

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION**

**MEETING OF MARCH 13-14, 2013  
Lake Arrowhead**

**ITEM:** 3

**SUBJECT: PUBLIC HEARING - CONSIDERATION OF THE ISSUANCE OF A CEASE AND DESIST ORDER FOR LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT; VIOLATIONS OF WASTE DISCHARGE REQUIREMENTS OF BOARD ORDER NO. R6V-2009-0037 FOR DOMESTIC WASTEWATER TREATMENT FACILITIES, SAN BERNARDINO COUNTY - WDID NO. 6B360107001**

**CHRONOLOGY:** May 11, 1989 Lahontan Water Board issued Revised Waste Discharge Requirements (WDR) No. 6-89-110 to Lake Arrowhead Community Services District (CSD)

May 13, 1993 Lahontan Water Board issued Cease and Desist Order (CDO) No. 6-93-44 to Lake Arrowhead CSD to address unauthorized discharges of wastewater to Grass Valley Creek during the storms events of 1992/1993.

May 7, 1998 Lahontan Water Board issued CDO No. 6-93-44A1 to Lake Arrowhead CSD to update CDO No. 6-93-44 and require additional actions for addressing the infiltration/inflow problems.

February 13, 2002 Lahontan Water Board issued WDR No. R6V-2002-0008 to Lake Arrowhead CSD to incorporate updated state and federal requirements for wastewater collections systems, update compliance with past CDOs, and require additional actions to address spills related to persistent infiltration/inflow problems.

June 10, 2009 Lahontan Water Board issued WDR R6V-2009-0037 (Enclosure 1) to Lake Arrowhead CSD to update certain requirements in WDR No. R6V-2002-0008 (Enclosure 2). WDR No. R6V-2002-0008 was subsequently rescinded on June 10, 2009.

**ISSUE:** Should the Lahontan Water Board adopt a Cease and Desist Order (CDO) establishing requirements and time schedules to address unauthorized discharges caused by excessive sewer collection system infiltration and inflow, or decline to adopt the CDO, or refer the matter to the California Attorney General for further enforcement?

**DISCUSSION:** The Lake Arrowhead Community Services District (Discharger) provides wastewater (sewage) collection and treatment services for the Lake Arrowhead community in the San Bernardino Mountains. Wastewater is collected in a community sewer system and is treated at the Discharger's Grass Valley Wastewater Treatment Plant. The Plant's design average daily flow is 3.75 million gallons per day (MGD). The facility can adequately treat this flow amount. The average daily flow in 2011 was 1.41 MGD. Treated wastewater is transported in the Hesperia outfall and is discharged to percolation ponds at the Hesperia Effluent Management Site, which is located about 2 miles south of Hesperia Lakes near the Mojave River. The capacity of the outfall is 4.0 MGD.

Because of shallow soils, some sewers are laid at shallow depths and are thus more subject to cracks from surface loads. The San Bernardino Mountains have substantially higher precipitation rates than in areas below the mountains. The combination of primary and secondary residences causes variations in dry weather wastewater flow.

At various times during large storm events that occurred in January 2005, February .2005, January 2008, and December 2010, excessive infiltration/inflow caused discharges from the Lake Arrowhead CSD wastewater treatment plant. In the proposed CDO, the Water Board Prosecution Team alleged that these discharges caused violations of California Water Code sections 13350 and 13385, and violated specific provisions of WDR No. R6V-2009-0037.

On December 31, 2012 the Water Board Prosecution Team released a draft CDO to interested parties for review and comment. Following that release, the Lake Arrowhead CSD staff worked closely with the Water Board Prosecution Team to edit a few portions of the proposed CDO to mutual agreement between both parties. Enclosure 3 is a red line strikeout-underline version of the December 31, 2012 draft showing all the edits mutually agreed upon. Enclosure 4 is the Water Board Prosecution Team evidentiary submission, received on January 23, 2013 (this enclosure is in a separately labeled white binder). Enclosure 5 is a compilation of various correspondence (most recent at beginning) from the parties stating each party's agreement with the red-line edits on the CDO.

The Proposed CDO requires Lake Arrowhead CSD to meet many new requirements, including the following three specific deadlines:

1. By March 31, 2018, take actions to reduce excessive inflow by 10%.
2. By March 31, 2021, take actions to reduce excessive inflow by 25%.
3. By June 30, 2026, the maximum daily flow from the community sewer system shall not exceed 5.8 MGD, which reflects a 40% reduction of infiltration/inflow.

No public comments or objections, other than the mutually-agreed upon red-line edited version of the proposed CDO have been received by the Water Board concerning the proposed CDO. Enclosure 6 contains the hearing procedures for this item.

**RECOMMENDATION:**

The Lahontan Water Board Advisory Team recommends adoption of the CDO with the red-line edits.

