

Attachment A

COMMENTS
ON TENTATIVE
WASTE DISCHARGE REQUIREMENTS AND TIME SCHEDULE ORDER
FOR
IRONHOUSE SANITARY DISTRICT
WASTEWATER TREATMENT PLANT
CONTRA COSTA COUNTY

MARCH 17, 2008

I. KEY PERMIT/TSO ISSUES AND COMMENTS

(1) TSO, Paragraph 8: No Mandatory Minimum Penalty Relief. The TSO should provide relief from mandatory minimum penalties (MMPs) for exceedances of the final effluent limitations for aluminum and manganese.

As proposed, the TSO would deny the District the relief from MMPs provided by statute. The Water Code allows an exemption from the imposition of MMPs where the Regional Water Board has issued a TSO to allow time to come into compliance with an effluent limitation that is a new, more stringent, or modified regulatory requirement that has become applicable to the waste discharge “after the effective date of the waste discharge requirements” and after July 1, 2000. (Wat. Code §13385(j)(3)(A).) The aluminum and manganese effluent limitations meet these criteria. The effluent limitations are new, more stringent requirements that will not apply to the District’s discharge until after the effective date of the WDRs, which have not yet been adopted. This is the approach used by the Regional Water Board in allowing MMP protections for other new surface water discharges, including the Copper Cove Wastewater Reclamation Facility in Calaveras County (R5-2006-0082). Denying the same relief to the District that has been granted to other new dischargers will require District ratepayers to pay thousands of dollars in MMPs that have not been assessed in similar circumstances.

The District, though a new NPDES permittee, has existing WDRs for discharge to land. We understand that guidance from the Office of Chief Counsel suggests that this relief is limited to NPDES Renewals. (SB 709 and SB 2165 Q & A, April 17, 2001.) However, this interpretive guidance does not supersede the plain language of the statute. In addition, the guidance suggests that limiting this relief to NPDES renewals is intended to ensure that facilities are “not inadequately designed.” (Q & A at p. 19.) The constituents at issue here, manganese and aluminum, are not removed at the required levels in state of the art tertiary treatment facilities, thus the District’s inability to comply is not due to deficiencies in planning or design. The other justification for limiting the provision is to ensure that “older facilities that were already required to upgrade in order to comply with new effluent limitations prior to July 1, 2000 do not receive an exception to mandatory penalties under this provision.” (*Ibid.*) This is not the case with the District, which is not seeking to gain additional time for an older facility that was already under an obligation to comply. Indeed, concern about groundwater quality impacts of the existing land discharge is one of the factors that prompted the pursuit of a surface water discharge. Though the District has an existing WDR for discharge to land, the aluminum and manganese limitations have never before applied to the plant and are both new and more stringent.

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(2) TSO – inclusion of iron. If MMP coverage is not provided, then there is no reason to include iron in the TSO because there is no reasonable potential for iron. Thus, if MMP coverage for TSO constituents is not provided, the District requests that iron be removed from the TSO. Necessary text edits then need to be made in the TSO and permit, accordingly.

(3) p. 3, A. Background. The following edit is requested by the District to make the statement factually correct. “The Discharger requested a year-round surface water discharge due to lack of adequate ~~treatment~~, storage and disposal capacity.”

(4) p. 11, Table 6. Effluent Limits.

Copper. The reasonable potential analysis for copper was performed using the lowest projected receiving water hardness of 36 mg/L (see F-25), when it should have been based on the lowest projected effluent hardness, as stated in the fact sheet on page F-18: “*For those contaminants whereby the regulatory criteria exhibit a concave downward relationship as a function of hardness (e.g. acute and chronic copper, chromium III, nickel, and zinc, and chronic cadmium), use of the lowest recorded effluent hardness for establishment of water quality objectives is fully protective of all beneficial uses regardless of whether the effluent or receiving water hardness is higher.For purposes of calculating WQBELs for hardness dependent metals, the lowest water supply hardness from January 2007 through August 2007 (124 mg/L as CaCO₃) was used to estimate the Discharger’s effluent hardness.*”

The CTR copper criteria for a hardness of 124 mg/l are: CMC=17.1 ug/l and CCC=11.2 ug/l, expressed as total recoverable metal (CMC=16.5 ug/l and CCC=10.8 ug/l, expressed as dissolved metal. The Basin Plan copper objective is 10.0 ug/l as dissolved, and 10.4 ug/l as total recoverable. The projected MEC for copper is 4.7 ug/l; therefore, there is no reasonable potential for copper and thus it should be removed as an effluent limit.

