

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

CEASE AND DESIST ORDER NO. R4-2010-YYYY

**REQUIRING THE LAS VIRGENES MUNICIPAL WATER DISTRICT
(TAPIA WATER RECLAMATION FACILITY)
TO CEASE AND DESIST DISCHARGES OF WASTE IN VIOLATION OF
WASTE DISCHARGE REQUIREMENTS**

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

FACILITY DESCRIPTION

1. The Las Virgenes Municipal Water District (LVMWD or Discharger) operates the Tapia Water Reclamation Facility (Tapia WRF) located at 731 Malibu Canyon Road, in an unincorporated area of Los Angeles County. Tapia WRF is jointly owned by LVMWD and Triunfo Sanitation Districts (TrSD), and is a tertiary wastewater treatment plant that treats municipal wastewater from domestic, commercial, and industrial sources. Tapia WRF discharges tertiary treated wastewater to Malibu Creek and the Los Angeles River, both waters of the United States, under waste discharge requirements (WDRs) contained in Order No. R4-2005-0074 (NPDES No. CA0056014), adopted by the Regional Water Board on November 3, 2005. Order No. R4-2005-0074 includes a prohibition of discharge to Malibu Creek from April 15th to November 15th of each calendar year, to minimize the contribution of Tapia WRF's discharge to breaching of sandbars at the mouth of Malibu Lagoon, which could impact both wildlife and human health beneficial uses.
2. The Tapia WRF underwent several expansions, prior to reaching its design flow capacity of 16.1 million gallons per day (MGD). In 1965, LVMWD and TrSD in a joint venture built the Tapia WRF which discharged 750,000 gallons per day of secondary effluent by spray irrigation under Resolution No. 64-55. Subsequently, in 1968, the Tapia WRF's design flow capacity was expanded to 2 million gallons per day (MGD). In 1982, the flow capacity was increased to 10 MGD, and in 1994 to 16.1 MGD.
3. The Tapia WRF uses the following treatment process sequence: Coarse screening, grit removal, primary sedimentation, secondary treatment, tertiary treatment, chlorination, and dechlorination. For secondary treatment, Tapia WRF employs an activated sludge process with nitrification and denitrification (NDN), followed by secondary clarification. Tertiary treatment includes coagulation, flocculation and filtration through anthracite media. Sodium hypochlorite solution is added for effluent disinfection, and sodium bisulfate is added for dechlorination.

July 7, 2010 (Revised: August 11, 2010)

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4. In August 2009, the Discharger completed the construction of its NDN facilities, and has since been working on optimizing the NDN processes to consistently achieve effective nutrient reductions in order to achieve compliance with the final effluent limitations for nitrate (8 mg/L) for Discharge Point 005 (to Los Angeles River) as well as for nitrate plus nitrite (as N) (8 mg/L) for Discharge Points 001, 002, and 003 (to Malibu Creek).
5. Approximately 60 percent of the treated wastewater is used on an annual basis for landscaping irrigation. Recycled water is also used at Tapia WRF, Pepperdine University, Rancho Las Virgenes Composting Facility and Rancho Las Virgenes Farm. The use of reclaimed water is regulated under Water Reclamation Requirements contained in Order No. 87-086. Order No. 87-086 was readopted on May 12, 1997, through the General Order No. 97-072.
6. Excess tertiary-treated effluent, after meeting the demands of water recycling, is disposed of through one of several ways. Primarily, it is discharged to Malibu Creek via Discharge Point 001 from November 16th to April 14th of each calendar year. Also, the excess effluent may be pumped over the Calabasas grade and discharged into the Arroyo Calabasas via Discharge Point 005. Arroyo Calabasas is a tributary to the Los Angeles River. There are two other discharge points, which are rarely used. Discharge Point 003 above the county gauging station (R-13 in Order No. 2005-0075) on Malibu Creek is only used as an additional outlet during extremely high flow conditions. The LVMWD's recycled water reservoir overflow (Discharge Point 002), located behind the LVMWD's headquarter building, infrequently discharges during rain events. Additionally, excess effluent may be used for irrigating the farm fields at the Rancho Las Virgenes Composting Facility.

DISCHARGE/REGULATORY HISTORY

7. Discharges from Tapia WRF have been covered by a National Pollutant Discharge Elimination System (NPDES) permit since 1975. On July 21, 1975, the Regional Water Board adopted NPDES Permit and WDR Order No. 75-93 (NPDES No. CA0056014), which regulated discharges from Tapia WRF's to Malibu Creek. On July 24, 1989, the Regional Water Board adopted Order No. 89-076.
8. On November 3, 1997, the Regional Water Board adopted NPDES Permit Order No. 97-135, which prescribed waste discharge requirements to the LVMWD for the discharge to Malibu Creek and superseded Order No. 89-076. Order No. 97-135 included an average monthly effluent limitation of 22 µg/L for dichlorobromomethane (DCBM)¹ and a maximum daily effluent limitation of 10 mg/L for nitrate².

¹ DCBM is one of four chemicals (chloroform, dichlorobromomethane, dibromochloromethane, and bromoform) known as trihalomethanes (THMs). THMs are formed along with other disinfection byproducts when chlorine or other disinfectants used to control microbial contaminants in drinking water or wastewater react with naturally occurring organic and inorganic matter in water. THMs are potential carcinogens.

² High nitrate levels in drinking water can cause health problems in humans, especially among infants who are particularly sensitive and can develop methemoglobinemia (blue-baby syndrome). Nitrogen, which includes nitrate, is also considered a nutrient, and excessive amounts of nutrients can lead to water quality impairments, including eutrophication.

