

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906**

**MONITORING AND REPORTING PROGRAM REQUIREMENTS
ORDER NO. R3-2019-0008**

(Waste Discharger Identification No. 3 440108002)

**FOR
DAVENPORT COUNTY SANITATION DISTRICT
SANTA CRUZ COUNTY**

This Monitoring and Reporting Program (MRP) is issued by the Central Coast Regional Water Quality Control Board (Central Coast Water Board) pursuant to California Water Code section 13267 and is incorporated into Master Reclamation Requirements Order No. R3-2019-0008 (MRR Order No. R3-2019-0008). The Davenport County Sanitation District (hereafter “Discharger,” “Producer,” “Supplier,” “Distributor,” “User,” or “Supplier and Distributor”) is subject to the MRP because it discharges recycled water. This MRP is necessary to ensure that the discharge of treated and recycled water complies with the requirements of the Master Reclamation Requirements and are protective of public health and the environment.

I. PRODUCER REQUIREMENTS

A. Water Supply Monitoring

1. Representative samples of water supply wells must be collected and analyzed for the constituents and at the frequency specified below:

Table 1. Water Supply Monitoring Requirements

Parameter/Constituent [1][2][3]	Units	Sample Type	Minimum Sampling and Analyzing Frequency
Total Nitrogen	mg/L	Grab	Annually (September)
General Minerals [4]	mg/L	Grab	Annually (September)

Notes:

mg/L = milligrams per liter

- [1] Sampling results for the State Water Resources Control Board Division of Drinking Water (DDW) may be submitted to satisfy these requirements.
- [2] Data must be reported as individual concentrations and calculated as flow weighted averages to represent as delivered water supply quality.
- [3] Sampling for specific analytes may be reduced or discontinued upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.
- [4] General Mineral analysis must include the following constituents: Calcium, Magnesium, Sodium, Potassium, Fluoride, Sulfate, Carbonate, Bi-Carbonate, Chloride, Total Hardness, Total Alkalinity, Total Dissolved Solids, pH, Electrical Conductivity, Boron, Iron, and Nitrate (as nitrogen, N).

B. Effluent Monitoring

1. Representative samples of treatment facility effluent prior to storage must be collected and analyzed for the constituents/parameters and at the frequency specified below:

Table 2. Recycled Water Effluent Monitoring – Compliance Point A

Constituent/Parameter ^[1]	Units	Sample Type ^[2]	Sampling Frequency ^{[3] [4]}
Minimum Daily Flow	gal/day	Metered	Continuous
Maximum Daily Flow	gal/day	Metered	Continuous
Average Daily Flow	gal/day	Calculated	Daily
Turbidity ^[5]	NTU	Metered	Continuous
Total Chlorine Residual ^[6]	mg/L	Metered	Continuous
CT ^[7]	mg-min/L	Calculated	Continuous
Total Coliform Bacteria ^[8]	MPN/100 mL	Grab	Daily
BOD ₅	mg/L	Grab	Monthly
Total Suspended Solids	mg/L	Grab	Monthly
pH	Standard units	Grab	Monthly
Total Nitrogen	mg/L	Grab	Monthly
Ammonia (as N)	mg/L	Grab	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly
Nitrate (as N)	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly
Sodium	mg/L	Grab	Monthly
Chloride	mg/L	Grab	Monthly
Sulfate	mg/L	Grab	Monthly
Boron	mg/L	Grab	Monthly
General Minerals ^[9]	mg/L	Grab	Annually (September)

Notes:

Compliance Point A = Sampling must occur immediately following the final treatment process (i.e., disinfection or dechlorination as applicable) unless noted otherwise.