Fluoride. The primary MCL for fluoride is 2000 µg/L. The agricultural water quality goal, that would apply the narrative chemical constituents objective, is 1000 µg/L as a long-term average based on Water Quality for Agriculture, Food and Agriculture Organization of the United Nations—Irrigation and Drainage Paper No. 29, Rev. 1 (R.S. Ayers and D.W. Westcot, Rome, 1985). The estimated MEC for fluoride is 1000 µg/L based on 1 influent sample. The long-term average fluoride effluent concentration is expected to be below 1000 ug/l, as is typically seen in WWTP effluents (e.g., City of Vacaville, City of Placerville, City of Brentwood). The background receiving water maximum fluoride is 72 µg/L in 46 sampling events collected by the Discharger and other agencies from January 2003 through March 2007. These data show that the receiving water has assimilative capacity for fluoride and that there is not reasonable potential for fluoride for the MCL (on an instantaneous basis) or the agricultural goal on a long-term average basis.

Because reasonable potential for fluoride does not exist, the District requests that the fluoride effluent limitation be removed from the order.

(5) p. 12, g. Average Daily Discharge Flow. This limitation should be modified as follows to accurately reflect the basis for the treatment capacity of the WWTP:

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“Average ~~Daily-Dry Weather~~ Discharge Flow. The Average ~~Daily-Dry Weather~~ Discharge Flow shall not exceed 4.3 mgd.”

Similar changes are required on pp. F-15 (section b. Flow) and F-15 (footnote #1, Table F-2).

(6) p. 14, Bacteria. The receiving water limitation for fecal coliform bacteria of 200/400 MPN/100 mL is unnecessary. The effluent limitation for total coliform, which consists of fecal coliform and other coliform, is much lower at 2.2/23/240 MPN/100 ml. Thus, the effluent could never cause an exceedance of the receiving water limitation.

(7) p. 22 Special Provisions – d. Pollution Prevention. Based on comments above, iron and copper should be removed from this requirement and all other places in the permit where it appears in relation to PPPs (see p. F-60) or other compliance schedule related requirements.

(8) p. 23. j. Water Reclamation. The district requests the following edit: “This Order requires the Discharger to continue its ongoing evaluation of water...”

(9) p. 26, c. Reclamation Study. The District requests that this study be referred to as a “Regional reuse study.”

After consideration of the above, the District’s requests the following modifications to the Order:

(p. 25) “The Discharge shall conduct a wastewater ~~reclamation~~ regional reuse study. The study will identify existing and potential ~~reclaimed industrial recycled~~ water users and include an economic analysis of ~~reclaiming recycling~~ wastewater to these users. The Discharger shall complete and submit the study ~~prior to initiating discharge to the San Joaquin River~~ and no later than 31 December 2008. The Discharger shall also update its past reuse study to look at reuse opportunities (landscape, golf course irrigation, etc) within the Discharger’s service area during the term of this Order.”

(10) p. 29 7. Compliance Schedules – a. Initiation of Surface Water Discharge. The District requests the following edit.

- iii. ~~Adoption of~~ **Submit Report of Waste Discharge for Renewal of Waste Discharge Requirements (WDRs).** The Discharger shall submit a Report of Waste Discharge for land disposal and reclamation, based on the new Facility, 6 months prior to initiating surface water discharge. ~~and the Regional Water Board adopts new WDRs to regulate the discharges to land.~~

Same change is required on p. F-62.

(11) p. 29 VII. Compliance Determination. This section requires the following addition:

“**E. Mass Effluent Limitations.** Compliance with the mass effluent limitations will be determined during average dry weather periods only when groundwater is at or near normal and runoff is not occurring.”