9. Concurrent with Order No. 97-135, the Regional Water Board issued Time Schedule Order (TSO) No. 97-136 since it determined that the Tapia WRF could not meet the final effluent limitations for nitrate and DCBM in Order No. 97-135, based on past plant performance data. Order No. 97-136 provided interim effluent limitations and a compliance schedule for the Discharger to achieve compliance with the final effluent limitations for DCBM and nitrogen compounds. The interim effluent limitations in TSO No. 97-136 include: 1) average monthly limitation of 42 µg/L for DCBM; and 2) maximum daily limitation of 17 mg/L and an annual average effluent limitation of 13 mg/L for nitrate. The interim effluent limitation for nitrate was to be in effect until the Discharger completed a study that investigated the advantages of discharging through percolation ponds, such as nutrients removal and rehabilitation of the percolation ponds, and management of vegetation on and in the vicinity of the percolation ponds. The interim effluent limitation for DCBM was to be in effect until such time the Discharger had completed the study and implemented the necessary measures to reduce the pollutant in the discharge, and the Executive Officer determined that the effluent limitation was achievable. TSO No. 97-136 expired on October 10, 2002.
10. To comply with the requirements of TSO No. 97-136, the Discharger provided the Regional Water Board with the following responses.
 - A. In a letter dated December 26, 1997, the Discharger described the results of its investigation of DCBM sources and concluded that the compounds were being formed as a result of adding chlorine to the effluent, and that the only technology available to reduce DCBM (air-stripping or adsorption by granular activated carbon (GAC)) was incapable of reliably reducing DCBM concentrations to the levels required by Order No. 97-135. Although other disinfection technologies (such as Ultraviolet Light (UV), ozone, and chloramination) that have demonstrated to be capable of preventing or reducing the formation of THMs existed prior to 1997, the Discharger did not discuss these available source control options. Therefore, this investigation was incomplete.
 - B. In January 2002, the Discharger submitted a Nutrient Reduction Master Plan, which described the facilities and/or improvements needed to consistently meet nitrate limits in Malibu Creek and the Los Angeles River. On April 22, 2005, the Discharger met with Regional Water Board staff and submitted a Technical Memorandum on "Nutrient Reduction Measures for Nitrogen and Phosphorus". The objective of the nutrient reduction master plan was to look at the feasibility of converting Tapia WRF into a 12 MGD membrane bioreactor (MBR) process with reverse osmosis (RO) treatment of the MBR effluent, in order to meet the final effluent nutrient limitations.
 - C. In the LVMWD's response dated August 17, 2005 to a tentative TSO³ issued by this Regional Water Board on August 2, 2005 for the Tapia WRF, the Discharger contended that it had not fully complied with the final DCBM effluent limitation in Order No. 97-135 because it was contingent on a determination by the Executive Officer that the DCBM limit was achievable and the Discharger did not receive such a determination from the Executive Officer. However, LVMWD never submitted a

³ Refers to TSO No. R4-2005-075, adopted by this Regional Water Board on November 3, 2005.

complete investigation of viable options for treatment for removal of DCBM in their effluent and TSO No. 97-136 expired in 2002. Subsequently, EPA promulgated the California Toxics Rule (CTR) on May 18, 2000. CTR now governs how the Regional Water Board regulates DCBM in NPDES permits.

11. On July 8, 1999, the Regional Water Board adopted NPDES Permit Order No. 99-066, which regulated Tapia WRF's discharges to Dry Canyon Creek, a tributary to the Los Angeles River during the Malibu Creek discharge prohibition period.
12. On June 6, 2003, the Regional Water Board issued a Notice of Violation (NOV) to the Discharger for 11 violations of the effluent limitations set forth in NPDES Permit Order No. 97-135 and TSO No. 97-136. The Discharger's effluent exceeded the limitations for nitrate, oil and grease, DCBM, and turbidity from February 2000 through April 2003. The NOV required the Discharger to report settleable solids and methylene blue active substances (MBAS) on self-monitoring reports as required by the monitoring program associated with Order No. 97-135; implement corrective and preventative actions to bring the LVMWD's discharge into full compliance with effluent limitations and receiving water requirements prescribed in Order No. 97-135; and submit by June 27, 2003, for approval by the Executive Officer, a report detailing the corrective actions taken and the results thereof. In a letter dated June 26, 2003, the Discharger described the actions taken to address the violations noted in the June 6, 2003 NOV and also contested several of the nitrate-N effluent violations, with which the Regional Water Board concurred. On August 26, 2003, the Regional Water Board issued a revised NOV to the Discharger, rescinding 4 effluent limitation violations for nitrate-N. Concurrently, the Regional Water Board issued Administrative Civil Liability (ACL) Complaint No. R4-2003-0114 for mandatory minimum penalties (MMPs) in the amount of \$9,000 for three violations of effluent limitations for DCBM and oil and grease. In a response letter dated September 25, 2003, the Discharger contested the civil liability of \$9,000 and requested a revision in TSO No. 97-136 to include a higher interim effluent limitation for DCBM, stating that the 95% confidence level of DCBM effluent concentrations, on which the interim limit was based, has increased since Tapia WRF switched from using gaseous chlorine to sodium hypochlorite for disinfection of treated effluent. This change in the form of chlorine used was necessary in order to reduce hazardous materials used and/or stored onsite. On October 27, 2003, the Regional Water Board issued the Discharger Revised ACL Complaint No. R4-2003-0114-R in the amount of \$6,000 for two effluent limitation violations for DCBM and oil and grease that occurred on January 4, 2001 and October 10, 2002, respectively. LVMWD waived its right to a hearing and paid the \$6,000 recommended civil liability to fund a Regional Water Board approved Supplemental Environmental Project.
13. Effluent data provided in a fax dated September 26, 2003 from LVMWD to the Regional Water Board indicated a measurable increase in the DCBM concentrations when the Discharger's sampling location was changed in July/August 2002 from the Tapia effluent pond (an average of 31.5 µg/L) to the Tapia effluent (underground) pump station (an average of 41.4 µg/L). During a phone conversation with Regional Water Board staff on June 8, 2010, Tapia WRF staff explained that the sampling location was changed to help better demonstrate compliance with dissolved oxygen, coliform, and temperature effluent limitations in Order No. 97-135, as well as to ensure that the samples more accurately reflect what was actually discharged. Samples collected from the effluent pond, especially during the discharge prohibition period, were from stagnant water that could have been

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stored for a period of time, and thus, Tapia WRF staff deemed that the quality could be different than the effluent pumped directly from the Tapia WRF to the outfalls.

