



February 4, 2019

Matthias St. John
Executive Officer
Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403
By email: northcoast@waterboards.ca.gov

Subject: Comments on Tentative Order No. R1-2019-0007 for the Airport-Larkfield-Wikiup Sanitation Zone Wastewater Treatment and Reclamation Facility (WDID No. 1B84124OSON, CIWQS Place ID 256045)

Dear Mr. St. John:

The Sonoma County Water Agency (Agency) has reviewed the Tentative Order Waste Discharge/Reclamation Requirements (WDRs) issued by the North Coast Regional Water Quality Control Board on January 4, 2019. The following comments are submitted prior to the February 4, 2019 deadline to be considered for inclusion in the final adopted Waste Discharge/Reclamation Requirements (WDRs) for the Airport-Larkfield-Wikiup Sanitation Zone (ALWSZ) Wastewater Treatment and Reclamation Facility (WWTF). For requested revisions to the text of the Tentative Order, underline is shown for suggested additions, and ~~strike-out~~ is shown for suggested deletions.

- 1. The ALWSZ utilizes either disinfected secondary-23 or disinfected tertiary recycled water to irrigate pasture on restricted access lands at the Sonoma County Airport. Typically, only tertiary recycled water is produced at the ALWSZ, but if secondary recycled water is available it is applied at the Airport fields. To accurately describe the recycled water quality and allowable irrigation practices, the Agency proposes the following changes to the WDRs:**

Table 2. Discharge Locations [Page 1]

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Discharge Location
003	<u>Secondary or Tertiary</u> Treated Municipal Wastewater	38°30'21.06" N	122 °48'55.39" W	Pasture Irrigation (Sonoma County Airport)

Findings II.B. Background and Facility Description [Page 3]

The if secondary treated recycled water is produced, it is used for pasture irrigation on restricted access land at the Sonoma County Airport.

Findings II.B. Background and Facility Description [Page 4]

...In addition, the Discharger periodically applies secondary or tertiary recycled water to 210 acres of grasslands at the Sonoma County Airport.

Table D-1. Monitoring Station Locations [Page D-2]

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
003	REC-001	Secondary <u>or tertiary</u> treated recycled water discharged to the Sonoma County Airport pasture irrigation areas.

2. **The ALWSZ WWTF is operated to prevent discharges to surface waters. As a result, there is no impact to the beneficial uses for surface waters in the Mark West Hydrologic Area. The Agency requests removal of all references to surface water beneficial uses and changes to accurately describe groundwater beneficial use designations in the current North Coast Water Quality Control Plan (Basin Plan). The changes are provided below:**

Findings II.D. Basin Plan [Page 5]

Thus, existing beneficial uses applicable to area groundwater within the Mark West Hydrologic Subarea of the Middle Russian River Hydrologic Area to be protected are as follows: municipal and domestic supply (MUN), agricultural water supply (AGR), industrial service supply (IND), ~~industrial process supply (PRO), groundwater recharge (GWR), and freshwater replenishment (FRSH)~~ native american culture (CUL). The potential beneficial uses to be protected are industrial process supply (PRO) and aquaculture (AQUA).

~~The beneficial uses applicable to surface waters in the Mark West Hydrologic Subarea of the Middle Russian River Hydrologic Area to be protected are as follows: municipal and domestic supply (MUN), agricultural water supply (AGR), industrial service supply (IND), industrial process supply (PRO), groundwater recharge (GWR), freshwater replenishment (FRSH), hydropower generation (POW), navigation (NAV), water contact recreation (REC-1), non-contact water recreation (REC-2), commercial and sport fishing (COMM), cold freshwater habitat (COLD), wildlife habitat (WILD), rare, threatened, or endangered species (RARE), migration of aquatic organisms (MIGR), spawning, reproduction, and/or early development (SPWN), and aquaculture (AQUA).~~

3. **Compliance with the Average Dry Weather Flow (ADWF) requirement is defined under IX.B. Average Dry Weather Flow as: “Compliance with the average dry weather flow prohibition in section III.I of this Order will be determined each calendar year by evaluating all flow data from Monitoring Locations collected in a calendar year. The flow through the Facility, measured daily and averaged monthly, must be 0.9 mgd or less for the month with the lowest average month flow.” This averaging period is not consistent with the “lowest consecutive 30-day average” indicated in III.I. The Agency requests the following change:**

Discharge Prohibitions III.I. [Page 8]

The average daily dry weather flow (ADWF) of waste through the Facility in excess of 0.9 mgd, as determined from the calendar month with the lowest consecutive 30-day average daily flow, is prohibited. Compliance with this prohibition shall be determined as defined in section IX.B of this Order.

