBAS)[3]	mg/L	Grab	Quarterly
Methyl tert-butyl ether (MTBE) [3]	mg/L	Grab	Monthly
Nitrate[1,2]	mg/L as N	Grab	Weekly
Nitrate + Nitrite[1]	mg/L as N	Calculate	Weekly
Nitrite[1]	mg/L as N	Grab	Weekly
Total Nitrogen	mg/L	Calculate	Weekly
Total Kjeldahl Nitrogen	mg/L as N	Grab	Weekly

Parameter	Units	Sample Type	Minimum Sampling Frequency
Odor[3]	Threshold odor number (TON)	Grab	Quarterly
Sodium[2, 3]	mg/L	Grab	Monthly
pH[2]	pH units	Recorder	Continuous[4]
Silver[3]	mg/L	Grab	Quarterly
Sulfate[2,3]	mg/L	Grab	Quarterly
Thiobencarb[3]	mg/L	Grab	Quarterly
Total dissolved solids (TDS)[3,2]	mg/L	Grab	Monthly
Total coliform[2]	Most probable number (MPN)/ 100 mL	Grab	Daily
Turbidity[3]	NTU	Recorder	Continuous
Zinc[3]	mg/L	Grab	Quarterly
Total Organic Carbon (TOC)	mg/L	Metered or 24-hr composite	Continuous

[1] Parameters with primary MCLs established in Title 22, section 64431 table 64431 or with notification levels (NLs).

[2] Parameters with water quality objectives established in the Water Quality Control Plan for the Central Coastal Basin (Basin Plan).

[3] Parameters with secondary MCLs established in Title 22, section 64449, table 64449-A.

[4] The pH must be continuously recorded at the effluent and at two injection wells as described in Table E-1. The daily average pH value from the continuous recorders at the injection wells must be used or compliance determination with pH effluent limitation."

4.3.5. Total Organic Carbon. Product water TOC results shall be reported as follows:

4.3.5.1. Weekly average: For continuous TOC analyzer results, the weekly average shall be the arithmetic mean of all readings collected within the calendar week;

4.3.5.2. For hourly grab samples, the weekly average shall be the arithmetic mean of all samples collected during the week.

4.3.5.3. The average of the last four TOC results shall be the average of the last four weekly average results;

4.3.5.4. The 20-week running average of all TOC results shall be the arithmetic mean of all continuous analyzer results and hourly grab sample results collected within the past 20 calendar weeks.

4.3.5.5. An online TOC analyzer may be used to characterize AWPF product water to demonstrate compliance with Title 22 section 60320.218(a) under the following conditions:

4.3.5.5.1. Maintain an up-to-date OOP to reflect current compliance monitoring approach. Provide DDW with a copy of the revised sections of the draft OOP.

4.3.5.5.2. Provide Monterey One Water standard operating procedures for TOC analyzer calibration and monthly verification for DDW review.

4.3.5.5.3. Calibration of the online TOC analyzer must be done at a minimum of once every 12 months or sooner if recommended by the manufacturer.

4.3.5.5.4. Perform maintenance on the online TOC analyzer in accordance with the manufacturer's operations and maintenance manual, including the replacement frequency for reagents and other consumables.

4.3.5.5.5. If the product water TOC analyzer is offline, hourly grab samples for 24 consecutive hours (collected once per week) will be accepted in lieu of continuous online TOC measurements. If the TOC analyzer is offline for more than 48 hours, collect a monthly verification sample to compare with results of the TOC analyzer. The results of monthly verification grab sample must be within the manufacturer's specifications for acceptance. Collect a blank sample in parallel as a QA/QC measure.

4.3.5.5.6. If the Product Water Pump Station (PWPS) TOC analyzer is offline for more than one week, provide a discussion for the cause and steps taken to bring TOC analyzer back online in the required monthly and/or quarterly water quality monitoring reports.

4.3.5.6. Request DDW approval in writing should Monterey One Water decide to use an alternative TOC analyzer (other than Sievers M5310 C proposed in the OOP.

4.4. Additional Monitoring Following Effluent Limitation Exceedances

4.4.1. Monterey One Water must conduct additional monitoring for parameters with secondary MCLs listed in Table E-4 when effluent limitations established in this Order are exceeded, in accordance with the following provisions:

4.4.1.1. If the annual average of monitoring results exceeds a parameter's secondary MCL or upper limit, Monterey One Water must initiate quarterly monitoring for that parameter.

4.4.1.2. If the running annual average of quarterly averaged results exceeds a parameter's secondary MCL or upper limit, Monterey One Water must include in the corresponding monitoring report a description of the cause of the exceedance and any corrective actions taken.

4.4.1.3. Monterey One Water may resume annual monitoring if the running annual average of quarterly results no longer exceeds the applicable secondary MCL or upper limit.

4.4.2. If the annual average of the results of the monitoring performed exceeds a parameter's secondary MCL or upper limit, Monterey One Water must initiate quarterly monitoring for the parameter.

4.4.3. If the running annual average of quarterly averaged results exceeds a parameter's secondary MCL or upper limit, Monterey One Water must describe the reason(s) for the exceedance and any corrective action taken in report for the reporting period in which the exceedance occurred.

4.4.4. The annual monitoring frequency may resume if the running annual average of quarterly results does not exceed a parameter's secondary MCL or upper limit.

4.4.5. In the event of an exceedance of any applicable effluent limitation listed in the Order, Monterey One Water must conduct additional monitoring for parameters with MCLs, as specified in Tables E-4 through Table E-12 (Title 22, section 60320.212(d) and section 60320.210(a)).

4.5. Demonstration of Control of Nitrogen Compounds

4.5.1. To demonstrate control of nitrogen compounds,[2] Monterey One Water must conduct total nitrogen monitoring at a frequency of two samples per week, collected at least three days apart, as specified in the OOP, if either of the following conditions occur:

4.5.1.1. The running 12-month average of weekly total nitrogen results exceeds 5 mg/L, or

4.5.1.2. The average of any result and its confirmation sample (taken within 24 hours of receipt of the initial result) exceeds 10 mg/L.

4.5.2. If any individual total nitrogen result exceeds 10 mg/L, the laboratory or person conducting the analysis must report the result to Monterey One Water within 72 hours.

4.5.3. If the average of two consecutive total nitrogen results exceeds 10 mg/L, Monterey One Water must:

4.5.3.1. Take a confirmation sample and notify the Central Coast Water Board and DDW within 48 hours of receiving the initial result from the laboratory.

4.5.3.2. Investigate the cause of the exceedances and take corrective actions to reduce the total nitrogen concentrations and prevent reoccurrence.

4.5.4. Monterey One Water must initiate additional monitoring for nitrogen compounds as described in the OOP, including locations in the groundwater basin, to identify elevated concentrations and determine whether they exceed or may lead to an exceedance of a nitrogen-based MCL.

4.5.5. If the average of the results of four consecutive total nitrogen samples exceeds a concentration of 10 mg/L, Monterey One Water must suspend the subsurface injection of advanced treated recycled water. Monterey One Water must not resume injections until corrective

[2] Total nitrogen; nitrate expressed as nitrogen; nitrate plus nitrite expressed as nitrogen; and nitrite expressed as nitrogen

actions have been implemented and at least two consecutive total nitrogen results, collected at least 24 hours apart, are each below 10 mg/L.

4.6. Regulated Parameters and Physical Characteristics Control:

4.6.1. For a parameter whose compliance with its MCL, or for lead and copper, an action level (AL) that is not based on a running annual average (including nitrate, nitrite, nitrate plus nitrite, perchlorate, chlorite, asbestos, lead, and copper):

4.6.1.1. Within 72 hours of being notified of a result exceeding an MCL or action level (AL) Monterey One Water must collect another sample and have it analyzed for the parameter as confirmation.

4.6.1.2. If the average of the initial and confirmation sample exceeds the parameter's MCL or AL, or a confirmation sample is not collected and analyzed, Monterey One Water must initiate weekly monitoring for the parameter until four consecutive weekly results are below the parameter's MCL or AL. The first week of sample is the mean of the initial and confirmation sample. Monterey One Water must notify the Central Coast Water Board and DDW within 24 hours if the average of the initial and confirmation samples exceeds an MCL or AL or if a confirmation sample is not collected.

4.6.1.3. If the running four-week average exceeds the parameter's MCL or AL, Monterey One Water must notify the Central Coast Water Board and DDW within 24 hours of knowledge of the exceedance and, if directed by the Central Coast Water Board or DDW, conduct corrective actions up to and potentially including suspending the discharge of the recycled municipal wastewater.

4.6.2. For a parameter whose compliance with its MCL is based on a running annual average (Title 22, section 60320.212(d)):

4.6.2.1. Within 72 hours of being notified of a result exceeding an MCL, Monterey One Water must collect another sample and then have it analyzed for the parameter as confirmation.

4.6.2.2. If the average of the initial and confirmation sample exceeds the parameter's MCL, or a confirmation sample is not collected and analyzed, Monterey One Water must initiate weekly monitoring for the parameter until the running four-week average no longer exceeds the MCL.

4.6.2.3. If the running four-week average exceeds the parameter's MCL, Monterey One Water must describe the reason(s) for the exceedance and provide a workplan with a schedule for completion of corrective actions in the report for the quarter in which the exceedance occurred.

4.6.2.4. If the running four-week average exceeds the parameter's MCL for 16 consecutive weeks, Monterey One Water must notify the Central Coast Water Board and DDW within 48 hours of knowledge of the exceedance and, if directed by the Central Coast Water Board or DDW, conduct corrective actions up to and potentially including suspending the discharge of the recycled municipal wastewater.

Table E-5. Effluent Monitoring at AWPF Prod Water: Remaining Inorganics

Parameter[1]	Units	Sample Type	Minimum Sampling Frequency
Antimony	mg/L	Grab	Quarterly
Arsenic	mg/L	Grab	Quarterly
Asbestos (for fibers exceeding 10 µm in length)	Million fibers per liter (MFL)	Grab	Once every three years[2]
Barium	mg/L	Grab	Quarterly
Beryllium	mg/L	Grab	Quarterly
Cadmium	mg/L	Grab	Quarterly
Chromium (total)	mg/L	Grab	Quarterly
Chromium (hexavalent)	mg/L	Grab	Quarterly
Cyanide	mg/L	Grab	Quarterly
Fluoride	mg/L	Grab	Quarterly
Mercury	mg/L	Grab	Quarterly
Nickel	mg/L	Grab	Quarterly
Perchlorate	mg/L	Grab	Quarterly

Parameter[1]	Units	Sample Type	Minimum Sampling Frequency
Selenium	mg/L	Grab	Quarterly
Thallium	mg/L	Grab	Quarterly

[1] Parameters with primary MCLs established in Title 22, section 64431, Table 64431-A.

[2] Monterey One Water has reported four consecutive quarterly results for asbestos below the detection limit in Title 22, section 64432, table 64432-A for asbestos. Title 22 section 60320.212(f), monitoring requirements have therefore been reduced. If an asbestos sample exceeds the primary MCL, Monterey One Water shall resume quarterly monitoring until DDW and the Central Coast Water Board approve a reduction in monitoring.

Table E-6. Effluent Monitoring at AWPF Prod Water: Volatile Organic Chemicals (VOCs)

Parameter[1]	Units	Sample Type	Minimum Sampling Frequency
Benzene	mg/L	Grab	Quarterly
Carbon tetrachloride	mg/L	Grab	Quarterly
1,2-Dichlorobenzene	mg/L	Grab	Quarterly
1,4-Dichlorobenzene	mg/L	Grab	Quarterly
1,1-Dichloroethane	mg/L	Grab	Quarterly
1,2-Dichloroethane	mg/L	Grab	Quarterly
1,1-Dichloroethylene	mg/L	Grab	Quarterly
cis-1,2-Cichloroethylene	mg/L	Grab	Quarterly
trans-1,2-Dichloroethylene	mg/L	Grab	Quarterly
Dichloromethane	mg/L	Grab	Quarterly
1,2-Dichloropropane	mg/L	Grab	Quarterly
1,3-Dichloropropene	mg/L	Grab	Quarterly

Parameter[1]	Units	Sample Type	Minimum Sampling Frequency
Ethylbenzene	mg/L	Grab	Quarterly
Methyl tert-butyl ether (MTBE)	mg/L	Grab	Quarterly
Chlorobenzene	mg/L	Grab	Quarterly
Styrene	mg/L	Grab	Quarterly
1,1,2,2-Tetrachloroethane	mg/L	Grab	Quarterly
Tetrachloroethylene	mg/L	Grab	Quarterly
Toluene	mg/L	Grab	Quarterly
1,2,4-Trichlorobenzene	mg/L	Grab	Quarterly
1,1,1-Trichloroethane	mg/L	Grab	Quarterly
1,1,2-Trichloroethane	mg/L	Grab	Quarterly
Trichloroethylene	mg/L	Grab	Quarterly
Trichlorofluoromethane	mg/L	Grab	Quarterly
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/L	Grab	Quarterly
Vinyl chloride	mg/L	Grab	Quarterly
Xylenes, Total (o, m, p)	mg/L	Grab	Quarterly

[1] Parameters with primary MCLs established in Title 22, section 64444, Table 6 4444-A.

Table E-7. Effluent Monitoring at AWPF Prod Water: Synthetic Organic Chemicals (SOCs)

Parameter[1]	Units	Sample Type	Minimum Sample Frequency
Alachlor	mg/L	Grab	Quarterly
Atrazine	mg/L	Grab	Quarterly
Bentazon	mg/L	Grab	Quarterly

Parameter[1]	Units	Sample Type	Minimum Sample Frequency
Benzo(a)pyrene	mg/L	Grab	Quarterly
Carbofuran	mg/L	Grab	Quarterly
Chlordane	mg/L	Grab	Quarterly
2,4-Dichlorophenoxyacetic acid	mg/L	Grab	Quarterly
Dalapon	mg/L	Grab	Quarterly
1,2-Dibromo-3-chloropropane	mg/L	Grab	Quarterly
Di(2-ethylhexyl) adipate	mg/L	Grab	Quarterly
Di(2-ethylhexyl) phthalate	mg/L	Grab	Quarterly
Dinoseb	mg/L	Grab	Quarterly
Diquat	mg/L	Grab	Quarterly
Endothall	mg/L	Grab	Quarterly
Endrin	mg/L	Grab	Quarterly
Ethylene dibromide	mg/L	Grab	Quarterly
Glyphosate	mg/L	Grab	Quarterly
Heptachlor	mg/L	Grab	Quarterly
Heptachlor epoxide	mg/L	Grab	Quarterly
Hexachlorobenzene	mg/L	Grab	Quarterly
Hexachlorocyclopentadiene	mg/L	Grab	Quarterly
Gamma BHC (Lindane)	mg/L	Grab	Quarterly
Methoxychlor	mg/L	Grab	Quarterly
Molinate	mg/L	Grab	Quarterly
Oxamyl	mg/L	Grab	Quarterly
Pentachlorophenol	mg/L	Grab	Quarterly
Picloram	mg/L	Grab	Quarterly

Parameter[1]	Units	Sample Type	Minimum Sample Frequency
Polychlorinated biphenyls (PCBs)	mg/L	Grab	Quarterly
Simazine	mg/L	Grab	Quarterly
Thiobencarb	mg/L	Grab	Quarterly
Toxaphene	mg/L	Grab	Quarterly
1,2,3-Trichloropropane	mg/L	Grab	Quarterly
2,3,7,8-tetrachlorodibenzodioxin (Dioxin)	mg/L	Grab	Quarterly
2-(2,4,5-trichlorophenoxy) propionic acid (Silvex)	mg/L	Grab	Quarterly

Table E-8. Effluent Monitoring at AWPF Prod Water: Disinfection Byproducts

Parameter[1]	Units	Sample Type	Minimum Sampling Frequency
Bromodichloromethane	mg/L	Grab	Quarterly
Bromoform	mg/L	Grab	Quarterly
Chloroform	mg/L	Grab	Quarterly
Dibromochloromethane	mg/L	Grab	Quarterly
Monochloroacetic acid	mg/L	Grab	Quarterly
Dichloroacetic acid	mg/L	Grab	Quarterly
Trichloroacetic acid	mg/L	Grab	Quarterly
Monobromoacetic acid	mg/L	Grab	Quarterly
Dibromoacetic acid	mg/L	Grab	Quarterly
Bromate	mg/L	Grab	Quarterly
Chlorite	mg/L	Grab	Quarterly

[1] Parameters with primary MCLs established in Title 22, section 64533, Table 6 4533-A.

Table E-9. Effluent Monitoring at AWPF Prod Water: Radionuclides

Parameter[1,2]	Units	Sample Type	Minimum Sampling Frequency
Combined radium-226 and radium-228	Picocuries per liter (pCi/L)	Grab	Quarterly
Gross alpha particle activity (excluding radon and uranium)	pCi/L	Grab	Quarterly
Uranium	pCi/L	Grab	Quarterly
Beta/Photon emitters	Millirem per year	Grab	Quarterly
Strontium-90	pCi/L	Grab	Quarterly
Tritium	pCi/L	Grab	Quarterly

[1] Parameters with primary MCLs established in Title 22, sections 64442 and 64443, tables 64442 and 64443.

