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## State Water Resources Control Board Division of Drinking Water

April 16, 2020

Justin McSmith  
North Coast Regional Water Quality Control Board  
5550 Skylane Boulevard, Suite A  
Santa Rosa, CA 95408

Dear Mr. McSmith,

This letter transmits the State Water Resources Control Board, Division of Drinking Water (DDW) acceptance on the revised Town of Windsor Water Reclamation System Engineering Report (Engineering Report) dated March 9, 2020. This revised report was submitted to address DDW comments dated March 3, 2020.

The Town of Windsor and Windsor Water District (Town) owns and operates a 2.25 MGD wastewater treatment facility, which produces disinfected tertiary recycled water. The Town also owns and operates a water reclamation facility for storage and distribution of recycled water. The Town provides recycled water for irrigation (rural pasture, crops, vineyards, Town parks, playgrounds, and commercial and residential landscaping). The Town is the sole producer and distributor of all recycled water utilized in the reclamation system. The reclamation system has multiple use areas and users.

The North Coast Regional Water Quality Control Board (North Coast RWQCB) requested DDW's review of the water recycling requirements provided in the Draft Order R1-2020-0010. DDW has the following proposed revisions (shown in **bold**):

1. Revise section IV.C.2.b to read "The Permittee shall comply with ... Division of Drinking Water (DDW) regulations at title 22, sections 60301 – **60355** of the CCR (Water Recycling Criteria)."
2. Revise section IV.D.2.b to read "Provide continuous, reliable monitoring of flow, UV transmittance, UV intensity, UV dose, and UV power at Monitoring Location INT-002, and turbidity at Monitoring Location INT-001B **at all times**. The Permittee must demonstrate compliance with the **turbidity** and UV dose requirement."
3. Revise section IV.D.2.g.iii to read "The values of high daily and **7-day rolling** median total coliform when an operational response must be taken."

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

4. Revise section IV.D.2.I to read "Operate the UV disinfection system with a built-in automatic reliability feature that triggers the following critical alarm setpoints:
  - a. **Conditions that should trigger an alarm and startup the next available row of UV bank or UV channel shall include the following:**
    - i. **Ballast failure**
    - ii. **Multiple lamp failure**
    - iii. **Low UV transmittance below 69.1%**
    - iv. **UVT signal failure**
  - b. **Conditions that should divert effluent to waste shall include the following:**
    - i. **Power failure**
    - ii. **UV channel(s) water level higher than 62 inches**
    - iii. **UV channel(s) water level lower than 57.5 inches**
    - iv. **UV dose below 100 mJ/cm<sup>2</sup>**
    - v. **UV transmittance below 55%**

Furthermore, DDW recommends the following requirements be incorporated into the Town of Windsor's National Pollutant Discharge Elimination System permit or Notice of Applicability and associated Monitoring and Reporting Program. Items 1 and/or 2 may not need to be incorporated into the permit documents if they are completed prior to the permit adoption or issuance.

1. The Town's supplemental information provided on January 17, 2020, identified a bypass line from the filters to the recycled water clearwell. Title 22 section 60331 prohibits bypassing of partially treated wastewater from the reclamation plant or any intermediate unit processes to the point of use. The bypass pipeline must be abandoned and decommissioned. The Town must submit a plan to DDW and the Regional Board describing the Town's plan and timeline for completing this work. Provide the plan within three (3) months of the date of this letter.
2. The Town must add high and high-high turbidity alarms to the list of conditions that would require an immediate diversion to take place, triggering the two fail-closed emergency shut-off valves (V7 and V8). The Town must make this change in the treatment plant's SCADA programming and provide documentation of its completion to DDW and the Regional Board within 30 days of the date of this letter.

3. Any proposed plans and specifications for new dual plumbed recycled water use areas must be submitted for DDW approval prior to the delivery of recycled water to the facility. As required by Title 22 section 60314, report, plans, and specifications must include the following:
  - a. A report containing a detailed description of the intended use area identifying the following:
    - i. The number, location, and type of facilities within the use area proposing to use dual plumbed systems,
    - ii. The average number of persons estimated to be served by each facility on a daily basis,
    - iii. The specific boundaries of the proposed use area including a map showing the location of each facility to be served,
    - iv. The person or persons responsible for operation of the dual plumbed system at each facility, and
    - v. The specific use to be made of the recycled water at each facility.
  - b. Plans and specifications describing the following:
    - i. Proposed piping system to be used,
    - ii. Pipe locations of both the recycled and potable systems,
    - iii. Type and location of the outlets and plumbing fixtures that will be accessible to the public, and
    - iv. The methods and devices to be used to prevent backflow of recycled water into the public water system.
  - c. Include a description of method to be used by the Town to assure that the installation and operation of the dual plumbed system will not result in cross connections between the recycled water piping system and the potable water piping system (separation test). This shall include a description of pressure, dye or other test methods to be used for initial cross connection test and subsequent cross connection test every four years.
  - d. The inspections and the testing shall be performed by a cross connection control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements. Please identify that person.

- e. Annually after the initial separation test, the Town shall ensure that the dual plumbed recycled water system (indoor and outdoor) is inspected for possible cross connection with potable water system.
  - f. The Town shall notify DDW prior to conducting the cross-connection control test. DDW staff may witness the test.
4. Cross connection test for existing dual plumbed use area must be conducted every four years. The Town must maintain documentation of the successful completion of the test. An annual inspection or cross connection survey must be performed for each site.
  5. Provide a copy of the revised Agricultural Recycled Water User Agreement, and updates to the Town's Recycle Water Design and Construction Standard to DDW and North Coast RWQCB upon completion.
  6. New types of recycled water use must be addressed by submittal of a revision or update to the Engineering Report.
  7. Submit revisions and updates to the Engineering Report and appendices (including any updates to the Recycled Water Users' Guide) to DDW and the Regional Water Quality Control Board to reflect changes in the Town's water reclamation system, operations, and recycled water program management.
  8. Any updates or changes to the Engineering Report must also be made in any application or documents submitted to the Regional Water Quality Control Board.

If you have any questions regarding this letter, please contact Sherly Rosilela at (916) 341-5578 or via e-mail at [Sherly.Rosilela@waterboards.ca.gov](mailto:Sherly.Rosilela@waterboards.ca.gov) or please contact Randy Barnard at (619) 525-4022 or via e-mail at [Randy.Barnard@waterboards.ca.gov](mailto:Randy.Barnard@waterboards.ca.gov).

Sincerely,

**Randy Barnard**



Digitally signed by Randy Barnard  
Date: 2020.04.16 15:06:50 -07'00'

Randy Barnard, P.E.  
Recycled Water Unit Chief  
Division of Drinking Water  
State Water Resources Control Board

cc:

Veronica Siwy, Town of Windsor ([vsowy@townofwindsor.com](mailto:vsowy@townofwindsor.com))  
Janice Oakley, DDW-Sonoma  
RWU File