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(12) p. 30 – D. Average Dry Weather Daily Discharge Flow Effluent Limitations. The District requests the following edits. “The Average Dry Weather ~~Daily Discharge~~ Flow represents the average ~~dry weather flow discharged by the Facility (i.e. daily average of daily flows~~ when groundwater is at or near normal and runoff is not occurring). Compliance with the Average Dry Weather Daily Discharge Flow effluent limitations will be determined annually based on the average of daily flows over three consecutive dry weather months (e.g., July, August, and September).

(13) p. E-2, Table E-2, Influent Monitoring. The District is constructing a state-of-the-art, title 22 quality facility, which will produce high quality effluent consistently. There is not need to monitor influent BOD and TSS 7 days/week, and doing so places an unnecessary weekend laboratory staffing burden on the District and unnecessary additional monitoring cost burden. The District requests that the 1/day monitoring requirement for these constituents on the influent be changed to 5 days/week consistent with the recently adopted permit for the City of Brentwood, which is located in the same vicinity, discharging to Marsh Creek. Moreover, recently adopted permits for the City of Davis required influent BOD and TSS monitoring only 3 days/week and the Tentative Order for the City of Placerville requires influent BOD and TSS monitoring only 2 days/week. The District’s request is shown below.

(6) Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Meter	Continuous	
BOD 5-day 20°C	mg/L	24-hr Composite ¹	1/day 5 day/week	
Total Suspended Solids	mg/L	24-hr Composite ¹	1/day 5 day/week	
pH	pH units	Grab	1/day 5 day/week	
TDS	mg/L	24-hr Composite ¹	1/month	
Electrical Conductivity @ 25°C	µmhos/cm	24-hr Composite ¹	1/day 5 day/week	

¹ 24-hour flow proportional composite

(14) p. E-3, Table E-3, Effluent Monitoring. The District reiterates the comment above in reference to BOD, TSS, and coliform monitoring for the effluent, and requests the following modifications to Table E-3. In addition, the plant being constructed will completely nitrify and denitrify. Therefore, the District requests that ammonia monitoring be consistent with that of nitrate and nitrite at 1/month.

In addition, there is no reasonable potential for copper (see comment above) and, thus, it should be removed as an effluent limit.

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Flow	mgd	Meter	Continuous	
Total Residual Chlorine ¹	mg/L	Grab	2/day ¹¹	
Turbidity	NTU	Meter	Continuous	

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Temperature	°F	Meter	Continuous	
pH	pH units	Meter	Continuous	
BOD 5-day 20°C	mg/L	24-hr Composite ⁸	1/day 5 day/week	
Total Suspended Solids	mg/L	24-hr Composite ⁸	1/day 5 day/week	
Total Coliform Organisms	MPN/100 mL	Grab	1/day 5 day/week	
Settleable Solids	mL/L	Grab	1/month	
Dissolved Oxygen	mg/L	Grab	1/day 5 day/week	
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/day 5 day/week	
Ammonia (as N) ^{2,3}	mg/L	Grab	1/week 1/month	
Nitrate (as N)	mg/L	Grab	1/month	
Nitrite (as N)	mg/L	Grab	1/month	
Copper	µg/L	24-hr Composite ⁶	1/month	

(15) p. E-5, E-6 V.A.1. (Acute) and V.B.1. (Chronic) Monitoring Frequency. The requirement for weekly acute bioassays is excessive and unjustified for several reasons. First, the plant will be a new, state-of-the-art tertiary facility. Plants of this type do not have issues with acute toxicity in their undiluted effluent. Second, this plant will discharge into a large river through a diffuser, thereby rapidly diluting the effluent. In such cases, acute toxicity would simply not occur in the receiving water. Third, , the frequency typically permitted for acute bioassays ranges from monthly to quarterly in recently adopted Orders (see summary table below), and in Draft/Tentative Orders for Roseville and Placerville, respectively.

Acute toxicity monitoring provisions in NPDES permits recently adopted by the Central Valley Regional Water Quality Control Board.