4. The Agency requests that the Settleable Solids effluent limitations and the corresponding monitoring requirements be removed from the WDRs since it is not required by state regulations or the Basin Plan. The WDRs include Total Suspended Solids (TSS) effluent limitations which are a better indicator of effluent quality. The following changes are requested:

Table 4. Effluent Limitations –Discharge to Secondary Effluent Storage Ponds [Page 9]

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Settleable Solids	mL/L	0.1	0.2	--	--

Table D-3. Effluent Monitoring – Monitoring Locations EFF-001 and EFF-002 [Page D-3]

Parameter	Units	Sample Type	Minimum Sampling Frequency
Settleable Solids	mL/L	24-hour composite	Weekly

5. The ALWSZ WWTF utilizes microfiltration when producing disinfected tertiary quality recycled water. Title 22 of the California Code of Regulations (CCR Title 22) does not specify filter loading rates for microfiltration. The filtrate quality is evaluated by continuous turbidity monitoring. As such, the Agency requests removal of the filter loading rate requirements and the corresponding monitoring as follows:

Effluent Limitations. IV.C. 2. [Page 10]

- a. ~~**Filtration Rate.** The rate of filtration through the tertiary filters, as measured at Monitoring Location INT-001, shall not exceed 5 gallons per minute per square foot of surface area or other filtration rate approved by DDW and authorized in writing by the Regional Water Board Executive Officer.~~

Table D-1. Monitoring Station Locations [Page D-1]

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INT-001A	Location for monitoring the flow and surface loading rate through the tertiary wastewater process filters.

Other Monitoring Requirements V.A.1. [Pages D-3 to D-4]

~~1. Effluent Filter Monitoring (Monitoring Location INT-001A)~~

- ~~a. **Monitoring.** The Discharger shall calculate, on a daily basis, the surface loading rate in gallons per minute per square foot and report the maximum surface loading rate and any exceedances of the surface loading rate limitations specified in section IV.C.3.a of the Order. The rate of flow through the tertiary filters shall be measured at Monitoring Location INT-001A.~~
- ~~b. **Compliance.** Compliance with the maximum daily filter surface loading rate, as specified in section 60301.320 of the CCR Water Recycling Criteria (title 22), shall be calculated based on the flow rate through each filter unit.~~
- ~~c. **Reporting.** The maximum daily filter surface loading rate shall be reported on the monthly SMRs.~~

6. The ALWSZ filter effluent monitoring requirements do not take into account the occasional turbidity excursion above 0.5 NTU due to cleaning procedures such as air entrapment due to backwashes or clean-in-place. The turbidity can exceed 0.5 NTU for longer than one minute but is shown as a decreasing trend over time, not one that increases over time which would indicate a failure of the membrane filtration process. The Agency requests the following for Effluent Filter Monitoring:

Other Monitoring Requirements V.A.2. [Page D-4]

