CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION

MONITORING AND REPORTING PROGRAM
ORDER No. R1-2023-0041

FOR THE

LINKS AT BODEGA HARBOUR
RECYCLED WATER USE AREA

WDID NO. 1B171675RSON
SONOMA COUNTY

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This monitoring and reporting program (MRP) replaces the MRP in the General Order and serves as a project-specific MRP to address recycled water distribution and use area specific water quality concerns. The MRP was developed to be consistent with Order WQ 2016-0068-DDW (hereafter General Order) and to reflect the information provided in the Notice of Intent (NOI) submitted by the Links at Bodega Harbour on November 8, 2017. Water recycling specifications and requirements, including monitoring requirements that apply to the production of recycled water are established in Order No. 91-130, Waste Discharge Requirements (WDR) for the Bodega Bay Public Utility District (BBPUD) Wastewater Treatment and Reclamation Facility, Sonoma County (WDID No. 1B75028OSON), or any subsequent revision, and will be reported to the Regional Water Board by the BBPUD.

The Links at Bodega Harbour (hereafter LBH or Administrator) has applied for and received coverage for its Recycled Water Program that is subject to the Notice of Applicability (NOA) of Enrollment under Order WQ 2016-0068-DDW. The General Order delegates the responsibility of administering water recycling programs to a designated Administrator to the fullest extent possible. The LBH will act as the Administrator of their Recycled Water Use Area. The details of the enrollment are described in the NOA letter issued by the North Coast Regional Water Quality Control Board (Regional Water Board) Executive Officer on May 16, 2023.

This project-specific MRP describes requirements for monitoring the Administrator's recycled water system. This MRP is issued pursuant to Water Code section 13267 and establishes monitoring and reporting requirements that implement California regulations. The Administrator shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Board Executive Officer. The Administrator shall implement this monitoring and reporting program.

1. General Monitoring Provisions

1.1. Supplemental Monitoring Provision

If the Administrator monitors any pollutant more frequently than required by this Order, using test procedures approved by 40 C.F.R. part 136 or as specified in this Order, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the annual monitoring report.

1.2. Data Quality Assurance Provision

Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (State Water Board) in accordance with the provisions of Water Code section 13176, and must include quality assurance/quality control data with their analytical reports.

1.3. Sample Documentation

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each

sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including date, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Regional Water Board staff.

1.4. Instrumental and Calibration Provision

All monitoring instruments and devices used by the Administrator to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated no less than the manufacturer's recommended intervals or one year intervals, (whichever comes first) to ensure continued accuracy of the devices.

1.5. Field test Instruments

Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used by a State Water Board certified laboratory, or the Administrator provided that the following conditions are met:

1.5.1. The user is trained in proper use and maintenance of the instruments;

1.5.2. All readings are properly recorded, and those records are maintained;

1.5.3. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;

1.5.4. Instruments are serviced by the manufacturer or authorized representative at the recommended frequency; and

1.5.5. Field calibration reports are maintained and available for at least three years.

1.6. Minimum Levels (ML) and Reporting Levels (RL)

Compliance monitoring analyses shall be conducted using detection limits that are lower than the applicable effluent limitations and/or water quality criteria.
If no Minimum Level (ML) value is below these levels, the lowest ML shall be selected as the Reporting Level (RL).

1.7. Duplicative Monitoring Requirements

If monitoring requirements listed below duplicate existing monitoring requirements under other orders, including WDRs or waivers of WDRs, then duplication of sampling and monitoring activities are not required if the monitoring activity satisfies the requirements of this Order. In addition to submitting the results under another order, the results shall be submitted in the reports required by the General Order and this MRP.

1.8. Approved Test Methods

All monitoring must be conducted using approved test methods or other test methods specified in this MRP.

1.9. Sampling Method

Collecting composite samples is acceptable in most cases.

2. RECYCLED WATER MONITORING LOCATIONS

This section is not applicable as the Administrator is not required to monitor recycled water production or quality at this time.

