

California Regional Water Quality Control Board
North Coast Region

ORDER NO. R1-2017-0048

MODIFYING CEASE AND DESIST ORDER NO. R1-2012-0011

REQUIRING THE FORESTVILLE WATER DISTRICT
WASTEWATER TREATMENT FACILITY
TO CEASE AND DESIST FROM DISCHARGING OR THREATENING
TO DISCHARGE EFFLUENT IN VIOLATION OF
WASTE DISCHARGE REQUIREMENTS

WDID No. 1B831000SON

Sonoma County

The Regional Water Quality Control Board, North Coast Region (hereinafter Regional Water Board), finds that:

1. The Forestville Water District (hereinafter Permittee) is currently discharging disinfected tertiary municipal effluent from the Forestville Water District Wastewater Treatment, Recycling, and Disposal Facility (hereinafter Facility) under Order No. R1-2012-0012 and National Pollutant Elimination System (NPDES) Permit No. CA0023043 (hereinafter Order No. R1-2012-0012), and Cease and Desist Order No. R1-2012-0011 (CDO), both adopted on January 19, 2012. Order No. R1-2012-0012 expired on February 28, 2017, and was administratively extended, pending adoption of a renewed NPDES permit by the Regional Water Board.
2. Among other requirements, Order No. R1-2012-0012 established final effluent limitations for total recoverable copper in accordance with the California Toxics Rule and procedures set forth in the State Water Resources Control Board (State Water Board) *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California* (State Implementation Policy or SIP). Section 1.2 of the SIP allows the Regional Water Board to adjust the criteria/objective for metals with discharge-specific water effect ratios (WERs) established in accordance with U.S. Environmental Protection Agency (U.S. EPA) guidance as established in *Interim Guidance on Determination and Use of Water Effect Ratios for Metals* (EPA-823-B-94-001) (Interim Guidance) or *Streamlined Water Effect Ratio Procedure for Discharges of Copper* (EPA-822-R-01-005) (Streamlined Procedure). The Interim Guidance and Streamlined Procedure determine site-specific values for a WER, a criteria adjustment factor accounting for the effect of site-specific water characteristics on pollutant bioavailability and toxicity to aquatic life.

The State Water Board amended the SIP in 2005 to allow WERs to be established through the normal NPDES permit modification process, rather than through the Basin Planning process.

3. The Permittee has been unable to consistently comply with final effluent limitations for total recoverable copper as established in Order No. R1-2012-0012. The CDO

established interim effluent limitations and a compliance schedule for the Permittee to achieve compliance with final effluent limitations for total recoverable copper by June 30, 2016. The compliance schedule required the Permittee to conduct a discharge-specific WER study and submit study results to the Regional Water Board Executive Officer for review and approval by January 15, 2016.

4. In accordance with the compliance schedule in the CDO, the Permittee submitted the WER study results on January 15, 2016, in a report titled, *Copper Water-Effect Ratio (WER) Final Report* (WER Study Report) along with a letter requesting the Regional Water Board to modify final copper effluent limitations in Order No. R1-2012-0012 based upon the results of the WER study.
5. Regional Water Board staff has reviewed the WER Study Report and finds that the Permittee conducted the WER study in accordance with the Streamlined Procedure and the SIP, and evidence provided by the Permittee supports the application of a WER for copper at the discharge to Jones Creek.
6. The Permittee's WER study determined the site-specific toxicity of copper in the receiving water and concluded that a site-specific WER of 8.39 for total recoverable copper and 7.98 for total dissolved copper applies to the discharge. Regional Water Board staff evaluated the results of the study and determined that (1) the results of the study are within the expected range for a WER for a municipal wastewater discharge; (2) the study followed the guidance in the Interim Guidance and Streamlined Procedure; and (3) the results of the study are supported by data that generated scientifically defensible results.