- a. **Monitoring.** The turbidity of the filtered effluent shall be continuously measured and recorded at Monitoring Location INT-001B. Should the 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. The recorded data shall be maintained by the Discharger for at least 3 years. The daily maximum and 95th percentile turbidity results shall be reported on the monthly SMRs.
- b. **Compliance.** Compliance with the 95th percentile effluent turbidity limitation specified in title 22, as referenced in section IV.C.32.b.i of the Order, shall be determined using the levels of recorded turbidity taken at intervals of no more than 1.2 hours over a 24-hour period. Exceedances of the maximum turbidity requirement referenced in section IV.C.32.b.ii of this Order shall not be considered a violation of these waste discharge requirements if such exceedance does not exceed a duration of one minute or if the exceedance occurs as a result of membrane cleaning procedures and does not exceed a duration of fifteen minutes.
- c. **Reporting.** If the filtered effluent turbidity exceeds 0.2 NTU for more than 5 percent of the time in a 24-hour period or 0.5 NTU at any time (based on the compliance period defined in section V.C.2.b), the incident shall be reported in the quarterly SMR and to the Regional Water Board and DDW by telephone within 24 hours in accordance with Provision VIII.N of this Order. A written report describing the incident and the actions undertaken in response shall be included in the monthly SMR. Mitigation of the event shall consist of diverting all inadequately treated wastewater to temporary storage or an upstream process or automatically activated chemical addition to comply with title 22 requirements (Sections 60304 and 60307). Anytime the filtered effluent turbidity exceeds 0.5 NTU for more than

one fifteen minute due to membrane cleaning procedures, the incidents shall be described in the applicable monthly SMR cover letter. At a minimum, each incident will be presented in table format and include the maximum turbidity, the duration of the exceedance, and the cause of the exceedance.

7. **A comprehensive survey of the commercial and industrial users in the service area was conducted by Agency staff in 2017 following the Pretreatment Compliance Inspection. The Agency continuously tracks changes in the commercial and industrial user base through County building permit reviews, drive-bys, and walk-in inspections. In lieu of replicating an Industrial Waste Survey (IWS) every 5 years, the Agency proposes using the 2017 survey as a baseline which will be continuously updated. The following changes are requested:**

Provisions VIII.F.1.c.i [Page 14 to 15]

- c. ~~**Industrial Waste Survey and Influent Priority Pollutant Monitoring**~~The Discharger shall provide an updated inventory of all permitted industrial users. At a minimum, this inventory should identify whether the user qualifies as a significant industrial user, the average flow rate, the SIC code and any pretreatment being implemented by each industrial user. ~~conduct an industrial waste survey (IWS) of all the industrial users (IUs) in the service area of the Facility at least once every five years to determine whether any IUs are subject to pretreatment standards specified in 40 C.F.R. Part 403. At a minimum, the IWS must identify the following for each industrial user and zero-discharging categorical industrial user: whether it qualifies as a significant user; the average flow rate; the SIC code; any pretreatment being implemented by each industrial user; and whether or not the Discharger has issued a permit to any of the identified industrial users. The IWS is required during the 12-month period that begins on **January 1, 2020, and every five years thereafter (2025, 2030, etc.).**~~

8. **The Agency requests removal of the requirement to perform a once in 5 years priority pollutant scan of the ALWSZ WWTF influent. Discharges from each industrial user to the collection system are monitored periodically (frequency dependent upon size of facility, and nature of discharge) to determine the presence of pollutants of concern, so influent monitoring is not necessary.**

Provisions VIII.F.1.c.ii - iii [Page 15]

~~ii. The Discharger shall also perform a priority pollutant scan of the influent to the Facility. This monitoring shall be conducted during the same 12-month period identified in i., above.~~

~~iii. The results of the IWS and priority pollutant monitoring shall be submitted to the Regional Water Board in written reports to be submitted within two months of the end of the calendar years specified in Provision F.1.c.i, above. The first report shall be submitted no later than **March 1, 2021, then every five years thereafter (March 1, 2026, March 1, 2031, etc.).** The written report shall include a certification report indicating whether the Facility receives pollutants from any IU that would require the Discharger to establish a pretreatment program in accordance with 40 C.F.R. Part 403.~~

Table D-6 [Page D-8]

MRP Influent Monitoring Requirement III.A.1	CTR Priority Pollutant Monitoring	Calendar years 2020, 2025, 2030, etc. (once every 5 years)
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9. **General and specific prohibitions indicated in the WDRs for introduced pollutants into the WWTF are already included into the Agency's Sewer Use Ordinance. Therefore, the Agency requests removal of the following sections:**

Provisions VIII.F.1.f - g [Page 15]