Wastewater Treatment Plant	ADWF (mgd)	Receiving Water	Acute Monitoring Frequency	Permit Adoption Date
City of Davis WWTP	7.5	Tributaries to Yolo Bypass	monthly	Oct-07
Yuba City WWTF	10.5	Feather River	monthly	Oct-07
City of Anderson WPCP	2	Sacramento River (Shasta Dam to Colusa Basin Drain)	quarterly	Dec-07
City of Brentwood WWTP	5	Marsh Creek	monthly	Jan-08
City of Atwater WWTF	6	Atwater Drain	quarterly	Jun-07
City of Redding Stillwater WWTF	4	Sacramento River (Shasta Dam to Colusa Basin Drain)	quarterly	Jun-07
El Dorado Irrigation District EDHWWTP	4	Carson Creek tributary to Cosumnes River	every two months	Jun-07

Nevertheless, the District also understands the need to evaluate discharges to Delta waters closely due to POD and other Delta water quality issues. Consequently, the District requests the following:

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1. **Monitoring Frequency** – the Discharger shall perform weekly acute toxicity testing for the first six months following initiation of discharge and monthly thereafter, concurrent with effluent ammonia sampling.

The same comment is made for chronic toxicity. Therefore, the District requests that staff permit the frequency typically permitted for chronic 3-species bioassays, which is always quarterly or less frequent in recently adopted Orders (see summary table below) and in Draft/Tentative Orders for Roseville and Placerville.

Chronic toxicity monitoring provisions in NPDES permits recently adopted by the Central Valley Regional Water Quality Control Board.

Wastewater Treatment Plant	ADWF (mgd)	Receiving Water	Chronic Monitoring Frequency	Permit Adoption Date
City of Davis WWTP	7.5	Tributaries to Yolo Bypass	Quarterly	Oct-07
Yuba City WWTF	10.5	Feather River	Quarterly	Oct-07
City of Anderson WPCP	2	Sacramento River (Shasta Dam to Colusa Basin Drain)	Annually	Dec-07
City of Brentwood WWTP	5	Marsh Creek	Quarterly	Jan-08
Lodi White Slough WPCF	7.0–8.5	Sac-San Joaquin Delta	Quarterly	Sep-07
City of Atwater WWTF	6	Atwater Drain	Quarterly	Jun-07
City of Redding Stillwater WWTF	4	Sacramento River (Shasta Dam to Colusa Basin Drain)	Annually	Jun-07
El Dorado Irrigation District EDHWWTP	4	Carson Creek tributary to Cosumnes River	Quarterly	Jun-07

Consequently, the District requests the following:

1. **Monitoring Frequency** – the Discharger shall perform monthly three species chronic toxicity testing for the first 6 months following initiation of discharge and quarterly thereafter.

(16) p. E-6, 7. Dilutions. The Discharger request the following correction be made as follows:

“If the receiving water is toxic, laboratory water may be used as the ~~dilute~~ diluent, in which case, ...”

(17) p. E-8 Table E-5, Receiving Water Monitoring.

The only rationale provided for the required surface water monitoring, provided in the Fact Sheet (p. F-54), is:

“Receiving water monitoring is necessary to assess compliance with receiving water limitations and to assess the impacts of the discharge on the receiving stream.”

The Preliminary Draft Order specifies monitoring locations at 7 miles upstream and 3 downstream of the outfall, in addition to locations 500 feet upstream and downstream of the outfall. Requiring monitoring at 7 and 3 miles upstream and downstream of the outfall is

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inconsistent with the rationale provided in the Fact Sheet. *The effluent fraction at 3 miles downstream of the outfall would be approximately 0.25% or less (see Antidegradation Analysis).* With the effluent comprising such a negligible fraction of the receiving water at this distance, the receiving water quality is primarily affected by other sources – river background quality, upstream contributions from the watershed (which includes natural runoff, urban runoff, agricultural runoff, discharges from other wastewater dischargers), tidal effects, Delta pumping – not the WWTP discharge. The requirement to monitor 3 miles downstream and 7 miles upstream of the outfall ignores the following considerations:

- There will be no measurable effect of the discharge on dissolved oxygen (DO) at these distances, especially given other factors influencing DO throughout the Delta (e.g., photosynthesis and respiration).
- There will be no measurable effect of the discharge on pH at these distances, especially since the discharge is required to maintain pH in the 6.5-8.5 range, which is the range at which no effect on beneficial uses would occur (See Resolution No. R5-2007-013 and supporting staff report at http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/ph_turbidity/ph_turbidity_staff_report.pdf).
- There will be no measurable effect of the discharge on temperature at these distances, given that the effluent is not expected to raise the temperature by more than 1.3°F (as cited in the Fact Sheet, p. E-7). Furthermore, temperature variation of 1°F across a water body such as the Delta is common absent any influence of a discharge due to natural processes.
- There will be no measurable effect of the discharge on turbidity at these distances, given that the Delta is a highly turbid water body, and effluent turbidity levels will be 2 NTU or less as a daily average, well below Delta levels.
- There will be no measurable effect of the discharge on fecal coliform at these distances, given that effluent total coliform will be 2.2 MPN/100 mL or less as a 7-day median, and the substantial recreational and agricultural activity in the Delta contributing to coliform levels.

Similarly, the effect of the discharge at these distances on electrical conductivity and total dissolved solids would be immeasurable given the small effluent fraction and other factors confounding the concentrations of these parameters. Any monitoring data reported from these locations would be subject to all these caveats, basically rendering it useless for compliance assessment. With no ability to use these monitoring stations to directly assess the impact of the WWTP discharge or compliance with receiving water limitations, there is no rationale to require monitoring at these locations. Moreover, due to small craft advisories that are posed for this water body on windy days, or fog which limits visibility on the river, it is not always possible to collect such data.

Based on the rationale provided above, the District requests that the monitoring stipulated in Table 5 be changed from weekly to 2/month for the first year following initiation of discharge, and monthly thereafter. The District also requests that fecal coliform monitoring be eliminated entirely because it is not possible for the discharge to cause an exceedance of the receiving water coliform objective.

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Following collection of a year’s receiving water data, these data shall be evaluated for their utility for compliance assessment purposes by board staff, and, based on this evaluation, the Executive Officer shall determine whether the receiving water monitoring for this facility should be continued or ceased, based on its utility for compliance assessment purposes.

A. Monitoring Location RSW 001, RSW 002, RSW 003, RSW 004

1. The Discharger shall monitor San Joaquin River at RSW-001, RSW-002, RSW-003, and RSW-004 as follows:

Table E-5. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency ¹	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	4/week 2/month; monthly	
pH	Standard Units	Grab	4/week 2/month; monthly	
Temperature	°F (°C)	Grab	4/week 2/month; monthly	
Electrical Conductivity @ 25°C	µmhos/cm	Grab	4/week 2/month; monthly	
Turbidity	NTUs	Grab	4/week 2/month; monthly	
Total Dissolved Solids	mg/L	Grab	1/month	
Fecal Coliform	MPN/100ml	Grab	1/quarter	

¹ This monitoring shall be required twice per month for the first year following initiation of discharge and monthly thereafter. In the event that small craft advisories due to fog and/or windy conditions are in effect on scheduled sampling days, sampling shall be rescheduled. Should frequent small craft advisories prohibit the collection of samples at the frequency defined in this table, this shall be noted in the self monitoring report and sampling shall resume at the frequency defined in this table as soon as conditions allow.

(18) p. F-4, II. Facility Description. The following edit is requested by the District to make the statement factually correct. “Due to a lack of adequate ~~treatment~~, storage, and disposal capacity, the Discharger requested a year-round surface water discharge of tertiary treated effluent with ultraviolet (UV) light disinfection to the San Joaquin River off of Jersey Island.”

(19) p. F-7, 2. Thermal Plan. The first paragraph should be modified as follows to correctly cite the applicable Thermal Plan requirements: “The Ironhouse Sanitary District discharge is a “new elevated temperature waste” as described in the Thermal Plan. Thus, the discharge must meet ~~5.A. (2)-5.B(1)~~ of the Plan ~~and are described~~ as follows...”