Regional Water Board staff revised the reasonable potential analysis for copper using copper data collected by the Permittee between April 2012 and May 2017. The data consisted of 23 samples collected between April 2012 and May 2017 with all results ranging from 0.07 to 9.9 µg/L, with the exception of one result of 61 µg/L. Regional Water Board staff found that, based on this new information, effluent copper concentrations continue to demonstrate reasonable potential to exceed the WER-adjusted water quality criteria for copper based on the single monitoring result of 61 µg/L that exceeds the water quality objective for copper .

7. The Permittee's NPDES permit is in the process of being renewed and is scheduled for adoption in early 2018. The permit renewal will have WER-adjusted effluent limitations for copper based on the revised reasonable potential analysis that utilizes the Permittee's copper WER results. The Permittee believes that the single high monitoring result is an outlier and that it will be able to comply with WER-adjusted effluent limitations for copper.
8. Until the permit renewal is adopted in 2018, the Permittee would be subject to mandatory penalty (MMP) violations under Order No. R1-2012-0012 since the CDO

required compliance with total recoverable copper effluent limitations by June 30, 2016. This is unreasonable in light of the fact that the Permittee completed its copper WER study and submitted the final WER report in compliance with Requirement 1, Task 4 of the CDO, the Permittee's WER will result in higher effluent limitations for copper, and the Permittee's monitoring data demonstrates that the Permittee should be able to comply with the WER-adjusted copper effluent limitations upon completion of the permit renewal.

9. This Order modifies the compliance schedule in the CDO to extend the compliance date for total recoverable copper from June 30, 2016, to June 30, 2018, in order to provide the Permittee with protection from MMPs until the new permit is adopted.
10. Pursuant to Water Code section 13389 and section 15321 of title 14 of the California Code of Regulations, this is an enforcement action for violations and threatened violations of waste discharge requirements, and as such is exempt from the requirements of the California Environmental Quality Act (Public Resources Code sections 21000-21177).
11. Only those conditions to be modified by this Order shall be reopened with this modification. All other aspects of the existing CDO shall remain in effect and are not subject to modification by this amendment.
12. The Permittee and interested agencies and persons have been notified of the Regional Water Board's intent to modify waste discharge requirements for the existing discharge and have been provided opportunities for public meetings and to submit their written views and recommendations. Notification was provided through posting on the Regional Water Board's Internet site at: https://www.waterboards.ca.gov/northcoast/public_notices/public_hearings/npdes_permits_and_wdrs/ and through publication in the Press Democrat on **September 11, 2017**.
13. On December 13, 2017, after due notice to the Permittee and all other interested persons, the Regional Water Board conducted a public hearing and received evidence regarding this Order.
14. Any person affected by this action of the Regional Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Water Code Section 13320 and Title 23, California Code of Regulations, Section 2050. The petition must be received by the State Water Board within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request. In addition to filing a petition with the State Water Board, any person affected by this Order may request the Regional Water Board to reconsider this Order. To be timely, such request must be made within 30 days of the date of this

Order. Note that even if reconsideration by the Regional Water Board is sought, filing a petition with the State Water Board within the 30-day period is necessary to preserve the petitioner's legal rights. If you choose to request reconsideration of this Order or file a petition with the State Water Board, be advised that you must comply with the Order while your request for reconsideration and/or petition is being considered.

THEREFORE, IT IS HEREBY ORDERED that pursuant to Water Code sections 13300 and 13301, and 13267, CDO R1-2012-0011 is modified as indicated by underline/strikeout format as follows. Note that due to the complete removal of several findings from the original CDO, some findings in the modified CDO are renumbered. Original CDO finding numbers are indicated in parentheses.

