



CITY OF PINOLE

Development Services Department

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June 27, 2012

Mr. Dylan Garner
California Regional Water Quality Control Board,
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
By email: DGarner@waterboards.ca.gov

**Subject: Comments on Tentative Order Issued for the Pinole-Hercules
Water Pollution Control Plant (Reissuance of NPDES Permit No.
CA0037796)**

Dear Mr. Garner:

The City of Pinole has reviewed the Tentative Order issued by the Regional Water Board on May 28, 2012. The attached comments are being submitted prior to the June 27, 2012 deadline to be considered for inclusion in the final adopted permit. In the comments, the City is requesting additional time to finalize design of planned treatment plant upgrades and clarification of new permit requirements.

The Cities of Pinole and Hercules have committed to a long term program to rehabilitate their respective collection systems to reduce infiltration and inflow. In addition, the Cities are jointly undertaking a \$ 40+ million project to upgrade treatment capacity and eliminate wet weather blending by 2017. The Cities are enthusiastic about these projects and the projected improvements in effluent quality and regulatory compliance. The Cities appreciate the time Regional Water Board staff has spent discussing the projects and developing the compliance schedule included in this Tentative Order.

Please contact me at (510)724-9010 (or by email, dallison@ci.pinole.ca.us) if you have any questions on the attached comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'D Allison', with a large circular flourish on the left side.

Dean Allison
Director of Development Services/City Engineer

Attachment – City of Pinole Comments on Reissuance of NPDES Permit No.
CA0037796

cc: Bill Johnson, SFBRWQCB, wjohnson@waterboards.ca.gov
Lila Tang, SFBRWQCB, ltang@waterboards.ca.gov
Belinda Espinosa, City of Pinole
Steve Duran, City of Hercules
Ron Tobey, City of Pinole
John McGuire, City of Hercules
Denise Conners, Larry Walker Associates, denisec@lwa.com

ATTACHMENT

June 27, 2012

City of Pinole

**Comments Regarding Tentative Order Dated May 28, 2012
For Reissuance of NPDES Permit No. CA0037796**

The City of Pinole (City) appreciates the opportunity to submit the following comments on the Tentative Order (TO), released for review and comment on May 28, 2012.

The City is submitting a list of 14 comments for your consideration. Comments 1 through 6 are significant comments, with the rest being more editorial in nature. The comments are organized as follows:

- Comments 1 and 2 are comments on the main body of the TO
- Comments 3 through 8 are comments on the Monitoring and Reporting Program
- Comments 9 through 14 are comments on the Fact Sheet

For requested revisions to the text of the TO, underline is shown for suggested additions, and ~~strike-out~~ is shown for suggested deletions.

Comments Regarding Tentative Order – Main Body

1. The City, as a participant in Bay Area Clean Water Agencies (BACWA), has already submitted an updated study plan and schedule to conduct “technical studies to investigate possible copper sediment toxicity and technical studies to investigate sublethal effects on salmonids.” These studies are required by Task 4 in Table 9 (page 17), as shown below. The City requests that the compliance date for Task 4 in the table be updated to reflect completion of this requirement.

Table 9. Copper Action Plan

Tasks	Compliance Date
4. Undertake Studies to Reduce Copper Pollutant Impact Uncertainties The Discharger shall submit an updated study plan and schedule to conduct, or cause to be conducted, technical studies to investigate possible copper sediment toxicity and technical studies to investigate sublethal effects on salmonids. Specifically, the Discharger shall include the manner in which the above will be accomplished and describe the studies to be performed with an implementation schedule. To satisfy this requirement, dischargers may collaborate and conduct these studies as a group.	With annual pollution prevention report due February 28, 2013 <u>Completed</u>

2. The City requests that the due dates for Tasks 5 and 6 in Table 10 (page 19), be extended to allow the City sufficient time to complete design and begin construction on planned upgrades to the wastewater treatment plant. The requested changes are as follows:

Table 10. Corrective Measures to Eliminate Blending and Use of Emergency Outfall

Tasks	Compliance Date
5. Complete Plant Upgrade Design Provide documentation of complete final design, including, but not limited to, construction specifications, cost estimates, implementation schedule, etc. List hydraulic capacity of all components in treatment train prior to upgrades.	August 1, 2013 March 1, 2014
6. Start Construction of Plant Upgrades Provide documentation of any revisions to final designs previously submitted and submit final stepwise implementation schedule.	June 1, 2014 September 1, 2014