**ENCLOSURE:**

<b>Enclosure</b>	<b>Description</b>	<b>Bates Number</b>
1	WDR No. R6V-2009-0037	<b>3-7</b>
2	WDR No. R6V-2002-0008	<b>3-39</b>
3	Proposed CDO with redline edits as of February 20, 2013	<b>3-63</b>
4	Water Board Prosecution Team Evidentiary Submission, dated January 23, 2013. (this material is accessible at the Water Board webpage: <a href="http://www.waterboards.ca.gov/lahontan/water_issues/programs/enforcement/lakearrowhead.shtml">http://www.waterboards.ca.gov/lahontan/water_issues/programs/enforcement/lakearrowhead.shtml</a> )	<b>Hardcopy provided in a separately labeled white binder</b>
5	Correspondence from the parties stating agreement with red-line edited CDO	<b>3-87</b>
6	Hearing Procedures for the Proposed CDO	<b>3-95</b>

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# **ENCLOSURE 1**

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION

**BOARD ORDER NO. R6V-2009-0037**  
**WDID NO. 6B360107001**

REVISED WASTE DISCHARGE REQUIREMENTS  
FOR

**LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT**  
**DOMESTIC WASTEWATER TREATMENT FACILITIES**

San Bernardino County

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

1. Discharger

Lake Arrowhead Community Services District has submitted a Revised Report of Waste Discharge (RWD)<sup>1</sup> for its Grass Valley and Willow Creek Domestic Wastewater Treatment Plants (WTPs). For the purposes of this Order, Lake Arrowhead Community Services District is referred to as the "Discharger."

2. Facilities

The Discharger collects, treats and disposes of an annual average of approximately 1.53 million gallons per day (MGD) of domestic wastewater. Facilities for wastewater collection and treatment are located in the San Bernardino Mountains between elevations of 4,890 and 5,800 feet above mean sea level (amsl). Wastewater treatment occurs at the Grass Valley and Willow Creek WTPs. Secondary-treated effluent is transported by gravity flow in a 10-mile outfall pipeline to the Discharger's Hesperia Effluent Management Site (EMS) located in the Mojave Desert at an elevation of approximately 3,000 feet amsl. The Hesperia EMS occupies 350 acres and includes four percolation ponds where treated wastewater is disposed and an area for application of treated wastewater to grow fodder crops. Operation of the Hesperia EMS began in 1977.

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<sup>1</sup> Lake Arrowhead Community Services District (LACSD), 2009, Revised Plan for Revision of Waste Discharge Requirements, February 11.

LACSD, 2007, Design plans titled: Grass Valley Treatment Plant Expansion to 3.75 MGD, October.

LACSD, 2006, August 21, Form 200

LACSD, 2006, Final Basis of Design and Engineering Report, Grass Valley Wastewater Treatment Plant Recycled Water System Phase I Project, Prepared by CH2MHill, August.

3. Reason for Action

The Water Board is revising these requirements to remove the requirement to disinfect the treated effluent prior to the discharge to percolation ponds at the Hesperia EMS. Because wastewater disposed to the ponds is not re-used, disinfection is not required for disposal to the ponds. Removal of this requirement will reduce the potential formation of disinfection bi-products in the underlying groundwater.

Provision No. II.C. of the Order establishes a schedule, which the Discharger must follow to determine the presence of ground water degradation caused by disinfection by-products (DBPs) discharges from the Hesperia Effluent Management Site.

This Order also incorporates updated information regarding the District's wastewater treatment facilities. As part of facility improvements additional secondary treatment facilities will be added at the Grass Valley WTP to replace old facilities located at the Willow Creek WTP. The Willow Creek WTP will no longer be used for secondary treatment and will be converted to a flow equalization facility. No increase in the overall secondary-treatment capacity will occur.

4. Order History

This Order updates the most recent Waste Discharge Requirements (WDRs) contained in Board Order No. R6V-2002-0008 adopted on February 13, 2002. On June 13, 2007, the Water Board established Master Water Recycling Requirements (Order No. R6V-2007-0022) for the Discharger's proposed project to supply up to 1.0 MGD of Title 22 disinfected tertiary treated recycled water treated to the Lake Arrowhead Country Club Golf Course and potentially other users within the Discharger's service area. Previous WDRs were prescribed in Board Order Nos. 6-89-110, 6-88-10, 6-83-103, 6-80-23, 6-77-68, 6-74-15, 6-72-67, and 6-66-19 for discharges from the treatment plant.

5. Description of Collection System

The Discharger's collection system consists of approximately 200 miles of sewers and 21 lift stations. Lake Arrowhead is predominately a residential/recreation community. Daily flows in the system rise during periods of recreational use within the community, commonly during holiday weekends. The daily flows also rise during periods of sewer inflow (i.e., inflow of groundwater and surface water into sewers through unsealed points).

6. Description of Treatment Facilities

Sewers convey untreated domestic wastewater to the Willow Creek and Grass Valley WTPs. A pipeline (Intertie Pipeline) is used to convey treated wastewater from the Willow Creek WTP to the Grass Valley WTP for further treatment (see Attachment A, Facilities Location Map). Table 1 describes existing and proposed treatment facilities for the Grass Valley WTP.