14. On August 19, 2005, the Regional Water Board issued a second NOV to the Discharger for 17 violations of the requirements set forth in Orders No. 97-135 and 97-136. The violations included effluent limitation exceedances for nitrate-N, DCBM, and coliform. The NOV required the Discharger to: 1) immediately implement corrective and preventative actions to fully comply with effluent limitations and receiving water requirements of Order Nos. 97-135 and 97-136; and 2) submit by September 19, 2005, for approval by the Executive Officer, a report detailing the corrective actions taken and the results thereof. Based on the Discharger's written response received on August 25, 2005, the Regional Water Board issued on August 30, 2005, a revised NOV, which rescinded 10 effluent limitation violations of Nitrate-N and affirmed the seven effluent limitation violations of DCBM and coliform. Of the remaining seven effluent limitation violations, only one was for DCBM.
15. On November 3, 2005, the Regional Water Board adopted NPDES Permit Order No. R4-2005-0074, which consolidated the WDRs contained in Orders No. 97-135 and No. 99-066, as requested by the Discharger, for the discharge into the Malibu Creek Watershed and the Los Angeles River Watershed. Order No. R4-2005-0074 included effluent limitations for nitrate, cyanide, selenium, mercury, bis(2-ethylhexyl)phthalate, and DCBM, with which the Discharger indicated compliance would be difficult to achieve based on past monitoring data. The effluent limitations for DCBM in Order No. R4-2005-0074 included an average monthly limit of 46 µg/L and a daily maximum limit of 64 µg/L. The effluent limitations specified in Order No. R4-2005-0074 for DCBM were based on implementation of CTR.

In recognition of the additional time needed by the Discharger to achieve full compliance with certain effluent limitations in Order No. R4-2005-0074, and in a manner consistent with the compliance schedule provision in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the "SIP"), the Regional Water Board also provided in Order No. R4-2005-0074 interim effluent limitations for cyanide, selenium, mercury, bis(2-ethylhexyl)phthalate (for Malibu Creek discharge only), and DCBM, and required the Discharger to fully comply with the final effluent limitations for those constituents by May 18, 2010. The interim effluent limitation for DCBM was an average monthly limit of 62 µg/L. In addition, the Order required the Discharger to submit quarterly progress reports that described the progress of studies and/or actions undertaken to reduce cyanide, selenium and DCBM in the effluent to achieve compliance with the final effluent limitations by May 18, 2010. While the Discharger did submit the quarterly progress reports, these reports did not provide specific actions or studies planned or undertaken by LVMWD to ensure compliance with the final effluent limitation for DCBM by the deadline of May 18, 2010. Monitoring data submitted by the Discharger on August 6, 2010 indicates the Discharger was in compliance with the interim effluent limits in Order No. R4-2005-0074, and did not believe it needed to invest in capital facilities to comply. However, at other publicly owned treatment works (POTWs) in the Los Angeles region who modified their processes to include NDN, an increase in DCBM was noted and addressed by switching to an alternative disinfection technology. To date, the Discharger has not demonstrated full compliance with the final effluent limitations for DCBM. In the LVMWD's May 4, 2010

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comment letter on the tentative WDR and NPDES Permit Order No. R4-2010-XXX issued to LVMWD on April 6, 2010, the Discharger stated that "it is likely that TWRP [Tapia WRF] will exceed the draft effluent limit of 46 µg/L and the current interim limit of 62 µg/L."

16. Also on November 3, 2005, the Regional Water Board adopted TSO No. R4-2005-0075. Order No. R4-2005-0075 included interim effluent limitations for bis(2-ethylhexyl)phthalate (average monthly of 14 µg/L to apply to Los Angeles River discharge only) and nitrate (as N) (average monthly of 14.3 mg/L and maximum daily of 15.4 mg/L). This TSO required the Discharger to: 1) achieve compliance with the nitrate and bis(2-ethylhexyl)phthalate interim limitations for the duration of the TSO, and with the final effluent limitations specified in Order No. R4-2005-0074 by May 18, 2010; 2) by March 10, 2006, submit a pollution prevention plan (PPP) with a time schedule for implementation for approval of the Executive Officer; 3) submit a detailed workplan and quarterly progress reports of the Discharger's efforts to achieve compliance with the final effluent limitations for nitrate and bis(2-ethylhexyl)phthalate; 4) by March 27, 2006, submit a detailed workplan, detailing how the Discharger will increase diversion of its wastewater to the Los Angeles River, and/or other diversion of wastewater, during the weeks following periods of extended rainfall, during which time there is no demand for recycled water and the prohibition is in place; and 5) by March 3, 2006, submit the results of the study on alternatives to discharging to Malibu Creek. For the duration of TSO No. R4-2005-0076, the Discharger achieved compliance with the interim effluent limits for nitrate and bis(2-ethylhexyl)phthalate most of the time. Monitoring data demonstrating compliance with the final effluent limits for nitrate and bis(2-ethylhexyl)phthalate by May 18, 2010 have not yet been submitted. The reports and other documents required under the TSO were received on time.
17. On August 16, 2007, the Regional Water Board issued a third NOV to the Discharger for submittal of a late report, four violations of effluent limitations for bis(2-ethylhexyl)phthalate and nitrate, and 254 reporting violations of the requirements set forth in Orders No. 97-135, 97-136, R4-2005-0074 and R4-2005-0075. The NOV required the Discharger to: 1) fully implement all required reporting requirements contained in the monitoring and reporting program associated with Order No. R4-2005-0074; 2) immediately implement corrective and preventative action to fully comply with effluent limitations and receiving water requirements of Order Nos. R4-2005-0074 and R4-2005-0075; and 3) submit by September 17, 2007, for approval by the Executive Officer, a report detailing the corrective actions taken and the results thereof. On September 14, 2007, the Regional Water Board received LVMWD's response to the NOV dated August 16, 2007. In its response, the Discharger contested the alleged late report submittal and some of the effluent limitation violations. On March 12, 2008, the Regional Water Board issued a revised NOV to the Discharger for four violations of effluent limitation for bis(2-ethylhexyl)phthalate and nitrate and 48 reporting violations of Order Nos. 97-135, 98-030, 99-142, R4-2005-0074 and R4-2005-0075. On October 17, 2008, the Regional Water Board issued Settlement Offer No. R4-2008-0093-M for 16 effluent limitation violations for DCBM, nitrate, turbidity, coliform, total phosphorus and bis(2-ethylhexyl)phthalate. Of the 16 effluent violations, five were subject to MMPs in the amount of \$15,000.
18. On August 21, 2008, LVMWD submitted its initial request for application of California Water Code § 13385(j)(1)(D), for the purpose of seeking exemption from MMPs for the Tapia WRF discharge covered under the NPDES Permit No. CA0056014; Order No. R4-