1. Change the word "Discharger" to "Permittee" throughout the CDO.
2. Remove references to and unnecessary details related to Order No. R1-2004-0027 from the CDO title, by removing the entirety of Findings 2, 6, 7, and 8 of the original CDO, from modified CDO Findings 2, 5, 7, 16.a, and 19, and Requirements 1, 2, and 3. Deletion of Findings 2, 6, 7, and 8 requires renumbering of all subsequent paragraphs in the modified CDO. These changes are necessary because Order No. R1-2004-0027 was superseded by Order No. R1-2012-0012 and is no longer in effect.
3. Remove language from modified CDO findings 2, 5, 6, and 7 that refers to cyanide, dichlorobromomethane (DCBM), total trihalomethanes, and nitrate because this CDO revision is focused on copper only.
4. **Finding 2 (3).** Modify to read, "Regional Water Board Order No. R1-2012-0012, WDRs and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0023043, WDID No. 1B831000SON ~~is scheduled to be~~ was adopted by the Regional Water Board on January 19, 2012, ~~either concurrently with this Cease and Desist Order or shortly thereafter.~~ Upon adoption, Order No. R1-2012-0012 will supersede Order No. R1-2004-0027. Order No. R1-2012-0012 includes discharge prohibitions, effluent and receiving water limitations, and compliance provisions, including final effluent limitations for copper, cyanide, DCBM, total trihalomethanes, and nitrate."
5. **Finding 4 (5).** Add two new paragraphs, as follows:

Section 1.2 of the SIP allows the Regional Water Board to adjust the criteria/objectives for metals with discharge-specific water effect ratios (WERs) established in accordance with U.S. Environmental Protection Agency (U.S. EPA) guidance established in *Interim Guidance on Determination and Use of Water Effect Ratios for Metals* (EPA-823-B-94-001) (Interim Guidance) or *Streamlined Water*

Effect Ratio Procedure for Discharges of Copper (EPA-822-R-01-005) (Streamlined Procedure). The Interim Guidance and Streamlined Procedure determines site-specific values for a WER, a criteria adjustment factor accounting for the effect of site-specific water characteristics on pollutant bioavailability and toxicity to aquatic life.

The State Water Board amended the SIP in 2005 to allow WERs to be established through the normal NPDES permit modification process, rather than through the Basin Planning process. The procedures followed to develop the copper WER identified in this Order are consistent with the Interim Guidance, the Streamlined Procedure, and the amended SIP.

6. **Finding 6 (10).** Modify as follow, “Monitoring data collected ~~between October 2004 and April 2010 (during the term of prior to adoption of Order No. R1-2004-0027R1-2012-0012~~ revealed that the discharge ~~contains~~ contained levels of copper, cyanide, DCBM, chloroform plus DCBM, and nitrate that may be discharged at concentrations that will cause, have the reasonable potential to cause, or contribute to an excursion above water quality objectives for ~~these five constituents~~ copper, and final effluent limitations for copper were established in Order No. R1-2012-0012. The Permittee continued to monitor during the term of Order No. R1-2012-0012. The data consisted of 23 samples collected between April 2012 and May 2017 with all results ranging from 0.07 to 9.9 µg/L, with the exception of one result of 61 µg/L. Based on the result of 61 µg/L, the data continues to show reasonable potential for copper.

~~The data consisted of 35 samples that were analyzed for copper and cyanide, 31 samples that were analyzed for DCBM, 30 samples that were analyzed for nitrate, and 28 samples that were analyzed for chloroform. All of these samples were collected during the allowable discharge season, primarily the months of November through April during the period of October 2004 through April 2010, although the Discharger was not always discharging at the time that samples were collected. Samples collected in October and November 2004 were also included since the Discharger was discharging during these two months. The analytical results revealed the following:~~

- ~~• Copper is present in the Discharger’s effluent at concentrations ranging from <0.7 ug/L to 54 ug/L with twelve samples that exceeded the most stringent final effluent limitation that applied based on the hardness at the time the copper sample was collected. Eight of the exceedances occurred prior to final effluent limitations being in effect and four of the exceedances occurred after the final effluent limitations became effective on October 1, 2009. The Discharger submitted an infeasibility analysis and request for a time extension to comply with copper effluent limitations as described in Finding 14. Copper was evaluated in light of section 13385(j)(3) of the Water Code (see Finding 13) and found to~~

qualify for a compliance schedule and interim effluent limitations because it meets all of the criteria specified in section 13385(j)(3) of the Water Code, including the requirement that the regulatory requirements in the new permit must be more stringent than the regulatory requirements in the previous permit. Because copper effluent limitations in Order No. R1-2012-0012 are more stringent than copper effluent limitations in Order No. R1-2004-0027, copper is a pollutant that qualifies for protection from MMPs pursuant to section 13385(j)(3) of the Water Code during the interim compliance period in this CDO.