MPN = most probable number

NTU = nephelometric turbidity unit

BOD₅ = five-day biochemical oxygen demand

N = nitrogen

- ^[1] Sampling for specific analytes may be reduced or discontinued after one year upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.
- ^[2] Sampling must occur immediately following the final treatment process (i.e., disinfection or dechlorination as applicable) unless noted otherwise.
- ^[3] Weekly samples must be collected on a Monday through Sunday rotating schedule.
- ^[4] Monthly sampling events must be separated by at least 16 days and no greater than 45 days.
- ^[5] At a minimum, daily average operating filtered effluent turbidity must be determined by averaging the levels of recorded turbidity taken at four-hour intervals over a 24-hour period per title 22 section 60321. Compliance with turbidity pursuant to title 22 section 60301.320 (a)(2)(B) and (b)(1) must be determined using the levels of recorded turbidity taken at intervals of no more than 1.2-hours over a

24-hour period. Should the continuous turbidity meter and recorder fail, grab sampling at a minimum frequency of 1.2-hours may be substituted for a period of up to 24-hours.

- [6] Must be compared to the chlorine residual required to achieve a minimum CT value of 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow in each contact basin. Report minimum daily CT values in a monthly tabular format.
- [7] CT = The product of total chlorine residual and modal contact time measured at the same point. Report minimum daily CT values in a monthly tabular format.
- [8] Sampling for total coliform bacteria must be done at least once daily for every day that recycled water is produced. The samples must be taken from the disinfected effluent. Report maximum daily total coliform and rolling seven-day median values in a monthly tabular format. For rolling seven-day median determination, use days when recycled water is produced and sampled for total coliform bacteria.
- [9] General Mineral analysis must include the following constituents: Calcium, Magnesium, Sodium, Potassium, Fluoride, Sulfate, Carbonate, Bi-Carbonate, Chloride, Total Hardness, Total Alkalinity, Total Dissolved Solids, pH, Electrical Conductivity, Boron, Iron, and Nitrate (as nitrogen, N).

2. Representative samples of treatment facility effluent at the recycled water storage pond must be collected and analyzed for the constituents/parameters and at the frequency specified below:

Table 3. Recycled Water Effluent Monitoring – Compliance Point B

Constituent/Parameter ^[1]	Units	Sample Type ^[2]	Sampling Frequency ^[3]
Total Nitrogen	mg/L	Composite - Grab	Monthly
Ammonia (as N)	mg/L	Composite - Grab	Monthly
Total Kjeldahl Nitrogen	mg/L	Composite - Grab	Monthly
Nitrate (as N)	mg/L	Composite - Grab	Monthly

Notes:

- [1] Sampling for specific analytes may be reduced or discontinued after one year upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.
- [2] A composite - grab sample is from collecting water samples from at least three different locations within the recycled water storage pond and compositing them into one sample.
- [3] Monthly sampling events must be separated by at least 16 days and no greater than 45 days.

C. Recycled Water Storage Pond Monitoring

The recycled water storage pond must be inspected daily. Notes must be kept of observations and must be summarized in annual self-monitoring reports. In the event of recycled water storage pond overflow or backflow into the treatment plant, the Distributor (and Users as appropriate), Executive Officer, and the DDW must be notified immediately. Refer to *Standard Provisions and Reporting Requirements for Waste Discharge Requirements* for notification procedures.

D. Equipment Calibration

Calibration records of flow meters and other process instrumentation performed in accordance with manufactures' recommendations and best management practices for the industry will be kept onsite and made available to Central Coast Water Board and DDW staff upon request.

E. Aerated Treatment Lagoon and Recycled Water Storage Pond Monitoring

The aerated treatment lagoon and recycled water storage pond shall be inspected daily. Weekly visual inspections will be allowable if aerated treatment lagoon and recycled water storage pond is fitted with reliable electronic remote depth gauging systems. Notes shall be kept of observations and shall be summarized in annual monitoring reports. In the event of impending freeboard violation, aerated treatment lagoon or recycled water storage pond overflow, or backflow into the treatment plant, the Distributor (and Users as appropriate), Executive Officer, and the DDW shall be notified immediately.