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2005-0074 during the start-up and testing of three nutrient reduction treatment units, from July 13, 2009 to November 31, 2009. This requested duration represents three, overlapping 90-day startup/testing periods. The treatment units rely on biological processes and involve the centrate, return activated sludge, and the biological nutrient reduction process. The goal of these three treatment units is to help the Tapia WRF achieve the nitrification-denitrification process and an overall, more efficient nitrogen removal as required by NPDES Permit Order No. R4-2005-0074 and TSO No. R4-2005-075. In response to the request for exemption from MMPs, the Regional Water Board staff reviewed the operations plan submitted on August 12, 2008, and issued a letter of denial on August 26, 2008, citing an inadequate operations plan and the fact that the operations plan was not submitted timely as specified in California Water Code §13385(j)(1)(D). The LVMWD revised its operations plan several times and submitted the final operations plan on June 25, 2009 for review and approval by the Executive Officer. On July 20, 2009, the Regional Water Board issued a letter to the Discharger indicating that the Regional Water Board had no objections to the operations plan dated June 25, 2009.

19. On April 7, 2010, tentative NPDES Permit Order No. R4-2010-0XXX, which would supersede NPDES Permit Order No. R4-2005-0074, was noticed for public review and comment. As with the previous permit, the tentative Order included final effluent limitations for DCBM. Thus, the effluent limitations for DCBM were not new or more stringent effluent limitations when compared to previous permits. The Regional Water Board was originally scheduled to consider tentative Order No. R4-2010-XXX for adoption at the June 3, 2010 Regional Water Board Meeting.
20. In a comment letter dated May 4, 2010, the Discharger requested that the Regional Water Board issue the Discharger a TSO with interim effluent limitations and a compliance schedule for DCBM concurrently with the adoption of NPDES Permit Order No. R4-2010-0XXX because, based on past monitoring data, Tapia WRF's effluent will likely exceed the final effluent limitations for DCBM set forth in tentative NPDES Permit Order No. R4-2010-XXX.
21. On May 20, 2010, a revised tentative Order No. R4-2010-XXX and Regional Water Board staff's responses to comments on the tentative Order were released for public review. The responses to comments indicated that staff could not support the issuance of a TSO for DCBM that would exempt the Discharger from MMPs based on the following reasons. The Discharger has already been granted additional time by the Regional Water Board in the form of an interim effluent limit and a compliance schedule for at least five years to achieve compliance with the final effluent limit for DCBM in Order No. R4-2005-0074. Tapia WRF's past effluent data do not demonstrate an overall reduction in the effluent DCBM concentrations over the duration of Order No. R4-2005-0074, and as of spring 2010, effluent data still shows exceedances of the interim and/or final effluent limitations for DCBM. Past quarterly progress reports required under Order No. R4-2005-0074 did not contain specific information and plans to ensure compliance with the final effluent limitations for DCBM by the May 18, 2010 deadline. Therefore, Regional Water Board staff concluded that a TSO exempting the Discharger from MMPs, at this time, is not an appropriate regulatory tool to compel the Discharger to comply with the permit and/or to allow additional time for the Discharger to comply.

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22. The Discharger and interested persons and agencies were given an opportunity to submit, by March 27, 2010, written comments on the changes in the revised tentative Order No. R4-2010-XXX. In a comment letter dated May 27, 2010, USEPA supported the Regional Water Board's issuance of a Cease and Desist Order (CDO), rather than a TSO, as an appropriate compliance tool for Tapia WRF in the case of DCBM, stating: "After having operated under a five-year compliance schedule the Discharger cannot yet comply with the California Toxics Rule WQBEL for dichlorobromomethane. We cannot understand how this could have occurred while the permitted treatment facility was undergoing other required upgrades to comply with the WQBEL for nitrate plus nitrite nitrogen. Given this absence of a good faith effort to comply over the five-year permit compliance schedule, a cease and desist order, rather than a time schedule order, seems to be the more appropriate tool when a discharger fails to comply with both the permit compliance schedule and the WQBEL".
23. In a comment letter dated May 27, 2010, the Discharger requested a postponement of consideration of the revised tentative Order (originally scheduled for the June 2, 2010 Regional Water Board meeting) citing additional time needed by LVMWD and other stakeholders for a deliberate and thorough analysis of the proposed changes. In response, the Regional Water Board postponed the public hearing on the revised tentative Order to September 2, 2010. Additionally, in the May 27th letter, the Discharger asserted that they thought that the increased DCBM concentrations in their effluent from 2007-2009 were attributable to the restrictions placed on the plant due to construction of the BNR facilities and centrate treatment facilities⁴. Citing the possibility of change in biota in the secondary treatment facility as the possible reason for the observed increase in effluent DCBM concentration, the Discharger again requested the issuance of a TSO for DCBM, to allow additional time to further investigate the problem and evaluate possible solutions.

**EVIDENCE OF VIOLATION OF REQUIREMENTS AND BASIS FOR
WATER CODE SECTION 13301 CEASE AND DESIST ORDER**

24. Section 13301 of the California Water Code states, in part, that:
- "When a regional board finds that a discharge of waste is taking place or threatening to take place in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action."
25. On November 3, 2005, the Regional Water Board adopted Order No. R4-2005-0074 (NPDES Permit No. CA0056014) containing Waste Discharge Requirements for the Tapia WRF including requirements as follows:
- a) Section II.A.2.b. (Toxic Pollutants): "The discharge of an effluent with constituents in excess of the following limits is prohibited . . ."

⁴ However, as shown in Exhibit 1, exceedances of the interim effluent limitations for DCBM continued into 2010 though the BNR construction was completed in August 2009.

Constituent	Units	Discharge Limitations	
		Monthly Average	Daily Maximum
DCBM	µg/L	46	64
	lbs/day	6.2	8.6

- b) Section II.A.2. (Interim Effluent Limitations): The Discharger shall comply immediately with the following interim effluent limit until May 17, 2010. Thereafter, the Discharger shall comply with the final limitations specified [above].”

Constituent	Units	Monthly Average
DCBM	µg/L	62

- c) Section V.B: “The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and all federal regulations established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the Federal CWA and amendments thereto.”

26. On September 2, 2010, the Regional Water Board adopted Order No. R4-2010-XXX (NPDES Permit No. CA0056014) containing Waste Discharge Requirements for the Tapia WRF including requirements as follows:

- a) Section VI.A.1.a: “The Discharger shall maintain compliance with the effluent limitations in Table 6a.....”