- Cyanide is present in the Discharger's effluent at concentrations ranging from <2 ug/L to 10 ug/L, with eight samples that exceeded the most stringent water quality objective of 5.2 ug/L. All of the exceedances occurred during allowable discharge months when there was no discharge to surface waters. The Discharger has not requested a time extension to comply with the newly established effluent limitations for cyanide because the Discharger believes that the chances of exceeding the final cyanide effluent limitations are low.
- DCBM is present in the Discharger's effluent at concentrations ranging from <0.08 ug/L to 13 ug/L with seven samples that exceeded the most stringent effluent limitation of 0.56 ug/L. Five of the seven samples also exceeded the maximum daily effluent limitation of 1.45 ug/L. All of the exceedances occurred during allowable discharge months when there was no discharge to surface waters. The Discharger has not requested a time extension to comply with the final effluent limitations for DCBM because the Discharger believes that the chances of exceeding the final DCBM effluent limitations during periods of discharge to Jones Creek are low. Even if the Discharger had requested additional time to comply with DCBM effluent limitations, DCBM does not qualify for protection from MMPs under section 13385(j)(3) of the Water Code (see Finding 13) because DCBM effluent limitations in Order No. R1-2012-0012 are less stringent than DCBM effluent limitations in Order No. R1-2004-0027, thus DCBM does not meet the criteria in section 13385(j)(3)(b) that the new regulatory requirement be more stringent.
- Nitrate is present in the Discharger's effluent at concentrations ranging from 0.52 mg/L to 18 mg/L with four samples that exceeded the most stringent water quality objective of 10 mg/L. All of the exceedances of the water quality objective occurred during allowable discharge months when there was no discharge to surface waters. The Discharger has not requested a time extension to comply with the final effluent limitation of 10 mg/L for nitrate because the Discharger believes that the chances of exceeding the final nitrate effluent limitation during periods of discharge to Jones Creek are low.

- ~~Chloroform plus DCBM are present in the Discharger's effluent at concentrations ranging from 2.3 ug/L to 173 ug/L with one sample that exceeded the effluent limitation of 100 ug/L in the previous Order as well as the effluent limitation of 80 ug/L that is established in Order No. R1-2012-0012. The Discharger has not requested a time extension to comply with the final effluent limitation of 80 ug/L for chloroform plus DCBM because the only exceedance occurred in November 2004 and the Discharger appears to have modified its chlorination process in a manner that reduces the concentration of chloroform to levels that are consistently below the effluent limitation."~~

7. ~~Finding 7 (11). Modify to read, "During the term of Order No. R1-2004-0027~~The Discharger Permittee previously submitted two reports that address its compliance efforts with regard to copper and DCBM. The reports include the May 30, 2008, report titled *Implementation Plan to Achieve Compliance with Final Effluent Limitations for Copper, Lead, Zinc, and Dichlorobromomethane* and the August 26, 2010, report titled *Copper Infeasibility Study, Forestville Water District*. According to these reports, the Discharger Permittee completed monitoring and several other tasks for the purpose of achieving compliance with CTR water quality objectives. With regard to for copper, ~~the Discharger Permittee reviewed the status of source water control efforts by the Sonoma County Water Agency (Forestville's water supplier), reviewed drinking water tap sampling results, and surveyed other local municipalities regarding their strategies and possible success in reducing effluent copper. With regard to DCBM, the Discharger Permittee reviewed its chlorine usage practices and modified several operational practices to favorably reduce chlorine usage."~~

8. Add new Findings 9 through 14, as follows:

9. The Regional Water Board adopted Cease and Desist Order No. R1-2012-0011 on January 19, 2012, that included a requirement for the Permittee to conduct a WER study and submit a final WER study report by January 15, 2016 (Requirement 1, Task 4).
10. The Permittee conducted the WER study and submitted the final WER study report as required by Requirement 1, Task 4 of this cease and desist order (CDO). Regional Water Board staff has reviewed the WER Study Report and finds that the Permittee conducted the WER study in accordance with the Interim Guidance, the Streamlined Procedure, and the amended SIP, and the WER study report supports the Permittee's request for a WER for copper at the discharge to Jones Creek.
11. The Permittee's WER study determined the site-specific toxicity of copper in the receiving water and concluded that a site-specific WER of 8.39 for total