**Table 1**  
**Summary of Treatment Units at the Grass Valley WTP**

Treatment Units	Existing Number of Units	Proposed Number of Units
<i>Wastewater</i>		
Aerated grit chamber	2	2
Primary clarifiers	2	3
High-rate plastic media trickling filters	2	3
Secondary Clarifiers	2	3
Effluent equalization ponds	1	1
Nitrogen Removal Bioreactors (methanol addition)	3	5
Chlorine contact tanks	2	2
1.0 MGD Membrane Filtration and Ultraviolet Disinfection Facility <sup>1</sup>	0	1
<i>Sludge</i>		
Gravity thickener	1	1
Belt filter press	1	2
Table Footnote:		
1. The quality of effluent generated by this facility is regulated under a separate Order.		

Table 2 summarizes flow rates that were used in the design of the proposed improvements at the Grass Valley treatment plant. Since completion of the upgrades at the Grass Valley treatment plant the District has the capacity to provide secondary treatment (with nitrogen removal) for flow rates up to those summarized in Table 2. During periods of high infiltration/inflow, the influent flow to the treatment facilities is highly diluted, and a higher design flow can be used. During dry periods, the influent is less diluted and the treatment design flow is less as shown in Table 2.

Table 2  
 Flow Characterization Used for Design<sup>1</sup>  
 Grass Valley Wastewater Treatment Plant

Flow (Million Gallons per Day)	Type of Flow Measurement
Dry periods with <u>no</u> sewer inflow <sup>2</sup>	
2.7	Average during a 24-hour period
3.75	Average during a 72-hour period; holiday weekends (e.g., July 4th)
Wet periods with sewer inflow	
6.0	Average during a 24-hour period
8.0	Average during a 72-hour period; holiday weekends (e.g., January 1st)
12.0	Maximum instantaneous (or peak)
Table footnotes:	
1.	Adapted from Table 3-1 from the report titled: Final Basis of Design and Engineering Report, Grass Valley Wastewater Treatment Plant Recycled Water System Phase I Project, Prepared by CH2MHill, August 2006.
2.	The term "sewer inflow" is defined as inflow of groundwater and surface water into the sewer system.

7. Locations of Facilities

The Willow Creek and Grass Valley WTPs are located within the W/2, Section 3, and the SW/4, Section 5, T2N, R3W, SBB&M, respectively. The Hesperia EMS is located within the SE/4, Section 1, T3N, R4W, SBB&M. The treatment facilities and the Hesperia EMS are located as shown on Attachment "A", which is made a part of this Order. The locations of existing monitoring wells at the Hesperia EMS are shown on Attachment "B", which is made a part of this Order.

8. Authorized Disposal/Recycling Site

The discharges of treated wastewater at the Hesperia EMS is subject to waste discharge requirements as set forth in this Order. The Hesperia EMS consists of 350-acres of land owned by the Discharger. The Discharger's percolation ponds and fodder-crop irrigation area are located at the Site. The EMS percolation ponds and fodder-crop irrigation area has a disposal capacity of 4.0 MGD.

9. Sludge Treatment and Disposal

Biosolids are hauled offsite to an authorized facility for recycling/disposal.

10. Recycling Regulation

The California State Department of Public Health Services has established statewide reclamation criteria for the use of recycled water for the irrigation of fodder crops. In accordance with section 13523 of the California Water Code (CWC), the Water Board consulted with and received the recommendations of the State Department of Public Health concerning reclamation requirements, which are incorporated within this Order. The District has no current plans to use recycled water for irrigation of fodder crops.

11. Hydrogeology and Upgradient Groundwater Quality

The Discharger's Hesperia EMS is located in the City of Hesperia approximately two miles downstream of the Mojave Forks Dam. The Site is located adjacent to the west bank of the Mojave River. The soils underlying the Site consist of riverbed deposits (primarily of sands and gravels), which extend to depths between 100 and 200 feet. The average depth to groundwater at the Disposal Site is approximately 30 feet. The general direction of groundwater flows is in a northwesterly direction. Information on the quality of groundwater up gradient of the Hesperia EMS is given in Table 3.

**Table 3**  
**Quality of Groundwater**

Constituents	MCLs <sup>1</sup>	Concentrations in Groundwater (Average)
Total Dissolved Solids (TDS) mg/L	500 <sup>2</sup> and 1000 <sup>3</sup>	260
Nitrate mg/L as N	10	2.0
Table Footnotes: 1. Drinking water Maximum Contaminant Levels (MCLs) 2. Secondary MCL (Recommended) 3. Secondary MCL (Upper)		

12. Effluent Quality

Secondary treated wastewater is discharged to the Hesperia EMS. Effluent limits have been carried over to this Order from the previous WDRs.

The quality of the effluent is summarized in Table 4.

**Table 4**  
**Quality of Secondary Treated Wastewater**

<b>Constituents</b>	<b>Concentrations (Average)</b>
Total Dissolved Solids (TDS)	335
Total Nitrogen (mg/L as N)	3.5
Biochemical Oxygen Demand (mg/L)	8

13. Receiving Waters

The receiving waters are the groundwaters of the Upper Mojave Hydrologic Area of the Mojave Hydrologic Unit, (Department of Water Resources Unit No. 6-42).