Table 6a. Effluent Limitations Applicable to Discharge Points 001, 002, 003, and 005⁵.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Max. Daily	Instantaneous Minimum	Instantaneous Maximum
Dichlorobromomethane	µg/L	46	--	77	--	--
	lbs/day	6.2	--	10	--	--

- b) Section VIII.A.2.a: “Neither the treatment nor the disposal of pollutants shall create pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.”
- c) Section VIII.A.2.a.x: “The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the Federal CWA and amendments thereto.”
27. The Discharger, in self-monitoring reports submitted to the Regional Water Board, has reported violations of the final and interim effluent limits for DCBM contained in Orders No. 97-135, 99-066, and R4-2005-0074 and TSOs No. 97-136 and R4-2005-0175. As illustrated in Exhibits 1 and 2 attached hereto and incorporated herein by reference, LVMWD has discharged effluent that has chronically exceeded effluent limitations

⁵ Only an excerpt from Table 6a of the effluent limitations for DCBM is provided.

contained in its waste discharge requirements, in particular for DCBM, from 1997 through 2010.

28. From November 3, 1997 to May 17, 2010, the Regional Water Board provided LVMWD additional time, through compliance schedules and interim effluent limitations for DCBM (as well as other constituents), in TSO No. 97-136 and NPDES Permit Order No. R4-2005-0074, to allow the Discharger adequate time to achieve full compliance with the final effluent limitations for DCBM.
29. LVMWD, in a letter dated December 26, 1997 that was submitted to the Regional Water Board pursuant to TSO No. 97-136, asserted that the source of the DCBM was the disinfection process (chlorination) used at the Tapia WRF. In this letter, the Discharger did not discuss alternate disinfection technologies capable of preventing or reducing trihalomethanes (including DCBM) formation, such as chloramination, UV, and ozonation.
30. Past quarterly progress reports submitted pursuant to Order No. R4-2005-0074 have not described specific actions or studies to achieve compliance with the final effluent limitations for DCBM, as required by Order No. R4-2005-0074.
31. The Discharger's effluent samples collected as recently as January, February, and May 2010, after the completion of the BNR facilities construction, exceeded the final effluent limitations for DCBM set forth in Order No. R4-2005-0074 to be achieved by May 18, 2010. These results are also indicative of the continued threat of discharge in violation of Order No. R4-2010-XXX containing final effluent limitations for DCBM.
32. Based on the Discharger's past monitoring data, Tapia WRF's discharger will likely exceed the final effluent limitations for DCBM set forth in Order No. R4-2010-XXX.

CONCLUSION

33. The discharge of wastes by the LVMWD is in violation of waste discharge requirements prescribed by the Regional Water Board, as well as water quality objectives established in the **1994 Water Quality Control Plan for the Los Angeles Region**, as amended, and other applicable State and Federal Water Quality Standards.
34. Discharges from the Tapia WRF continue to exceed effluent limitations for pollutants, in particular DCBM, that are or have been prescribed in previous and existing NPDES permits, because the Discharger has not yet implemented any concrete measures to comply with the waste discharge requirements contained in Order No. R4-2005-0074.
35. Without the implementation of an alternate disinfection technology, LVMWD's discharge will likely violate Order R4-2010-XXX containing effluent limitations for DCBM.
36. 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.
37. Compliance with the interim effluent limitation and time schedule for DCBM in this CDO does not exempt the Discharger from mandatory minimum penalties for violations of the

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final effluent limitations for DCBM in Order No. R4-2010-XXXX. As noted above, the Discharger has already been provided ample time, since 1997, to come into compliance with the effluent limitations for DCBM. Since the final effluent limitations for DCBM in Order No. R4-2010-XXX are not new or more stringent effluent limitations, the Discharger is not exempt from mandatory minimum penalties under Water Code section 13385(j)(3). The interim effluent limit and time schedule for DCBM in this CDO are solely intended to result in compliance with the final effluent limitations for DCBM, and not to provide any protection from mandatory minimum penalties or discretionary administrative civil liability.

38. Issuance of this CDO is exempt from the provisions of the action taken for the protection of the environment and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) in accordance with Section 15321(a)(2), Title 14 of the California Code of Regulations.
39. The Regional Water Board has notified the Discharger, interested agencies, and persons of its intent to issue this CDO concerning compliance with waste discharge requirements. The Regional Water Board heard and considered all testimony pertinent to this matter in a public hearing. All Orders referred to above, the Staff Report, and records of hearings and testimony are included herein by reference.
40. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday (including mandatory furlough days), 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
or will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to section 13301 of the California Water Code, the Las Virgenes Municipal Water District shall cease and desist all discharges of waste in violation of waste discharge requirements contained in Order No. R4-2010-XXX and this CDO. Las Virgenes Municipal Water District shall comply with the requirements under either option 1 or 2 below, as well as all other requirements listed below to ensure compliance with the final effluent limit for DCBM contained in Order No. R4-2010-XXXX:

1. Option 1: If the Discharger chooses to implement an alternative disinfection technology, which necessitates a process change or replacement without substantial construction and permitting activities (e.g. mixed oxidant generation, etc.), discharges from Outfalls 001, 002, 003, and 005 shall:
 - A) Comply with the interim effluent limitations specified in Table 1, which shall be deemed effective from September 2, 2010 through March 2, 2012.

