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

TIME SCHEDULE ORDER NO. R4-2010-ZZZZ

REQUIRING LAS VIRGENES MUNICIPAL WATER DISTRICT
(TAPIA WATER RECLAMATION FACILITY)
TO COMPLY WITH REQUIREMENTS PRESCRIBED IN
ORDER NO. R4-2010-XXXX
(NPDES PERMIT NO. CA0056014, CI 4760)

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

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.

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

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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' 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.

7. 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. The tentative Order incorporated some new effluent limitations based on the reasonable potential analysis of data collected since January 2006. One such constituent with a new effluent limitation included total trihalomethanes (TTHM[1]). The Discharger's past monitoring data indicated that the Discharger would not be able to consistently achieve the new TTHM average monthly effluent limitation of 80 µg/L. Therefore, the tentative Order contained an interim effluent limitation with a compliance schedule for TTHM. The Discharger has complied with effluent limitations for bromoform and chlorodibromomethane and chloroform, yet has had chronic non-compliance with dichlorobromomethane (DCBM) dating back to the 1997 permit. Noncompliance with TTHMs are due in large part to their failure to remedy the DCBM compliance issue; the remedy that the Discharger chooses to bring their facility in compliance with DCBM will address TTHMs as well.

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[1] TTHM represents the sum of the four individual trihalomethanes (THMs) consisting of chloroform, bromoform, dichlorobromomethane, and dibromochloromethane. Previous NPDES permits issued to the Discharger have contained effluent limitations for individual THMs, but not for TTHM.

8. 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, based on consultation with US EPA staff, the inclusion of an interim effluent limit and a compliance schedule for TTHM in the tentative Order itself was not consistent with the State Water Resources Control Board's (State Water Board) Policy for Compliance Schedules for NPDES Permits, Resolution No. 2008-0025. Consequently, the interim effluent limit for TTHM was removed from the tentative Order and included in a Time Schedule Order (TSO). Given the Discharger's compliance record for disinfection by-products, this TSO is issued to require compliance with TTHMs.

9. 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 trihalomethane concentrations in their effluent from 2007-2009 were attributable to the restrictions placed on the plant due to construction of the NDN facilities (also referred to as Biological Nutrient Reduction facilities and centrate treatment facilities). Citing the possibility of change in biota in the secondary treatment facility as the possible reason for the observed increase in effluent trihalomethane concentration, the Discharger requested the issuance of a TSO for TTHM, to allow additional time to further investigate the problem and evaluate possible solutions. This was the first time that the Discharger had requested a TSO for TTHM.

10. On July 8, 2010, a revised tentative Order No. R4-2010-XXX and a tentative Cease and Desist Order (CD) that covered both TTHM and dichlorobromomethane (DCBM) were released for public review and comment. Since the cause of the problem, as well as the solution, for TTHM and DCBM are the same, staff deemed it logical to address both constituents under a single enforcement order, namely a CDO. The Discharger had violated the interim effluent limitation and the compliance schedule associated with DCBM, as included in Time Schedule Order No. 97-136 and NPDES Permit Order No. R4-2005-0074. Furthermore, the Discharger did not submit the information required under Order R4-2005-0074 that demonstrated the specific actions or studies undertaken by the Discharger to achieve compliance with the final DCBM effluent limitations by May 18, 2010. Therefore, both Regional Water Board staff and US EPA staff (in its comment letter dated May 27, 2010) determined that a CDO, rather than a TSO, would be the more appropriate regulatory tool to compel the Discharger towards compliance with the DCBM final effluent limitations.

11. In response to the tentative CDO for TTHM and DCBM, the Discharger, during a meeting with Regional Water Board staff on July 28, 2010, specifically requested that the tentative CDO be divided into a TSO for TTHM and a CDO for DCBM. Since the effluent limit for TTHM is a new effluent limit, Regional Water Board staff believes it is reasonable to include an interim effluent limit for TTHM in a TSO instead of a CDO.

12. On September 2, 2010, the Regional Water Board adopted Order No. R4-2010-00XX prescribing the following final effluent limitation for TTHMs based on Title 22 Maximum Contaminant Levels (MCLs):

Constituent	Units	Final Monthly Average Effluent Limitations
Total trihalomethanes	µg/L	80

13. The Discharger's monitoring data indicate that the Discharger cannot immediately comply with the new final effluent limit for TTHM. New or modified control measures are necessary in order for the Discharger to comply with the new effluent limit and such control measures cannot be designed, installed, and put into operation within 30 calendar days of the effluent limit taking effect. In a letter dated May 27, 2010, the Discharger requested that the Regional Water Board issue a TSO giving the Discharger an interim effluent limitation and a compliance schedule so that the Discharger would have additional time to comply with the final effluent limitation for TTHM.