Comments Regarding Monitoring and Reporting Program

3. The City requests clarification to the description of the monitoring location for the emergency outfall. As with EFF-001B, the sampling location for EFF-001E is typically the same location as EFF-001. The description for EFF-001E in Table E-1 (page E-1) should be corrected as follows:

Table E-1. Monitoring Station Locations

Type of Sampling Location	Monitoring Location Name	Monitoring Location Description
Effluent	EFF-001E (formerly EFF-002)	At any point in the emergency outfall pipe. <u>This may be the same location as EFF-001.</u>

4. The City requests a reduction in the routine monitoring frequency for Enterococcus bacteria. The 4 times per year requirement listed in Table E-3 (page E-2) is unwarranted and not consistent with the recently adopted Order No. R2-2012-0027 for the Rodeo Sanitary District Water Pollution Control Facility which shares use of the deepwater outfall. If the Enterococcus effluent limitation is exceeded, 5 times per month accelerated monitoring for three months is reasonable. The following modifications are suggested to Table E-3 and accompanying footnote [9]:

Table E-3. Effluent Monitoring – EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Enterococcus Bacteria ^{[8],[9]}	MPN/100mL	Grab	5/Month 2/Year

Notes:

[...]

[9] ~~If after three months the Discharger has demonstrated full compliance with the enterococcus effluent limitation, the minimum monitoring frequency shall be reduced to four times per year. The four samples shall be collected in different calendar months during the higher recreational water contact season (June to October). If the enterococcus effluent limitation is later exceeded, the Discharger shall conduct 5/Month accelerated sampling for at least three consecutive months. If full compliance is demonstrated after the three-month period, the Discharger may return to the 4/Year sampling frequency. Enterococcus bacteria shall be monitored 5 times during a calendar month during two months a year at a minimum. The samples shall be collected in two different calendar months during the higher recreational water contact season (June to October). If the enterococcus effluent limitation is exceeded, the Discharger shall conduct 5/Month accelerated sampling for at least three consecutive months. If full compliance is demonstrated throughout the three-month period, the Discharger may return to the 2/Year sampling frequency.~~

5. For consistency with recently adopted NPDES permits and the California Water Code Section 13267 Letter issued on March 2, 2012 that requires nutrient monitoring, the City requests changes to the MRP to allow Total Ammonia samples to be collected as 24-hour composites. The sample type for Total Ammonia in Table E-3 (page E-2), Table E-4 (page E-3), and Table E-5 (pages E-4 and E-5) should be changed as follows:

Table E-3. Effluent Monitoring – EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Ammonia ^[11]	mg/L as N	Grab <u>C-24</u>	1/Month

Table E-4. Effluent Monitoring – EFF-001B

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Ammonia ^[8]	mg/L as N	Grab <u>C-24</u>	1/Year ^[3]

Table E-5. Effluent Monitoring – EFF-001E

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Ammonia ^[8]	mg/L as N	Grab <u>C-24</u>	1/Month

6. The City requests information from the Regional Water Board on acceptable methods of compliance with the new Total Chlorine Residual Minimum Level (ML) requirement in Section VIII.D.3. (page E-16). The new requirement specifies use of an approved analytical method for Total Chlorine Residual that has an ML of at least 0.05 mg/L. An online chlorine residual analyzer (Wallace and Tiernan Products, Micro 2000 Residual Analyzer) is utilized by the City to assess compliance with effluent limits. According to the operations manual for the analyzer, accuracy is 0.001 mg/L when measuring chlorine residual in the range of 0 to 0.1 mg/L. To verify that the instrument is working properly, laboratory staff calibrates the analyzer at least two times a day using Standard Methods 4500-Cl C (Iodometric Method II). If this testing and verification method is sufficient for meeting the new ML requirement, changes to Section VIII.D.3 or the Fact Sheet may be needed to confirm compliance. Other NPDES permittees utilize different equipment and compliance methodologies. As a result, it may be more efficient to develop a regional compliance approach through discussion with BACWA representatives rather than approving each permittee's compliance procedures separately.