(20) p. F-10, Water Reuse Policy – Land Only Discharge. The following modification is needed to the second sentence of the third paragraph. Delete, “~~The irrigation disposal and percolation from treatment ponds on the mainland has caused problems for Contra Costa Water District’s canal water quality as well as degrading groundwater quality near the treatment plant.~~” Replace with, “From studies, degradation of groundwater beneath ISD’s wastewater treatment

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plant and irrigated lands on the “mainland” property may have occurred or has the potential to occur. In addition, the studies did not demonstrate that the discharge of waste to land at the facility does not impact, or threaten to impact, the beneficial uses of the Contra Costa Canal.”

(21) p. F-11, second to last paragraph - study and reopener. The District requests the following edits: *“This Order includes a compliance schedule for initiating a surface water discharge that requires the Discharger to complete its ongoing reuse ~~conduct the reclamation~~ study and provide the results of the study to the Regional Water Board. This Order may be reopened based on the results of the reclamation study.”*

(22) p. F-17, b. Hardness. The following modifications are needed to clarify the derivation of the total recoverable metals criteria.

“The general equation describing the ~~total recoverable regulatory criterion~~ CTR criteria is as follows:

$$H = \text{site Hardness}$$

The constants “m” and “b” are specific to both the metal under consideration, and the type of ~~total recoverable~~ criterion (i.e. acute or chronic)...

First sentence of the fifth paragraph: “Because of the non-linearity of the ~~Total Recoverable C~~riterion equation...”

(23) p. F-18, c. Assimilative Capacity/Mixing Zones. This section should state the dilution at the edge of the zone of initial mixing (20:1) and the edge of the tidal mixing zone (1,000:1). Recommend the following addition.

c. Assimilative Capacity/Mixing Zones. The effluent discharge will be to the San Joaquin River at Jersey Island, which is within the tidal estuary of the Delta. The tidal zone in this area of the San Joaquin River includes flood and ebb tides that move the river 5 miles upstream and downstream, and slack tides occur with no river movement for about 1 hour, twice each day. Multiple dosing of the receiving water with effluent occurs as the tide moves the water column upstream and downstream past the point of discharge. The complex dynamics of the stream flow, the tidal flows, the slack flows and the state and federal pumping operations must be considered in an evaluation of the available dilution for the discharge. The San Joaquin River is approximately 3300 feet wide at the proposed location for the outfall diffuser. The Discharger is proposing to construct a 150-foot outfall diffuser that will be at a depth of at least 20 to 30 feet and extends 550 feet off shore. The average tidal flow is 150,000 cubic feet/second (cfs) and the design capacity of the discharge is 6.5 cfs. Based on these factors, the dilution at the edge of the zone of initial mixing will be 20:1 and the dilution at the edge of the tidal mixing zone will be 1,000:1. The Discharger analyzed mixing zones for application of the acute aquatic life criteria, chronic aquatic life criteria, and long term human health criteria by simulating the effluent concentration in different mixing zones.

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(24) p. F-29 q. Nitrate and Nitrite. The fact sheet states:

“Inadequate or incomplete denitrification may result in the discharge of nitrate and/or nitrite to the receiving stream. The conversion of ammonia to nitrites and the conversion of nitrites to nitrates present a reasonable potential for the discharge to cause or contribute to an in-stream excursion above the Primary MCLs for nitrite and nitrate. A human health dilution factor of 1000 is not allowed for nitrate plus nitrite, because the environmental effects of nitrate may occur over short durations. Therefore, a dilution factor of 20 was considered for this constituent and an AMEL of 205 mg/L for nitrate plus nitrite. However, the Dischargers Antidegradation Analysis was based on the USEPA primary MCL of 10 mg/L. Based on the Discharger’s Antidegradation analysis and due to the fact that the Facility will include denitrification, an AMEL of 10 mg/L is included in this Order to ensure compliance with Resolution 68-16. This effluent limitation is included in this Order to assure the treatment process adequately denitrifies the waste stream to protect the beneficial use of municipal and domestic supply. After the plant has operated and evaluated its performance this Order may be reopened to establish a more stringent performance-based limit.”

