

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

TIME SCHEDULE ORDER NO. R4-2014-YYYY

REQUIRING THE CITY OF THOUSAND OAKS  
(HILL CANYON WWTP WASTEWATER TREATMENT PLANT)  
TO COMPLY WITH REQUIREMENTS PRESCRIBED IN  
ORDER NUMBER R4-2014-XXXX  
(NPDES PERMIT NO. CA0056294)

R  
E  
V  
I  
S  
E  
D  
  
T  
E  
N  
T  
A  
T  
I  
V  
E

The California Regional Water Quality Control Board, Los Angeles Region (hereafter Regional Water Board), finds:

1. The City of Thousand Oaks (hereinafter referred interchangeably as The City, Permittee, or Discharger) owns and operates the Hill Canyon WWTP Wastewater Treatment Plant (hereafter Hill Canyon WWTP), a publicly owned treatment works (POTW) located at 9600 Santa Rosa Road, Camarillo, California, within the Calleguas Watershed.
2. The Hill Canyon WWTP discharges tertiary-treated wastewater under waste discharge requirements contained in Order No. R4-2003-0083, adopted by this Regional Water Board on June 5, 2003. Order No. R4-2003-0083 serves as a permit under the National Pollutant Discharge Elimination System (NPDES No. CA0056294) and regulates the discharge of treated wastewater to North Fork Arroyo Conejo, a water of the United States and the State of California, within the Calleguas Creek Watershed. Order No. R4-2003-0083 expired on June 5, 2008, but was administratively extended.
3. On May 8, 2014, the Regional Water Board adopted Order No. R4-2014-XXXX, which renewed the waste discharge requirements and NPDES permit for the Hill Canyon WWTP. Order No. R4-2014-XXXX becomes effective on July 1, 2014.
4. The treatment system at the Hill Canyon WWTP consists of primary sedimentation, activated sludge biological treatment with nitrification and denitrification, secondary sedimentation, dual media filtration, chlorination, and dechlorination. Primary sludge is anaerobically digested and waste activated sludge is thickened and aerobically digested. Sewage solids separated from the wastewater are dried using a belt press and transported off site to a landfill facility.
5. Several reaches of Calleguas Creek, including Reach 10 (which was referred to as North Fork Arroyo Conejo in the 1998 [Clean Water Act section 303\(d\) List](#)) have been identified on the 2010 [Clean Water Act section 303\(d\) List](#) as impaired for not meeting water quality standards [for chloride](#). Calleguas Creek Reach 2 was on the 2010 [Clean Water Act section 303\(d\) List](#) for dissolved copper.

~~On June 8, 2006, the Regional Water Board adopted Resolution No. R4-2006-012, Amdndmont to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Metals for the Calleguas Crook, its Tributarios, and Mugu Lagoon (Metals TMDL), which established final WLAs for copper, nickel, and mercury; provides an implementation schedule for up to ten years; and, sets interim limits for the~~

~~aforementioned constituents for the duration of the implementation schedule. The Metals TMDL became effective on March 26, 2007.~~

6. Order No. R4-2003-0079 prescribed the following final effluent limitations for copper:

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Copper	µg/L	17	52
	lbs/day	1.7	5.2

7. On June 8, 2006, the Regional Water Board adopted Resolution No. R4-2006-012, Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Metals for the Calleguas Creek, its Tributaries, and Mugu Lagoon (Metals TMDL), which established final WLAs for copper, nickel, and mercury; provides an implementation schedule for up to ten years; and, sets interim limits for the aforementioned constituents for the duration of the implementation schedule. The Metals TMDL became effective on March 26, 2007.

8. Order No. R4-2014-XXXX prescribes new and more stringent final effluent daily maximum limitations for copper, which are based upon the *Metals TMDL*. Order No. R4-2014-XXX requires the Permittee to comply with the following final water quality based effluent limitations for copper as of the effective date of the permit:

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Copper	µg/L	28	--	42
	lbs/day	--	--	0.4

9. Although the Discharger is able to meet the concentration-based final effluent limitations for copper, it will not be able to consistently meet the mass-based copper final daily maximum effluent limitation.
10. On February 11, 2014, Larry Walker Associates (LWA) submitted an email, on behalf of the Discharger, requesting a compliance schedule for copper within the NPDES permit and included the following documentation:
- a. Since the TMDL development, LWA asserts that a number of changes have occurred in the watershed that may have modified the numeric values that were used to calculate the numbers shown in the allocation table. LWA states this is indicated by the fact that water quality monitoring at the Calleguas Creek Reach 2/3 boundary and in Mugu Lagoon is meeting the water quality objectives at the current discharge concentrations from the Hill Canyon WWTP. As a result, LWA asserts that the following equation and updated technical information should be the basis for calculating effluent limitations: (CCC\*Q\*WER-BL)\*%Load source,