- ~~f. General Prohibitions. Pollutants introduced into WWTFs by a non-domestic source shall not pass through [40 CFR 403.3(n)] the WWTF or interfere [40 CFR 403.3(i)] with the operation or performance of the works. These general prohibitions and the specific prohibitions in paragraph (g) of this provision apply to all non-domestic sources introducing pollutants into a WWTF whether or not the source is subject to other National Pretreatment Standards or any national, state, or local pretreatment requirements.~~
- ~~g. Specific Prohibitions. In addition, the following pollutants shall not be introduced into a WWTF:~~
- ~~i. Pollutants that create a fire or explosion hazard in the WWTF;~~
 - ~~ii. Pollutants that will cause corrosive structural damage to the WWTF, but in no case discharges with pH lower than 5.0, unless the WWTF is specifically designed to accommodate such discharges;~~
 - ~~iii. Solid or viscous pollutants in amounts that will cause obstruction to the flow in the WWTF resulting in interference;~~
 - ~~iv. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration that will cause interference with the WWTF;~~
 - ~~v. Heat in amounts that will inhibit biological activity in the WWTF resulting in interference, but in no case heat in such quantities that the temperature at the WWTF~~

10. **The Agency requests clarification on the phrasing "industrial wastes subject to regulation...". If the intent is to identify wastes from Significant Industrial Users and Categorical Industrial Users as defined in 40 CFR 403, then Agency requests language exempting Nonsignificant Categorical Industrial Users and Middle Tier Categorical Industrial Users as defined by the EPA's 2006 Pretreatment Streamlining Rule.**

Provisions VIII.F.2. [Page 16]

In the event that the Discharger identifies any new industrial wastes ~~subject to regulation under the from Categorical Industrial Users or Significant Industrial Users as defined in the~~ National Pollutant Discharge Elimination System Pretreatment Program being discharged to the wastewater treatment plant or the Regional Water Board or its Executive Officer determines that circumstances warrant pretreatment requirements in order to prevent interference [40 C.F.R. §403.3(j) (k)] with the wastewater treatment Facility or Pass Through [40 C.F.R. §403.3(n) (p)], then:

- a. The Discharger shall notify the Regional Water Board within 30 days after there are discharges that trigger the pretreatment requirements;
- b. The Discharger shall submit a revised Report of Waste Discharge and the pretreatment program for the Regional Water Board's review and approval as

soon as possible, but not more than one year after the Discharger's notification to the Regional Water Board of the need for pretreatment requirements being triggered;

- c. Industrial Users classified as Nonsignificant Categorical Industrial Users and Middle Tier Categorical Industrial Users as defined by the Environmental Protection Agency's 2006 Pretreatment Streamlining Rule shall be exempt from the notification and reporting requirements in provision VIII.F.2(a) and VIII.F.2(b)

11. To allow for the Local Limits Study to be completed and allow for the appropriate timing for public comment and review of the updated sewer use ordinance, the Agency requests that the deadline for updating the Sewer Use Ordinance be extended to February 1, 2025:

Provisions VIII.F.4 [Page 16]

- b. Updated Sewer Use Ordinance. The Discharger shall perform a review of its existing sewer use ordinance to ensure the Discharger has the necessary legal authorities to monitor and enforce source control standards, restrict discharges of toxic materials to the collection system and inspect facilities connected to the system. In conducting the review, the Discharger may consult the January 2007 EPA Model Pretreatment Ordinance (EPA 833-B-06-002). The Discharger shall submit a report documenting the results of the review and recommended revisions to the sewer use ordinance, if any, to the Regional Water Board by February 1, 2023. If the report recommends revisions to the sewer use ordinance, the Discharger shall update the sewer use ordinance accordingly by **February 1, 2024 2025**.

12. The Agency currently collects time-based composite samples because of the batch nature of the influent into the treatment plant. Changing to flow-proportional composite sampling would require installation of significant electrical and SCADA controls which are expensive and unnecessary for evaluating influent and effluent quality. In addition, the Agency doesn't understand why Executive Officer approval of composite sampling devices is needed. Accordingly, the Agency is requesting the following changes:

I. General Monitoring Provisions [Page D-1]

- A. **Wastewater Monitoring Provision.** Composite samples may be taken by either a proportional time-based or flow proportional sampling device approved by the Executive Officer or by grab samples composited in proportion to flow at specific time intervals. In any time based method ~~compositing grab samples,~~ the sampling interval shall not exceed 1 hour.