14. Lahontan Basin Plan

The Water Board adopted a Basin Plan, which became effective on March 31, 1995. This Order implements the Basin Plan, as amended.

15. Beneficial Uses

The beneficial uses of the groundwaters of the Upper Mojave Hydrologic Area of the Mojave Hydrologic Unit as set forth and defined in the Basin Plan are:

- a. Municipal and domestic supply (MUN);
- b. Agricultural supply (AGR);
- c. Industrial service supply (IND); and
- d. Freshwater replenishment (FRSH).

16. Antidegradation Analysis

State Water Resources Control Board (State Water Board) Resolution No. 68-16 (Statement of policy for maintaining high quality of waters in California) represents the Non-Degradation Objective in the Basin Plan. This WQO requires maintenance of existing high quality of waters unless appropriate findings are made under Resolution No. 68-16.

Treated wastewater is currently discharged to the percolation ponds located at the Site. Evaluation of results of sampling and mathematical modeling indicates treated wastewater percolating from the ponds causes incremental-increases in concentrations of TDS and nitrate in groundwater (degradation) underlying and downgradient of the ponds. Results of modeling are contained in a report titled: Evaluation of Impact of Percolated Effluent on Groundwater in the Upper Mojave

River Basin, Lake Arrowhead Community Services District, prepared by NBS/Lowry Engineers, March 1995. Groundwater sampling data are from the self monitoring reports provided by the Discharger.

Based on results of the evaluation, predicted incremental increases in groundwater quality when compared to background quality underlying the ponds are less than: (a) 5 mg/L for TDS and (b) 0.1 mg/L for nitrate (as N). The effects of the discharge on groundwater concentrations decrease with distance from the ponds. Groundwater monitoring data show seasonal variability with nitrate concentrations in the closest downgradient monitoring well ranging from 0.8 to 9.2 mg/L as N over a one year period (2007-2008). At a distance of 3000 feet, the evaluation indicates the long term incremental increases in concentrations will be less than 2 mg/L for TDS and 0.05 mg/L for nitrate as N. This order contains an annual average receiving water limit for nitrate-nitrogen that is more restrictive than the primary MCL. The limit is derived using the method described in the State Implementation Plan for setting effluent limits.<sup>2</sup> The selected limit is based on the average of nitrate-nitrogen over a five year period for downgradient monitoring wells, which are MW2, MW3, MW4, MW5, MW6, and MW7. The five year average nitrate-nitrogen concentration from these wells is 1.1 mg/L. The long-term average multiplier for these wells, which is based on a log-normal distribution at the 95% confidence level of sample results, is 2.91. Therefore, the derived annual limit is  $1.1 \text{ mg/L} \times 2.91 = 3.2 \text{ mg/L}$ . The annual limit shall be applied as 4-quarter moving average<sup>3</sup> to evaluate the discharge on a quarterly rather than annual basis.

At individual wells near the Hesperia EMS, Trihalomethane (THM), which are disinfection by-products (DBPs), have generally been non-detect ( $< 0.5 \text{ ug/L}$ ) but there have been occasional detections with concentrations up to  $25 \text{ ug/L}$  for Total THMs. The drinking water MCL for Total THMs is  $80 \text{ ug/L}$ . This Order removes the requirement for disinfection of the discharge to the Hesperia EMS percolation ponds.

In order to allow any degradation, the Water Board must find that the conditions contained in Resolution No. 68-16 are met. In its evaluation of the proposed discharge to the Hesperia EMS, Resolution No. 68-16 is satisfied because the Water Board finds that:

1. *The water quality changes are consistent with maximum benefit to people of the state* because water quality will be improved from less DBPs in the water, and the discharge will result in only minor degradation for TDS and nitrate;

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<sup>2</sup> SWRCB, 2005, "Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

<sup>3</sup> The result from the current quarterly sample is added to the results from the three previous quarters and an average is obtained. The result is reported quarterly as the 4-quarter moving average.

2. *The water quality changes will not unreasonably affect present and anticipated beneficial use because the discharge will meet the final effluent limitations that are protective of the receiving water quality;*
3. *The water quality changes will not result in water quality less than prescribed in policies in that the discharge quality is improved and final effluent limitations are such that the discharge will not unreasonably affect present and anticipated beneficial uses and not result in a water quality less than prescribed in the Basin Plan; and*
4. *The project is consistent with the use of best practicable treatment or technology control of the discharges to assure that (1) a pollution or nuisance will not occur and (2) the highest water quality consistent with maximum benefit to people of the state will be maintained. This condition is met because the Discharger has selected treatment or control technology to meet nitrogen effluent limitations. The Discharger has selected high-rate plastic media trickling filters and secondary clarifiers to meet BOD and methylene blue active substances (MBAS) effluent limitations, and nitrogen removal bioreactors to meet nitrogen effluent limitations. The Discharger will also eliminate disinfection prior to for disposal to percolation ponds. This change should result in reducing DBPs in groundwater near the percolation ponds and improving water quality. With the treatment and control measures implemented by the Discharger, a pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to people of the state will be maintained.*

17. Disinfection By-Products

Sampling results indicate sporadic detections of trihalomethane (THM) constituents in groundwater that have caused short term degradation. These detections have occurred in individual monitoring wells located in the vicinity of the percolation ponds. THM constituents are DBPs. Concentrations of THMs in the affected individual wells have generally been non-detect (< 0.5 ug/L), but there have been occasional detections with concentrations up to 25 ug/L for Total THMs. The drinking water MCL for Total THMs is 80 ug/L. This Order establishes a schedule to investigate any groundwater degradation caused by DBP discharges to groundwater at the Hesperia EMS and provide a report to the Water Board.