      Where CCC = chronic saltwater copper criterion,

R  
E  
V  
I  
S  
E  
D  
  
T  
E  
N  
T  
A  
T  
I  
V  
E

- Q = the flow rate for the flow category,
- WER = equals the Water Effects Ratio
- BL = background load for each flow category; and,
- %Loadsource = is the percentage of the current load attributable to the source.

- b. Alternatively, LWA asserts that using the saltwater criteria as the effluent limitations is an alternative that would be consistent with one of the options discussed in the Metals TMDL Technical Report.
  - c. The City of Thousand Oaks proposes to continue its source control efforts to identify potential sources of copper and regulate them under their pretreatment program, such as performing influent monitoring for copper to more accurately quantify the levels of copper entering their Hill Canyon WWTP; and, issuing industrial permits to its industrial users, such as metal finishers, who may introduce metals to the Hill Canyon WWTP influent stream. The City will also conduct a pilot project to evaluate the effectiveness of polymer addition for additional copper removal from the effluent and will investigate the feasibility of increasing the amount of treated effluent that can be recycled from the Hill Canyon WWTP.
  - d. Under a water rights petition, *Decision No. 1638, for Water Rights Application 29408 and Wastewater Change Petition WW-6 of the City of Thousand Oaks (September 1997)*, Camrosa Water District has been diverting and reclaiming flow from the Arroyo Conejo, which is principally treated effluent from the Hill Canyon WWTP. This diversion prevents a portion of the copper load from reaching the Mugu Lagoon, the location at which the final WLA applies. An average of 12.74 cubic feet per second (cfs) of water was diverted between January 2013 and January 2014. However, the water rights petition requires that there be 6 cfs of water left in the creek, so the City is limited to the amount of effluent that can be recycled.
  - e. Milestones and completion dates for studies, which will take longer than thirty days to complete and evaluate, have been provided by the City of Thousand Oaks. These studies and proposed actions will help the Hill Canyon WWTP achieve compliance with the mass-based final effluent limitations for copper by March 26, 2017.
11. Order No. R4-2003-0083 prescribed the following final effluent limitations for chloride, which were based upon the WLAs promulgated by the U.S. Environmental Protection Agency (USEPA) in 2002 in the Calleguas Creek Chloride TMDL:

Parameter	Units	Maximum Daily Effluent Limitations
Chloride (under routine conditions)	lbs/day	10,100
Chloride (under drought conditions)	lbs/day	9,700

12. The Permittee filed a petition with the State Water Resources Control Board (State Water Board) seeking, in part, review of the chloride effluent limitations in Order No. R4-2003-0083. The Permittee later requested that the State Water Board issue a stay of those effluent limitations. In October 2003, the Permittee, Camarillo Sanitary District, the City of Simi Valley, and this Regional Water Board entered into a "Stipulation for Further Order Issuing

Stay, with Conditions," which stayed the final chloride effluent limitations in the NPDES permits for those three wastewater treatment plants. Specifically to the Hill Canyon WWTP, the stipulation stayed the final chloride effluent limitations in Order No. R4-2003-0083. In November 2003, the State Water Board adopted WQO 2003-0019 approving the stipulation.

13. On October 4, 2007, the Regional Water Board adopted Resolution No. R4-2007-016, *Amendment to the Water Quality Control Plan – Los Angeles Region to Incorporate the Total Maximum Daily Load for Boron, Chloride, Sulfate, and TDS (Salts) in the Calleguas Creek Watershed (Salts TMDL)*, which established final WLAs for boron, chloride, sulfate, and TDS; provides an implementation schedule for up to fifteen years; and, sets interim limits for the aforementioned constituents for the duration of the implementation schedule. The *Salts TMDL* became effective on December 2, 2008.
14. Order No. R4-2014-XXXX prescribes a less stringent mass-based final effluent limitation for chloride during dry weather and a new and more stringent concentration-based final effluent limitation for chloride during wet weather, which are both based upon the *Salts TMDL*. Order No. R4-2014-XXX requires the Permittee to comply with the following final water quality based effluent limitations for chloride of the effective date of the permit:

Parameter	Units	Average Monthly Effluent Limitations
Chloride (dry weather)	lbs/day	17,500
Chloride (wet weather)	mg/L	150

15. On April 14, 2014, the Discharger submitted a written request for ~~ed in writing~~ higher interim limits for salts based on anticipated changes to its potable water supply. The City expressed is-concerned that the effluent concentrations may exceed final effluent limitations due to the new supply of Colorado River Water, which is higher in salt content than State Project Water.
16. Regional Water Board staff requested specific information from the Permittee regarding the change in potable water supply for the City of Camarillo. On April 25, 2014, the Discharger/Permittee submitted additional data indicating that its potable water supply was going to change from 100% State Project Water to 80% State Project Water and 20% Colorado River Water because of the drought. This correspondence indicated that, during 2013, Colorado River Water's concentrations of chloride, TDS, and sulfate are 9.2 mg/L, 241 mg/L, and 152 mg/L higher than State Project Water concentrations, respectively. An email from Metropolitan Water District (WDR) dated February 28, 2017, indicated that MWD anticipates that the operation will continue until the end of the year. While TDS and sulfate effluent concentrations are not expected to rise above the final effluent limitations in Order No. R4-2014-XXXX, the chloride concentrations have already started an upward trend. Recent monitoring data has indicated at least three chloride-exceedances. No alternative water supply ifs reasonably available to the Permittee.

~~15-17.~~ California Water Code (CWC) section 13300 states:

R  
E  
V  
I  
S  
E  
D  
  
T  
E  
N  
T  
A  
T  
I  
V  
E

"Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements."

~~16-18.~~ Based on effluent monitoring data and potable water data, the Permittee is not able to consistently comply with the final mass-based effluent limitations for copper or the chloride final effluent limitations contained in Order No. R4-2014-XXXX. Accordingly, pursuant to CWC section 13300, a discharge of waste is taking place and/or threatens to take place that violates requirements prescribed by the Regional Water Board.

~~17-19.~~ California Water Code section 13385, subdivisions (h) and (i), require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. Section 13385(j)(3) exempts violations of an effluent limitation from mandatory minimum penalties "where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, *if all of the [specified] requirements are met.*" (emphasis added).

~~18-20.~~ The City has a strategy for complying with the final copper limits primarily by source control and maximizing recycled water use. The City will submit a work plan to specify how it will comply with the final chloride limit. The City has also made efforts to upgrade its wastewater treatment plant and to participate with other stakeholders to develop a plan for addressing copper impairments in the watershed. The Regional Water Board issues this Time Schedule Order (TSO) in recognition that the City needs time to complete necessary studies, update the Metals TMDL model, work with the stakeholders, and take other actions. Through this TSO, the Discharger will be required to submit updates associated with the existing work plan specifying the actions the City will take in order to prevent the violations of the applicable effluent limitations for copper. Upon submittal, the Regional Water Board will evaluate the updated information associated with the previously submitted work plan.

~~21.~~ In accordance with California Water Code section 13385(j)(3), the Regional Water Board finds that: (a) the final mass-based daily maximum effluent limitations for copper are new limitations in Order No. R4-2014-XXX, (b) the City needs to implement new or modified control measures in order to comply with the copper mass-based effluent limitations, and (c) the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

~~19-22.~~ In accordance with California Water Code section 13385(j)(3)(B)(iii), the Regional Water Board finds that: (a) unanticipated changes in the quality of the municipal or industrial water supply available to the Permittee are the cause of unavoidable changes in the composition of the waste discharge, (b) the changes in the composition of the waste discharge are the cause of the inability to comply with the final effluent limitations for chloride, (c) no alternative water supply is reasonably available to the Permittee, and (d) new or modified measures to control the composition of the waste discharge cannot be designed, installed, and put into operation within 30 calendar days.

R  
E  
V  
I  
S  
E  
D  
  
T  
E  
N  
T  
A  
T  
I  
V  
E

~~20-23.~~ Since the time schedule for completion of the actions necessary to bring the waste discharge into compliance exceeds one year from the effective date of this TSO, this TSO includes interim requirements and the dates for their achievement. The interim requirements include both interim mass-based effluent limitations for copper and actions and milestones leading to compliance with the final mass-based effluent limitation for copper; and interim effluent limitations for chloride and actions and milestones leading to compliance with the final effluent limitations for chloride. This TSO does not exceed five years.