7. The reference in Section VII (page E-9) should be corrected as follows:

VII. BIOSOLIDS MONITORING REQUIREMENTS

The Discharger shall continue to analyze biosolids as necessary to comply with the Regional Water Quality Control Board Standard Provisions (Attachment G) and Provision VI.C.4.b~~a~~ of the Order.

8. The reference in Section VIII.B.2.b. (page E-10) should be corrected as follows:

- b. Annual SMR — Annual SMRs shall be due February 1 each year, covering the previous calendar year. The annual SMR shall contain the items described in section V.C.1.f of the Regional Standard Provisions (Attachment G). See also Provisions VI.C.2.a (Effluent Characterization Study and Report) and VI.C.4.b~~a~~ (Biosolids Management Practices) of the Order for requirements to submit reports with the annual SMR.

Comments for Fact Sheet

9. The reference in Section II.E. (page F-5) should be corrected as follows:

E. Planned Changes

The Discharger plans to upgrade the Plant within the term of this Order. The Discharger is currently subject to corrective measures to eliminate blending and prevent emergency shallow water outfall discharges as identified in Provision VI.C.2.c of the previous permit, Order R2-2007-0024. This Order continues these requirements (see Provision VI.C.4.5.c).

10. The last paragraph in Section IV.A.2 (pages F-9 and F-10) includes duplicative language and should be corrected as follows:

To further increase conveyance capacity to the deep water outfall above the currently planned 14.6 MGD would cause an inordinate burden. The Discharger submitted an economic and environmental feasibility study, Draft Constraints and Opportunities Analysis, Pinole-Hercules Water Pollution Control Plant (EDAW/AECOM, November 21, 2008), to eliminate use of the emergency shallow water outfall. The study analyzed five different Facility configurations. One of these configurations involved construction of a forcemain capable of 20 MGD (the treatment capacity of the Plant after secondary treatment upgrades). This configuration was estimated to cost an additional \$10 million, and would marginally reduce the need for the emergency shallow water outfall. After completion of the 14.6 MGD upgrades, discharge to the emergency shallow water outfall will occur on average only once every three years. The Regional Water Board determines that this additional cost would be better spent on improvements to the collection system to reduce infiltration and the need to use the emergency outfall. Finally, there would be an equivalent level of environmental protection since the Order allows discharge only during extreme wet weather where the discharge would be highly diluted by groundwater and stormwater infiltration, and highly diluted by creek flows, thus minimizing the threat to beneficial uses. ~~The Regional Water Board determines that this additional cost would be better spent on improvements to the collection system to reduce infiltration and the need to use the emergency outfall. Finally, there would be an equivalent level of environmental protection since the Order allows discharge only during extreme wet weather where the discharge would be highly diluted by groundwater and stormwater infiltration, and highly diluted by creek flows thus minimizing the threat to beneficial uses.~~

11. The reference in the last paragraph in Section IV.A.3.(b) (page F-11) should be corrected as follows:

In the Discharger's *Utility Analysis for Wet Weather Bypass of Secondary Treatment* (December 2011), it updated its analysis to identify currently feasible measures to eliminate bypasses. Provision VI.C.4-5.c requires implementation of these measures.

12. The discussion on dilution credits in Section IV.C.4.b. (page F-20), should be expanded to explain that dilution of 33:1 is estimated under acute conditions after wastewater treatment plant upgrades. The following change is suggested:

b. **Dilution Credit.** The SIP allows dilution credits for completely-mixed discharges, and under certain circumstances for incompletely-mixed discharges. The Discharger submitted a dilution study, *Near-field Mixing Zone and Dilution Analysis for the Deep Water Outfall Diffuser in San Pablo Bay* (Larry Walker Associates, October 1, 2009). The report presents findings regarding the initial dilution of the discharge at the outfall based on the USEPA-approved mixing zone modeling package, CORMIX. The study estimates dilutions are currently 279:1 for chronic toxicity and 43:1 for acute toxicity. Future dilutions are estimated at 279:1 under chronic conditions and 33:1 under acute conditions following upgrades to the wastewater treatment plant.