3. RECYCLED WATER MONITORING REQUIREMENTS

3.1. Recycled Water Monitoring

The BBPUD monitors treated, disinfected wastewater that will be recycled and distributed to the LBH Recycled Water Use Area and submits monitoring results pursuant to reporting requirements established in WDR Order No. 91-130, or subsequent revision. The LBH is not required under this MRP to complete additional recycled water monitoring related to the production or quality of recycled water.

4. RECEIVING WATER MONITORING REQUIREMENTS - GROUNDWATER

4.1. Groundwater Monitoring

Groundwater monitoring is not required at this time.

5. OTHER MONITORING REQUIREMENTS

5.1. Storage Pond Monitoring

The Administrator shall monitor all recycled water storage ponds and impoundments as described in Table 1.

Table 1. Storage Pond Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Reporting Frequency
Freeboard	0.1 feet	Measurement	Quarterly	Annually
Odors	---	Observation	Quarterly	Annually
Berm Condition	---	Observation	Quarterly	Annually

5.2. **Recycled Water Use**

5.2.1. The Administrator shall monitor use area(s) at a frequency appropriate to determine compliance with all conditions of the General Order and the Administrator's recycled water use program requirements. An Administrator may assign monitoring responsibilities to a User as part of the Water Recycling Use Permit program; however, the Administrator retains responsibility to ensure the data is collected, as well as prepare and submit the annual report.

5.2.2. Visual observations of the recycled water use areas shall be recorded a minimum of monthly during periods of recycled water use, and under representative use conditions, in order to verify compliance with recycled water requirements in the General Order and NOA. The Administrator shall confirm proper operation of the recycled water system and associated best management practices (BMPs) and include a record of any malfunctions or findings of improper operation, including, but not limited to: observations for evidence of ponding that exceeds 24 hours, runoff, odors, vectors, leaks or breaks in equipment, proper identification of recycled water infrastructure, proper signage, etc., as well as corrective actions taken to resolve the issue. Visual observations may be performed by the recycled water users in accordance with the Administrator's user agreements. Visual observations and associated records shall be retained and included in the Administrator's Annual Recycled Water Report.

5.2.3. The following shall be recorded for each User with additional reporting for use areas as appropriate. The frequency of use area inspections shall be based on the complexity and risk of each use area. Use areas may be aggregated to combine acreage for calculation or observation purposes. Use areas are identified in Attachment A of the Administrator's NOI. Use area monitoring shall include the following parameters:

Table 3. Recycled Water Use Area Requirements [1]

Parameter	Units	Sample Type	Minimum Sampling/ Observation Frequency [2]
Recycled Water Flow [3]	gpd [4]	Meter [5]	Monthly
Acreage Applied [6]	Acres	Calculated	Annually
Application Rate (hydraulic)	Inches/acre/year	Calculated	Annually
Total Nitrogen Application Rate [7,8]	lbs/acre/year	Calculated	Annually
Rainfall	Inches	Gage	Daily
Soil Saturation/Ponding	---	Observation	Monthly
Discharge off-Site	---	Observation	Monthly
Nuisance Odors/Vectors	---	Observation	Monthly
Notification Signs [9]	---	Observation	Monthly
Maximum Allowable Hydraulic Agronomic Rate [10]	Inches	Calculation	Annually
Maximum Allowable Nitrogen Agronomic Rate	lb N	Calculation	Annually

Table Notes

1. Recycled water production and use area monitoring shall be reported with the annual report (section 5.2 of this MRP). Non-compliance incidents shall be reported as specified in section 5.3 of this MRP.
2. Or less frequently if approved by the Regional Water Board Executive Office through the modification of this MRP.
3. Estimation of recycled water shall not include other potable or non-potable “make-up” water used in conjunction with recycled water use.
4. gpd denotes gallons per day.
5. Meter requires meter reading, a pump run time meter, or other approved method of flow monitoring.
6. Acreage applied denotes the acreage to which recycled water is applied.
7. The source of the total nitrogen data used for the nitrogen application rate calculation shall be noted in the Administrator’s annual recycled water report. The Administrator may use total nitrogen concentrations provided by the BBPUD or collect its own samples.
8. Nitrogen concentrations shall be calculated and reported “as N”. For example, nitrate-nitrogen = 27 mg/l as NO3 shall be converted and reported as nitrate-nitrogen = 6.1 mg/L as N using a conversion factor of 14.067 (N)/62.0049 (NO3).
9. Notification signs shall be consistent with the requirements of Title 22, section 60310(g).
10. Maximum allowable hydraulic agronomic rates for each recycled water use site will be calculated as follows:

Irrigation water requirement (inches) = $\frac{(ETo*Kc)}{Peff}$

Parameter	Units	Sample Type	Minimum Sampling/ Observation Frequency (2)
(1-LR)*Eu Where: • ETo = Reference evapotranspiration (in inches) is defined as the amount of water used by the plants (transpiration) and evaporated from the soil (evaporation)(and is based on the consumptive water use of a local grass field, measured by the California Department of Water Resources, CIMIS database for CIMIS Zone 1 at CIMIS website (https://cimis.water.ca.gov/App_Themes/images/etozonemap.jpg) Real time ETo data for CIMIS Zone 1 is collected from CIMIS Station 259 located in the Ferndale Plain. • Kc = Crop growth coefficient for pasture grasses at the North Site • Peff = Effective precipitation (amount of rainfall in inches available to pasture grasses, UC Davis Bodega Ocean Observing Node (BOON) station) • LR = Leaching Requirement, 0% (a conservative estimate) is the fraction of irrigation water (irrigation plus precipitation), required to leach the excess salt out of the root zone, to reduce salt stress on the plant root zone. LR is based on the salt concentration of the applied water and the salt tolerance of the crop. • Eu = Unit application irrigation efficiency			

5.3. **Dual Plumbed Water Systems/Other Uses of Recycled Water – Not Applicable**

Dual plumbed water systems and other recycled water uses are not authorized under this enrollment.

6. REPORTING REQUIREMENTS

6.1. General Monitoring and Reporting Requirements

6.1.1. **Standard Provision and Reporting Requirements**.

The Administrator shall comply with all Standard Provisions and Reporting Requirements (Attachment C to the General Order) related to monitoring, reporting, and record keeping.

6.1.2. **Electronic Reporting**.

6.1.2.1. The Administrator shall submit electronic Self-Monitoring Reports (eSMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Website (https://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal. The Administrator shall maintain sufficient staffing and resources to ensure it submits eSMRs that are complete and timely. This includes provision of training and supervision of individuals (e.g., Administrator's personnel or consultant) on how to prepare and submit eSMRs.

6.1.2.2. In the event that an alternate method for submittal of electronic self-monitoring reports is required, the Administrator shall submit electronically via email to NorthCoast@waterboards.ca.gov or on disk (CD or DVD) in Portable Document Format (PDF) file in lieu of paper-sourced documents. The guidelines for electronic submittal of documents can be found on the Regional Water Board website (https://www.waterboards.ca.gov/northcoast/).

6.1.3. **Complete Reporting**.

All monitoring results reported shall be supported by the inclusion of the complete analytical report from the laboratory that conducted the analyses.

6.1.4. **Reporting Protocols**.

The Administrator shall report with each sample result the applicable ML, the RL, and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136. The Administrator shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

6.1.4.1. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

6.1.4.2. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

6.1.4.3. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

6.1.4.4. The Administrator is to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Administrator to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

6.2. **Annual Report**

The Administrator shall submit an annual report to the Regional Water Board for each calendar year through the CIWQS Program Web site. The annual report shall be submitted by April 1st following the monitoring year. The annual report shall, at a minimum, include the following:

6.2.1. A cover letter included as an electronic attachment in CIWQS. The cover letter shall clearly identify whether the facility is operating in compliance with the General Order. The information contained in the cover letter shall clearly identify.