~~21-24.~~ This TSO establishes interim mass-based effluent limitations for copper and interim effluent limitations for chloride, and requires the Permittee to undertake specific actions to put the Permittee on the path towards compliance with the final mass-based effluent limitation for copper and final effluent limitations for chloride in Order No. R4-2014-XXXX. The established time schedule is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the final ~~mass-based~~ effluent limitations s for copper.

~~22-25.~~ The interim mass-based daily maximum effluent limitation for copper is calculated using conversion factors and the concentration-based interim waste load allocation as set forth in the *Metals TMDL*, established by the Regional Water Board on June 8, 2006. The *Metals TMDL* interim WLA was derived using the 95<sup>th</sup> percentile of available discharge concentration data at the time of TMDL development. The interim effluent limitations for chloride are equal to the interim WLAs in the Salts TMDL-Interim WLA.

~~23-26.~~ CWC section 13385(j)(3)(D) requires the Permittee to prepare and implement a Pollution Prevention Plan (PPP) pursuant to CWC section 13263.3. Therefore, a PPP will be necessary for copper.

~~24-27.~~ A TSO is appropriate in these circumstances to allow time for the Permittee to complete necessary studies that will bring the Hill Canyon WWTP into compliance with the final mass-based effluent limitation for copper and the final effluent limitations for chloride. These necessary studies cannot be completed within 30 calendar days. The temporary copper and chloride exceedances allowed by this TSO are in the public interest given the significant environmental benefits associated with promptly achieving compliance with the final ~~mass-based~~ effluent limitations s for these pollutants.

~~25-28.~~ Pursuant to CWC section 13385(j)(3), full compliance with the requirements of this TSO exempts the Permittee from mandatory minimum penalties only for violations of the mass-based final effluent limitations for copper and the final effluent limitations for chloride in Order No. R4-2014-XXXX that occur after the effective date of this TSO.

~~26-29.~~ This TSO concerns an existing facility and does not significantly alter the status with respect to the facility. This TSO is also being taken for the protection of the environment. Therefore, issuance of this TSO is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21100, et. seq.) in accordance with sections 15301 and 15321(a)(2) of Title 14 of the California Code of Regulations (CCR).

R  
E  
V  
I  
S  
E  
D  
  
T  
E  
N  
T  
A  
T  
I  
V  
E

27-30. The Regional Water Board has notified the Permittee and interested agencies and persons of its intent to issue this TSO concerning compliance with waste discharge requirements. The Regional Water Board, in a public hearing, heard and considered all testimony pertinent to this matter.

28-31. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and CCR, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the Regional Water Board action, except that if the thirtieth day following the action falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

**IT IS HEREBY ORDERED** that, pursuant to California Water Code section 13300, the City of Thousand Oaks, as owner and operator of the Hill Canyon WWTP, shall comply with the requirements listed below to ensure its discharges comply with the final mass-based effluent limitation for chloride and the final effluent limitations for chlorides in Order No. R4-2014-XXXX:

- From May 8, 2014 to March 26, 2017, the Permittee shall comply with the following interim mass-based effluent limitation for copper:

Parameter	Units	Effluent Limitations		
		Average Monthly <sup>1</sup>	Average Weekly	Maximum Daily
Copper	lbs/day	--	--	2.3

- From May 8, 2014 to January 31, 2015, the Permittee shall comply with the following interim effluent limitations for chloride:

Parameter	Units	Effluent Limitations		
		Average Monthly <sup>2</sup>	Average Weekly	Maximum Daily
Chloride	mg/L	189	--	--
	lbs/day	22,100	--	--

- The Permittee shall implement and complete the following studies, actions, and milestones according to the schedule proposed by the Discharger in its email dated February 11, 2014, and in correspondence and phone conversations during the month of April 2014, as follows:

<sup>1</sup> These interim effluent limitations apply all year round, during wet weather and dry weather.

<sup>2</sup> These interim effluent limitations apply all year round, during wet weather and dry weather.