[2] If the results of Gross Alpha Particle Activity, Gross Beta Article Activity, combined Radium-226 and Radium-228, Tritium, Strontium-90, and/or Uranium exceed their respective Primary MCLs, Monterey One Water shall initiate monthly monitoring for the parameters that exceeded the MCL(s) until DDW and the Central Coast Water Board approve a reduction in monitoring.

Table E-10. Effluent Monitoring at AWPF Prod Water: Notification Levels

Parameter	Units	Sample Type	Minimum Sampling Frequency
Boron	mg/L	Grab	Quarterly
n-Butylbenzene	mg/L	Grab	Quarterly
sec-Butylbenzene	mg/L	Grab	Quarterly
tert-Butylbenzene	mg/L	Grab	Quarterly
Carbon disulfide	mg/L	Grab	Quarterly

Parameter	Units	Sample Type	Minimum Sampling Frequency
Chlorate	mg/L	Grab	Quarterly
2-Chlorotoluene	mg/L	Grab	Quarterly
4-Chlorotoluene	mg/L	Grab	Quarterly
Diazinon	mg/L	Grab	Quarterly
Dichlorodifluoromethane	mg/L	Grab	Quarterly
1,4-Dioxane	mg/L	Grab	Quarterly
Ethylene glycol	mg/L	Grab	Quarterly
Formaldehyde	mg/L	Grab	Quarterly
HMX (Octogen)	mg/L	Grab	Quarterly
Isopropylbenzene	mg/L	Grab	Quarterly
Manganese	mg/L	Grab	Quarterly
Methyl isobutyl ketone	mg/L	Grab	Quarterly
Naphthalene	mg/L	Grab	Quarterly
N-Nitrosodiethylamine (NDEA)	mg/L	Grab	Quarterly
N-Nitrosodimethylamine (NDMA)	mg/L	Grab	Quarterly
N-Nitrosodi-n-propylamine (NDPA)	mg/L	Grab	Quarterly
Perfluorobutanesulfonic acid (PFBS)	Nanograms per liter (ng/L)	Grab	Quarterly
Perfluorooctanesulfonic acid (PFOS)	ng/L	Grab	Quarterly
Perfluorohexanesulfonic acid (PFHxS)	ng/L	Grab	Quarterly
Perfluorooctanoic acid (PFOA)	ng/L	Grab	Quarterly
Propachlor	mg/L	Grab	Quarterly
n-Propylbenzene	mg/L	Grab	Quarterly

Parameter	Units	Sample Type	Minimum Sampling Frequency
1,3,5-Trinitroperhydro-1,3,5-triazine (RDX)	mg/L	Grab	Quarterly
Tertiary butyl alcohol	mg/L	Grab	Quarterly
1,2,4-Trimethylbenzene	mg/L	Grab	Quarterly
1,3,5-Trimethylbenzene	mg/L	Grab	Quarterly
2,4,6-Trinitrotoluene	mg/L	Grab	Quarterly
Vanadium	mg/L	Grab	Quarterly

Table E-11. Effluent Monitoring at AWPF Prod Water: Remaining Priority Pollutants

Parameter[1]	Units	Sample Type	Minimum Sample Frequency
Aldrin	µg/L	Grab	Annually
Dieldrin	µg/L	Grab	Annually
4,4'-DDT	µg/L	Grab	Annually
4,4'-DDE	µg/L	Grab	Annually
4,4'-DDD	µg/L	Grab	Annually
Alpha-endosulfan	µg/L	Grab	Annually
Beta-endosulfan	µg/L	Grab	Annually
Endosulfan sulfate	µg/L	Grab	Annually
Endrin aldehyde	µg/L	Grab	Annually
Alpha-BHC	µg/L	Grab	Annually
Beta-BHC	µg/L	Grab	Annually
Delta-BHC	µg/L	Grab	Annually
Acrolein	µg/L	Grab	Annually

Parameter[1]	Units	Sample Type	Minimum Sample Frequency
Acrylonitrile	µg/L	Grab	Annually
Chloroethane	µg/L	Grab	Annually
1,1-dichloroethylene	µg/L	Grab	Annually
Methyl chloride	µg/L	Grab	Annually
Methyl bromide	µg/L	Grab	Annually
2-chloroethyl vinyl ether	µg/L	Grab	Annually
2,4,6-trichlorophenol	µg/L	Grab	Annually
3-methyl-4-chlorophenol (P-chloro-m- cresol)	µg/L	Grab	Annually
2-chlorophenol	µg/L	Grab	Annually
2,4-dichlorophenol	µg/L	Grab	Annually
2,4-dimethylphenol	µg/L	Grab	Annually
2-nitrophenol	µg/L	Grab	Annually
4-nitrophenol	µg/L	Grab	Annually
2,4-dinitrophenol	µg/L	Grab	Annually
2-methyl-4,6-dinitrophenol	µg/L	Grab	Annually
Phenol	µg/L	Grab	Annually
Chromium (III) trivalent	µg/L	Grab	Annually
Acenaphthene	µg/L	Grab	Annually
Benzidine	µg/L	Grab	Annually
Hexachloroethane	µg/L	Grab	Annually
Bis (2-chloroethyl) ether	µg/L	Grab	Annually
2-chloronaphthalene	µg/L	Grab	Annually
1,3-dichlorobenzene	µg/L	Grab	Annually

Parameter[1]	Units	Sample Type	Minimum Sample Frequency
3,3'-dichlorobenzidine	µg/L	Grab	Annually
2,4-dinitrotoluene	µg/L	Grab	Annually
2,6-dinitrotoluene	µg/L	Grab	Annually
1,2-diphenylhydrazine	µg/L	Grab	Annually
Fluoranthene	µg/L	Grab	Annually
4-chlorophenyl phenyl ether	µg/L	Grab	Annually
4-bromophenyl phenyl ether	µg/L	Grab	Annually
Bis(2-chloroisopropyl) ether	µg/L	Grab	Annually
Bis(2-chloroethoxyl) methane	µg/L	Grab	Annually
Hexachlorobutadiene	µg/L	Grab	Annually
Isophorone	µg/L	Grab	Annually
Nitrobenzene	µg/L	Grab	Annually
N-nitrosodiphenylamine	µg/L	Grab	Annually
Bis(2-ethylhexyl) phthalate	µg/L	Grab	Annually
Butyl benzyl phthalate	µg/L	Grab	Annually
Di-n-butyl phthalate	µg/L	Grab	Annually
Di-n-octyl phthalate	µg/L	Grab	Annually
Diethyl phthalate	µg/L	Grab	Annually
Dimethyl phthalate	µg/L	Grab	Annually
Benzo(a)anthracene	µg/L	Grab	Annually
Benzo(b)fluoranthene	µg/L	Grab	Annually
Benzo(k)fluoranthene	µg/L	Grab	Annually
Chrysene	µg/L	Grab	Annually

Parameter[1]	Units	Sample Type	Minimum Sample Frequency
Acenaphthylene	µg/L	Grab	Annually
Anthracene	µg/L	Grab	Annually
1,12-benzoperylene	µg/L	Grab	Annually
Fluorene	µg/L	Grab	Annually
Phenanthrene	µg/L	Grab	Annually
1,2,5,6-dibenzanthracene	µg/L	Grab	Annually
Indeno(1,2,3-cd) pyrene	µg/L	Grab	Annually
Pyrene	µg/L	Grab	Annually

[1] Remaining Priority Toxic Pollutants that do not have primary or secondary MCLs or NLs.

Table E-12. Effluent Monitoring at AWPF Prod Water: Priority Toxic Pollutants

Parameter[1]	Units	Sample Type	Minimum sample Frequency
2,3,5,6-tetrachloroterephthalate (DCPA)[2]	mg/L	grab	Quarterly
Albuterol	mg/L	grab	Quarterly
Caffeine	mg/L	grab	Quarterly
Carbadox	mg/L	grab	Quarterly
Chloropicrin[2]	mg/L	grab	Quarterly
Chlorpyrifos	mg/L	grab	Quarterly
Chlorothalonil	mg/L	grab	Quarterly
Erythromycin	mg/L	grab	Quarterly
Fluoxetine	mg/L	grab	Quarterly
Iohexol	mg/L	grab	Quarterly

Parameter[1]	Units	Sample Type	Minimum sample Frequency
Quinoline[2]	mg/L	grab	Quarterly
Triclosan	mg/L	grab	Quarterly

[1] Parameters listed in 40 CFR section 131.38 and established in Title 22, section 60320.220 subsections (a)(1) and (a)(2)

[2] Monitoring also required at RO Feed and RO Perm

4.6.3. Monterey One Water must perform additional monitoring, as described below, for all parameters listed in Table E-10 in the event of an exceedance.

4.6.3.1. If a monitoring result exceeds an NL, within 72 hours of notification of the result, Monterey One Water must collect another sample and have it analyzed for the parameter as confirmation. If the average of the initial and confirmation sample exceeds the parameter's NL, or a confirmation sample is not collected and analyzed pursuant to this section, Monterey One Water must initiate weekly monitoring for the parameter until the running four-week average no longer exceeds the NL. Monterey One Water must notify the Central Coast Water Board and DDW within 24 hours if any sample exceeds an NL.

4.6.3.2. If the running four-week average of monitoring results exceeds the parameter's NL, Monterey One Water must describe the reason(s) for the exceedance and provide a workplan and schedule for completion of corrective actions in the report for the quarter in which the exceedance occurred.

4.6.3.3. If the running four-week average of monitoring results exceeds the parameter's NL for 16 consecutive weeks, Monterey One Water must notify the Central Coast Water Board and DDW within 48 hours of knowledge of the exceedance.

4.6.3.4. Monterey One Water must not reduce the monitoring frequency for the parameters having NLs, including any parameters that overlap with constituents of emerging concern in the Recycled Water Policy, without the approval of the Central Coast Water Board and DDW. Monterey One Water must use the analytical methods described in the approved OOP, and any changes must be approved by the Central Coast Water Board and DDW.

4.7. PFAS Monitoring

4.7.1. In accordance with the proposed National Primary Drinking Water Regulation for Per- and Polyfluoroalkyl Substances (PFAS) and its anticipated adoption under the California Safe Drinking Water Act, Monterey One Water must monitor the AWPF effluent for PFAS.[3] Monitoring must include, at a minimum, the following compounds: PFOA, PFOS, PFHxS, PFNA, PFBS and HFPO-DA (GenX Chemicals). Sampling results must demonstrate compliance with the proposed regulation and MCLs.

4.7.2. Once final maximum contaminant levels (MCLs) are established under the federal and state PFAS regulations, Monterey One Water must update the OOP to reflect the PFAS monitoring program and associated analytical protocols. The updated OOP must incorporate ELAP-approved drinking water methods for PFAS analysis and be submitted to DDW for review and acceptance.

4.8. Groundwater Monitoring

4.8.1. Deep Well Monitoring. Monterey One Water must monitor groundwater at locations MW-1D, MW-1AD, MW-2D, MW-2AD, MW-3AD as described in Table E-1 for the parameters listed in Table E- 13 through Table E-17. Monterey One Water must also obtain monthly monitoring data from Cal-Am for extraction wells EW-3 and EW-4 for the geochemically reactive parameters in Table E-14 and for the field parameters in Table E-13, except for depth to groundwater, groundwater elevation, groundwater gradient, and groundwater gradient direction. All other groundwater monitoring must be conducted on a quarterly basis.

4.8.2. Prior to sampling, the depth to groundwater must be measured and groundwater elevations calculated.[4] Monitoring wells must be purged of at least three well volumes, or until field parameters—pH, temperature, dissolved oxygen, electrical conductivity, and turbidity—stabilize within 10 percent. Alternative sampling methods such as no-purge or low-flow techniques may be used only if they are described in an approved sampling and analysis plan and receive prior approval from the Central Coast Water Board. Once groundwater levels have

[3] The PFAS monitoring described in this section will be required once the California Safe Drinking Water Act regulations are adopted. Note that Table E-10 contains some PFAS monitoring that is required starting immediately.
[4] The locations and top-of-casing elevations for the existing groundwater monitoring wells must be surveyed by a licensed land surveyor if not already completed at the time of installation.

sufficiently recovered to ensure representative sampling, a qualified individual (e.g., consultant or technician) trained in proper sampling procedures must collect samples in accordance with approved U.S. EPA methods. All analyses must be conducted by laboratories accredited by the State Water Board's Environmental Laboratory Accreditation Program (ELAP), in compliance with CWC section 13176, and must include appropriate quality assurance and quality control (QA/QC) documentation.

4.8.3. Monterey One Water must provide monitoring well field sheets and report monitoring data with each monitoring report.

Table E-13. Groundwater Monitoring: Field Parameters

Parameter	Units	Sample Type	Minimum Sample Frequency
Depth to Groundwater	0.01 ft	Measurement	Quarterly
Groundwater Elevation[1]	0.01 ft	Calculated	Quarterly
Gradient[2]	ft/ft	Calculated	Quarterly
Gradient Direction[2]	Degrees	Calculated	Quarterly
Electrical Conductivity[3]	µmhos/cm	Field Water Quality Meter or Laboratory Analysis	Every sampling event
Dissolved oxygen[3]	Percent saturation, mg/L	Field Water Quality Meter	Every sampling event
pH[3]	pH Units	Field Water Quality Meter	Every sampling event
Oxidation reduction potential (ORP)[3]	Millivolts (mV)	Field Water Quality Meter	Every sampling event
Turbidity[3]	NTU	Field Water Quality Meter or Laboratory Analysis	Every sampling event
Temperature[3]	Degrees Fahrenheit	Field Water Quality Meter	Every sampling event

[1] Groundwater elevation must be based on depth to water using a surveyed measuring point elevation on the well and a surveyed reference elevation.

[2] Calculations must be prepared by, or under the responsible charge of, a professional with appropriate licensing in the State of California.

[3] Field parameters must be measured in the field using a water quality meter equipped with a flow-through cell.

Table E-14. Groundwater Monitoring: Geochemically Reactive Parameters

Parameter	Units	Sample Type	Minimum Sampling Frequency[1]
Arsenic	mg/L	Grab	Monthly/Quarterly
Antimony	mg/L	Grab	Monthly/Quarterly
Boron[2]	mg/L	Grab	Monthly/Quarterly
Barium	mg/L	Grab	Monthly/Quarterly
Calcium	mg/L	Grab	Monthly/Quarterly
Cadmium	mg/L	Grab	Monthly/Quarterly
Chromium (III)	mg/L	Grab	Monthly/Quarterly
Fluoride	mg/L	Grab	Monthly/Quarterly
Iron[2]	mg/L	Grab	Monthly/Quarterly
Manganese[2]	mg/L	Grab	Monthly/Quarterly
Magnesium	mg/L	Grab	Monthly/Quarterly
Mercury	mg/L	Grab	Monthly/Quarterly
Nitrate (as nitrogen)[2]	mg/L	Grab	Monthly/Quarterly
Sulfate[2]	mg/L	Grab	Monthly/Quarterly
Uranium	mg/L	Grab	Monthly/Quarterly
Vanadium	mg/L	Grab	Monthly/Quarterly

[1] Monthly data is required for extraction wells EW-3 and EW-4. Quarterly sampling is required for monitoring wells MW-1D, MW-1AD, MW-2D, MW-2AD, and MW-3AD.

[2] Required by the Water Quality Control Plan for the Central Coastal Basin (Basin Plan).

Table E-15. Groundwater Monitoring: General Minerals and Inorganic Chemicals

Parameter	Units	Sample Type	Minimum Sampling Frequency
Aluminum[2]	mg/L	Grab	Semi-annually
Potassium	mg/L	Grab	Semi-annually
Corrosivity	mg/L	Grab	Semi-annually
Total Hardness	mg/L	Grab	Semi-annually
Chloride[1]	mg/L	Grab	Semi-annually
Color	ACU[2]	Grab	Annually
Copper	µg/L	Grab	Semi-annually
Methylene Blue Activated Substances	mg/L	Grab	Semi-annually
Total Coliform	MPN/100ml	Grab	Semi-annually
Methyl tert-butyl ether (MTBE)	mg/L	Grab	Semi-annually
Nitrite (as nitrogen)	mg/L	Grab	Semi-annually
Nitrate (as nitrogen)	mg/L	Grab	Semi-annually
Silver	mg/L	Grab	Semi-annually
Sodium[1]	mg/L	Grab	Semi-annually
Sulfate[1]	mg/L	Grab	Semi-annually
Thallium	mg/L	Grab	Semi-annually
Thiobencarb	mg/L	Grab	Semi-annually
Total Dissolved Solids[1]	mg/L	Grab	Semi-annually
Total Nitrogen	mg/L	Grab	Semi-annually
Total Organic Carbon	mg/L	Grab	Semi-annually
Zinc	mg/L	Grab	Semi-annually

[1] Required by the Water Quality Control Plan for the Central Coastal Basin (Basin Plan).