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Table 1: Outfalls 001, 002, 003, and 005:

Constituent	Units	Interim Effluent Limitations		
		Monthly Average	Weekly Average	Daily Maximum
Dichlorobromomethane (DCBM)	µg/L	62 ⁶	--	77 ⁷

- B) Achieve full compliance with the final effluent limitations for DCBM that appear in section VI.A of Order R4-2010-XXX no later than March 3, 2012.
- C) Submit for approval to the Executive Officer as soon as possible, but no later than December 2, 2010, a workplan to evaluate, select and implement an alternative disinfection technology. The workplan shall contain the following components:
1. A time schedule that ends as soon as possible but no later than March 2, 2012.
 2. A description of the alternative disinfection technology to be utilized.
 3. A schedule for the design and installation of the alternative disinfection technology.
 4. A schedule to optimize and evaluate the performance of the alternative disinfection technology, with a deadline no later than March 2, 2012.
- D) Submit quarterly progress reports, with the first report due on December 2, 2010, that summarize the progress to date, activities conducted during the quarter, and the activities planned for the upcoming quarter. The quarterly progress reports shall also include any technical memos and process designs generated to achieve compliance with this CDO and any monitoring data available to evaluate the efficacy of the alternative disinfection technology, including pre- and post-installation monitoring data. The last quarterly progress report is due on March 2, 2012.
- E) Submit a final report on the results of the implementation and evaluation of the alternative disinfection technology by May 2, 2012. The report should include: 1) a description of the alternative disinfection technologies considered and chosen, 2) a summary of any significant issues encountered during the design and installation phase, 3) an analysis of the data collected over 6-months immediately preceding the alternative disinfection technology installation with data collected during (and if possible, after) the process optimization phase, and 4) an evaluation of the alternate disinfection technology's effectiveness with quality assurance results.
- F) Submit a Pollution Prevention Plan (PPP) workplan, with the time schedule for

⁶ This is the interim effluent limitation in Order No. R4-2005-0074, which was derived statistically as the 99% confidence level of the 95th percentile, using the P-limit software and effluent performance data from August 1999 through November 2004.

⁷ This interim effluent limitation is based on effluent performance data from November 2005 through May 2010 for the Tapia WRF. The daily maximum interim effluent limitation was derived statistically for mean 99th percentile of normal distribution with 95% confidence interval, using the MINITAB program.

implementation, for approval of the Executive Officer within 180 days after the adoption of this CDO, pursuant to California Water Code section 13263.3.

2. Option 2: If the Discharger chooses to implement an alternative disinfection technology, which involves substantial planning, construction, and/or permitting activities (e.g. chloramination, UV and ozone), discharges from Outfalls 001, 002, 003, and 005 shall:

- A) Comply with the interim effluent limitations specified in Table 1, which shall be deemed effective from September 2, 2010 through September 2, 2014.
- B) Achieve full compliance with the final effluent limitations for DCBM that appear in section VI.A of Order R4-2010-XXX no later than September 3, 2014.
- C) Submit for approval to the Executive Officer as soon as possible, but no later than February 2, 2011, a workplan to evaluate, select and implement an alternative disinfection technology. The workplan shall contain the following components:
 - 1. A time schedule that ends as soon as possible but no later than September 2, 2014.
 - 2. A description of the alternative disinfection technology to be utilized.
 - 3. A schedule for the design and installation of the alternative disinfection technology.
 - 4. A schedule to optimize and evaluate the performance of the alternative disinfection technology, with a deadline no later than September 2, 2014.
- D) Submit quarterly progress reports, with the first report due on December 2, 2010, that summarize the progress to date, activities conducted during the quarter, and the activities planned for the upcoming quarter. The quarterly progress reports shall also include any technical memos and construction designs generated to achieve compliance with this CDO and any monitoring data available to evaluate the efficacy of the alternative disinfection technology, including pre- and post-installation monitoring data. The last quarterly progress report is due on September 2, 2014.
- E) Submit a final report on the results of the implementation and evaluation of the alternative disinfection technology by November 2, 2014. The report should include:
 - 1) a description of the alternative disinfection technologies considered and chosen,
 - 2) a summary of any significant issues encountered during the design and installation phase,
 - 3) an analysis of the data collected over 6-months immediately preceding the alternative disinfection technology installation with data collected during (and if possible, after) the process optimization phase, and
 - 4) an evaluation of the alternate disinfection technology's effectiveness with quality assurance results.
- F) Submit a Pollution Prevention Plan (PPP) workplan, with the time schedule for implementation, for approval of the Executive Officer within 180 days after the adoption of this CDO, pursuant to California Water Code section 13263.3.

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3. The Discharger shall immediately comply with all other effluent limitations and requirements contained in Order R4-2010-XXX.
4. All technical and monitoring reports required under this CDO are required pursuant to California Water Code section 13267. The Regional Water Board needs the required information in order to determine compliance with this CDO and Order No. R4-2010-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.
5. Any person signing a document submitted under this CDO 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.”
6. This CDO is not intended to permit or allow the Discharger to cease any work required by any other order issued by the Regional Water Board, nor shall it be used as a reason to stop or redirect any investigation or cleanup or remediation programs ordered by the Regional Water Board or any other agency. Furthermore, this CDO does not exempt the Discharger from compliance with any other laws, regulations, or ordinances which may be applicable, and it leaves unaffected any further restrictions which may be contained in other statutes or required by other agencies.
7. This CDO does not preclude the Regional Water Board from taking any enforcement action, including but not limited to complaints for administrative civil liability for the discharge of effluent concentrations exceeding the final or interim effluent limitations specified in Orders No. 97-135, 97-136, 98-030, 99-066, 00-46, R4-2005-0074, R4-2005-0075, R4-2010-XXX, this CDO, or subsequent orders of the Regional Water Board.
8. If the Discharger fails to comply with any provision of this CDO, the Regional Water Board may take any further action authorized by law. The Executive Officer, or his/her delegee, is authorized to take appropriate administrative enforcement action pursuant, but not limited to, Water Code section 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.
8. All other provisions of NPDES Order No. R4-2010-00XX not in conflict with this TSO are in full force and effect.

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I, Samuel Unger, Interim 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 September 2, 2010.

Samuel Unger
Interim Executive Officer

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Exhibit 1. Dichlorobromomethane (DCBM) in Tapia WRF's Effluent from 1998 to 2010.

* Indicates effluent results that have been revised based on communication with Tapia WRF staff on June 15, 2010. It was concluded that, based on a review of the monitoring data, the values reported for the effluent and influent samples appear to have been inadvertently switched. These values were not included in the derivation of interim limits for inclusion in this CDO.

Italicized results exceed the final average monthly or maximum daily permit effluent limitations (Order No. 97-174 or R4-2005-0075).

Bolded results exceed the interim average monthly limitation (in either TSO No. 97-075 or NPDES Permit Order No. 2005-075).

Underlined results exceed the final maximum daily limitation (in NPDES Permit Order No. 2005-075).