18. Consideration of Water Code Section 13241 Factors

Section 13263 of the Water Code requires that the Board, when prescribing waste discharge requirements, take into consideration six specific factors in Section 13241 of the Water Code. The Board has considered these factors as follows.

a. Past, present, and probable future beneficial uses of water.

The hydrologic unit of the receiving waters is the Mojave River Groundwater Basin. This Order includes requirements for protection of the past, present, and probable future beneficial uses of groundwaters of the Groundwater Basin. The beneficial use of the groundwater includes Municipal and Domestic Supply. Water Quality Objectives (WQOs) for the beneficial use Municipal and Domestic Supply will be met. Provisions in this Order and the attached Monitoring and Reporting Program require the Discharger to routinely sample groundwater monitoring wells for monitoring compliance with the WQOs including the Non-Degradation Objective contained in the Basin Plan. As discussed in Finding No. 17, this Order establishes a schedule, which the Discharger must follow to quantify any groundwater degradation that may have been caused by DBPs discharges to groundwater at the Site and take appropriate action for any DBP degradation that is identified.

b. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

The geological and hydrogeologic characteristics of the subsurface soils and the groundwater basin are described in Finding No. 11. Findings No. 11 and 16 describe the quality of waters.

c. Water quality conditions that could reasonably be achieved through the coordinated control of all factors, which affect water quality in the area.

Alternatives to treat and control the proposed discharge were evaluated. As stated in Findings No. 16, the discharge meets the conditions set forth in State Water Board Resolution No. 68-16 allowing some degradation of groundwater.

d. Economic considerations.

Costs for other alternatives (e.g., reverse osmosis to remove TDS and nitrate) were significantly higher than the denitrification methods used. The current wastewater treatment produces a denitrified effluent and the discharge does not threaten beneficial uses.

e. The need for developing housing within the region.

The proposed project does not increase overall treatment capacity, and does not change the ability of the District to provide service to new housing in the area.

- f. The need to develop and use recycled water.

In a separate action, on June 13, 2007, the Water Board adopted Master Water Recycling Requirements (Order No. R6V-2007-0022) for the reuse of recycled title 22 tertiary treated water produced by the District.

19. California Environmental Quality Act Compliance

These revised WDRs govern existing facilities, which the Discharger is currently operating. The project consists only of the continued operation of the existing facilities governed by these revised WDRs and is therefore exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) in accordance with Section 15301, Chapter 3, Title 14, California Code of Regulations (CCR).

20. Notification of Interested Parties

The Water Board has notified the Discharger and interested parties of its intent to revise WDRs for the discharge.

21. Consideration of Public Comments

The Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED** that the Discharger shall comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Effluent Limits

The flow of untreated wastewater to the Grass Valley WTP must not exceed the following:

1. Dry periods with no inflow of groundwater and surface water into the sewer system

Average of 3.75 MGD during a 72-hour period.

2. Wet periods with inflow of groundwater and/or surface water into the sewer system

- a. Average of 6.0 MGD during a 24-hour period.  
b. Average of 8.0 MGD during a 72-hour period (holiday weekend).  
c. Maximum instantaneous of 12.0 MGD.

3. The total effluent flow to the Outfall Pipeline System pipelines during a 24 hour period shall not exceed 4.0 million gallons. This limit is based on the hydraulic capacity of the outfall system.
4. All wastewater discharged to the authorized disposal/recycling site shall not contain concentrations of parameters in excess of the following limits:

Parameter	Units	30-Day Mean	Daily Maximum
Biochemical Oxygen Demand	mg/L	20	30
Methylene Blue Active Substances	mg/L	1.0	2.0
Total Nitrogen as N	mg/L	8	10

5. All wastewater made available to the authorized disposal/recycling site shall have a pH of not less than 6.0 pH units nor more than 9.0 pH units. A pH value over 9.0 is allowed if it results from a biological process within the treatment facilities.
6. All wastewater discharged to the authorized disposal/recycling site shall have a dissolved oxygen concentration not less than 1.0 mg/L.

B. Receiving Water Limitation

1. The discharge shall not cause the nitrate groundwater concentration beneath the Hesperia EMS to exceed 3.2 mg/L as nitrogen, averaged over sample results from groundwater monitoring wells MW2, MW3, MW4A, MW5, MW6, and MW7 as shown on Attachment B.
2. This discharge shall not cause a violation of any applicable water quality standards for receiving water adopted by the Water Board or the State Water Board.
3. The discharge shall not cause the presence of the following substances or conditions in groundwaters of the Mojave Hydrologic Unit:
  - a. Bacteria: In groundwaters, the median concentration of coliform organisms over any seven-day period shall be less than 1.1/100 milliliters.