[2] ACU = Apparent Color Units

Table E-16. Groundwater Monitoring: Disinfection Byproducts

Parameter	Units	Sample Type	Minimum sample Frequency
Bromide	mg/L	Grab	Semi-annually
Bromate	mg/L	Grab	Semi-annually
Bromodichloromethane	mg/L	Grab	Semi-annually
Bromoform	mg/L	Grab	Semi-annually
Chlorite	mg/L	Grab	Semi-annually
Chloroform	mg/L	Grab	Semi-annually
Dibromoacetic acid	mg/L	Grab	Semi-annually
Dibromochloromethane	mg/L	Grab	Semi-annually
Dichloroacetic acid	mg/L	Grab	Semi-annually
Haloacetic acid (five) (HAA5)	mg/L	Calculate	Semi-annually
Iodide	mg/L	Grab	Semi-annually
Monobromoacetic acid	mg/L	Grab	Semi-annually
Monochloroacetic acid	mg/L	Grab	Semi-annually
N-Nitrosodimethylamine (NDMA)	mg/L	Grab	Semi-annually
Total chlorine residual	mg/L	Metered	Semi-annually
Total Trihalomethanes	mg/L	Calculate	Semi-annually
Trichloroacetic acid	mg/L	Grab	Semi-annually

Table E-17. Groundwater Monitoring: Priority Toxic Pollutants

Parameter[1]	Units	Sample Type	Minimum sample Frequency
2,3,5,6-tetrachloroterephthalate (DCPA)	mg/L	grab	Quarterly
Albuterol	mg/L	grab	Quarterly
Caffeine	mg/L	grab	Quarterly
Carbadox	mg/L	grab	Quarterly
Chloropicrin	mg/L	grab	Quarterly
Chloropyrifos	mg/L	grab	Quarterly
Chlorothalonil	mg/L	grab	Quarterly
Erythromycin	mg/L	grab	Quarterly
Fluoxetine	mg/L	grab	Quarterly
Iohexol	mg/L	grab	Quarterly
Quinoline	mg/L	grab	Quarterly
Triclosan	mg/L	grab	Quarterly

[1] Parameters listed in 40 CFR section 131.38 and established in Title 22, section 60320.220 subsections (a)(1) and (a)(2) and described in Attachment D.

4.8.4. If a groundwater monitoring result exceeds 80 percent of an MCL for nitrate, nitrite, or nitrate plus nitrite, within 48 hours of notification of the result Monterey One Water must collect another groundwater sample, and then have the sample analyzed for the parameter as confirmation. If the average of the initial sample and the confirmation sample exceeds the parameter's MCL, Monterey One Water must notify the Central Coast Water Board and DDW within 24 hours of being notified by the laboratory of the confirmation sample result and discontinue subsurface discharge of advanced treated recycled water. Monterey One Water must take steps to address the exceedance and must not restart subsurface discharge until authorized by the Central Coast Water Board and DDW.

4.8.5. Shallow Well Monitoring: Monterey One Water must monitor groundwater samples from wells MW-1S, MW-1AS, and MW-2AS quarterly for manganese, turbidity, iron, color, and arsenic. These parameters are included due to historical exceedances of applicable water quality objectives or background concentrations in these wells.

4.9. Contingent Groundwater Monitoring

4.9.1. If an effluent limit or NL identified in Order section 6 (*Effluent Limitations*), is exceeded in effluent as measured at monitoring location AWPF Prod Water, Monterey One Water must monitor groundwater in all monitoring wells for the parameter(s) that exceeded the relevant standard (e.g., limit or NL).

4.9.2. Monterey One Water must continue monitoring groundwater on a monthly basis (for the duration prescribed in 4.9.3) in accordance with 4.9.1 even after demonstrating control over the parameter that exceeded effluent limit(s) or NL(s) defined in Order section 9, to assess any potential impacts to receiving waters from the discharge.

4.9.3. After an exceedance described in 4.9.1., Monterey One Water must monitor groundwater for period of time that is at least three months longer than the underground retention time identified for each monitoring well or down gradient extraction well. After this period of time has elapsed for a given well, Monterey One Water may discontinue the groundwater monitoring described in 4.9.1, if no exceedances are observed in the well. If an exceedance is observed in the well, Monterey One Water must receive approval in writing from the Central Coast Water Board Executive Officer to discontinue groundwater monitoring described in 4.9.1.

4.9.4. Underground retention times must be based on tracer test results unless tracer test results are not yet available; under this circumstance modeled underground retention times must be used.

4.9.5. This contingent monitoring does not apply to parameters in Table E-13. Field parameters must be monitored under all conditions.

4.9.6. Contingent groundwater monitoring must be consistent with the requirements described in section 4.8.2. Contingent groundwater monitoring must include the field parameters in Table E-13.

4.9.7. Contingent groundwater monitoring results must be included in monthly and annual monitoring reports and reported to Geotracker, in accordance with MRP section 6.

4.10. Constituents of Emerging Concern

4.10.1. Monterey One Water must develop and must maintain a Quality Assurance Project Plan (QAPP) for monitoring constituents of emerging concern (CEC) to ensure the AWPF's monitoring data are of known, consistent, and documented quality and that the monitoring is consistent with the State Water Board's Water Quality Control Policy for Recycled Water (Recycled Water Policy).

4.10.2. Monterey One Water's base QAPP was approved in May 2021 and updated and approved in June 2023. Monterey One Water's must update the QAPP to incorporate changes relating to this Order and MRP. Monterey One Water must use the Guidance for Quality Assurance Project Plans, EPA QA/G-5 (EPA/240/R-2/009, 2002 or EPA updated guidance). Monterey One Water must submit the updated QAPP to the Central Coast Water Board and State Water Board. Monterey One Water must receive approval of the Central Coast Water Board prior to beginning any sampling and analysis. The QAPP must be updated and resubmitted to the Central Coast Water Board and State Water Board for approval when significant changes are made that would affect the overall data quality and use (e.g., using a new analytical chemistry laboratory) or at least annually if any changes are made. Details on QAPP requirements are in Attachment A of the Recycled Water Policy.

4.10.3. Health-based and performance CECs: Monterey One Water must monitor for health-based and performance CECs as well as surrogates for CECs in accordance with Table E-18, as described below.

4.10.4. Notification Level and MCL Monitoring Frequency: If a health-based CEC also has an NL or MCL established under Title 22, Sections 60320.212, 60320.220, or 60320.201, the more stringent (i.e., more frequent) monitoring frequency must be followed, regardless of the project phase.

4.10.5. Monitoring Phases Summary for Health-Based and Performance CECs: Monterey One Water must conduct a three-phased monitoring approach for the CEC monitoring parameters, which includes an initial assessment monitoring phase, followed by a baseline monitoring phase, and then a standard operation monitoring phase. Additional details of the three-phased monitoring approach are provided below.

4.10.5.1. Phase 1: An initial assessment monitoring phase for one year with quarterly sampling;

4.10.5.2. Phase 2: A baseline monitoring phase for three years, with semi-annual sampling, except where more frequent monitoring is necessary to respond to a concern as stated in Attachment A section 4.2 of the Recycled Water Policy; and

4.10.5.3. Phase 3: After the baseline assessment period, a standard operation monitoring phase while the Project is operating, with semi-annual or annual sampling, except where more frequent monitoring is necessary to respond to a concern as stated in Attachment A section 4.3 of the Recycled Water Policy.

4.10.5.4. Monterey One Water has completed both the Phase 1 initial assessment (quarterly sampling for one year) and the Phase 2 baseline monitoring (semi-annual sampling for three years), in accordance with the requirements in Title 22.

4.10.5.5. Monterey One Water must conduct Phase 3 monitoring, which consists of ongoing standard operational monitoring during Project operations, with semi-annual or annual sampling as specified in Table E-18. More frequent monitoring may be required in response to any concerns, consistent with the Recycled Water Policy, Attachment A, Section 4.3.

4.10.6. Bioanalytical Screening Tools: Monterey One Water must conduct monitoring for bioanalytical screening tools in accordance with Table E-19 and at frequencies and durations described in 4.11.6.1 through 4.11.6.3.

4.10.6.1. Phase 1: An initial assessment phase for three years with quarterly sampling and determine the range of responses for the bioassays;

4.10.6.2. Phase 2: After the initial assessment phase, a baseline monitoring phase for one year and sample quarterly; and

4.10.6.3. Phase 3: After the baseline monitoring phase, a standard operation monitoring phase, with semi-annual or annual sampling, except where more frequent monitoring is necessary to respond to a concern as stated in Attachment A section 4.3 of the Recycled Water Policy.

4.10.7. Monterey One Water has completed Phase 1 and Phase 2 for bioanalytical screening tools, in accordance with Table E-19 and sections 4.10.6.1 through 4.10.6.3. The Project must now proceed with Phase 3 monitoring, consisting of semi-annual or annual sampling during standard operations. As with CECs, more frequent monitoring may be required in response to specific concerns, pursuant to Attachment A, Section 4.3 of the Recycled Water Policy.

4.10.8. Monterey One Water must use the monitoring results for CECs, surrogates, and bioanalytical screenings to evaluate the overall operational performance of the treatment process and the effectiveness of the treatment process in removing CECs. Monitoring reports submitted to the Central Coast Water Board must include an evaluation of monitoring results.

4.10.9. To determine the appropriate response actions for health-based CEC monitoring results, Monterey One Water must compare measured environmental concentrations (MECs) to their respective monitoring trigger levels (MTLs) listed in Table E-20 to determine MEC/MTL ratios. Monterey One Water must compare the calculated MEC/MTL ratios to the thresholds specified in Table E-20 and implement the response actions corresponding to the threshold.

4.10.10. Monterey One Water must evaluate the bioanalytical assay monitoring results during the baseline monitoring phase and standard operation monitoring phase and determine the appropriate response actions.

4.10.11. To determine the appropriate response actions for bioanalytical screening, Monterey One Water must compare bioanalytical equivalent concentrations (BEQs) to their respective MTLs listed in Table E-22 to determine BEQ/MTL ratios. Monterey One Water must compare the calculated BEQ/MTL ratios to the thresholds presented in Table E-23 and implement the response actions corresponding to the threshold.

4.10.12. Monterey One Water must evaluate the effectiveness of the treatment process to remove CECs by determining the removal percentages for performance indicator CECs and surrogates. The removal percentage is the difference in the concentration of a compound in recycled water prior to and after RO and advanced oxidation process (AOP), divided by the concentration prior to the treatment process and multiplied by 100. Monterey One Water must report the removal percentages with the CEC monitoring results.

$$\text{Removal Percentage} = ([\text{Xin} - \text{Xout}]/\text{Xin}) * (100)$$

Xin - Concentration in recycled water prior to the treatment process

Xout - Concentration in recycled water after the treatment process

4.10.13. During the initial assessment, Monterey One Water must monitor performance of the treatment process to determine removal percentages for performance indicator CECs and surrogates. Monterey One Water must confirm removal percentages during the baseline monitoring phase. The established removal percentages for the Project must be used to evaluate treatment effectiveness and operational performance.

Table E-18. CEC Monitoring: Health, Performance, and Surrogates

Parameter	Units	Relevance	Sample Type	Monitoring Trigger Level	Reporting Limit[1]	Monitoring Location(s)
1,4-Dioxane	µg/L	Health	Grab	1	0.1	AWPF Prod Water
NDMA[2]	µg/L	Health/ Performance	Grab	0.010	0.002	RO Feed, RO Perm, AWPF Prod Water
N-Nitrosomorpholine (NMOR)	µg/L	Health	Grab	0.012	0.002	AWPF Prod Water
PFOS	µg/L	Health	Grab	0.013	0.0065	AWPF Prod Water
PFOA	µg/L	Health	Grab	0.014	0.007	AWPF Prod Water
Sucralose[2]	µg/L	Performance	Grab	-	0.1	RO Feed, RO Perm, AWPF Prod Water
Sulfamethoxazole	µg/L	Performance	Grab	-	0.01	RO Feed and AWPF Prod Water
Electrical Conductivity	µS/cm	Surrogate	Grab or Recorder	-	-	RO Feed, RO Perm, and AWPF Prod Water

[1] The Central Coast Water Board may approve, after consultation with the State Water Resources Control Board, higher reporting limits if it determines these reporting limits

cannot be practicably met in recycled water sample matrices using existing methods, as long as the ratio between the reporting limit and the monitoring trigger limit is no less than 2.0 micrograms per liter (µg/L) (see Tables 1 and 7 of Attachment A of the Recycled Water Policy).

[2] These parameters are included in Table E-3 in section 4.2 of the MRP and are included here to demonstrate compliance with CEC reporting in the Recycled Water Policy. Monitoring for sucralose and NDMA, per section 3.10 of Attachment D and as seen in Table E-3 of this MRP, is required quarterly.

Table E-19. CEC Monitoring: Bioanalytical Screening Tools

End Point Activity	Units	Example Relevant CECs	Sample Type	Reporting Limit	Monitoring Location
Estrogen receptor-α (ER-α)	ng/L	Estradiol, Bisphenol A, Nonylphenol	Grab	0.5	AWPF Prod Water
Aryl hydrocarbon receptor (AhR)	ng/L	Dioxin-like chemicals, polycyclic aromatic hydrocarbons, pesticides	Grab	0.5	AWPF Prod Water

Table E-20. Monitoring Trigger Levels: Health, Performance, and Surrogates

Parameter	Relevance	Monitoring Trigger Level (µg/L)
1-4, Dioxane	Health	1
NDMA	Health/Performance	0.010
NMOR	Health	0.012
PFOS	Health	0.013
PFOA	Health	0.014
Sucralose	Performance	N/A
Sulfamethoxazole	Performance	N/A
Electrical Conductivity	Surrogate	N/A

Table E-21. MEC/MTL Thresholds and Response Actions

MEC/MTL Threshold	Response Action
If greater than 75 percent of the MEC/MTL ratio results for a CEC are less than or equal to 0.1 during the baseline monitoring phase and/or subsequent monitoring	After completion of the baseline monitoring phase, consider requesting removal of the CEC from the monitoring program.
If MEC/MTL ratio is greater than 0.1 and less than or equal to 1	Continue to monitor.
If MEC/MTL ratio is greater than 1 and less than or equal to 10	Check the data for accuracy. Continue to monitor.
If MEC/MTL ratio is greater than 10 and less than or equal to 100	Check the data for accuracy, resample within 72 hours of notification of the result and analyze to confirm CEC result. Continue to monitor.
If MEC/MTL ratio is greater than 100	Check the data for accuracy, resample within 72 hours of notification of the result and analyze to confirm CEC result. Continue to monitor. Contact the Central Coast Water Board and the State Water Board[5] to discuss additional actions. (Additional actions may include, but are not limited to, additional monitoring, toxicological studies, engineering removal studies, modification of facility operation, implementation of a source identification program, and monitoring at additional locations.)

[5] See section 10, Notifications for contact information.

Table E-22. Required Equivalency Agonists and Monitoring Trigger Levels for Bioanalytical Screening Tools

Parameter	Equivalency Agonist	Monitoring Trigger Level (ng/L)
ER-α	17-beta-estradiol	3.5
AhR	2,3,7,8-tetrachlorodibenzo- p-dioxin (TCDD)	0.5

Table E-23. BEQ/MTL Thresholds and Response Actions for Bioanalytical Screening

BEQ/MTL Threshold	Response Action
If BEQ/MTL ratio is consistently less than or equal to 0.15 for ER-α or 1.0 for AhR	After completion of the baseline monitoring phase, consider decreasing monitoring frequency or requesting removal of the endpoint from the monitoring program.
If BEQ/MTL ratio is greater than 0.15 and less than or equal to 10 for ER-α or greater than 1.0 and less than or equal to 10 for AhR	Continue to monitor.
If BEQ/MTL ratio is greater than 10 and less than or equal to 1000	Check the data for accuracy, resample within 72 hours of notification of the result and analyze to confirm bioassay result. Continue to monitor. Contact the Central Coast Water Board and State Water Board[6] to discuss additional actions, which may include, but are not limited to, targeted analytical chemistry monitoring, increased frequency of bioassay monitoring, and implementation of a source identification program.

[6] See MRP section 8, Notifications for contact information.

BEQ/MTL Threshold	Response Action
If BEQ/MTL ratio is greater than 1000	Check the data for accuracy, resample within 72 hours of notification of the result and analyze to confirm bioassay result. Continue to monitor. Contact the Central Coast Water Board and the State Water Board to discuss additional actions, which may include, but are not limited to, targeted and/or nontargeted analytical chemistry monitoring, increased frequency of bioassay monitoring, toxicological studies, engineering removal studies, modification of facility operation, implementation of a source identification program, and monitoring at additional locations.

4.11. Backflush Pond Monitoring

4.11.1. The injection well backflush Pond 1 and Pond 2 must be visually monitored as specified in Table E-24. Data and observations do not need to be reported in the monitoring reports unless a violation, significant change, or treatment issue is observed. Observations must be noted in a logbook or database and made available to the Central Coast Water Board upon request. Any problems must be promptly corrected and recorded.

Table E-24. Backflush Pond Monitoring

Parameter	Sample Type	Monitoring Frequency
Depth of water	Measured	Weekly
Color	Visual Observation	Monthly
Vegetation in and surrounding ponds	Visual Observation	Monthly

Parameter	Sample Type	Monitoring Frequency
Berm condition	Visual Observation	Monthly
Odors	Observation	Monthly

5. RECURRING REPORTING REQUIREMENTS

5.1. General Reporting Requirements

5.1.1. Monterey One Water must submit all monitoring and technical reports outlined in the following paragraphs in the appropriate electronic format to the Geotracker database and to DDW where appropriate.