13. Similar to the changes requested in Comment 12 above, the discussion on dilution credits in Section IV.C.4.b.(2)(c) (page F-22) should be expanded to explain dilution under acute and chronic conditions following wastewater treatment plant upgrades. The following changes are suggested:

(c) For ammonia, a conservative estimated actual initial dilution was used to calculate the effluent limitations. This is justified because ammonia, a non-persistent pollutant, quickly disperses and degrades to a non-toxic state, and cumulative toxicity effects are unlikely. In the study entitled *Near Field Mixing Zone and Dilution Analysis for the Deep Water Outfall Diffuser in San Pablo Bay* (Larry Walker Associates, October 2009), the Discharger estimated initial dilution ratios to be at least 279:1 ($D = 278$) at the annual average dry weather flow rate of 5.2 MGD (4.06 MGD from the Discharger and 1.14 MGD from the Rodeo Sanitary District), and at least 43:1 ($D = 42$) at the current peak flow rate of 12.8 MGD (10.3 MGD from the Discharger and 2.5 MGD from the Rodeo Sanitary District). The initial dilution ratios at future conditions are estimated to be at least 279:1 ($D = 278$) at the annual average dry weather flow rate of 5.2 MGD (same as current flows, 4.06 MGD from the Discharger and 1.14 MGD from the Rodeo Sanitary District), and at least 33:1 ($D = 32$) at the future peak flow rate of 17.1 MGD (14.6 MGD from the Discharger, following plant upgrades, and 2.5 MGD from the Rodeo Sanitary District). The 279:1 dilution ratio is appropriate for calculating limits based on the chronic criterion because that criterion is an annual median; the dilution ratio at the annual average flow rate is the most representative of long-term (chronic) conditions. The 33:1 dilution ratio is appropriate for calculating limits based on the acute criterion because that criterion has no averaging period; the dilution at the worst-case maximum flow rate is the most representative of short-term (acute) conditions. Acute dilution ratios were calculated assuming slack tide conditions.

14. For consistency with the effluent limitations listed in Table 7 (page 8) of the TO, the total ammonia limits in Section IV.C.4.c.(3)(c) (page F-25) and Table F-8 (page F-27) should be corrected as follows:

- (c) **WQBELs.** WQBELs for total ammonia, calculated according to SIP procedures using a CV of 0.36 and a dilution credit of 33:1 (D = 32), are an AMEL of ~~110~~ 113 mg/L as nitrogen and an MDEL of ~~180~~ 182 mg/L as nitrogen.

Table F-8. WQBEL Calculations

PRIORITY POLLUTANTS	Total Ammonia (acute)	Total Ammonia (chronic)
Units	mg/L N	mg/L N
Basis and Criteria type	Basin Plan Aquatic Life	Basin Plan Aquatic Life
Criteria -Acute	5.67	-----
Criteria -Chronic	-----	1.55
SSO Criteria -Acute	-----	-----
SSO Criteria -Chronic	-----	-----
Water Effects ratio (WER)	1	1
Lowest WQO	5.67	1.55
Site Specific Translator - MDEL	-----	-----
Site Specific Translator - AMEL	-----	-----
Dilution Factor (D) (if applicable)	32	278
No. of samples per month	4	30
Aquatic life criteria analysis required? (Y/N)	Y	Y
HH criteria analysis required? (Y/N)	N	N
Applicable Acute WQO	5.67	
Applicable Chronic WQO		1.55
HH criteria	-----	-----
Background (Maximum Conc for Aquatic Life calc)	0.16	0.09
Background (Average Conc for Human Health calc)	-----	-----
Is the pollutant on the 303d list (Y/N)?	N	N
AMEL mult95	1.3	1.1
MDEL mult99	2.1	2.1
AMEL (aq life)	113	434
MDEL(aq life)	182	830
minimum of AMEL for Aq. life vs HH	113	434
minimum of MDEL for Aq. Life vs HH	182	830
Limit in previous permit (average monthly)	-----	-----
Limit in previous permit (maximum daily)	-----	-----
Final limit - AMEL	<u>1103</u>	<u>4304</u>
Final limit - MDEL	<u>1802</u>	830
Max Efl Conc (MEC)	46	46