- b. Chemical Constituents: Groundwaters shall not contain concentrations of chemical constituents in excess of the MCL or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions of title 22 of the CCR: Table No. 64431-A of section 64431 (Inorganic Chemicals), Table No. 64431-B of section 64431 (Fluoride), Table No. 6444-A of section 64444 (Organic Chemicals), Table No. 64449-A of section 64449 (SMCLs - Consumer Acceptance Limits), and Table No. 64449-B of section 64449 (SMCLs - Ranges). This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect. Waters designated as Agricultural Supply shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes).

Groundwaters shall not contain concentrations of chemical constituents that adversely affect the water for beneficial uses.

- c. Radioactivity: Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life, or that result in the accumulation of radionuclides in the food chain to an extent that it presents a hazard to human, plant, animal, or aquatic life. Waters shall not contain concentrations of radionuclides in excess of limits specified in the CCR, title 22, chapter 15, article 5, section 64443.
- d. Taste and Odors - Groundwaters shall not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses. For groundwaters designated as Municipal or Domestic Supply at a minimum, concentrations shall not exceed adopted SMCLs specified in Table No. 64449-A of section 64449 (SMCLs - Ranges), and Table No. 64449-B of section 64449 (SMCLs - Ranges) of title 22 of the CCR, including future changes as the changes take effect.

C. Reclamation Specifications

Pursuant to Water Code section 13523.1, subdivision (b)(2), the Discharger must comply with the Uniform Statewide Reclamation Criteria, which are contained in CCR, title 22, sections 60301 through 60355 and are established pursuant to Water Code section 13521.

D. General Requirements and Prohibitions

1. There shall be no discharge, bypass, or diversion of untreated or partially treated sewage, sewage sludge, grease, or oils from the collection, transport, treatment, or disposal facilities to adjacent land areas or surface waters.
2. Surface flow or visible discharge of sewage or sewage effluent from the authorized disposal/recycling site to adjacent land areas or surface waters is prohibited.
3. All facilities used for collection, transport, treatment or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage, or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.
4. The vertical distance between the liquid surface elevation and the lowest point of a pond dike or the invert of an over flow structure shall not be less than 2.0 feet.
5. The Discharger shall comply with USEPA standards for Collection System infiltration, which is 120 gallons per capita per day (gpcd). During any seven-day period, which has no measurable rainfall but follows a day with measurable rainfall, the average daily influent flowrates ( $Q_{\text{gpcd, infiltration}}$ ) to the treatment facilities shall not exceed 120 gpcd. [ $Q_{\text{gpcd, infiltration}} = Q_{\text{gpd, infiltration}} \div P$  where:
  - i.  $Q_{\text{gpd, infiltration}}$  is the average daily influent flowrate (gallons per day) for the seven-day period
  - ii.  $P$  equals the estimated population, which is determined by dividing the average monthly dry-weather influent flow ( $Q_{\text{gpd, dw}}$ ) to the treatment facilities by 80 gpcd. <sup>3</sup>  $Q_{\text{gpd, dw}}$  is the average influent flowrate during dry weather (A period during the previous summer when there is no rainfall.)]
6. The Discharger shall comply with USEPA standards for Collection System inflow, which is 275 gpcd. The daily flow ( $Q_{\text{gpcd, inflow}}$ ) on any day shall not exceed 275 gpcd. [ $Q_{\text{gpcd, inflow}} = Q_{\text{gpd, inflow}} \div P$  where  $Q_{\text{gpd, inflow}}$  is the flow for the day in gpd and  $P$  equals the estimated population, which is calculated as described in the preceding discharge specification.]
7. Neither the treatment nor the discharge shall cause pollution, threatened pollution or nuisance as defined in the CWC.

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<sup>3</sup> The Discharger developed the value of 80 gpcd in its 1983 Sewer Master Plan (LKACSD, 1998).

8. The discharge of wastewater except to the authorized disposal/recycling site is prohibited.
9. The discharge of waste, as defined in the CWC, which causes violation of any narrative WQO contained in the Basin Plan is prohibited.
10. The discharge of waste, which causes violation of any numeric WQO contained in the Basin Plan, is prohibited.
11. Where any numeric or narrative WQO contained in the Basin Plan is already being exceeded, the discharge of waste, which causes further degradation or pollution, is prohibited.
12. The Discharger shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices.

## II. PROVISIONS

### A. Waste Discharge Requirements

Provision No. II.B. of Board Order No. R6V-2002-0008 states that:

"Discharge Specifications No. I.D.1, I.D.3 and I.D.5 of Board Order No. 6-89-110 shall remain in effect and unchanged. All other Discharge Specifications and Findings of Board Order No. 6-89-110, and all Provisions of Board Order No. 6-89-110 are no longer in effect."

The above provision shall remain in effect and unchanged. All other Provisions and all Discharge Specifications and Findings of Board Order No. R6V-2002-0008 are no longer in effect.