Date	Unit	DCBM Result	DCBM Effluent Limitations		
			1997 Permit (No. 97-074) Final Average Monthly	1997 Permit (No. 97-074) Final Maximum Daily	TSO No. 97-075 Interim Average Monthly
Jan-98	µg/L	10	22	N/A	42
Feb-98	µg/L	17	22	N/A	42
Mar-98	µg/L	27	22	N/A	42
Apr-98	µg/L	32	22	N/A	42
May-98	µg/L	29	22	N/A	42
Jun-98	µg/L	38	22	N/A	42
Jul-98	µg/L	31	22	N/A	42
Aug-98	µg/L	33	22	N/A	42
Sep-98	µg/L	16	22	N/A	42
Oct-98	µg/L	33	22	N/A	42
Nov-98	µg/L	22	22	N/A	42
Dec-98	µg/L	30	22	N/A	42
Jan-99	µg/L	21	22	N/A	42
Feb-99	µg/L	21	22	N/A	42
Mar-99	µg/L	14	22	N/A	42
Apr-99	µg/L	24	22	N/A	42
May-99	µg/L	29	22	N/A	42
Jun-99	µg/L	19	22	N/A	42
Jul-99	µg/L	No discharge	22	N/A	42
Aug-99	µg/L	No discharge	22	N/A	42
Sep-99	µg/L	No discharge	22	N/A	42
Oct-99	µg/L	No discharge	22	N/A	42
Nov-99	µg/L	23	22	N/A	42
Dec-99	µg/L	19	22	N/A	42

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Date	Unit	DCBM Result	DCBM Effluent Limitations		
			1997 Permit (No. 97-074) Final Average Monthly	1997 Permit (No. 97-074) Final Maximum Daily	TSO No. 97-075 Interim Average Monthly
Jan-01	µg/L	32	22	N/A	42
Feb-00	µg/L	25	22	N/A	42
Apr-00	µg/L	21	22	N/A	42
May-00	µg/L	54	22	N/A	42
Jun-00	µg/L	25	22	N/A	42
Jul-00	µg/L	37	22	N/A	42
Aug-00	µg/L	34	22	N/A	42
Sep-00	µg/L	44	22	N/A	42
Oct-00	µg/L	40.3	22	N/A	42
Nov-00	µg/L	26.2	22	N/A	42
Dec-00	µg/L	35.1	22	N/A	42
Jan-01	µg/L	32	22	N/A	42
Feb-01	µg/L	31	22	N/A	42
Mar-01	µg/L	30	22	N/A	42
Apr-01	µg/L	32.2	22	N/A	42
May-01	µg/L	27.7	22	N/A	42
Jun-01	µg/L	37.4	22	N/A	42
Jul-01	µg/L	45	22	N/A	42
Aug-01	µg/L	31.8	22	N/A	42
Sep-01	µg/L	40.2	22	N/A	42
Oct-01	µg/L	32	22	N/A	42
Nov-01	µg/L	36	22	N/A	42
Dec-01	µg/L	32	22	N/A	42
Jan-02	µg/L	27	22	N/A	42
Feb-02	µg/L	33	22	N/A	42
Mar-02	µg/L	33	22	N/A	42
Apr-02	µg/L	34	22	N/A	42
May-02	µg/L	32	22	N/A	42
Jun-02	µg/L	40	22	N/A	42
Jul-02	µg/L	32	22	N/A	42
Aug-02	µg/L	45	22	N/A	42
Sep-02	µg/L	62	22	N/A	42
Oct-02	µg/L	53	22	N/A	42
Nov-02	µg/L	35	22	N/A	42
Dec-02	µg/L	33	22	N/A	42
Jan-03	µg/L	35	22	N/A	42
Feb-03	µg/L	37	22	N/A	42
Mar-03	µg/L	19	22	N/A	42
Apr-03	µg/L	44	22	N/A	42

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Date	Unit	DCBM Result	DCBM Effluent Limitations		
			1997 Permit (No. 97-074) Final Average Monthly	1997 Permit (No. 97-074) Final Maximum Daily	TSO No. 97-075 Interim Average Monthly
May-03	µg/L	45	22	N/A	42
Jun-03	µg/L	48	22	N/A	42
Jul-03	µg/L	32	22	N/A	42
Aug-03	µg/L	49	22	N/A	42
Sep-03	µg/L	25	22	N/A	42
Oct-03	µg/L	43	22	N/A	42
Oct-03	µg/L	40	22	N/A	42
Nov-03	µg/L	37	22	N/A	42
Dec-03	µg/L	33	22	N/A	42
Jan-04	µg/L	37	22	N/A	42
Feb-04	µg/L	35	22	N/A	42
Mar-04	µg/L	35	22	N/A	42
Apr-04	µg/L	35	22	N/A	42
May-04	µg/L	47	22	N/A	42
Jun-04	µg/L	39	22	N/A	42
Jul-04	µg/L	46	22	N/A	42
Aug-04	µg/L	25	22	N/A	42
Sep-04	µg/L	47	22	N/A	42
Oct-04	µg/L	43	22	N/A	42
Nov-04	µg/L	30	22	N/A	42
Nov-04	µg/L	30	22	N/A	42
Dec-04	µg/L	34	22	N/A	42
Jan-05	µg/L	26	22	N/A	42
Feb-05	µg/L	38	22	N/A	42
Mar-05	µg/L	32	22	N/A	42
Apr-05	µg/L	35	22	N/A	42
May-05	µg/L	22	22	N/A	42
Jun-05	µg/L	34	22	N/A	42
Jul-05	µg/L	38	22	N/A	42
Aug-05	µg/L	47	22	N/A	42
Sep-05	µg/L	42	22	N/A	42
Oct-05	µg/L	46	22	N/A	42
Oct-05	µg/L	42	22	N/A	42
Nov-05	µg/L	28	22	N/A	42
Dec-05	µg/L	33	22	N/A	42

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**Exhibit 1. Dichlorobromomethane (DCBM) in Tapia WRF's Effluent from 1998 to 2010.
(Continued)**