5.1.2. The reports must be submitted by the dates indicated unless the date falls on a legal holiday or a weekend day. Under those conditions, the reports are due on the next business day.

5.1.3. Recycled Water Policy CEC data must be submitted to the Geotracker database under the site-specific global identification WDR100039680. Any data will be made publicly accessible as machine readable datasets.

5.1.4. Monterey One Water must submit self-monitoring reports (SMR) on or prior to the SMR due dates as summarized in Table E-25 and Table E-26 to the Central Coast Water Board and DDW. Monterey One Water must notify and report to Central Coast Water Board noncompliance of limits related to flow rate, bypass or overflow, the conditionally accepted Title 22 Engineering Report requirements, injection of off-specification recycled water, and wastewater containment failure.

5.1.5. If requested by the Central Coast Water Board, Monterey One Water must also provide a hard copy of oversized drawings or maps.

5.1.6. Monterey One Water must summarize all reported data in a tabular format. The reports must present data to clearly illustrate whether the AWPF is operating in compliance with discharge specifications and effluent limitations.

5.1.7. Monterey One Water must attach a cover letter to the SMR. 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.

5.1.8. For identified violations, the letter must include a description of the requirement in the Order that was violated and a description of the violation.

5.1.9. All monitoring reports must be provided electronically in a searchable PDF format, with the Central Coast Water Board's current transmittal sheet found at the link below as the cover page. The transmittal sheet must be signed.

https://www.waterboards.ca.gov/centralcoast/water_issues/programs/wastewater_permitting/docs/transmittal_sheet.pdf

5.1.10. Monterey One Water must submit laboratory analytical data for all samples in electronic deliverable format (EDF).

5.1.11. Monterey One Water must report the latitude and longitude of all sampling locations for which data are reported.

5.1.12. Operational Contingency Documentation and Reporting

5.1.12.1. Monterey One Water must document and report all treatment system interruptions, process diversions, and activations of fail-safe mechanisms (e.g., automatic shutdowns, bypasses, or emergency chemical dosing adjustments). For each event, Monterey One Water must log the following information:

5.1.12.2. Date and time of the event

5.1.12.3. Duration of the interruption or contingency use

5.1.12.4. Description of the cause or initiating condition

5.1.12.5. Specific systems or equipment affected

5.1.12.6. Actions taken to resolve the issue

5.1.12.7. Any water quality implications or corrective measures implemented

5.1.12.8. Monterey One Water must maintain this log on-site and submit a summary report of all such events on a quarterly basis to the Central Coast Water Board as part of the regular monitoring report. Each summary must clearly identify whether any event had the potential to impact treatment reliability or public health protection.

Table E-25. Monitoring Periods and Reporting Schedule

Sampling Frequency	Sampling Frequency Description	Reporting Schedule
Quarterly	Q1: January - March Q2: April - June Q3: July - September Q4: October - December	Submit Q1 data with May Monthly Report Submit Q2 data with August Monthly Report Submit Q3 data submitted with November Monthly Report Submit Q4 data submitted with February Monthly Report. Q1 through Q4 data summarized in Annual Reports
Semiannually/Once per 6 months	Twice per year (Q2: April-June and Q4: October-December)	Submit Q2 data with August Monthly Report Submitted Q4 data with February Monthly Report Semiannual result: Summary in Annual Report
Annually	December	Submit with Annual Report: June 30 (following year)
Continuous	Continuous Collected from the 1st through 31st of month	Submit with Monthly Report
Daily	Midnight-11:59 p.m. or any 24-hour period that reasonably represents a calendar day for the purpose of sampling	Submit with Monthly Report
Weekly	Sunday through Saturday	Submit with Monthly Report
Monthly	First day of calendar month - last day of calendar month	Monthly reports are due by the 10th day of the following month.[1]

[1] Monthly monitoring for log reduction value credits required by Attachment D, section 5.3 and MRP section 4.2 must be reported in Monthly SMR reports.

Table E-26. Reoccurring Technical Report Submittal Due Dates

Report	Report Due Date	Report to
Monthly Reports	(SMR)15th day of following month (e.g., February 15th for the January report)	Geotracker
	(Bacteriological data) 10th day of the following month (e.g., February 10th for the January data)	Dwpdist05@waterboards.ca.gov
Annual Summary Report	June 30th	Geotracker
Five-Year Engineering Report	June 3, 2030, and every 5 years thereafter	Geotracker
Volumetric Annual[1]	April 30th	Geotracker

[1]Volumetric Annual Reports are sent to the State Water Board via Geotracker

5.2. Monthly SMR Reports:

5.2.1. Monterey One Water must upload to Geotracker monthly reports and laboratory data as required by the WRRs (Attachment D) and this monitoring and reporting program.

5.2.2. The Monthly Reports must include, at a minimum, the following information:

5.2.2.1. Daily maximum and daily averages for AWPF influent and AWPF effluent flow.

5.2.2.2. AWPF effluent flow injected daily into each injection well.

5.2.2.3. AWPF effluent flow delivered to Marina Coast Water District.

5.2.2.4. MF waste and RO concentrate sent to the ocean outfall.

5.2.2.5. The date and time of sampling and analysis.

5.2.2.6. All analytical results of samples collected during the monitoring period, including results of any parameters monitored more frequently than required by this monitoring and reporting program.

5.2.2.7. Discussion of compliance, noncompliance, or violations of requirements.

5.2.2.8. Include the ongoing performance calculations, surrogate and operational parameters compliance, and extent of exceedances as described in section 3.4 of Attachment D.

5.2.2.9. A comparison of monitoring data to the discharge specifications and applicable effluent limitations. Monterey One Water must calculate averages, maximums, and/or medians (i.e. weekly averages, 4-sample average, 20-week average) when assessing and reporting results with limitations that require a calculation.

5.2.2.10. Copies of laboratory analytical report(s) and chain of custody form(s).

5.2.2.11. Monitoring results associated with the evaluation of pathogenic microorganism removal as described in section 5 of Attachment D the Order.

5.2.2.12. Copies of groundwater monitoring well field sheets with purge methods and data.

5.2.2.13. Determination of compliance with DDW-accepted underground retention time for each well pair involving a down gradient extraction well that produces a mixture of Pure Water Monterey advanced treated recycled water and native groundwater. Also, include the injection and extraction volumes, including ASR-1 and ASR-2 injection, used to determine compliance with the accepted underground retention times.

5.3. Annual Summary Reports

5.3.1. Monterey One Water must upload to Geotracker an Annual Summary Report. This Annual Summary Report must contain a discussion of the previous calendar year's analytical results, as well as graphical and tabular summaries of the monitoring analytical data.

5.3.2. The Annual Summary Report must include, at a minimum, the following information:

5.3.2.1. Source Water Breakdown: Monterey One Water must provide a summary on the makeup of source waters (municipal wastewater, agricultural wash water, Blanco Drain, and Reclamation Canal) entering the Regional WWTP in the annual report to DDW and Central Coast Regional Board required per Title 22 section 60320.228(a). At a minimum, the summary must include discussion on the following items:

5.3.2.1.1. The priority of source water usage for the period reported and the basis for the priority;

5.3.2.1.2. A summary of monthly volume for each source water type; and

5.3.2.1.3. An evaluation of which demand scenario best fit the volumes observed during reporting period (Drought, Normal/Wet Full Reserve, Normal/Wet Building Reserve).

5.3.2.2. Tabular and graphical summaries of the monitoring data obtained during the previous calendar year;

5.3.2.3. A summary of compliance status with all monitoring requirements during the previous calendar year;

5.3.2.4. For any non-compliance during the previous calendar year, a description of:

5.3.2.4.1. The date, duration, and nature of the violation;

5.3.2.4.2. A summary of any corrective actions and/or suspensions of subsurface application of advanced treated recycled water resulting from a violation; and

5.3.2.4.3. If uncorrected, a schedule for and summary of all pending and completed remedial actions;

5.3.2.5. Any detections of monitored parameters, and any observed trends in the monitoring wells;

5.3.2.6. Information pertaining to the vertical and horizontal migration of the recharge water plume;

5.3.2.7. Title 22 drinking water quality data for the nearest drinking water supply well;

5.3.2.8. A description of any changes in the operation of any unit processes or facilities;

5.3.2.9. The estimated quantity and quality of the advanced treated recycled water to be utilized for the next calendar year;

5.3.2.10. A list of current operating personnel, their responsibilities, and their corresponding grade of certification. Include a copy of the current Office of Operator Certification Wastewater Treatment Plant Classification Form and the current Office of Operator Certification Chief Plant Operator Acknowledgement Form. If a contract operator is used, a copy of the contract operator certificate from the Office of Operator Certification.

5.3.2.11. The Annual Report must be prepared by a properly qualified engineer registered and licensed in California and experienced in the field of wastewater or water treatment.

5.3.2.12. A summary of monitoring reports, reporting and trend analysis, to describe the changes in water quality and contrast them to background measurements for all parameters exceeding MCLs or where concentration trends increase after the addition of advanced treated recycled water. Specifically describe studies or investigations made to identify the source, fate and transport path of parameters which exceed the MCL at the monitoring wells.

5.3.2.13. Monterey One Water must submit to DDW and the Central Coast Water Board a summary of coordination activities with Marina Coast Water District on the operation and maintenance of the product water pipeline and the purified water reservoir (Blackhorse Reservoir) necessary for protection of the product water for injection. At a minimum, Monterey One Water must be kept informed of the status of testing and maintenance of backflow preventers on the product water pipeline, occurrence of backflow incidents (if any), and maintenance activities of the purified water reservoir (Blackhorse Reservoir).

5.3.2.14. The annual volume of advanced treated recycled water injected into the Seaside Basin (based on California water year, which is October 1-September 30) per injection well and in total.

5.3.2.15. An updated Cross-Connection Control Survey Report.

5.3.2.16. Public water systems and owners of small water systems and other active production wells having downgradient sources potentially affected by the Project or within 10 years groundwater travel time from the Project must be notified by direct mail and/or electronic mail of the availability of the annual report.

5.4. Geotracker Reporting

5.4.1. Monterey One Water must submit the results of all monitoring required by this monitoring and reporting program (all reports/documents and laboratory analytical data) and all documents pertaining the Project to the Central Coast Water Board via the State Water Board's Geotracker system at:

http://geotracker.waterboards.ca.gov/

Data must be submitted under the project-specific global identification number WDR100039680 and consistent with applicable electronic submittal of information (ESI) requirements as summarized in Table E-27.

5.4.2. For general questions, please contact the Geotracker Help Desk at: Geotracker@waterboards.ca.gov.

Table E-27. Geotracker Electronic Submittal Information (ESI) Data Requirements

Electronic Submittal	Description of Action	Action	Frequency
Reports and Documents	Complete copy of all documents including monitoring reports (in searchable PDF format) and any other documents related to the Project.	Upload directly to Geotracker all monitoring reports (in searchable PDF format) and any other associated documents.	On or before the due dates required by this Order and for other documents when required by the Central Coast Water Board.
Laboratory Data	All analytical data (including geochemical data) in electronic deliverable format (EDF). This includes all water quality samples from the laboratory, field monitoring not required.	Upload, or direct your State Certified Laboratory staff to upload, all laboratory data directly to Geotracker.	On or before the due date of the required monitoring report
Depth to Groundwater	Monitoring wells must have the depth-to-water information reported. Report data only for wells defined as permanent sampling points.	Upload depth-to-water information to the Geotracker GEO_WELL file.	On or before the due date of the required monitoring report
Boring Logs and Well Screen Intervals	Boring logs must be prepared by a registered professional and submitted in PDF format separately (not only as attachments to reports)	Upload boring logs (in searchable PDF format) to Geotracker whenever a new boring is drilled.	Every time a new boring is drilled.

Electronic Submittal	Description of Action	Action	Frequency
Location data (Geo XY)	Name, classify, and identify the location (latitude and longitude) of all sampling points (excluding supply wells). Monitoring wells must be surveyed, influent and effluent sample locations must be identified on the Geotracker mapping tool under “non-surveyed data.”	Upload the location data (surveyed and non-surveyed) to the Geotracker Geo_XY file.	These data points are required prior to laboratory data uploads. Must be added every time a permanent monitoring point is established.
Elevation Data (Geo Z)	Mark the elevation at the top of groundwater well casings for all permanent groundwater wells. These points are required prior to depth-to-water data uploads.	Upload the survey data to the Geotracker GEO_Z File.	One-time, for all groundwater monitoring wells.

5.5. Volumetric Reporting Requirements

5.5.1. Monterey One Water must submit an annual volumetric report to the State Water Board by April 30 of each year. Monterey One Water must submit this annual volumetric report containing monthly data in electronic format via Geotracker. Monterey One Water must report in accordance with each of the items in section 3 of the Recycled Water Policy as described below:

5.5.1.1. Influent. Monthly total volume of wastewater collected and treated by the AWPF.

5.5.1.2. Production. Monthly volume of wastewater treated, specifying level of treatment.

5.5.1.3. Discharge. Monthly volume of treated wastewater discharged to ocean waters and specifying level of treatment.

5.5.1.4. Reuse. Monthly volume of recycled water distributed.

5.5.1.5. Reuse Categories. Annual volume of treated wastewater distributed for beneficial use in compliance with Title 22 in each of the reuse categories listed in the recycle water policy.

6. ONE-TIME REPORTING DUE DATES

This section, and Table E-28 below, summarizes all one-time reports due to the Central Coast Water Board and DDW after adoption of the Order and accompanying attachments.

Table E-28. One-Time Reporting Due Dates

Report Type	Reference Section	Reviewing/ Approving Agency	Report Due Date
Noncompliance Reports	Order section 14.4	Central Coast Water Board	5 days after noncompliance
Report of Waste Discharge	Order section 14.11	Central Coast Water Board	120 days prior to proposed major change
12-months of Operation Report	Attachment D, section 3.3	DDW	Within 60 days of completing the first 12 months of full-scale operation
Updated OOP	Attachment D, section 7	DDW	Within six months of optimizing treatment processes and anytime thereafter operations are optimized that result in a change in operation
Five-Year Engineering Report	Attachment D section 6.3	DDW	Five years from the date of the DDW's acceptance of the most recent engineering report, and every five years thereafter for DDW's acceptance.

6.1. Operation Optimization Plan

6.1.1. Monterey One Water submitted an OOP to DDW and the Central Coast Water Board for approval in March 2021. Monterey One Water must submit a draft OOP to DDW and Central Coast Water Board prior to delivery of product water from the expanded AWPF to the injection wells. The draft OOP may be amended and finalized after the completion of full-scale startup and commissioning testing. The final OOP must be submitted to DDW no later than 90 days after the completion of startup and commission testing and incorporate any changes as directed by DDW.

6.1.2. The OOP must address all critical operational parameters of the AWPF. This includes routine testing procedures for the ozone pretreatment, MF, RO, and UV/ AOP systems. The OOP must identify and describe the operations, maintenance, analytical methods, monitoring necessary for the Project to meet the requirements of Title 22, division 4, chapter 3, article 5.2, and the reporting of monitoring results to the DDW and Central Coast Water Board. For additional OOP requirements see Attachment D section 7.

6.2. Five-Year Engineering Report

6.2.1. Monterey One Water must update the May 2025 Title 22 Engineering Report and submit the updated report to Geotracker and DDW five years from the date of the DDW's acceptance of the most recent engineering report, and every five years thereafter for DDW's acceptance.

7. MONITORING PARAMETER & FREQUENCY REDUCTION REQUESTS

7.1. The list of monitoring parameters and associated frequencies may be adjusted in a revised MRP by the Central Coast Water Board Executive Officer upon receipt of a written request from Monterey One Water.

7.2. A request for monitoring parameter and frequency reduction must be uploaded to Geotracker and include any relevant technical information supporting the proposed change. Technical information must include, but is not limited to, relevant historical monitoring data, trend analyses, and documentation demonstrating stable or consistently compliant results.

7.3. The Executive Officer may approve, modify, or deny the request based on review of the submitted information and the need to ensure the protection of water quality and compliance with applicable regulations.

7.4. In accordance with Title 22 section 60320.201(i), if no results exceed an NL or MCL during 12 consecutive months of monitoring, Monterey One Water may request a reduction in the monitoring frequency those parameters. The reduced frequency may not be less than quarterly and is subject to approval by DDW and the Central Coast Water Board.

7.5. In accordance with Title 22 section 60320.212(f), if four consecutive quarterly results for asbestos are below the detection limits, monitoring in recycled water may be reduced to one sample every three years.

7.6. In accordance with Title 22 section 60320.220(c), sampling frequency for priority pollutants, NLs, and DDW-specified chemicals can be reduced to annually in recycled water and/or groundwater within 1-year travel time the injection wells after DDW and the Central Coast Water Board have reviewed the most recent two years of results.

7.7. In accordance with Title 22 section 60320.226(e), groundwater monitoring frequency for select parameters can be discontinued following DDW and Central Coast Water Board approval with a revised MRP after review of a request for monitoring parameter and frequency reduction. Requests must include the most recent two years of monitoring results.

8. NOTIFICATIONS

8.1. Monterey One Water must submit any Central Coast Water Board notifications described in the Order and the MRP by email to: RB3-WDR@Waterboards.ca.gov and must upload documents to Geotracker.