### B. Farm Management Plan

At least 120 days prior to using recycled water to grow crops at the Hesperia EMS the District must submit a Farm Management Plan describing methods to ensure recycled water is applied at agronomic rates.

### C. Compliance Schedule

Pursuant to the CWC, section 13267, the Discharger must meet the following compliance milestones:

- | Item   | Due Date                  |
|--|---------------------------|
| 1. Submit to the Water Board:<br>a. A Work Plan for conducting a site investigation to further define the presence (including the magnitude and extent) of disinfection by-products (DBPs) in groundwater underlying the Hesperia EMS.<br>b. Implementation schedule for the Site Investigation Work Plan. | <u>September 17, 2009</u> |
| 2. Following acceptance of the above-referenced Plans, begin the site investigation described in the Plans.  | <u>February 19, 2010</u>  |
| 3. Submit to the Water Board's Victorville office a Site Investigation Report containing the results of site investigation, and recommendations to address any degradation detected.   | <u>June 25, 2010</u>      |
| <br>   |                           |
| D. <u>Operator Certificates</u>  |                           |
| The Discharger's treatment facilities shall be supervised by persons possessing a wastewater treatment plant operator certificate of appropriate grade pursuant to title 23, of the CCR.   |                           |
| E. <u>Standard Provisions</u>  |                           |
| The Discharger shall comply with the "Standard Provisions for WDRs" dated September 1, 1994, in (Attachment "C") which is made part of this Order.   |                           |
| F. <u>Monitoring and Reporting</u>   |                           |
| 1. Pursuant to Section 13267(b), the Discharger shall comply with the Monitoring and Reporting Program R6V-2009-(PROPOSED) as specified by the Executive Officer.  |                           |
| 2. The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of the Monitoring and Reporting Program.  |                           |

I, Harold J. Singer, 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, Lahontan Region, on June 10, 2009.

  
HAROLD J. SINGER  
EXECUTIVE OFFICER

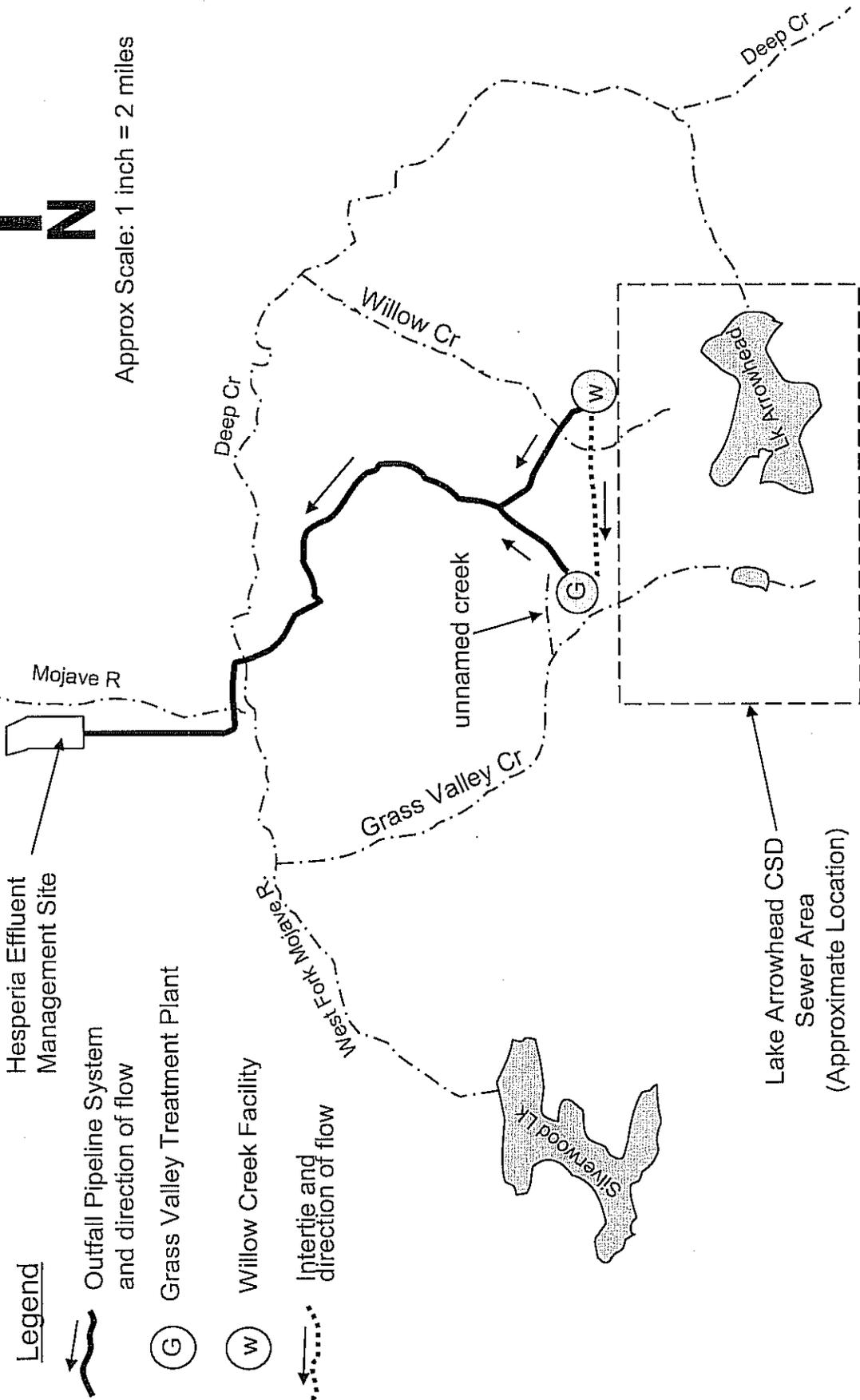
- Attachments: A. Location Map  
B. Hesperia Effluent Management Site  
C. Standard Provisions for Waste Discharge Requirements