Representative sampling measurements shall be taken in aerated treatment lagoon and recycled water storage pond for the parameters/constituents and at the frequency specified below:

Table 4. Aerated Treatment Lagoon and Recycled Water Storage Pond Monitoring

Parameter/Constituent ^{a,b}	Units	Sample Type ^a	Minimum Sampling and Analyzing Frequency
pH	-	Grab	Weekly
Dissolved Oxygen (DO)	mg/L	Grab	Weekly
Sludge Depth ^b	feet	Measured	Annually

Notes:

- a) Grab sample for pH and DO shall be collected at one-foot depth from at least three representative locations of the aerated treatment lagoon and recycled water storage pond.
- b) Sludge depth shall be measured within the sludge stabilization basin. Enough measurements shall be taken to provide representative estimates of sludge volumes within the basin.

F. Solids/Biosolids Monitoring

1. The following information shall be submitted with the Annual Report required by Standard Provision C.16:
 - a. Annual biosolids removed in dry tons and percent solids.
 - b. If appropriate, a narrative description of biosolids dewatering and other treatment processes, including process parameters. For example, if drying beds are used, report depth of application and drying time. If composting is used, report the temperature achieved and duration.
 - c. A description of disposal methods, including the following information as applicable related to the disposal methods used at the Facility. If more than one method is used, include the percentage and tonnage of annual biosolids production disposed by each method.
 - i. For landfill disposal include: 1) the Central Coast Water Board waste discharge requirement numbers that regulate the landfills used, 2) the present classifications of the landfills used, and 3) the names and locations of the facilities receiving biosolids.
 - ii. For land application include: 1) the location of the site(s), 2) the Central Coast Water Board's waste discharge requirement numbers that regulate the site(s), 3)

the application rate in pounds/acre/year (specify wet or dry), and 4) subsequent uses of the land.

- iii. For offsite application by a licensed hauler and composter include: 1) the name, address and USEPA license number of the hauler and composter.
- d. Copies of analytical data required by other agencies (i.e. USEPA or County Health Department) and licensed disposal facilities (i.e. landfill, land application, or composting facility) for the previous year.

II. DISTRIBUTOR REQUIREMENTS

A. Recycled Water Use Area Monitoring

1. The quantity of recycled water distributed to each reuse site must be recorded on a weekly basis. Total flows must be metered or estimated based on irrigation run times and distribution system design flow rates.
2. During periods of recycled water application, the Distributor or Users, as applicable, must inspect the irrigation use areas no less frequently than weekly to verify and document compliance with MRR Order No. R3-2019-0008. The visual inspections must be noted in a bound inspection logbook(s) and at a minimum must document proper sprinkler operation, runoff, erosion, saturated surface conditions, and odors. The logbook(s) must be made available to the Central Coast Water Board and DDW staff upon request. A summary of observations made during water recycling area inspections and a brief discussion of any corrective actions taken or planned must be included with each annual self-monitoring report.
3. The Distributor and Users must coordinate with the DDW to ensure and document that backflow devices are present, tested annually by a certified individual, and repaired or replaced if found defective.
4. The Distributor must inspect and document the operation of the reuse site irrigation systems at least quarterly to verify that the Users are operating the reuse sites in compliance with the uniform statewide recycling criteria established pursuant to California Water Code section 13521 and MRR Order No. R3-2019-0008.
5. The Distributor in coordination with the Users, water purveyor, and DDW must perform and document a cross-connection test by an appropriately certified individual on an annual basis at each reuse site where both recycled water and potable water piping systems are utilized for irrigation or are otherwise present in proximity to each other.¹
6. The Recycled Water Site Supervisor must keep quarterly updates regarding irrigation frequency and flow rates, proposed system modifications, system peculiarities, and to verify employee training. The Distributor must keep a record of all system

¹ Cross-connection tests will not be required for portions of the distribution system or reuse site areas for which no distribution system or potable water system maintenance, modifications, or additions have occurred since the last cross-connection test. The Distributor shall provide a certified statement as such for portions of the distribution system or reuse sites not tested for potential cross-connection.

modifications and document that all work is conducted in accordance with the Cross-Connection Control Plan and applicable regulations.