8.2. Monterey One Water must submit any State Water Board or DDW notifications as described in the Order or MRP by email to: dwpdist05@waterboards.ca.gov and dwrecycledwater@waterboards.ca.gov.

Monterey One Water must implement the above monitoring program 30 days after the date Order R3-2025-0008 is adopted. Monterey One Water must continue to implement the February 1, 2021 Monitoring and Reporting Program R3-2020-0122 until that time.

ATTACHMENT F
FACT SHEET
ORDER R3-2025-0008

TABLE OF CONTENTS

TABLE OF TABLES

This Fact Sheet includes background information, legal requirements, and technical rationale and serves as the basis for the waste discharge requirements (WDRs), the directives in the monitoring and reporting program in Attachments E, and the water reclamation requirements (WRRs) in Attachment D of Order R3-2025-0008, *Waste Discharge and Water Reclamation Requirements for the Pure Water Monterey Groundwater Replenishment Reuse Project,* issued to Monterey One Water (Order). This Fact Sheet is incorporated into and constitutes findings for the WDRs, monitoring and reporting program, and WRRs.

1. ORDER INFORMATION

1.1. Monterey One Water owns and operates the Pure Water Monterey Advanced Water Purification Facility (AWPF) and associated injection wells, monitoring wells, and conveyance pipelines, collectively referred to as the Pure Water Monterey Groundwater Replenishment Reuse Project (Project).

1.2. For the purposes of this Order, references to the "Discharger" or "Permittee" in applicable federal and state laws, regulations, plans, and policies are held to be equivalent to references to Monterey One Water herein.

1.3. The Project is regulated by WDRs and WRRs contained in this Order. The Order authorizes operation of the AWPF with a maximum flow of 7.6 million gallons per day (MGD) and injection of up to 5,750 acre-feet per year (AFY) of advanced treated recycled water into the Salinas Valley Groundwater Basin - Seaside Area subbasin (Seaside Basin). This Order also authorizes injection of an additional 200 AFY in wet season months (October through April of the following year), bringing the maximum total injection into the Seaside Basin of 5,950 AFY.

1.4. On November 27, 2024, Monterey One Water submitted a report of waste discharge (ROWD) pursuant to California Water Code section 13260 requesting an update to Order R3-2017-0003 to accommodate an expansion of the AWPF, installation of new injection wells, and increased injection into the Seaside Basin.

1.5. On April 10, 2025, Monterey One Water held a public hearing on the draft *Engineering Report, Monterey One Water Pure Water Monterey Groundwater Replenishment Project* (Engineering Report).[1] On May 18, 2025, Monterey One Water submitted a final version of the Engineering Report to the Central Coast Water Board and the State Water Resources Control Board, Division of Drinking Water (DDW) to demonstrate compliance with the requirements of

[1] The Engineering Report for Pure Water Monterey Expansion can be found online at: https://purewatermonterey.org/wp/wp-content/uploads/M1W-Final-Title-22-Engineering-Report-April-2019-1.pdf

California Code of Regulations (CCR) title 22, division 4, chapter 3, article 5.2, Indirect Potable Reuse: Groundwater Replenishment Subsurface Applications. The final Engineering Report was conditionally approved by DDW on July 11, 2025, with a revised conditional acceptance letter issued on August 28, 2025. Central Coast Water Board incorporated DDW's conditions into WRRs specified in Attachment D of this Order.

1.6. This Order is one of four Central Coast Water Board permits that regulate the treatment and reuse of water in Monterey One Water's service area. See Figure C-6 in Attachment C for a schematic of the treatment facilities, dischargers, and permits. The following includes a description of the three additional permits, as of the date of this Order:

1.6.1. This Order allows for the production of water for irrigation use by Marina Coast Water District (MCWD). MCWD's use of the advanced treated water is regulated under State Water Board General Order WQ 2016-0068-DWQ, *Water Reclamation Requirements for Recycled Water Use*.

1.6.2. Order R3-2024-0045, *Waste Discharge Requirements for the Monterey One Water Regional Wastewater Treatment Plant and Advanced Water Purification Facility* (NPDES Permit CA0048551), which became effective on February 28, 2025, authorizes the discharge of treated wastewater to the Pacific Ocean and 1.78 MGD of reverse osmosis (RO) concentrate from the AWPF to the Pacific Ocean. The NPDES Permit also authorizes production of non-potable recycled water (known as the Salinas Valley Reclamation Project, SVRP) from the Regional Wastewater Treatment Plant.

1.6.3. Order 97-52 regulates the use of non-potable recycled water produced by the Regional WWTP for agricultural irrigation as part of the Castroville Seawater Intrusion Project (CSIP). Monterey County Water Resources Agency is the administrator of the recycled water and is currently working on enrollment in General Permit WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use*. Enrollment in Order 97-52 will be terminated upon enrollment in WQ 2016-0068-DDW.

2. FACILITY INFORMATION

2.1. Table F-1 includes information related to Central Coast Water Board administrative tracking in the California Integrated Water Quality System (CIWQS) and Geotracker databases. For administrative purposes, the "Facility" is the Project.

Table F-1. Facility Information (for CIWQS and Geotracker databases)

WDID	3 270417589
Global ID	WDR100039680
Discharger/Legally Responsible Party	Monterey One Water
Name of Facility	Pure Water Monterey Groundwater Replenishment Reuse Project
Facility Address	14811 Del Monte Blvd., Marina, CA 93933
Facility Latitude and Longitude	36.70577, -121.77075
Facility Contact, Title and Phone	Jose Guzman, Operations Manager, (831) 883-6183, joseg@my1water.com
Authorized Person to Sign and Submit Reports	Jose Guzman, Operations Manager, (831) 883-6183, joseg@my1water.com
Mailing Address	5 Harris Court, Building D, Monterey, CA 93940
Billing Address	5 Harris Court, Building D, Monterey, CA 93940
Type of Facility	Advanced treated recycled water facility
Threat to Water Quality	3
Complexity	A
Pretreatment Program	Y
Recycling Requirements	Producer and User
Facility Permitted Flow	7.6 MGD peak capacity
Facility Design Flow	7.6 MGD
Baseline Flow (2023 annual avg)	3.6 MGD
Groundwater Basin	Salinas Valley Groundwater Basin - Seaside Area subbasin
Receiving Water	Groundwater
For Internal Use Only	
Fee Code	58
Primary Place Type	Recycled Water Use Area
Facility Type	Municipal/Domestic
Facility Waste Type	Recycled/reclaimed water
Regulatory measure Type	Individual WDR
Reclamation	Yes; Producer Potable, Distribution/Use

3. PROJECT DESCRIPTION

3.1. Background

3.1.1. The Project is a groundwater replenishment reuse project (GRRP), as defined in Title 22 section 60301.390, consisting of production of advanced treated recycled water and its injection into the Seaside Basin for subsequent extraction and use as potable supply, also known as indirect potable reuse. The product water is produced at the

AWPF, located adjacent to Monterey One Water's regional wastewater treatment plant (WWTP), and is conveyed for injection into the Seaside Basin via the product water pipeline and Blackhorse Reservoir (tank). The injected water mixes with existing groundwater and is stored for future extraction as a source of potable supply for customers of California American Water Company's (Cal-Am) drinking water system.

3.1.2. The initial Project began operating in in February 2020, authorized by Central Coast Water Board Order R3-2017-0003. During the initial Project, Monterey One Water was authorized to produce up to 5.0 MGD of advanced treated recycled water and inject the recycled water into the Seaside Basin through two vadose zone injection wells (VZW) and four deep injection wells (DIW).

3.1.3. This Order authorizes an expansion of the Project, including increased treatment capacity at the AWPF to 7.6 MGD, the addition of two additional DIWs, and injection of 5,950 AFY advanced treated recycled water into the Seaside Basin. This Order allows continued delivery of advanced treated recycled water to MCWD for non-potable uses by its customers. The Order also allows for discharge of injection well backflush water into two percolation basins, which are referred to as Pond 1 and Pond 2. Existing and Expanded Project information from the Engineering Report is included in Table F-2.

3.1.4. Off-specification product water from the AWPF can be is sent to Monterey One Water's ocean outfall, headworks of the Regional WWTP, or the Salinas Valley Reclamation Project (SVRP) Pond (also notated as Storage/Blending Pond on Figure B-1). Production of off-specification recycled water at the AWPF occurs rarely (e.g., less than five times since commencing operations) and is typically associated with UV/AOP challenge testing. This water is treated by RO and disinfected through UV, at a minimum, and meets Title 22 disinfected tertiary recycled water requirements applied to SVRP operation.

Table F-2. Existing and Expanded Project Details[2]

Facilities	Existing	Expanded
Operating Capacity of AWPF (MGD)	5	7.6
Average Annual Injection Volume (AFY)	3,500	5,750

[2] Adapted from the May 2025 Engineering Report.

Facilities	Existing	Expanded
Additional Injection Volume for Storage Reserves in Winter Months (AFY)[1]	200	200
Minimum Operating Reserve Volume (AFY)[1]	1,750	2,875
Capacity AWPF and Conveyance for MCWD Customers (AFY)	600	600
Deep Injection Wells	4	6
Vadose Zone Wells	2	2
Backflush Ponds	1	2
Monitoring Wells (MWs)	7	8

[1] On August 30, 2022, DDW approved the results of Monterey One Water's added tracer study for DIW-1 and DIW-2 (which demonstrated more than 4 logs of virus credit and 4 months of underground retention time). In the winter of Water Year 2023, Monterey One Water injected 455 AF of additional water for its required operating reserve. The minimum operating reserves (stored water in the Seaside Basin) are agreed to between Monterey One Water, Monterey Peninsula Water Management District (MPWMD), and Cal-Am and are not regulated in this Order.

3.1.5. Cal-Am is subject to a State Water Resources Control Board (State Water Board) cease and desist order (Order WR 2009-0060, as amended by Order WR 2016-0016) to cease pumping the Carmel River system in excess of limitations set in the State Water Board's Order WR 95-10. Cal-Am extracts advanced treated recycled water from the Seaside Basin to offset its reductions in Carmel River diversions and extraction of native Seaside groundwater. The increased injection amount authorized by this Order enables Cal-Am to further reduce its diversions from the Carmel River system and reduce its use of native Seaside Basin. Cal-Am extraction varies seasonally.

3.1.6. This Order also allows for a carryover storage (called operation or drought reserve) component that permits an additional 200 AFY of advanced treated recycled water to be injected into the Seaside Basin in wet months (October-April). During dry years when the Project is

unable to provide 5,750 AFY to the Seaside Basin, Cal-Am would be able to extract the banked water to make up the difference in its supplies.

3.2. Advanced Water Purification Facility (AWPF) Details

3.2.1. Monterey One Water constructed the AWPF to treat secondary effluent from the Regional WWTP for indirect potable reuse. The production of advanced treated recycled water at the AWPF consists of ozone pretreatment, membrane filtration (MF), RO, ultraviolet advanced oxidation process (UV/AOP), and post-treatment stabilization. Under the Expanded Project, the AWPF receives up to 10.66 MGD of secondary effluent from the Regional WWTP and will produce up to 7.6 MGD of advanced treated recycled water. The AWPF treatment processes themselves were unaltered but were expanded to support greater flows; for example, new RO, MF and UV/AOP equipment were added to expand the existing treatment processes.

3.2.2. Title 22 requires demonstration that the treatment process can achieve at least a 12-log enteric virus reduction and 10-log *Giardia* cysts and *Cryptosporidium* oocysts reductions. In accordance with Title 22, different treatment processes have maximum log reduction values (LRV). A single treatment process may be credited with no more than a 6-log reduction and at least three processes must have no less than 1-log reductions. Prior to the Project expansion, the AWPF had 9.5-12.5 virus LRV credits and 11.5-13 *Giardia* and *Cryptosporidium* LRV credits granted for the combination of MF, RO, UV/AOP, and chloramine components. Underground retention time provides an additional 4 virus LRV credits, bringing the virus LRV total to 13.5-16.5. Under the Expanded Project, Monterey One Water expects that LRV credits will be identical to those granted during the initial Project. Confirmation of LRV credits will be based on results of startup testing confirmed by DDW and tracer studies conducted pursuant to section 4.1 of Attachment D of this Order.

3.2.3. The treatment train of the AWPF is described as follows:

3.2.3.1. Ozone Pretreatment. Used to oxidize large organic molecules present in AWPF influent, ozone reduces the size of organic molecules and thus increases infiltration rates and reduces MF fouling and backwash frequency.

3.2.3.2. Membrane Filtration (MF). MF provides one credited treatment process barrier at the AWPF for removal of

pathogens. The MF is designed to achieve a minimum LRV credit of 4.0 for both *Giardia* cysts and *Cryptosporidium* oocysts. In addition to reduction in pathogens, MF serves as pretreatment for the RO system by reducing the concentration of particulate matter that would otherwise foul the RO membranes.

3.2.3.3. Reverse Osmosis (RO). The RO is a second credited treatment process barrier at the AWPF for the removal of pathogens. The RO system is anticipated to be credited with a 1.5 to 3.0 LRV for viruses, *Giardia* cysts, and *Cryptosporidium* oocysts. In addition to the reduction in pathogens, the RO system is used to remove dissolved pollutants, including salts, organic carbon, and trace organic compounds and constituents of emerging concern (CECs).

3.2.3.4. Ultraviolet Advanced Oxidation Process (UV/AOP). In UV/AOP, permeate from the RO system is dosed with hydrogen peroxide, and the resulting oxidant is photolyzed by high doses of ultraviolet light. The UV/AOP process provides the third credited treatment barrier at the AWPF for the control of pathogens. UV/AOP is designed to achieve a 6.0-LRV credit each for viruses, *Giardia* cysts, and *Cryptosporidium* oocysts. In addition, the UV/AOP system is designed to achieve a target removal of 2.0 LRV for n-nitroso-dimethylamine (NDMA) and 0.5 LRV for 1,4-dioxane. NDMA and 1,4-dioxane log reduction is required to demonstrate treatment performance, for protection of human health, and as a surrogate for the removal of other trace organic compounds.

3.2.3.5. Stabilization. After UV/AOP, the purified recycled water undergoes stabilization to meet product water quality goals, reduce corrosivity in the conveyance system, and minimize geochemical impacts in the aquifer. Stabilization includes a decarbonator to remove carbon dioxide and the addition of calcium chloride and sodium hydroxide to raise calcium hardness, alkalinity, and pH.

3.2.3.6. Chlorine Disinfection. Chlorine disinfection is the final pathogen barrier. Sodium hypochlorite and, if needed, ammonium sulfate are injected into the stabilized product water to form a chloramine residual. This provides residual disinfection in the conveyance pipeline and serves as the final pathogen barrier. Monterey One Water atypically receives 2- to 3.5-log virus inactivation credit based on the chloramine residual and detention time in the pipeline as determined by

chlorine residual monitoring at the injection wells and chlorine contact concentration/time (CT) calculation, approved by DDW.

3.3. Conveyance Piping to Injection Wells and Marina Coast Water District

3.3.1. Stabilized product water is pumped from the Project Water Pump Station to a purified water reservoir (Blackhorse Reservoir) via the product water pipeline. Advanced treated recycled water is conveyed either to connections that supply recycled water for landscape irrigation under the control of MCWD or to Project injection wells. The majority of the product water pipeline is owned by MCWD, with the exception of the sections on the Regional WWTP site and near the injection wells, which are owned by Monterey One Water. The product water pipeline is approximately 50,000 linear feet and is either 16 or 24 inches in diameter. The 2.0-million-gallon Blackhorse Reservoir is owned and operated by MCWD in collaboration with Monterey One Water operations and maintenance staff. The Blackhorse Reservoir is used to maintain system pressure and balance out diurnal demands from landscape irrigation and injection wells.

3.4. Wastewater Source Control

3.4.1. The influent to the AWPF is secondary treated effluent from the Regional WWTP. The Regional WWTP serves the members of the Monterey One Water joint powers authority (JPA), which includes the cities of Monterey, Pacific Grove, Del Rey Oaks, Sand City, Marina (via the MCWD service area), and Salinas; the Seaside County Sanitation District; the Castroville Community Services District, Boronda County Sanitation District, and areas within unincorporated Monterey County.

3.4.2. In developing the Project, Monterey One Water added new sources of wastewater beyond the historical municipal sources. Source waters to the Regional WWTP originally included solely domestic wastewater from Monterey One Water JPA members. In conjunction with development of the Project the following additional non-domestic wastewater sources were added: (1) industrial wastewater (also referred to as “ag wash water”) from the City of Salinas’s agricultural wash water system, (2) stormwater flows from the southern part of Salinas’s municipal separate storm sewer (MS4) collection system, and (3) surface water and agricultural irrigation return flows that are captured in the Salinas Reclamation Canal and the Blanco Drain.

3.4.3. In including these new wastewater sources, Monterey One Water reviewed and updated its source control plans and programs to

address the new water sources, including (a) a review of existing local limits and development of new limits to reflect changes in the treatment system (including plans to develop the AWPF), changes in the service area sources (i.e., the addition of new source waters), and changes in regulations; (b) permitting the City of Salinas industrial wastewater treatment facility; and (c) adding an interruptible flow rate program that includes control mechanisms and prohibitions which allow Monterey One Water to control the receipt of these new source waters. This interruptible rate program allows Monterey One Water to set conditions on the quality and timing of the source waters such that M1W does not divert the waters if applicable criteria are not met.