R  
E  
V  
I  
S  
E  
D  
  
T  
E  
N  
T  
A  
T  
I  
V  
E

Task No.	Description	Deadline
1	<a href="#">Begin polymer pilot study to investigate additional copper removal</a>	<a href="#">April 2014</a>
2	<a href="#">Evaluate percent reduction of copper from pilot study</a>	<a href="#">August 2014</a>
<del>34</del>	Evaluate copper <del>and chloride</del> loadings <del>to Reach 2 based on current conditions</del>	January 2015
<del>42</del>	Conduct Source evaluation study and identify feasible source control strategies <del>for copper</del>	June 2015
<del>53</del>	Implement identified feasible source control strategies <del>for copper</del>	March 2016
<del>64</del>	Reevaluate final <del>mass-based</del> WLAs <del>for copper</del> based on evaluation of loadings <del>from all sources</del> .	June 2015
<del>75</del>	<del>Propose modified</del> <del>Modify</del> WLAs <del>for copper</del> in TMDL <del>to Regional Water Board, if justified</del> <del>necessary</del>	March 2016
<del>86</del>	Reduce <del>copper</del> loadings by 50% of the difference between 2007 load and WLA	March 26, 2015
<del>97</del>	Achieve full compliance with final mass-based effluent limitation for copper in Order No. R4-2014-XXXX	March 26, 2017

~~4.~~ The Permittee shall achieve full compliance with the final mass-based effluent limitation for copper as soon as possible, but no later than March 26, 2017.

~~3-5.~~ [By August 6, 2014, the Permittee shall submit a work plan for achieving compliance with the final chloride effluent limitations in Order No. R4-2014-XXXX to the Regional Water Board.](#)

~~4-6.~~ The Permittee shall submit a Pollution Prevention Plan (PPP) work plan, with the time schedule for implementation, for approval of the Executive Officer no later than August 8, 2014, pursuant to CWC section 13263.3.

~~5-7.~~ The Permittee shall submit quarterly progress reports of efforts taken by the Permittee towards achieving compliance with the final mass-based effluent limitation for copper ~~and the chloride final effluent limitations for chloride~~. The reports shall summarize the progress to date, activities conducted during that quarter, and the activities planned for the upcoming quarters. The reports shall also state whether or not the Facility was in compliance with the interim mass-based effluent limitation for copper during the reporting period; report the daily maximum mass of copper discharged (expressed in lbs/day) for ~~each~~ month within the reporting quarter; and, show how each of the daily maximum mass of copper discharged was calculated, by specifying the copper concentration for the given month and flow used for the given date of sample collection. [With respect to chloride, the report shall also specify the potable water supply chloride concentration, the influent chloride concentration, and the effluent chloride concentration.](#) Each quarterly report shall be received by the Regional Water Board by the 15<sup>th</sup> day of the first month following the reporting period (January 15, April 15, July 15, and October 15). The first progress report shall be received by the Regional Water



Board by October 15, 2014, and will cover the months of July 2014 through September 2014. The final report shall be received by the Regional Water Board by April 15, 2017.

R  
E  
V  
I  
S  
E  
D  
  
T  
E  
N  
T  
A  
T  
I  
V  
E

~~6.8.~~ All technical and monitoring reports required under this TSO are required pursuant to CWC sections 13267 and 13383. The Regional Water Board needs the required information in order to determine compliance with this TSO and Order No. R4-2014-XXXX. The Regional Water Board believes that the burdens, including costs, of these reports bear a reasonable relationship to the needs for the reports and the benefits to be obtained from the reports.

~~7.9.~~ Any person signing a document submitted under this TSO shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

~~8.10.~~ If the Permittee fails to comply with any provision of this TSO, the Regional Water Board may take any further action authorized by law. The Executive Officer, or his/her delegee, is authorized to take appropriate enforcement action pursuant, but not limited to, CWC sections 13350 and 13385. The Regional Water Board may also refer any violations to the Attorney General for judicial enforcement, including injunction and civil monetary remedies.

~~9.11.~~ All other provisions of Order No. R4-2014-XXX not in conflict with this TSO are in full force and effect.

~~10.12.~~ The Regional Water Board may reopen this TSO at its discretion or at the request of the Permittee, if warranted. Lack of progress towards compliance with this TSO may be cause for the Regional Water Board to modify the conditions of this TSO.

~~11.13.~~ If the Discharger will not be able to complete the necessary tasks in accordance with the above schedule to bring the facility into compliance with the final mass-based effluent limitation for copper and/or the final effluent limitations for chloride by the expiration date of this TSO, the Discharger may request additional time to complete the remaining tasks.

~~12.14.~~ This TSO becomes effective immediately upon adoption by the Regional Water Board. This TSO expires on March 27, 2017.

I, Samuel Unger, 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, Los Angeles Region, on May 8, 2014.

---

Samuel Unger, P.E., Executive Officer

**R  
E  
V  
I  
S  
E  
D  
  
T  
E  
N  
T  
A  
T  
I  
V  
E**