III. SUPPLIER AND DISTRIBUTOR REQUIREMENTS

A. Reporting

1. The Supplier and Distributor must submit **Quarterly** self-monitoring reports to the Central Coast Water Board summarizing recycled water supplied and used at each reuse site. The quarterly self-monitoring reports must include:
 - a. Monitoring data results for the reporting period as required by this MRP;
 - b. A list of the reuse sites with the name, location and brief description of each reuse site;
 - c. The total amount of recycled water supplied to each reuse site; and
 - d. The name of the hydrologic areas underlying each use site [Required pursuant to California Water Code section 13523.1(b)(5)].

The Quarterly self-monitoring reports must be submitted as follows:

Monitoring Period	Report Due Date
January 1 – March 31	May 1 st
April 1 – June 30	August 1 st
July 1 – September 30	November 1 st
October 1 – December 31	February 1 st

2. The Supplier and Distributor must submit **Annual** self-monitoring reports to the Central Coast Water Board by February 1st of each year summarizing recycled water use, including the total volume of recycled water supplied, and the total number of recycled use sites and their locations. **The first annual self-monitoring report is due February 1, 2020.** Reports must include records of the Distributor's or User's reuse site inspections and results of the annual cross-connection tests. Annual self-monitoring reports must contain at a minimum:
 - a. Documentation of the use area.
 - b. A scaled map showing the recycled water use areas.
 - c. A table summarizing monthly recycled water application rates in acre-feet and gallons for each recycled water use.
 - d. Recycled Water User Rules and Regulations as specified in MRR Order No. R3-2019-0008. *Please note initial implementation procedures of the Recycled Water User Rules and Regulations is due **June 30, 2019**, as specified in MRR Order No. R3-2019-0008.*

- e. A copy of the revised Off-Specification Contingency Plan or statement indicating the plan has been reviewed but not updated
 - f. A copy of the revised Cross Connection Certification procedures or statement indicating the Cross-Connection Certification procedures has been reviewed but not updated
3. The annual self-monitoring reports must contain all data collected or calculated over the previous annual monitoring period. All monitoring data must be tabulated in a logical and coherent format and be accompanied by copies of laboratory analytical data sheets as applicable. The data must be summarized in a manner that clearly illustrates compliance with MRR Order No. R3-2019-0008. The use area map and recycled water application summary table must be cross-referenced for easy evaluation.
 4. The Supplier and Distributor must submit the *Operations and Maintenance Manual*, the *Off-Specification Contingency Plan*, and the as-built construction plans by **November 11, 2019**.
 5. The Producer, Supplier, and Distributor must submit a written report to the Executive Officer not later than **January 31, 2024**, addressing:
 - a. Whether there will be changes in the continuity, character, location, or volume of the discharge; and,
 - b. Whether, in their opinion, there is any portion of MRR Order No. R3-2019-0008 that is incorrect, obsolete, or otherwise in need of revision.
 6. The Distributor must report any adverse conditions or non-compliance with MRR Order No. R3-2019-0008 potentially endangering public health or the environment to the:
 - a. Central Coast Water Board (805/549-3147),
 - b. Division of Drinking Water (510/620-3474), and
 - c. Any other agencies as appropriate.

Notice will occur within 24-hours of knowing of such conditions. A summary record of all adverse conditions or non-compliance along with corrective actions taken must be included in each annual self-monitoring report.

7. Process or equipment failures triggering an alarm must be recorded and maintained as a separate record file. The recorded information must include the time and cause of failure and corrective action taken.

Depending on the severity of the adverse condition or non-compliance being reported, a written report may also be required by the Central Coast Water Board. The written report must be required within five days of the initial informal reporting date and must contain (1) a description of the non-compliance and its cause; (2) the period of non-compliance, including dates and times, and if the non-compliance has not been

corrected, the anticipated time it is expected to continue; and (3) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the non-compliance.