3.4.4. In developing the Project, a comprehensive wastewater source control program was required to be developed pursuant to Title 22, section 60320.206. Monterey One Water's source control program complies with the Title 22 requirements for GRRPs by building upon its existing industrial pretreatment program and conducting additional assessments and investigations of potential source constituents, engaging in outreach to dischargers, maintaining detailed inventories of industrial inputs, evaluating and updating local limits based on shifts in wastewater composition, and submitting annual reports. The various components of the source control program are explained immediately below.

3.4.5. Monterey One Water administers an existing industrial pretreatment program in conformance with USEPA pretreatment regulations. As part of this industrial pretreatment program, Monterey One Water regulates discharges to the wastewater collection system and Regional WWTP through a variety of different ordinances. These ordinances are enforced by three full-time staff that perform a wide range of duties to implement the pretreatment program, including permitting, inspections, sample collection and analysis, data review, incident response and investigation, enforcement actions, and administration.

3.4.6. As part of the industrial pretreatment program, Monterey One Water maintains an industrial user inventory to identify all industrial discharges to the collection system and to characterize the discharge quality. Using the industrial user inventory, Monterey One Water develops local limits and discharge standards to identify pollutants of concern, calculate maximum allowable headworks loading, and design and implement the local limits imposed upon industrial users. Monterey One Water also issues permits to various industrial

dischargers, performs inspections and monitoring, and requires reporting to ensure compliance with permits.

3.4.7. Additional details of the source control program are described in the Engineering Report and in Attachment D of this Order.

3.5. Discharge Locations

3.5.1. Groundwater Injection Wells

3.5.1.1. This Order regulates the discharge of advanced treated recycled water into the Seaside Basin (and specifically, the Aromas Sand formation and Santa Margarita aquifer) through the injection wells and backflush basins found in Table F-3 and Figures C-2 and C-3.

3.5.1.2. The initial Project included two VZWs (VZW-1B, VZW-2) and four DIWs (DIW-1, DIW-2, DIW-3, DIW-4). Under this Order and the expanded Project, there are two additional DIWs: DIW-5 and DIW-6. The DIWs recharge the Santa Margarita formation aquifer, which accepts around 96% of the injected water. The VZWs recharge the remaining recycled water to the Aromas Sands for percolation to the Paso Robles aquifer.

Each of the six DIWs are constructed using 24-inch diameter stainless steel casing, 24-inch diameter stainless steel slotted screen, and gravel filter pack that extends from 20 feet above the top of the screened interval to the bottom of the screened interval. The combined injection capacity for all wells is 5,855 gallons per minute (GPM), which equates to an annual injection capacity of 9,114 AFY. This injection capacity is 53% greater than the annual injection volume target, which provides Monterey One Water with flexibility to shift injection volumes among the wells. This way, Monterey One Water can manage underground travel times and meet individual well volumetric injection limits found in Attachment D, accommodate seasonal variations in monthly injection volume, and maintain total injection at the target level if one well is out of service for preventative maintenance and/or repair.

3.5.1.3. The two VZWs, VZW-1B and VZW-2, are constructed with 14- and 16-inch diameter PVC casings installed in 48- and 36-inch diameter boreholes, respectively. VZW-1B has an injection capacity of approximately 35 GPM, while VZW-2 operates at around 20 GPM. Although higher capacities were anticipated

during design, the actual performance has been lower than expected. Currently, these wells contribute between 2% and 4% of the total project injection volume—a proportion that is expected to decline following completion of the expanded Project. The VZWs are used for groundwater recharge through the unsaturated zone, supporting the replenishment of the underlying aquifers.

Table F-3. Injection Well Discharge Locations

Injection Well	Injection Well Latitude/ Longitude	Aquifer Unit	Screened Interval (ft bgs[1])	Maximum Injection Capacity (GPM)
VZW-1B	36.61812/ -121.81418	Aromas Sand	28-130	35
VZW-2	36.616767, -121.81699	Aromas Sand	28-98	20
DIW-1	36.61823/ -121.81401	Santa Margarita	529-808	1,000
DIW-2	36.61657/ -121.81708	Santa Margarita	436-605	400
DIW-3	36.61929/ -121.81062	Santa Margarita	671-956	1,300
DIW-4	36.6142/ -121.81901	Santa Margarita	402-579	900
DIW-5	36.62410/ -121.80378	Santa Margarita	830-1,120	1,300
DIW-6	36.62516/ -121.80378	Santa Margarita	745-1,020	1,300

1. ft bgs denotes feet below ground surface

3.5.2. Injection Well Backflush Ponds

3.5.2.1. DIWs are pumped (i.e., groundwater extracted) periodically to mitigate well clogging and maintain injection capacity, a process known as backflushing. Pure Water Monterey uses two backflush basins (referred to as Pond 1 and Pond 2) to dispose of pumped groundwater produced during backflushing. Pond 1, which has an infiltration capacity of 839,680 gallons per day, is used to dispose of backflush water from deep injection wells DIW-1, DIW-2, DIW-3, and DIW-4. Pond 2, used for disposal of

backflush water produced at wells DIW-5 and DIW-6, is composed of two percolation cells, allowing for individual cells to be taken offline for maintenance. In extraction mode, injection wells are cable of producing up to 2,624 GPM and are typically backflushed for four hours, which equates to approximately 630,000 gallons of water produced per well per backflush.

3.6. Monitoring Wells

3.6.1. Monterey One Water monitors groundwater quality downgradient from the Project injection wells using five deep zone monitoring wells and three shallow zone monitoring wells. These monitoring wells are located to support tracer tests and meet long-term monitoring requirements for GRRPs outlined in Title 22, section 60320.226. Locations were also chosen with consideration to the nearest down-gradient public supply well, which is Cal-Am's Paralta well. A list of the monitoring wells and screen intervals are included in Table F-4.

3.6.2. Monterey One Water will also obtain monthly extraction well monitoring data from Cal-Am and submit it with its annual reports. The Paralta extraction well, one of the most heavily used Cal-Am supply wells, is located approximately 1,630 feet northwest of DIW-1. Well Ord Grove 2 is situated about 1,600 feet northwest of DIW-4. Wells ASR-3 and ASR-4, which are also used by Cal-Am for municipal supply, are located 2,300 feet and 2,690 feet, respectively, from DIW-3.

3.6.3. In the future, Cal-Am may build two additional extraction wells, EW-3 and EW-4. They are currently planned to be approximately 2,650 to 3,250 feet farther north, primarily aligned with DIW-5 and DIW-6. The relative positions of these wells and the injection wells have been selected to facilitate movement of injected water downgradient toward the extraction wells while meeting the minimum required underground retention time of four months. Although not explicitly monitoring wells, data from EW-3 and EW-4 will be evaluated for geochemically active constituents.

Table F-4. Monitoring Well Locations and Screened Intervals

Well Name	Aquifer	Screened Interval (ft bgs)
MW-1S	Paso Robles	380-440
MW-1AS	Paso Robles	380-460

Well Name	Aquifer	Screened Interval (ft bgs)
MW-2AS	Paso Robles	340-420
MW-2D	Santa Margarita	480-610
MW-2AD	Santa Margarita	480-690
MW-1D	Santa Margarita	520-810
MW-1AD	Santa Margarita	610-870
MW-3AD	Santa Margarita	870-1190

3.7. Underground Retention Time

3.7.1. Title 22 regulations for GRRPs require that the project proponents demonstrate a minimum amount of time that injected water is underground prior to being extracted for potable reuse. The underground retention time is used for identifying the location of monitoring wells consistent with Title 22 section 60320.226, calculating virus LRV credits consistent with section 60320.208, demonstrating compliance with the response retention requirements in section 60320.224, and creating zones of primary and secondary drinking water control consistent with section 60320.200.

Before any injection of advanced treated recycled water may occur, underground retention times are estimated using models. These modeled estimates are used for project planning, demonstrating regulatory feasibility with respect to complying with underground retention time requirements, and locating and constructing monitoring wells. These modeled estimates are required to later be validated via injection tracer studies that commence within three months of project startup.

3.7.2. Estimating underground retention times of injected Project water is complicated due to the presence of aquifer storage and recovery (ASR) wells located between the Project injection wells and downgradient production wells owned by Cal-Am. Two of the ASR wells (ASR-1 and ASR-2), are owned by Monterey Peninsula Water Management District (MPWMD). Two of the ASR wells (ASR-3 and ASR-4) are owned by Cal-Am. MPWMD, in collaboration with Cal-Am, injects Carmel River water into the Santa Margarita aquifer when there are adequate flows in the Carmel River that allow for diversions. Because the ability to inject water via the ASR wells is dependent on

hydrologic conditions, injection volumes are highly variable, with some years having practically no injection and in some years exceeding more than 1,500 acre-feet. Additionally, these ASR wells can act as dual-purpose injection and extraction wells, meaning that when they are not injecting, they may be extracting groundwater and delivering it to the Cal-Am distribution system. ASR injections and extractions have a substantial effect on the groundwater gradient and subsurface retention time between Project injection wells and downgradient Cal-Am extraction wells. When MPWMD is injecting into the ASR wells, the ASR wells create a hydraulic mound, and the underground retention time between the Project and downgradient Cal-Am extraction wells is lengthened. When ASR wells are extracting, or if there has been little ASR injection, underground retention times between the Project and down-gradient Cal-Am extraction wells are shortened.

3.7.3. Underground retention time variability is further complicated by variability in extraction rates and production volumes from the various Cal-Am production wells. Changes in the pumping distribution from Cal-Am wells can alter the underground retention times.

3.7.4. A tracer-calibrated model is a tool used to predict subsurface travel time. Tracer-calibrated modeling was used to determine underground retention times under a range of possible injection and extraction scenarios. The results of the tracer studies conducted by Monterey One Water were used to develop a numerical groundwater model of retention times within the Seaside Basin. The tracer-calibrated model was then used to identify injection and extraction scenarios that produce the fastest possible underground retention times.

3.7.5. Demonstrating the fastest possible (e.g., most conservative) underground retention time associated with the Project is difficult due to the large number of variables that influence underground retention times in the Project area (i.e., ASR well injection and Cal-Am production and distribution). In order to measure and verify the most conservative retention time of the Expanded Project, as required by Title 22, certain basin conditions would need to be maintained for a period of approximately six months, specifically no ASR injection and maximum Cal-Am extraction. Because of the need to inject Carmel River water when it is available and the need to extract groundwater to meet demands of the Cal-Am distribution system, it is infeasible to artificially maintain these basin conditions over many months.

3.7.6. Per Title 22, Table 60320.208, Monterey One Water received 4.0 LRV credits for four months of underground retention time, which was verified under the initial Project through an extrinsic tracer study including tracer-calibrated numerical modeling of 4,300 AFY injection. Monterey One Water was credited with 1.0 LRV credits for each month of underground retention time, for the maximum allowable of 4.0 LRV for four months based on the June 10, 2022 Tracer Study Analysis Technical Memorandum[3].

3.7.7. Tracer-calibrated numerical modeling revealed that underground retention times from DIW-1 and DIW-2 to the down-gradient public well Paralta well could fall short of the four-month minimum required to achieve 4.0 LRV credit under Title 22 if Monterey One Water injects at the maximum DIW-1 capacity for over four months during periods without injection of more than 10 AF/D (monthly average) into ASR wells ASR-1 and ASR-2, located between DIW-1 or DIW-2 and Cal-Am's Paralta well. To address this, Monterey One Water used the model to demonstrate that reducing the injection rate at DIW-1 would maintain compliance with the four-month retention time.

3.8. Response Retention Time

3.8.1. Title 22 section 60320.224 requires project proponents to estimate the response retention time (RRT), which is the amount of time required to identify and respond to a treatment failure that results in the discharge of off-specification advanced treated recycled water to the aquifer. In summary, the RRT is the time necessary to:

3.8.1.1. Identify and confirm the water quality problem exists;

3.8.1.2. Assess the results and make decisions for appropriate responses to protect public health with DDW and Central Coast Water Board input; and

3.8.1.3. Procure a safe alternative drinking water supply solution by utilizing other potable supply wells or activating regional interties or potential wellhead treatment.

3.8.2. The RRT must be no less than two months according to Title 22 section 60320.224. Monterey One Water has calculated that the RRT needed to perform the three steps outline above is 2.79 months, as described in detail in the Engineering Report. Underground retention

[3] Available on Geotracker at the following link: https://geotracker.waterboards.ca.gov/view_documents?global_id=WDR100039680&document_id=6152200

times must be longer than the RRT so that project proponents have time to respond to a treatment failure before the off-specification water reaches the nearest downgradient well.

3.8.3. Underground Retention Times for Specific Injection Wells

3.8.3.1. Underground retention times associated with the Project are based on the tracer-calibrated groundwater modeling results. Monterey One Water used the numerical model to identify "worst-case" or fastest travel time scenarios based on various combinations of injection and extraction rates and volumes. These results demonstrate that a minimum underground retention time of four months can be achieved for each injection well to the nearest downgradient extraction well even during time periods without injection into ASR-1 and ASR-2. Table F-5 summarizes Monterey One Water's results from the Engineering Report.

Table F-5. Travel Times Estimated for Typical Operational Scenarios

	DIW-1	DIW-2	DIW-3	DIW-4	DIW-5	DIW-6	Total
Annual Injection[1]							
Acre-Feet	354	472	1,415	1,181	1,441	945	5,809
% of Total	6.1%	8.1%	24.4%	20.3%	24.8%	16.3%	100%
Maximum Winter Injection[1]							
Gallons Per Minute	289	385	1,155	963	1,175	770	4,737
Acre-feet Per Month	40	53	158	132	161	106	649
% of Capacity[2]	29%	96%	89%	107%	107%	70%	82%
Minimum t_{10} Travel Time							
Nearest Extraction Well[3]	Paralta	Paralta	ASR-3	Ord Grove 2	EW-3 & 4	EW-3 & 4	

	DIW-1	DIW-2	DIW-3	DIW-4	DIW-5	DIW-6	Total
Average Injection Rate (AF/month)[4,6]	36	46	126	112	117	81	518
Average Injection Rate (% of capacity)	28%	88%	74%	94%	81%	56%	68%
Average Extraction Rate (AF/month)[4,7]	136	133	167	70	282	179	653
Average Extraction Rate (% of capacity)[7]	72%	71%	83%	53%	70%	44%	70%
T_{10} travel time (months) [4]	4.4	5.5	5.4	6.6	7.5	15.4	

[1] Injection amounts are net after backflushing and also do not include vadose zone well injection.

[2] The injection-apportioning algorithm resulted in two instances with injection slightly above the well's long-term capacity. Because travel time exceeded 4 months even at those high rates of injection, the simulation was not revised to have a slightly different injection allocation.

[3] The nearest extraction well is based on travel time, not map distance.

[4] Injection and extraction amounts are averages over the number of months equal to the t_{50} travel time that corresponds to the reported t_{10} travel time. All months are assumed to be 365/12 = 30.4 days long when converting from AF/day to AF/month.

[5] The listed travel times are the shortest times between a well pair among the six simulated scenarios.

[6] Total annual and monthly injection volumes at DIW wells were the same in all scenarios, as was the distribution among the deep injection wells.

[7] Total Cal-Am production and capacity is for the downgradient wells: Paralta, ASR-3, Ord Grove 2, EW-3 and EW-4.

3.8.3.2. Tracer studies and associated calibrated numerical modeling results were used to develop equations the allowed for the

calculation of underground retention times based on the injection and extraction rates in injection well and extraction well couplets. For example, the equations can calculate the travel time based on the injection rate at DIW-1 and the extraction rate at the closest downgradient monitoring well, Peralta. Similar equations are used for other injection wells and the closest downgradient extraction well. These equations are used to estimate and report underground retention times based on historical injection and extraction that occurred as well as forecast underground retention times based on anticipated future Project injections and extraction by Cal-Am.

3.8.4. Zones of Primary and Secondary Drinking Water Control

3.8.4.1. Title 22 requires Monterey One Water to create a primary zone of drinking water control, in which no wells are allowed to be constructed, and a secondary zone of drinking water control, in which additional hydrogeologic studies must be conducted prior to the construction of a well. The intent of these control zones is to ensure that new wells can't be constructed in locations that would result in unacceptable underground retention times to the newly constructed well or would otherwise alter groundwater flow velocities or directions that would result in unacceptable underground retention times to existing extraction wells. Drinking water control zones are initially established based on modeled estimates of subsurface retention time and are later updated based on the results of tracer studies. Monterey One Water is required to update the existing hydrogeological model using results of the tracer studies. Primary and secondary control zones for the initial project are established based on the results of tracer study-calibrated modeling. Control zones for the expanded Project that include DIW-5 and DIW-6 have been adopted based on numerical groundwater modeling. Control zones will be updated if tracer study results from DIW-5 and DIW-6 indicate that a revision is needed.

