



MEMORANDUM

To: Jose L. Angel, P.E., Regional Water Quality Control Board

Copies To: Mark Ban, Hi-Desert Water District
Camden O'Toole, Carollo Engineers

From: Graham Juby **Office:** IEO

Date: September 8, 2015 **Project No.:** 9858A.60

Subject: Comments on Tentative WDR Dated 8/14/15

Purpose

The purpose of this memorandum is to present comments from the Hi-Desert Water District (HDWD/District) on the Tentative Waste Discharge Requirements (WRD) dated August 14, 2015, for consideration by the Regional Water Quality Control Board.

Comments

1. Page 2, paragraph 9, first line
Please replace the word "with" with "for".
2. Page 9, Section A - Effluent Limitations
It is requested that the Total Nitrogen limit of 10 mg/L (as a 30-day arithmetic mean) be changed to a 12-month average Total Inorganic Nitrogen (TIN) limit of 10 mg/L. The reason for this request is that total nitrogen includes both organic and inorganic species, and while the secondary treatment process can be designed and optimized to reduce the inorganic nitrogen, there is less control over the effluent organic nitrogen concentration. Organic nitrogen typically contributes 1 to 2 mg/L to the total nitrogen in the effluent, implying that the total inorganic nitrogen concentration would have to be maintained at levels consistently below 8 mg/L. This is challenging to achieve, particularly in the winter months, and would require additional treatment processes, which will increase the cost of treatment for HDWD without providing any additional protection for the Basin in terms of the established nitrogen limits. Organic nitrogen is also a more expensive laboratory test, and performing it on a regular basis would add to the operating cost of the plant.
3. Page 10, Section A, Item 4
It is understood that the dissolved oxygen (DO) concentration would need to be measured in the water column within the pond. When the plant is started up it is likely that percolation of the effluent in the basins will be rapid and that it will take some time before the level in the basins gets to a point where it is safe to manually insert a DO probe in the water to obtain a reading. Accordingly, HDWD would like to request a grace period of 6 to 12-

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months after plant start-up before being required to measure the requested DO concentration. The ability to take such DO readings will depend on the water percolation rate and the proximity of the water level to the edge of the ponds.

4. Page 11, Section C, Item 3

It should be noted that the predicted 1.0 MGD flowrate at the completion of Phase 1 is based on flow projections. While the flow projections used are based on the best available information, and may even be conservative given the on-going push for additional water conservation, HDWD wish to point out that the actual 30-day average dry weather discharge flow at the completion of Phase 1 will only be known once all dischargers have been connected to the new system.

5. Page 12, Section D, Item 1.f

This section includes the requirement to perform on-site check-point bioassay of the UV disinfection system. We recognize that this requirement is part of the NWRI UV Guidelines for previously validated UV reactors, which is what the project will require. Our comment relates to operating the Wastewater Reclamation Plant prior to and during the period that the Department of Drinking Water (DDW) is approving the on-site check-point bioassay results. Our previous experience is that it can take 6 weeks or more from the time of testing to obtain approval from DDW for operation of the UV system for a recycled water application. During this period the treated effluent would need to be discharged somewhere. Accordingly, HDWD would like to request a grace period of 3-months after the point at which sufficient wastewater flow is achieved to enable the on-site check-point bioassay of the UV system to be performed. Prior to approval HDWD would operate the UV system at the design UV dose and discharge the effluent to the percolation ponds.

6. Page 13, Section E, Item 2

This section refers to reporting of daily average UV transmittance and UV dose. HDWD would like to request a grace period until the on-site check-point bioassay of the UV disinfection system has been completed and approved by DDW (see Item 5 above) before reporting the daily average and lowest daily transmittance and operational UV dose on the monthly monitoring reports. This grace period would also apply to the diversion requirements for low transmittance and low UV dose.

7. Page 14, Section F, Item 4

Instead of submitting an updated ROWD when the construction of the Phase 1 WRP has reached 90 percent completion, HDWD would like to request that the updated ROWD be submitted once the Phase 2 project has been planned and designed. With this approach, more realistic information will be available for the updated ROWD. Alternatively, if for some reason the flows from Phase 1 should be greater than the projections (see Item 4), and the Phase 1 30-day average dry weather discharge from the WRP should exceed 1.0 MGD, the HDWD will submit and updated ROWD.

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8. Page 14, Section F, Item 5

This section refers to the need for a TDS study to evaluate the incremental increase in TDS above the average TDS of the source water for the town of Yucca Valley. HDWD would like to suggest that a long-term approach be used for assessing the Basin wide impact of TDS that takes into consideration the TDS concentrations from existing drinking water wells. This method would exhibit the overall impacts the Project has on the entire Basin instead of just those located within the discharge area. Also, because no sewage flow is currently available for most dischargers, measuring the wastewater TDS is not possible. Accordingly, HDWD would like to request that the characterization of the wastewater TDS be delayed until Phase 1 of the project is fully implemented. That way, HDWD will have access to sewer flows from all connections and can conduct a meaningful TDS evaluation.

9. Monitoring and Reporting Program, Page 4, WRP Effluent Monitoring

- a. Due to the nature of the WRP project, HDWD requests a grace period of 3 to 6-months after plant start-up before beginning the Effluent Monitoring and Reporting program.
- b. Please clarify the constituent "Chlorine Chlorine". If this is based upon the use of chlorine, the District requests its removal due to the intended use of UV disinfection.
- c. Also, for the parameters UV Transmittance, and UV Dose, these measurements are requested in the Effluent. HDWD would like to request that these measurement be taken at the UV disinfection equipment instead of the final Effluent.
- d. Based on the earlier request regarding Total Inorganic Nitrogen (see Item 2 above), HDWD would like to request that Total Nitrogen be removed from the list of constituents for monitoring, and Total Inorganic Nitrogen added in its place.
- e. HDWD would like to request that once the long term performance of the plant has been established, perhaps 1 to 2 years after start-up, consideration be given to phasing out some of the constituent analyses to reduce the analytical costs.
- f. Priority Pollutants. If no Priority Pollutants are detected in the WRP Effluent, the District would like to request that once Phase 1 is fully implemented, sampling for Priority Pollutants be reduced to every 3 - 5 years to match on-going UCMR sampling for EPA.

10. Monitoring and Reporting Program, Page 4, Domestic Water Supply

HDWD would like to request that once Phase 1 is fully implemented and the TDS increment in the WRF Effluent has been established (see Item 8 above), TDS monitoring and reporting in the water supply network be reduced to bi-annually as it is now. The rationale is that the District already collects these samples at that frequency and the impacts to TDS brought about by the WRP would be very slow across the entire basin.

11. Monitoring and Reporting Program, Page 5, Groundwater Monitoring

- a. Since the plant will be in start-up mode for some time as homes and businesses are connected to the sewer system during the Phase 1 project, it will take some time for the plant flows to reach the Phase 1 value and for plant performance to stabilize. Accordingly, HDWD would like to request a grace period of 6 - 12-months after WRP start-up to allow plant performance to stabilize before the first year of monthly sampling

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associated with groundwater monitoring begins.

- b. HDWD would like to request that once the long term performance of the plant has been established, perhaps 1 to 2 years after start-up, consideration be given to phasing out or reducing the sampling frequency of some of the constituent analyses to reduce the analytical costs.