6.2.1.1. Facility name and address;

6.2.1.2. WDID number;

6.2.1.3. Applicable period of monitoring and reporting;

6.2.1.4. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Administrator or the Administrator's authorized agent:

"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 fine and imprisonment."

6.2.2. All monitoring specified in this MRP under sections 2 through 5. When CIWQS does not provide for entry into a tabular format within the system, the Administrator shall electronically submit the data in a tabular format as an attachment. If the Administrator monitors any pollutant more frequently than required by this MRP, the results of this monitoring shall be included in the calculations and reporting of the data.

6.2.3. The volume of recycled water used, type of use(s) and any observations indicating non-compliance with the provisions of the General Order, the site-specific MRP, or NOA.

6.2.4. A summary of all violations of the General Order, NOA, and this MRP, including a description of the requirement that was violated, and a description of and the severity of each violation; and actions taken to correct the violations and prevent future violations.

6.2.5. A summary table of all inspections. Include a discussion of compliance and the correction action(s) taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA, this MRP, and/or General Order.

6.2.6. The name, title, and 24-hour contact information for the recycled water operator responsible for operation, maintenance, and recycled water system monitoring.

6.2.7. A statement certifying when the flow meter(s) and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.

6.3. **Non-compliance Reporting**

6.3.1. The Administrator shall notify the Regional Water Board within one (1) business day of any violations of the General Order, NOA, and this MRP. A written submission shall be provided within five (5) business days of the time the Permittee becomes aware of the violation. The written submission shall include:

6.3.1.1. A description of the requirement that was violated, and a description of and the severity of each violation;

6.3.1.2. Actions taken or planned to correct the violation and prevent future violations; and

6.3.1.3. The proposed time schedule for corrective actions.

6.4. **Recycled Water Spills**

Notification and reporting of spills and unauthorized discharges of recycled water discharged in or on any waters of the state, as defined in Water Code section 13050, shall be conducted in accordance with the following:

6.4.1. **Tertiary Recycled Water [1]**

6.4.1.1. For unauthorized discharges of 50,000 gallons or more of tertiary recycled water, the Administrator shall immediately notify the Regional Water Board as soon as (a) the Administrator has knowledge of the discharge or probable discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures.

6.4.1.2. For unauthorized discharges of more than 1,000 gallons, but less than 50,000 gallons of tertiary recycled water, the Administrator shall notify the Regional Water Board as soon as possible, but no longer than 3 days after becoming aware of the discharge.

6.5. **Recycled Water Use Agreement**

6.5.1. An updated copy of the Recycled Water Use Agreement between BBPUD and LBH must be submitted to the Regional Water Board and DDW upon any revision or reissuance.

6.6. **Engineering Report.**

6.6.1. The Engineering Report must be revised and submitted to DDW for review and acceptance, under any of the following circumstances:

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[1] Tertiary Recycled Water means “disinfected tertiary 2.2 recycled water” as defined by DDW or wastewater receiving advanced treatment beyond disinfected tertiary 2.2 recycled water.

6.6.1.1. Addition of dual-plumbed use areas. Prior to delivery of recycled water, notification of dual plumbed use areas shall be provided to DDW for review and approval as required by Title 22 sections 60313-60316.

6.6.1.2. Addition of other new use types. Prior to delivery of recycled water, the Engineering Report and Recycled Water User's Guide shall be revised or updated to reflect new use types that are not addressed in the current enrollment under the General Order.

6.6.1.3. Changes in operations and recycled water management. The Engineering Report and any applicable appendices shall be submitted to DDW for review and acceptance whenever there are changes in operations and recycled water program management.

6.6.1.4. Any updates or changes to the Engineering Report must be made in any application or documents submitted to the Regional Water Board.

C.E. Reed for Water Boards
Digitally signed by Charles Reed_Sep2020
Date: 2023.05.25 14:30:53 -07'00'

Ordered By:_____

Valerie Quinto
Executive Officer

ATTACHMENT A

LINKS AT BODEGA HARBOUR RECYCLED WATER USE AREA