3.8.5. Enforcement of Primary and Secondary Control Zones

3.8.5.1. MPWMD is responsible for managing and allocating available water supplies within the Project area. Ordinance 183 of the MPWMD, enacted July 15, 2019, established the primary and secondary control zones for the Initial Project of Pure Water Monterey. Ordinance 183 allows the primary and secondary control zones to be updated through a MPWMD Board

resolution. The MPWMD will prepare and propose approval of updated maps by startup of the expanded Project.

4. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

4.1. Legal Authorities

4.1.1. The Order is issued pursuant to California Water Code sections 13263, 13267, and 13523.1. The Order serves as waste discharge requirements (WDRs) and water reclamation requirements (WRRs) issued pursuant to Water Code article 4, chapter 4, division 7.

4.2. California Environmental Quality Act (CEQA)

4.2.1. Monterey One Water, serving as lead agency, prepared an environmental impact report (EIR) for the initial Project along with multiple EIR addenda as the Project evolved and expanded. Monterey One Water adopted the final EIR for the initial Project, *Consolidated Final Environmental Impact Report for the Pure Water Monterey Groundwater Replenishment Project*, on October 8, 2015.

The three addenda to the final EIR were adopted and notices of determination filed on October 31, 2017. These addenda were for the construction of a pump station and pipeline and for expansion of AWPF capacity from 4.0 to 5.0 MGD and to share a pipeline and reservoir (tank) with MCWD.

A supplemental EIR was adopted and notice of determination filed on April 26, 2021. The supplemental EIR described proposed modifications that would increase AWPF peak capacity from 5.0 MGD to 7.6 MGD, construct two additional injection wells and associated conveyance pipelines, and increase injection to the Seaside Basin by an additional 2,250 AFY.

4.2.2. The 2021 supplemental EIR considered impacts of Project construction and operation on groundwater resources, including on water quantity, storage, water levels, and water quality of the Seaside

Basin. In accordance with CEQA Guidelines,[4] projects have a significant impact on hydrology and water quality if they violate any water quality standards or WDRs, otherwise substantially degrade surface or groundwater quality, or if they decrease groundwater supplies or recharges such that they would impede sustainable groundwater management. The approach to impact analysis for the expanded Project was generally unchanged from the initial Project. The 2021 supplemental EIR concluded that there would be no new significant impact nor an increase in severity of an impact to groundwater quality or quantity to the Seaside Basin based on groundwater characterization, groundwater sampling results, stabilized pilot water quality/chemistry, and the quality of the purified recycled water injected from the AWPF. Relevant EIR findings related to groundwater quality and quantity are as follows:

4.2.2.1. Injection of stabilized purified recycled water quality into the Seaside Basin will not degrade groundwater quality such that a significant impact would occur; is projected to meet regulatory thresholds for groundwater replenishment projects and Basin Plan groundwater quality standards, including drinking water MCLs; and will not cause adverse geochemical impacts. Purified recycled water is expected to contain generally lower concentrations of total dissolves solids, nitrate, and chloride as compared to ambient groundwater, providing a localized benefit to groundwater quality.

4.2.2.2. The expanded Project detailed in the 2021 supplemental EIR provides additional water for downgradient groundwater extraction. Water levels are generally higher than before; however, water levels at extraction levels would be sometimes lower by approximately 10 feet at certain times of the year due to increased extraction rates. Analysis of closest shallow coastal wells indicated that increased pumping of the Project would not cause groundwater levels to fall below elevations protective of seawater intrusion. It is expected that, over time, the Project will cause groundwater levels to rise near the coast due to storage of product water in the basin that is carried over year to year and long term.

4.2.2.3. Operational discharges of RO concentrate into the Pacific Ocean through the Monterey One Water outfall were identified

[4] The CEQA Guidelines (Title 14, division 6, chapter 3 of the California Code of Regulations) are administrative regulations governing implementation of the California Environmental Quality Act and can be accessed online at: https://lci.ca.gov/ceqa/guidelines/

as a less-than-significant impact. The 2021 supplemental EIR concluded that the discharge would not violate water quality standards or WDRs or otherwise substantially degrade water quality, and therefore mitigation measures were not required. However, authorization of the ocean discharge is required pursuant to chapter 5.5, division 7 of the California Water Code (commencing with section 13370) and section 402 of the federal Clean Water Act (CWA), and as such the Central Coast Water Board considered the impacts of this discharge and authorized it through Order R3-2024-0045, National Pollutant Discharge Elimination System (NPDES) Permit CA0048551, *Waste Discharge Requirements for the Monterey One Water Regional Wastewater Treatment Plant and Advanced Water Purification Facility*. The NPDES permit—drafted and prepared in compliance with the Ocean Plan and state and federal guidance and regulations—is protective of water quality, requires a monitoring and reporting program sufficient to demonstrate compliance with effluent limitations and other requirements, and supports efforts to produce and reuse recycled water. The Central Coast Water Board therefore concluded that any less-than-significant impacts associated with the RO concentrate discharge in the final EIR are lessened even further due to controls in the NPDES permit.

4.2.3. Overall, the impacts of the expanded Project are consistent with those of the initial Project. The expanded Project is expected to have less-than-significant impacts on groundwater levels in the Seaside Basin, beneficial impacts to groundwater quality for certain pollutants (nitrate, total dissolved solids, and chloride), and less-than-significant impacts for the remaining pollutants. The supplemental EIR found that the Project would have significant construction noise and growth-inducing impacts that would not be mitigated to a less-than-significant level, and Monterey One Water's adopted findings of overriding consideration for the relevant impacts in approving the project in April 2021. The construction noise impacts are not relevant to this Order because those impacts were associated solely with construction of potable water supply wells (referred to as EW-3 and EW-4) by Cal-Am. This Order along with other orders that regulate various aspects of Monterey One Water's recycling program and associated

monitoring and reporting programs further reduce any potential impacts from the discharges.[5]

4.2.4. The Central Coast Water Board is a responsible agency pursuant to CEQA (See, CEQA Guidelines, section 15096). The Central Coast Water Board has considered the final EIR, associated addenda, and supplemental EIR and finds that all environmental effects have been identified for project activities that it is required to approve and that the Project and its expansion will not have significant adverse impacts on the environment. There are no potentially significant environmental effects within the Central Coast Water Board's jurisdiction, and, therefore, the Central Coast Water Board is not required to make any specific finding pursuant to CEQA Guidelines 15096.

4.3. Water Quality Control Plan (Basin Plan)

4.3.1. The Central Coast Water Board adopted the most recent version of the *Water Quality Control Plan for the Central Coastal Basin* (hereinafter Basin Plan) on June 14, 2019.[6] The Basin Plan designates beneficial uses for surface waters and groundwaters; establishes narrative and numeric water quality objectives that must be attained or maintained to protect the designated beneficial uses and conform with the state's antidegradation policy; and includes implementation programs and policies to achieve those objectives for all waters in the region. In addition, the Basin Plan incorporates applicable State Water Board and Central Coast Water Board plans and policies and other pertinent water quality policies and regulations.

4.3.2. The Basin Plan states that groundwater designated for use as domestic or municipal supply must not contain concentrations of chemicals and radionuclides in excess of Title 22 primary maximum contaminant levels (MCLs). The Basin Plan also specifies pollutant concentrations that cause nuisance or adversely affect beneficial uses. The Basin Plan incorporates MCLs by reference. This incorporation is prospective and includes future changes to the incorporated provisions as the changes take into effect.

[5] These orders pertaining to Monterey One Water's recycling program are described in section 1.6 of this Fact Sheet and depicted in Figure C-6 of Attachment C.
[6] A revised Basin Plan was adopted by the Central Coast Water Board on June 21, 2024, and State Water Board approved the revision on April 15, 2025. The Office of Administrative Law approval is currently pending as of July 2025.

4.3.3. The Basin Plan includes general narrative groundwater objectives for taste and odor and radioactivity.

4.3.4. The Basin Plan contains the following specific water quality objectives for groundwater:

4.3.4.1. Municipal And Domestic Supply (MUN):

4.3.4.1.1. Bacteria. The median concentration of coliform organisms over any 7-day period must be less than 2.2 MPN/100 mL.

4.3.4.1.2. Organic Chemicals. Groundwaters must not contain concentrations of organic chemicals in excess of the limiting concentrations set forth in Title 22, Chapter 15, Article 5.5, section 64444.5 Table 5 and listed in Basin Plan Table 3-1.

4.3.4.1.3. Inorganic chemicals. Groundwaters must not contain concentrations of inorganic chemicals in excess of the MCLs for primary drinking water standards specified in Title 22, Division 4, Chapter 15, sections 64431 and 64433.2.

4.3.4.1.4. Phenol. Waters shall not contain phenol concentrations in excess of 1.0 µg/L.

4.3.4.1.5. Radioactivity. Groundwaters must not contain concentrations of radionuclides in excess of the limits specified in Title 22, Chapter 15, Article 5, Section 64443, Table 4.

4.3.4.2. Agricultural Supply (AGR)

4.3.4.2.1. Groundwaters must not contain concentrations of chemical parameters in amounts that adversely affect such beneficial use. Interpretation of adverse effects must be as derived from the University of California Agricultural Extension Service guidelines provided in Basin Plan Table 3-1.

4.3.4.2.2. In addition, water used for irrigation and livestock watering must not exceed concentrations for those chemicals listed in Basin Plan Table 3-2. No controllable water quality factor must degrade the quality of any groundwater resource or adversely affect long-term soil productivity.

4.3.5. The requirements in this Order implement the Basin Plan by prescribing requirements for the production and use of recycled water that ensure that the use will not adversely impact water quality, beneficial uses, human health, or the environment.

4.4. Recycled Water Policy

4.4.1. The purposes of the State Water Board's *Water Quality Control Policy for Recycled Water* (Recycled Water Policy) include facilitating increases in the production and 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 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 and updated monitoring requirements for constituents of emerging concern (CECs). The Order includes monitoring and reporting requirements for CECs and flow volumes that comply with the Recycled Water Policy.

4.5. Antidegradation Policy

4.5.1. On October 28, 1968, the State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, *Statement of Policy with Respect to Maintaining High Quality Waters in California.* Resolution 68-16 (Antidegradation Policy) establishes a two-step process to demonstrate compliance with the policy. The first step requires demonstrating that any change in water quality (1) will be consistent with the maximum benefit the people of the state, (2) will not unreasonably affect present and anticipated beneficial use of such water, and (3) will not result in water quality less than that prescribed in state policies (e.g., water quality objectives in the Basin Plan). The second step is to prescribe WDRs that require best practicable treatment and control of the discharge to ensure that pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the state will be maintained. The Central Coast Water Board's Basin Plan implements, and incorporates by reference, the Antidegradation Policy.

4.5.2. The Recycled Water Policy requires proponents of groundwater recharge projects utilizing recycled water to submit antidegradation analyses to the appropriate Regional Water Board to demonstrate compliance with the Antidegradation Policy. For projects located within a basin without a salt and nutrient management plan accepted by a Regional Water Board or without an applicable water quality control plan based on an accepted salt and nutrient management plan, the Recycled Water Policy, in sections 8.2.4.2 and 8.2.5, requires a detailed antidegradation analysis. Because there is no salt and nutrient management plan for the Seaside Basin, Monterey One Water was required to submit a detailed antidegradation analysis, described below in this Fact Sheet. This analysis requires that the project proponent demonstrate the project will utilize less than 10% of the Seaside Basin's available assimilative capacity for salts and nutrients.

4.5.3. Monterey One Water completed the initial antidegradation analysis for the Pure Water Monterey Project in 2016 and 2021. These analyses were based on modeling and limited operational data and concluded that the Project would not degrade groundwater quality and would remain protective of beneficial uses. Monterey One Water completed an updated antidegradation analysis on April 30, 2025,[7] to evaluate the further expansion of the project, including the addition of two new deep injection wells (DIW-5 and DIW-6). The updated analysis incorporated five years of operational monitoring data (2018–2023) and revised groundwater modeling to evaluate changes in water quality and available assimilative capacity. To establish existing groundwater quality and assimilative capacity, data from six injection (also used for monitoring) wells were analyzed: DIW-1, DIW-2, DIW-3, DIW-4, VZW-1B, and VZW-2. The 2025 analysis confirmed that the project continues to use less than 10% of the available assimilative capacity in the receiving aquifer, and that it remains protective of water quality and beneficial uses.

4.5.4. The Engineering Report and antidegradation analysis evaluated the geochemical behavior of key constituents such as arsenic, boron, and nitrate following injection of advanced treated recycled water into the Seaside Basin. These evaluations used site-specific aquifer characteristics and monitoring data to assess the potential for

[7] Todd Groundwater, Memorandum Re: Monterey One Water Pure Water Monterey Expansion Project Antidegration Analysis, April 30, 2025 can be found here: https://geotracker.waterboards.ca.gov/view_documents?global_id=WDR100039680&document_id=6151437

attenuation mechanisms (e.g., dilution, sorption) and the mobilization of naturally occurring constituents. This geochemical assessment provides part of the technical basis for demonstrating compliance with the Antidegradation Policy, supporting the findings that concentrations will remain below applicable Basin Plan objectives and public health thresholds, and it provides a technical basis for determining that the discharge will not result in long-term degradation of groundwater quality.

4.5.5. Monterey One Water constructed a three-dimensional solute transport model and used groundwater quality from the monitoring and extraction wells to predict localized and basin-wide groundwater quality changes resulting from the mixing of injected recycled water and ambient groundwater. The model analyzed the percentage of assimilative capacity consumed by the project after 25 years. This analysis demonstrated that less than 10% of the basin-wide and aquifer-specific assimilative capacity would be consumed by the Project.

4.5.6. Monterey One Water also demonstrated when the effluent limits are equal to the applicable water quality objective for each parameter, the percentage of recycled water present in the aquifer equals the percentage of assimilative capacity consumed. This analysis further confirmed that less than 10% of the basin-wide and aquifer-specific assimilative capacity will be utilized by the Project and that beneficial uses will be protected.

4.6. Water Reclamation Statute

4.6.1. The California Legislature declared in Water Code section 13511 that a substantial portion of the future water requirements of the 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.

4.7. Indirect Potable Reuse Regulations: Groundwater Replenishment – Subsurface Application

4.7.1. Title 22, chapter 3 establishes specific requirements for indirect potable reuse groundwater recharge projects. The Order incorporates

discharge specifications, effluent limitations, and monitoring and reporting requirements from Title 22, sections 60320.200 through 60320.230.

4.8. Sources of Drinking Water Policy

4.8.1. State Water Board Resolution 88-63, *Sources of Drinking Water Policy*, provides that all waters of the state, with certain expectations, are to be protected as existing or potential sources of municipal and domestic supply. Exceptions include waters with existing high dissolved solids concentrations (i.e., greater than 3,000 mg/L), low sustainable yield (less than 200 gallons per acre year for a single well), waters with contamination that cannot be treated for domestic use using best management practices or best economically achievable treatment practices, waters within particular municipal, industrial, and agricultural wastewater conveyance and holding facilities, and regulated geothermal groundwaters. This Permit protects existing or potential sources of drinking water and is therefore consistent with Resolution 88-63.

4.9. California Water Code

4.9.1. Pursuant to Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

4.9.2. Pursuant to Water Code section 13263(g), discharges of waste into waters of the state are privileges, not rights. Nothing this Order creates a vested right to continue the discharge. Water Code section 13263 authorizes the Central Coast Water Board to issue waste discharge requirements that implement any relevant water quality control plan.

4.9.3. Section 13267 subdivision (e) of the Water Code states, in part, that a "regional board may require any person, including a person subject to waste discharge requirements under section 13263, who is discharging, or who proposes to discharge, wastes or fluid into an injection well, to furnish the state board or regional board with a complete report on the condition and operation of the facility or injection well, or any other information that may be reasonably required to determine whether the injection well could affect the quality of the waters of the state."

4.9.4. This Order includes limits on quantities and concentrations of chemical, physical, biological, and other pollutants in the advanced treated recycled water that is injected into groundwater.

4.9.5. This Order does not authorize any act that results in the taking of a threatened or endangered species or any action that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with the requirements to protect the beneficial uses of waters of the state. Monterey One Water is responsible for meeting all applicable requirements of the endangered species acts.

4.9.6. Water Code section 13241 requires that the Central Coast Water Board establish water quality objectives for the protection of beneficial uses. This Order contains restrictions on individual pollutants for the protection of beneficial uses. The effluent limitations for pollutants with primary and secondary MCLs are based on achievable limits for advanced treated recycled water as demonstrated by similar facilities throughout the Central Coast Region and state. The effluent limitations in this Order have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to state law. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. The requirements of the Order take into consideration past, recent, and probable future beneficial uses of the receiving waters, protection of human health, the environmental characteristics, including water quality of the basin, coordinated control of all factors that affect water quality in the area, and the need to develop and use recycled water. The production and discharge of advanced treated recycled water will help Monterey One Water mitigate seawater intrusion and provide water supply resiliency and reliability.

5. RATIONALE FOR INFLUENT AND EFFLUENT LIMITATIONS AND DISCHARGE LIMITATIONS, PROHIBITIONS AND SPECIFICATIONS

This Order establishes influent and effluent discharge limitations, prohibitions, and specifications pursuant to the Basin Plan, the Recycled Water Policy, California Water Code, and Title 22. These requirements apply to the indirect potable reuse of advanced treated recycled water through groundwater injection.