14. Water Code section 13300 states:

"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."

15. The Discharger cannot achieve immediate compliance with the final effluent limit for TTHM in Order No. R4-2010-00XX. Accordingly, pursuant to Water Code section 13300, a discharge of waste is taking place and/or threatens to take place that violates requirements prescribed by the Regional Water Board. Therefore, this TSO establishes an interim effluent limit for TTHM and requires the Discharger to undertake specific actions to put the Discharger on the path towards compliance with the final effluent limit for TTHM in as short amount of time as possible, taking into account the technological, operational, and economic factors that affect the design, development, and

implementation of the control measures that are necessary to comply with the final effluent limit for TTHM.

16 Water Code section 13385 subdivisions (h) and (i) require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limits. Section 13385(j)(3) exempts violations of an effluent limit 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 or 13308, if all of the [specified] requirements are met."

17. Full compliance with the requirements of this TSO exempts the Discharger from mandatory minimum penalties for violations of the final effluent limitation for TTHM only in Order No. R4-2010-00XX pursuant to Water Code section 13385(j)(3). Water Code section 13385(j)(3) also requires the Discharger to prepare and implement a pollution prevention plan pursuant to Water Code section 13263.3. Therefore, a pollution prevention plan will be necessary for TTHM.

18. This TSO specifies the actions that the Discharger is required to take in order to correct the violations that would otherwise be subject to mandatory minimum penalties pursuant to Water Code section 13385 subdivisions (h) and (i). This TSO requires the Discharger to make necessary modifications to treatment units that will allow the Discharger to achieve full compliance with the final effluent limitation for TTHM prescribed in NPDES Order No. R4-2010-00XX, and prescribes an interim effluent limitation for TTHM for the LVMWD to comply with until the final compliance date.

19. Since the time schedule for completion of action necessary to bring the waste discharge into compliance exceeds one year, this TSO includes interim requirements and the dates for their achievement. The interim requirements include both an interim effluent limit for TTHM and actions and milestones leading to compliance with the final effluent limit for TTHM. This TSO does not exceed five years.

20. A TSO is appropriate in these circumstances in order to accommodate the LVMWD to undertake any necessary studies, such as a feasibility study for the process design and/or construction of an alternate disinfection technology system at the Tapia WRF. Further, the temporary TTHM exceedances allowed by this TSO are in the public interest given the significant environmental benefits associated with promptly achieving compliance with the final effluent limitations.

21. The Regional Water Board has notified the Discharger, interested agencies, and persons of its intent to issue this TSO concerning compliance with waste discharge requirements. The Regional Water Board heard and considered all testimony pertinent

to this matter in a public hearing.

22. Issuance of this TSO 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.

23. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with 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, 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 California Water Code section 13300, Las Virgenes Municipal Water District, as operator of the Tapia Water Reclamation Facility, 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 TTHM 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 requirements (e.g. mixed oxidant generation), discharges from Outfalls 001, 002, 003, and 005 shall:

   A. Comply with the interim effluent limitation specified in Table 1, which shall be deemed effective from September 2, 2010 through March 2, 2012.

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

Constituent	Units	Interim Monthly Average[2] Effluent Limitation
Total trihalomethanes	µg/L	154

   B. Achieve full compliance with the final effluent limitation for TTHM that appears in section VI.A of Order R4-2010-XXX no later than March 3, 2012.

[2] This Interim effluent limitation is based on effluent performance data from November 2005 through May 2010 for the Tapia WRF. The monthly average interim effluent limitations were derived statistically for mean 95th percentile of normal distribution with 95% confidence interval, using the MINITAB program

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 TSO 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 implementation, for approval of the Executive Officer within 180 days after the adoption of this TSO, 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 limitation 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 limitation for TTHM that appears 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 TSO 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 TSO, pursuant to California Water Code section 13263.3.

3. The Discharger shall immediately comply with all effluent limitations and requirements contained in Order No. R4-2010-00xx.

4. All technical and monitoring reports required under this TSO are required pursuant to California Water Code section 13267. The Regional Water Board needs the required information in order to determine compliance with this TSO 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 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."

6. If the Discharger fails to comply with any provisions 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 administrative enforcement action pursuant, but not limited to, Water Code 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.

7. All other provisions of NPDES Order No. R4-2010-00XX not in conflict with this TSO are in full force and effect.

8. This Time Schedule Order expires on December 31, 2014.

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.

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Samuel Unger
Interim Executive Officer