B. Provisions

1. In reporting monitoring data, the Discharger must arrange the data in tabular form so that the date, sample type (e.g., effluent, solids, etc.), and reported analytical or visual inspection results are readily discernible. The data must be summarized to clearly illustrate compliance with the MRR Order No. R3-2019-0008 as applicable. If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this MRP, the results of such monitoring must be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency must be indicated on the discharge monitoring report form.
2. All quarterly monitoring must be performed in March, June, September, and December during the monitoring quarter (calendar quarter). Monthly sampling must be conducted at regularly scheduled times during each month and consecutive events should be separated by at least 16 days and no greater than 45 days. Unless otherwise specified by the Monitoring and Reporting Program, annual sampling may be performed any time during the calendar year, but samples representative of two consecutive annual periods must be obtained at least six months apart.
3. All monitoring must be conducted according to test procedures established by title 40 of the Code of Federal Regulations Part 136, entitled, "Guidelines Establishing Test Procedures for Analysis of Pollutants." All sampling analyses must be conducted at the lowest practical quantitation limits achievable under USEPA specified methodology. Constituents not detected at the analytical method detection limit will be considered in compliance with effluent limitations in cases where effluent limits are set below the analytical method detection limit.
4. All samples collected must be tracked and submitted under chain of custody and analyzed by a laboratory certified by DDW for the specified analysis.
5. This Monitoring and Reporting Program may be revised at any time during the Permit term, as necessary, under the authority of the Executive Officer.
6. The Producer, Supplier and Distributor must submit monitoring data and the self-monitoring reports electronically. The documents must be in a searchable PDF format (less than 10 MG in size) and emailed to centralcoast@waterboards.ca.gov.
7. The monitoring program also requires you to submit monitoring data and reports electronically, directly to the State Water Board GeoTracker database over the internet. Analytical data (influent and effluent data) must be uploaded in electronic data format to the GeoTracker database under a site-specific global identification number.
8. For both PDF and GeoTracker upload, a signed transmittal sheet must be included with every monitoring report. The transmittal sheet is available online at:

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

Documents that exceed 15MB should be transferred to a USB memory stick and mailed with the transmittal sheet to the Central Coast Water Board at:

California Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

C. Electronic Submittal

Electronically submit all reports/documents and laboratory data to the State Water Board's GeoTracker² database for the Davenport WWTP site GeoTracker No. WDR100028168 over the internet at:

http://www.waterboards.ca.gov/ust/electronic_submittal/index.shtml.

Table 5 below summarizes the electronic reporting requirements.

Table 5 - 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 associated documents related to the facility.	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 requested by Central Coast Water Board staff.
Laboratory Data	All analytical data (including geochemical data) in electronic deliverable format (EDF). This includes all water, soil, and vapor samples collected when monitoring a discharge.	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	Boring logs must be prepared by a registered professional	Upload boring logs (in searchable PDF	Every time a new boring is drilled.

² Information for first-time GeoTracker users is available here:

https://www.waterboards.ca.gov/ust/electronic_submittal/docs/beginnergide2.pdf

Electronic Submittal	Description of Action	Action	Frequency
Screen intervals	and submitted in PDF format separately (not only as attachments to reports)	format) to GeoTracker whenever a new boring is drilled.	
Location Data (Geo XY) ³	Survey and mark all permanent sampling locations (i.e., monitoring wells, drinking water wells, and permanent influent/effluent sampling locations). These data points are required prior to laboratory data uploads.	Upload the survey data to the GeoTracker Geo_XY file.	Every time a permanent monitoring point is established.
Elevation Data (Geo Z) ⁴	Survey and 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.
Geo Map	Site layout, map of facilities, wastewater treatment system, and disposal area(s).	Upload the Site layout PDF to the GeoTracker site plan file.	Year one and every five years thereafter and when the facilities are modified.

All reports submitted in response to this MRP must comply with the signatory requirements of Standard Provision C.14 and C.15.

IV. IMPLEMENTATION

1. This monitoring and reporting program must be implemented as of May 17, 2019.
2. The Executive Officer may rescind or revise this MRP as appropriate at any time.

Ordered By:

John M. Robertson
Executive Officer

CRD 126-01
ECM: CW-219169

³ Geo XY required for all wells. New wells must be surveyed. For existing wells, use original well installation survey data.

⁴ Geo Z required for all wells. New wells must be surveyed. For existing wells, use original well installation survey data.

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