There are numerous problems with these findings. First, it is stated that the plant may not perform as designed and thus reasonable potential exists. This statement is not justified or supported in any way. Moreover, two sentences later the finding states: “...due to the fact that the Facility will include denitrification, an AMEL of 10 mg/L is included...” implying that the designed facilities will meet 10 mg/l or better. If the latter is true, then no reasonable potential exists, particularly with the available dilution. Second, the “environmental effects” that could occur over short distances are not defined. The T.O. assumes only 20:1 dilution, which occurs in the zone of initial mixing, implying that drinking water supplies will be diverted from within the zone of initial mixing, which will not occur. Finally, there is no justification to reopen this order to impose more stringent performance-based limits for these constituents given that the proposed limitations are already many times more stringent than required to protect beneficial uses. The District requests the following modifications.

~~“Inadequate or incomplete denitrification may result in the discharge of nitrate and/or nitrite to the receiving stream. The conversion of ammonia to nitrites and the conversion of nitrites to nitrates present a reasonable potential for the discharge to cause or contribute to an in-stream excursion above the Primary MCLs for nitrite and nitrate. A human health dilution factor of 1000 is not allowed for nitrate plus nitrite, because the environmental effects of nitrate may occur over short durations. Therefore, a dilution factor of 20 was considered for this constituent in order to assure that the drinking water MCLs would be met at the edge of the zone of initial mixing, which resulted in and an AMEL of 205 mg/L for nitrate plus nitrite. However, the Dischargers Antidegradation Analysis was based on the USEPA primary MCL of 10 mg/L. Based on the Discharger’s Antidegradation analysis and due to the fact that the Facility will include denitrification, an AMEL of 10 mg/L is included in this Order to ensure compliance with Resolution 68-16. This effluent limitation is included in this Order to assure the treatment process adequately denitrifies the waste stream to protect the beneficial use of municipal and domestic supply. After the plant has operated and evaluated its performance this Order may be reopened to establish a more stringent performance-based limit.”~~

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The District will modify its Antidegradation analysis to show degradation for nitrate and nitrite in order to support this modified fact sheet finding.

(25) p. F-34, ii EC. There is no discussion of 440/450 criteria. A reference should be added in a footnote or in finding.

(26) p. F-35, after table F-5. The following edit is needed: “The expected annual average effluent EC is ~~1376~~¹²⁰⁰ µmhos/cm, and at times the receiving water exceeds the Basin Plan’s site-specific objectives for EC.” This represents current average.

(27) p. F-40. WQBEL calculation tables are missing for nitrate and fluoride.

(28) p. F-43. Mass-based Effluent Limitations. The District requests the following edits: “*Mass-based effluent limitations were calculated based upon the permitted average dry weather~~daily discharge~~ flow allowed in Section IV.A.1.g. of the Limitations and Discharge Requirements.*”

(29) p. F-54. C.1. Acute Toxicity. The permit states:

“1. Acute Toxicity. Weekly 96-hour bioassay testing is required to demonstrate compliance with the effluent limitation for acute toxicity. The Delta is 303(d) listed for unknown toxicity. Therefore, to comply with Resolution R5-2007-0161 requires the Regional Board to assess unknown toxicity weekly instead of monthly. Pending the results of the toxicity sampling, the monitoring frequency maybe re-evaluated for this Order.”

Nowhere in Resolution R5-2007-0161 does it stipulate that acute toxicity for POTWs needs to be monitored weekly instead of monthly. As stated above, the plant will be a new, state-of-the-art tertiary facility. Plants of this type do not have issues with acute toxicity in their undiluted effluent. Moreover, this plant will discharge into a large river through a diffuser, thereby rapidly diluting the effluent. In such cases, acute toxicity would simply not occur in the receiving water due to the effluent. The fact that the receiving water is currently 303(d) listed for unknown toxicity clearly has nothing to do with this plant’s proposed effluent discharges. Weekly monitoring is excessive and cannot be justified, and thus should be changed to monthly.

(30) p. F-60. 3.a. PPP. Edit per other comments.