- recoverable copper and 7.98 for total dissolved copper applies to the discharge. Regional Water Board staff evaluated the results of the study and determined that (1) the results of the study are within the expected range for a WER for a municipal wastewater discharge; (2) the study followed the guidance in the Interim Guidance and Streamlined Procedure; and (3) the results of the study are supported by data that generated scientifically defensible results.
12. Regional Water Board staff revised the reasonable potential analysis for copper, and found that, based on this new information, effluent copper concentrations continue to demonstrate reasonable potential to exceed the WER-adjusted water quality criteria for copper due to the single monitoring result of 61 µg/L that exceeds the water quality objective for copper.
13. The Permittee's NPDES permit is in the process of being renewed and is scheduled for adoption in early 2018. The permit renewal will include WER-adjusted effluent limitations for copper based on the revised reasonable potential analysis that utilizes the Permittee's copper WER results. The Permittee believes that the single high monitoring result for copper described in Finding 6 and 12, above, is an outlier and that it will be able to comply with WER-adjusted effluent limitations for copper.
14. Until the new permit is adopted in 2018, the Permittee would be subject to mandatory penalty (MMP) violations under Order No. R1-2012-0012 since the CDO required compliance with final copper effluent limitations by June 30, 2016. This is unreasonable because the Permittee completed its copper WER study and submitted the final WER report in compliance with Requirement 1, Task 4 of CDO; the Permittee's WER will result in higher effluent limitations for copper; and the Permittee's monitoring data demonstrates that the Permittee should be able to comply with the WER-adjusted copper effluent limitations upon completion of the permit renewal.
9. **Requirement 1.** Modify as follows, “~~The Discharger-Permittee~~ shall cease and desist from discharging and threatening to discharge waste in violation of the terms of ~~Order No. R1-2004-0027 and Order No. R1-2012-0012~~ described in Findings ~~58 and 9~~, above, and achieve compliance with copper effluent limitations at the earliest possible date in accordance with the following compliance schedule:

Compliance Schedule for Final Effluent Limitations for Copper.

Task	Task Description	Compliance Date
1	Evaluate industrial/commercial sources of copper and submit report and identify possible actions (e.g., programs, ordinances) to be implemented if industrial or commercial sources of copper are present in the Forestville Water District and submit report.	January 15, 2013 (Completed)
2	Evaluate copper concentrations through the wastewater treatment plant over annual cycle to identify any trends and submit final report with findings and recommendations. This effort was started in October 2010.	January 15, 2014 (Completed)
3	Conduct a source water quality verification. If results of initial testing indicate that this is a viable method to address copper, continue testing and submit final report with findings and recommendations.	January 15, 2015 (Completed)
4	Conduct a discharger <u>permittee</u> -specific WER study, if necessary, based on the results of Tasks 1 through 3 and submit study results.	January 15, 2016 (Completed)
5	Discharger <u>Permittee</u> must comply with final effluent limitations for copper no later than June 30, 2016 <u>2018</u> .	June 30, 2016 <u>2018</u>

10. Requirement 4. Remove last sentence as follows, “~~An extension may be granted by the Regional Water Board Executive Officer for good cause, in which case this Order will be accordingly revised in writing.~~” This statement was incorrectly included in the original CDO. CDO extensions may only be granted by the Regional Water Board.

11. Certification statement. Modify as follows, “I, ~~Catherine Kuhlman~~ Matthias St. John, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on ~~January 19, 2012~~ December 13, 2017, by Order No. R1-2017-0048.”

~~Catherine Kuhlman~~ Matthias St. John
 Executive Officer

CERTIFICATION

I, Matthias St. John, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on December 13, 2017.

Matthias St. John
Executive Officer