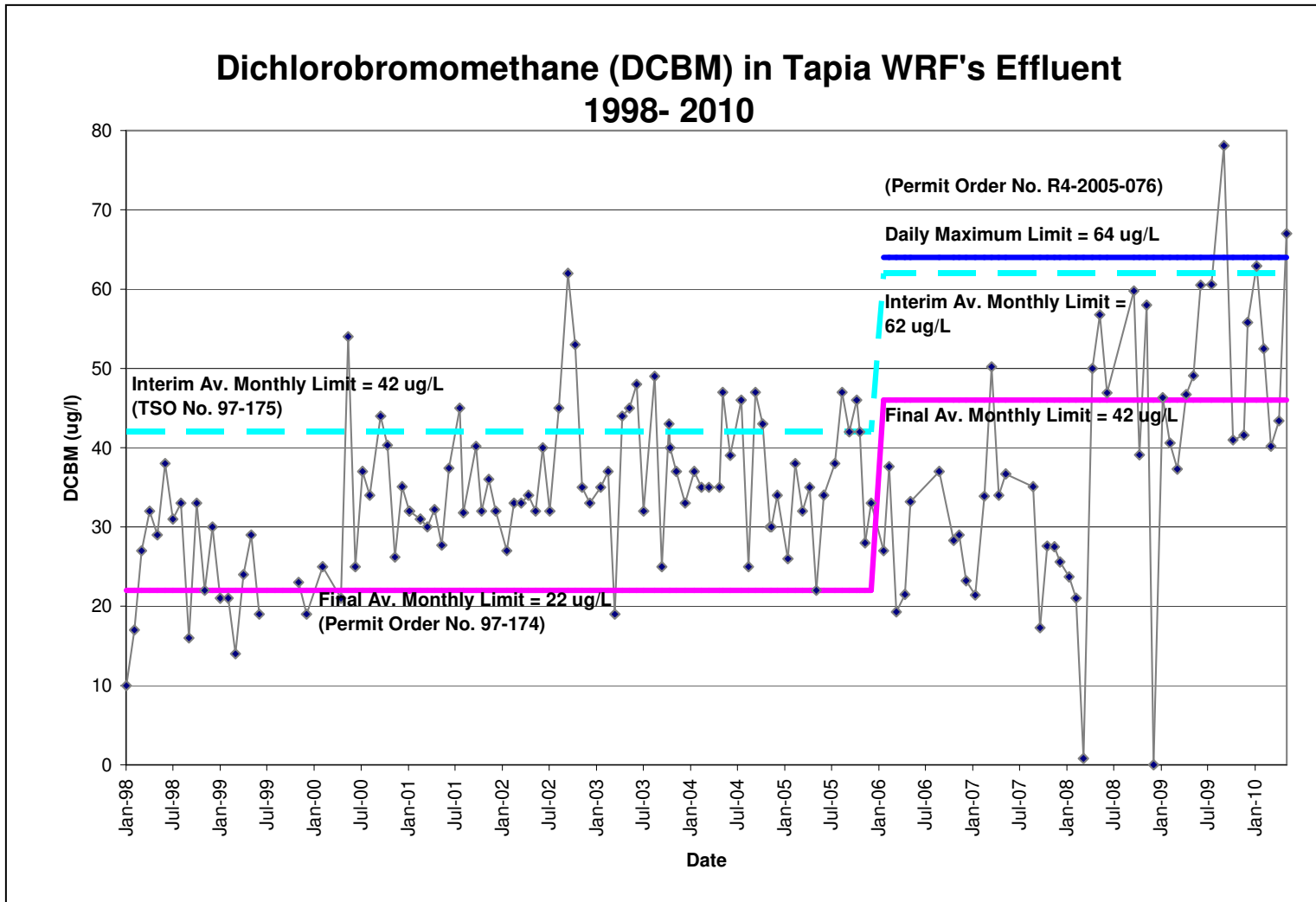
Date	Unit	Result	2005 Permit (No. R4-2005-075) Final Average Monthly	2005 Permit (No. R4-2005-075) Final Maximum Daily	2005 Permit (No. R4-2005-075) Interim Average Monthly
Jan-06	µg/L	27	46	64	62
Feb-06	µg/L	37.6	46	64	62
Mar-06	µg/L	19.3	46	64	62
Apr-06	µg/L	21.5	46	64	62
May-06	µg/L	33.2*	46	64	62
Aug-06	µg/L	37	46	64	62
Oct-06	µg/L	28.3	46	64	62
Nov-06	µg/L	29	46	64	62
Dec-06	µg/L	23.2	46	64	62
Jan-07	µg/L	21.4	46	64	62
Feb-07	µg/L	33.9	46	64	62
Mar-07	µg/L	50.2	46	64	62
Apr-07	µg/L	34	46	64	62
May-07	µg/L	36.7	46	64	62
Aug-07	µg/L	35.1	46	64	62
Sep-07	µg/L	17.3	46	64	62
Oct-07	µg/L	27.6	46	64	62
Nov-07	µg/L	27.5	46	64	62
Dec-07	µg/L	25.6	46	64	62
Jan-08	µg/L	23.7	46	64	62
Feb-08	µg/L	21	46	64	62
Mar-08	µg/L	0.8	46	64	62
Apr-08	µg/L	50	46	64	62
May-08	µg/L	56.3*	46	64	62
Jun-08	µg/L	46.9	46	64	62
Sep-08	µg/L	59.8	46	64	62
Oct-08	µg/L	39.1	46	64	62
Nov-08	µg/L	58	46	64	62
Dec-08	µg/L	<0.5	46	64	62
Jan-09	µg/L	46.3	46	64	62
Feb-09	µg/L	40.6	46	64	62
Mar-09	µg/L	37.3	46	64	62
Apr-09	µg/L	46.7	46	64	62
May-09	µg/L	49.1	46	64	62
Jun-09	µg/L	60.5	46	64	62
Jul-09	µg/L	60.6	46	64	62
Sep-09	µg/L	78.1	46	64	62

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Date	Unit	Result	2005 Permit (No. R4-2005-075) Final Average Monthly	2005 Permit (No. R4-2005-075) Final Maximum Daily	2005 Permit (No. R4-2005-075) Interim Average Monthly
Oct-09	µg/L	41	46	64	62
Nov-09	µg/L	41.6	46	64	62
Dec-09	µg/L	55.8	46	64	62
Jan-10	µg/L	<u>62.9</u>	46	64	62
Feb-10	µg/L	52.5	46	64	62
Mar-10	µg/L	40.2	46	64	62
Apr-10	µg/L	43.4	46	64	62
May-10	µg/L	<u>67</u>	46	64	62

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Exhibit 2. Dichlorobromomethane (DCBM) in Tapia WRF's Effluent from 1998 to 2010.



July 7, 2010 (revised: August 11, 2010)

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