5.1. Discharge Prohibitions

5.1.1. This Order establishes discharge prohibitions for the Project as listed in section 4 of this Order. The discharge prohibitions are based on the Basin Plan, existing law, and the State Water Board's plans and policies.

5.1.2. Discharge Prohibition 4.1. Title 22, chapter 3, article 3 does not identify direct consumption as an allowable use of this recycled water; this Project is designed for indirect potable reuse, not direct potable reuse. Therefore, direct consumption of recycled water is prohibited.

5.1.3. Discharge Prohibition 4.2. The Basin Plan prohibits the discharge of waste to land or groundwater that has not been specifically described in this Order or in the report of waste discharge and for which valid WDRs are not in force. This prohibition ensures no discharges to land or groundwater occur without appropriate WDRs.

5.1.4. Discharge Prohibition 4.3. 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.

5.1.5. Discharge Prohibition 4.4. The Basin Plan prohibits discharges of treated or untreated solid or liquid waste to waters of the state directly or indirectly. This prohibition ensures that any discharge to surface waters of the state is reviewed, permitted, and authorized under appropriate regulatory frameworks.

5.1.6. Discharge Prohibition 4.5. The Project's RO concentrate is prohibited from being discharged to land or in any manner not authorized pursuant to Monterey One Water's ocean outfall pursuant to NPDES permit requirements. This prohibition is necessary to ensure that RO concentrate is not disposed of on land and does not adversely affect water quality.

5.1.7. Discharge Prohibition 4.6. 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 Project does not cause pollution, contamination, or nuisance, as defined by Water Code section 13050.

5.1.8. Discharge Prohibition 4.7. Title 22 prohibits the use of inadequately treated recycled water for groundwater recharge. The use of recycled

water other than that which is treated to the specifications set forth in this Order by Monterey One Water for groundwater discharge is prohibited.

5.2. Discharge Flow Limitations and Specifications

5.2.1. Flow Rate Limitation. The flow rate of recycled water must not exceed the design capacity of the AWPF. The Central Coast Water Board and DDW rely on the facility's engineering design to determine if the treatment process can consistently meet applicable water quality standards. Exceeding design flow rates risks producing water that fails to meet those standards. Limiting the flow rate is essential to ensure treatment reliability and water quality.

5.2.2. Subsurface Retention and Injection Rate Management. The volume and rate of recycled water injection directly affect subsurface retention times. Monterey One Water must comply with WRR requirements in Attachment D, which contain DDW's conditions related to retention time and injection rates. These parameters must be carefully managed, as described in the Engineering Report and validated by tracer studies, to ensure compliance with requirements for LRV credits, minimum retention times, and RRT. Retention time management also supports proper well placement and the creation of controlled zones for drinking water well construction.

5.2.3. Discharge Rate and Volume Control. To comply with Title 22, sections 60320.200, 60320.208, 60320.224, and 60320.226, the Project must comply with limits on both injection volume and rate, as set forth in Attachment D. These limits are necessary to maintain adequate subsurface retention and protect public health.

5.2.4. Recycled Water Delivery to MCWD. Deliveries of recycled water to MCWD must not exceed the annual total volume outlined in the Engineering Report, which is currently 600 AFY. This restriction ensures that distribution remains within the scope evaluated for regulatory approval.

5.3. Effluent Limitations

5.3.1. pH Limitation. The pH limits are based on the Basin Plan water quality objective in Table 3-1, which specifies minimum and maximum limits of 6.5 to 8.4 pH units for groundwater. As this limit is based on protection of groundwater, and is not based on Title 22, section 60320.201, the point of compliance can be established near the injection wells. Furthermore, when the initial Project began operating,

arsenic concentrations measured in downgradient monitoring wells increased from nondetectable to greater than the MCL (0.01 mg/L) for approximately four months. Analysis by Dr. Scott Fendorf of Stanford University concluded that arsenic that was bound to mineral grains within the aquifer prior to Project injection became mobilized when sediments were inundated by recycled water. Arsenic can be mobilized through pH-induced desorption and the oxidation of arsenic-bearing minerals. After a period of time, soluble arsenic equilibrated with the new oxidation-reduction potential environment that resulted from the inundation by recycled water and arsenic was rendered once again immobile. The Central Coast Water Board requested that Dr. Fendorf determine whether arsenic mobilization was likely to occur in the future. Dr. Fendorf recommended that to minimize the potential for future arsenic mobilization, pH of the advanced purified recycled water be maintained at 8.5 or less.

5.3.2. Total Organic Carbon (TOC). TOC is monitored as a surrogate indicator of overall organic matter removal during advanced water treatment. TOC encompasses a wide range of organic compounds, including potentially harmful compounds such as pharmaceuticals, personal care products, and disinfection byproducts. Because TOC is a composite parameter, its measurement helps verify the effective performance of treatment processes—particularly RO and AOP—in removing organic compounds. Compliance with TOC limits (≤0.5 mg/L as a 20-week running average) is required by Title 22 to ensure protection of public health, demonstrate reliable treatment performance, and support regulatory approval of high levels of recycled water contribution to groundwater recharge. TOC limits are also set at the effluent of the reverse osmosis system during startup to verify the system is operating in compliance with Title 22, section 60320.201(a)(2).

5.3.3. Coliform. Coliform is monitored as an indicator of microbial water quality and treatment integrity. Although advanced treatment processes such as MF, RO, and UV/AOP are designed to remove or inactivate pathogens, total coliform monitoring provides a rapid, surrogate measure for the potential presence of microbial contamination and helps identify breaches in the treatment barrier. Title 22 requires continuous compliance with total coliform limits to ensure public health protection and to verify that the recycled water meets potable reuse standards prior to groundwater recharge. Coliform limits are established in conformance with title 22, section 60301.230(b) for disinfected tertiary treated water, as the effluent is also provided to MCWD for irrigation.

5.3.4. General Limits. This Order establishes effluent limitations in Section 6, Tables 3 through 8. The effluent limitations are derived from the Basin Plan water quality objectives, primary and secondary MCLs and action levels (for lead and copper), and Title 22. Pollutants with both water quality objectives and MCLs have effluent limitations set at the lower concentration.

5.3.5. Primary and Secondary Maximum Contaminant Levels Limitation. Pursuant to Title 22, section 60320.201, Monterey One Water must ensure that concentrations in the advanced treated recycled water do not exceed any applicable MCLs established for drinking water. In accordance with Title 22, section 60320.212, Monterey One Water must promptly notify the Central Coast Water Board and DDW if an MCL is exceeded in the effluent. Effluent limitations for parameters with MCLs are provided in Tables 3 through 8 of Section 6 of this Order. For parameters that have both a secondary MCL and a corresponding water quality objective in the Basin Plan, the effluent limitation has been established at the more protective of the two values to ensure the protection of beneficial uses.

5.3.5.1. Inorganic parameters are established in Title 22, section 64431, table 64431-A.

5.3.5.2. Volatile organic compounds parameters are established in Title 22, section 64444, table 64444-A.

5.3.5.3. Synthetic organic compound parameters are established in Title 22, section 64444, table 64444-A.

5.3.5.4. Disinfection byproducts parameters are established in Title 22, section 64533, table 64533-A.

5.3.5.5. Radionuclides are established in Title 22, sections 64442 and 64443, tables 64442 and 64443.

5.3.5.6. Parameters with secondary MCLs are established in Title 22, section 64449, tables 64449-K and 64449-B.

5.4. AWPF Process Limitations

5.4.1. The Order contains limits that apply relative to multiple treatment processes or at the effluent of specific treatment processes, not solely at the effluent of AWPF. These process requirements are contained in section 7 (AWPF Process Limitations) and include the specific Title 22 section that supports the limitation. These limits are also included in Attachment D but are included in section 7 of this Order because they are not subject to change and for consolidation of significant limits.

5.5. Notification Levels

5.5.1. This Order requires monitoring for parameters with notification levels (NLs) as listed in Table 9 of this Order. In accordance with Title 22, section 60320.201, Monterey One Water must monitor for all parameters that have NLs. NLs are health-based advisory levels established for certain parameters that do not have formal MCLs. If a contaminant is detected above a NL, Monterey One Water must follow specific response actions or notifications as described in section 4.6 of the MRP.

5.6. Water Reclamation Requirements

5.6.1. In accordance with Title 22, article 7, section 60323, no person shall produce or supply recycled water for reuse without a DDW-approved engineering report. DDW regularly approves engineering reports by issuing a conditional acceptance letter and provides recommendations to the Central Coast Water Board based on their review of an engineering report.

5.6.2. The Central Coast Water Board has reviewed the recommendations made in DDW's letter titled *Division of Drinking Water's Conditional Acceptance of the Pure Water Monterey Groundwater Replenishment Project Engineering Report (2790002-710)*, issued August 28, 2025, and has incorporated the recommendations as requirements as found in Attachment D of this Order. If DDW approves a revision to the Project Engineering Report and issues a revised DDW conditional acceptance letter, the Executive Officer will review it and revise Attachment D of this Order accordingly.

5.7. Injection Well Backflush

5.7.1. The Order allows for well backflush water to be discharged to two backflush basins, Pond 1 (the southern pond) and Pond 2 (the northern pond), provided the discharges comply with section 4 (Discharge Prohibitions) and section 8 (Groundwater Limits) of this Order. Title 22 requirements do not apply to backflush water disposal into ponds. Each week for about two hours, DIWs are pumped at a rate equal to or double the injection rate resulting in backflush water. However, because the backflush water is primarily made up of high-quality water (AWPF effluent combined with some native groundwater and solids), this discharge is not considered a significant threat to water quality. During backflush activities, DIWs are pumped, and the resulting flows are discharged to the ponds, where they will percolate back into the same groundwater basin.

5.7.2. Pond 1 has a capacity of 2 acre-feet (about 650,000 gallons), and Pond 2 has a capacity of 4 acre-feet (about 1,300,000 gallons). Each of the six DIWs are backwashed weekly on non-consecutive days.

5.7.3. Monterey One Water must maintain the operation of Ponds 1 and 2 as described in its OOP. Monterey One Water has a SCADA system connected to the pond water level to prevent the risk of spills and will visually inspect the ponds at least weekly.

6. RATIONAL FOR PROVISIONS

6.1. Standard Provisions

6.1.1. This Order incorporates by reference the Central Coast Water Board's Standard Provisions.[8] These provisions establish enforceable requirements that support the implementation and oversight of this Order. They include obligations related to inspections by Water Board staff, spills and emergency notification and reporting, recordkeeping, and reporting of noncompliance, and updates regarding facility or operational changes. Standard provisions apply to all WDR orders and are consistent with Central Coast Water Board findings

6.2. Notices

6.2.1. Notices included in section 15 of this Order clarify the legal responsibilities and limitations associated with this Order. The Notices section clarifies that Monterey One Water is responsible for any misuse of recycled water, outlines enforcement and legal limitations of the Order, distinguishes it from federal permits, and provides information on appeal rights and severability to ensure the Order remains enforceable.

6.3. Reopener Provisions

6.3.1. As effluent and groundwater characteristics are further characterized through ongoing monitoring, the Central Coast Water Board may reopen and revise this Order to revise or include additional effluent limitations if monitoring results indicate that such limitations are necessary to protect water quality or comply with applicable water quality objectives or standards.

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[8] The Central Coast Water Board's *Standard Provisions and Reporting Requirements for Waste Discharge Requirements* can be accessed via the Internet at the following link: https://www.waterboards.ca.gov/centralcoast/board_decisions/docs/wdr_standard_provisions_2013.pdf

7. RATIONALE FOR MONITORING AND REPORTING REQUIRMENTS

7.1. The purpose of the monitoring and reporting program is to determine and ensure compliance with discharge specifications, effluent limitations, and other requirements established in this Order. The monitoring and reporting program also helps the Central Coast Water Board and Monterey One Water to assess treatment efficiency, characterize effluents, ensure water quality objectives and beneficial uses of the groundwater basins are protected, and minimize the effects of the discharge on the receiving water quality. The monitoring and reporting program 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.

7.2. The need for the technical and monitoring reports required by this Order, including the monitoring and reporting program, is based on the report of waste discharge, DDW's recommended conditions, the EIR, the Engineering Report, and other information in the Central Coast Water Board's files for the Project. Specifically, the technical and monitoring reports are necessary to ensure compliance with these WDRs and WRRs.

7.3. The monitoring and reporting program is issued pursuant to Water Code section 13267, which authorizes the Central Coast Water Board to require dischargers to submit technical and monitoring reports. Monterey One Water has reported that the annual cost associated with the implementation of the monitoring and reporting requirements of the Order range from $500,000 to $600,000. The Central Coast Water Board and DDW need the technical and monitoring reports submitted by Monterey One Water to determine compliance with the Order and to protect water quality and beneficial uses. The Central Coast Water Board has assessed this monitoring and reporting program 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, which include the protection of the beneficial uses of the water, the protection of human health, and to improve water supply resiliency. Monitoring frequencies and associated costs can be reduced after set periods of time if treatment criteria are achieved, as described in the monitoring and reporting program.

7.4. Title 22 requires monitoring and reporting for GRRPs through subsurface discharge, including for indirect potable reuse through groundwater recharge. Title 22, division 4, chapter 3 establishes specific requirements for indirect potable reuse groundwater replenishment – subsurface injection projects. The monitoring and reporting program and WRRs in this Order incorporate the monitoring and reporting requirements found in Title 22, sections 60320.200 through 60320.230.

7.5. In furtherance of the goals of supporting water supply diversity and sustainability and to encourage the increased use of recycled water in California, the Recycled Water Policy requires monitoring and reporting of volumetric data and CECs, as detailed in the monitoring and reporting program. The State Water Board uses the volumetric data to track and report the percentage of wastewater recycled throughout the State of California. The CEC monitoring tracks the Project's ability to remove CECs and requires Monterey One Water to conduct additional sampling and commence response actions as needed.

8. PUBLIC PARTICIPATION

8.1. Title 22 Hearing

8.1.1. Monterey One Water held a public hearing regarding the Project on April 10, 2025, which satisfied the requirements of Title 22, section 60320.202. A summary of the public noticing for the hearing, the hearing attendees, comments received, and responses are included in the final Engineering Report to DDW. The public hearing was held in person and online via Zoom webinar with 11 members of the public attending. The public had the opportunity to provide comments during the online public hearing and provide written comments via email or mail to Monterey One Water.

8.2. Notification of Interested Parties

8.2.1. Consistent with Water Code section 13167.5, the Central Coast Water Board notified Monterey One Water and interested agencies and persons of its intent to adopt this Order and made this Order available on its website. Furthermore, by notice dated July 23, 2025, the Central Coast Water Board provided the public with an opportunity to submit written comments and recommendations. Notification was provided by email, through the Central Coast Water Board website, and by Board meeting agenda publication. The public has access to the agenda and any changes in dates and locations through the Central Coast Water Board's website at: http://www.waterboards.ca.gov/centralcoast/

8.2.2. Although the Facility regulated by this Order is not expected to impact a disadvantaged or tribal community, the Central Coast Water Board has satisfied the outreach requirements set forth in Water Code section 189.7 by conducting outreach to potentially interested groups representing disadvantaged communities and tribal communities. Through the development of an outreach plan, Central Coast Water Board staff identified interested groups representing disadvantaged communities and included them in the distribution list (i.e., interested parties list) for notifications related to development and consideration of this Order for adoption. In addition, outreach letters that provided general information about the Facility and an invitation to provide input and participate in the permit development process were distributed to tribal communities.

8.3. Public Hearing

8.3.1. The Central Coast Water Board will hold a public hearing on the tentative Order during its regular board meeting on the following date and time at the following location:

Date: October 9 or 10, 2025
Time: 8:00 am
Location: Santa Barbara

Interested persons, including any residents of an economically disadvantaged community or a tribal community that may be impacted by this Order, are invited to attend. At the public hearing, the Central Coast Water Board will hear testimony pertinent to the discharge and requirements. For accuracy of the record, important testimony is requested in writing.

8.4. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the Central Coast Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 PM within 30 calendar days of the date of adoption of this Order at the following address, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 PM on the next business day:

State Water Recourses Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street

Sacramento, CA 95812-0100
Or by email at waterqualitypetitions@waterboards.ca.gov

For copies of the law and regulations applicable to filing petitions and instructions on how to file a petition for review, see the Water Quality Petitions Website: (https://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml)

8.5. Information and Copying

The report of waste discharge, Engineering Report, other supporting documents, and comments received are filed in our publicly accessible Geotracker database under the Pure Water Monterey Groundwater Replenishment Project Global ID WDR100039680. These documents are on file at the Central Coast Water Board as well and may be inspected at the following address at any time between 8:00 AM and 5:00 PM, Monday through Friday:

Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906
Email: centralcoast@waterboards.ca.gov
Phone: (805) 549-3147

8.6. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding this Order should contact the Central Coast Water Board, Waste Discharge Requirements Program by phone at (805) 549-3891 or by email at RB3-WDR@Waterboards.ca.gov.

8.7. Additional Information

Requests for additional information or questions regarding this Order should be directed to the Central Coast Water Board, Waste Discharge Requirements Program by phone at (805) 549-3891 or by email at RB3-WDR@Waterboards.ca.gov.