13. The monitoring requirements for recycled water use will be specified in State Water Resources Control Board Order WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water Use (Recycled Water General Order). As a result, the inclusion of monitoring locations REC-001, REC-002, and REC-003 in the WDRs does not appear to be necessary. The Agency requests this information be removed as follows:

Table D-1. Monitoring Station Locations [Page D-2]

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
003	REC-001	Secondary treated recycled water discharged to the Sonoma County Airport pasture irrigation areas.
004	REC-002	Disinfected, tertiary recycled water distributed to the agricultural recycled water irrigation areas
005	REC-003	Disinfected, tertiary recycled water transferred to the Town of Windsor and City of Santa Rosa reclamation systems

14. The Agency monitors and inspects industrial and commercial facilities and their discharges through Industrial User Wastewater Discharge Permits, sampling, inspection activities, and its Pollution Prevention Program. Based on these activities and according to the reasons outlined in Comments 4, 6, 7 and 8 above, the Agency requests influent monitoring requirements for settleable solids and priority pollutants be removed. The Agency requests removal of these parameters from Table D-2 as follows:

Table D-2. Influent Monitoring -Monitoring Location INF-001 [Page D-2]

Parameter	Units	Sample Type	Minimum Sampling Frequency
Influent Flow ¹	mgd	Meter	Continuous
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hr Composite	Monthly
Total Suspended Solids	mg/L	24-hr Composite	Monthly
Settleable Solids	mL/L	Grab	Monthly
Priority Pollutants ²	µg/L	24-hr Composite ³	Once every five years ⁴

Table Notes:

1. The Discharger shall report the daily average and monthly average flows.
2. ~~Those pollutants for which DDW has established MCLs at title 22, division 4, chapter 15, sections 64431 (Inorganic Chemicals) and 6444 (Organic Chemicals) of the CCR.~~
3. ~~Priority pollutant samples shall be collected using 24-hour composite sampling, except for pollutants that are volatile. Samples for volatile pollutants may be collected as a grab sample.~~
4. ~~Priority pollutant sampling shall be completed during calendar year 2020, and every five years thereafter.~~


15. Monitoring of Disinfection CT is only required for tertiary recycled water and should not be included as an effluent monitoring requirement for EFF-001. In addition, these requirements are already described in *Provision V. B*. The Agency requests removal of these parameters from Table D-3 as follows.

Table D-3. Effluent Monitoring – Monitoring Locations EFF-001 and EFF-002 [Page D-3]

Parameter	Units	Sample Type	Minimum Sampling Frequency
Effluent Flow ¹	mgd	Meter	Continuous
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hour composite	Weekly
Total Suspended Solids	mg/L	24-hour composite	Weekly
Settleable Solids	mL/L	24-hour composite	Weekly
pH	Standard Units	Grab	Daily
Total Coliform Organisms	MPN/ 100 mL	Grab	Daily
Total Chlorine Residual ²	mg/L	Meter ³	Continuous
Disinfection CT⁴	Mg-min/L	Calculation	Daily
<p><u>Table Notes:</u></p> <p>1. Each month, the Discharger shall report the daily average and monthly average flows.</p> <p>2. Chlorine residual monitoring at Monitoring Locations EFF-001 and EFF-002 shall demonstrate that chlorine residual is present after chlorination. This monitoring shall occur continuously when transferring from the chlorine contact tank to the secondary and tertiary effluent storage ponds.</p> <p>3. Report minimum daily chlorine residual.</p> <p>4. Disinfection CT monitoring requirements are described in detail in section V.B of this MRP.</p>			

The Agency appreciated your assistance and communication during development of this Tentative Order. Please contact me at (707) 521-1808 (or by email, George.Lincoln@scwa.ca.gov) if you have any questions or concerns.

Sincerely,



George Lincoln
Water Agency Engineer-Operations

Cc: Cathleen A. Goodwin, North Coast Regional Water Board, Cathleen.goodwin@waterboards.ca.gov
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