MC/rp BO2009/LkArrowheadCSD/R6V-2009-0037 WDR

**Attachment A – Facilities Location Map**



Approx Scale: 1 inch = 2 miles



**Legend**



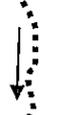
Outfall Pipeline System and direction of flow



Grass Valley Treatment Plant

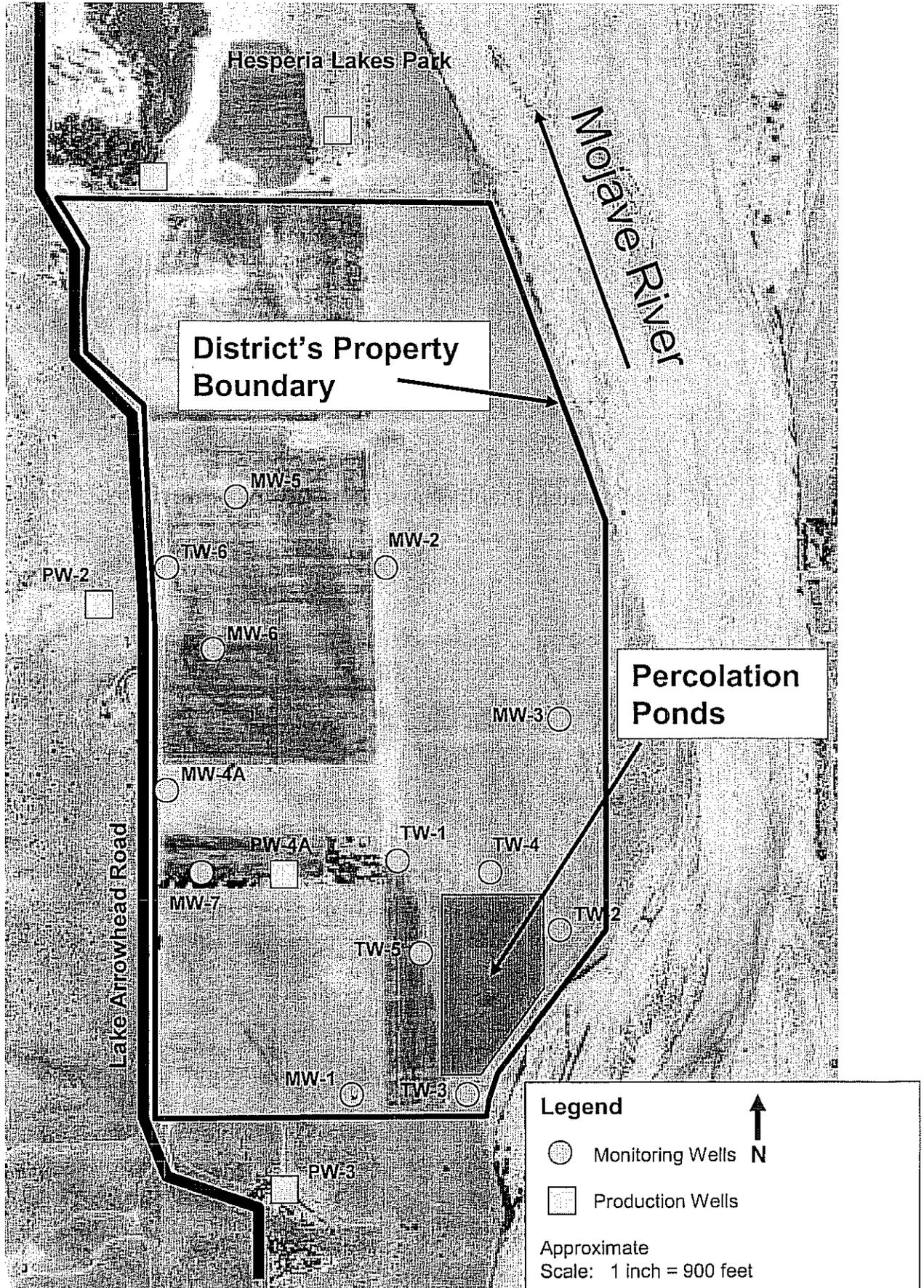


Willow Creek Facility



Intertie and direction of flow

Attachment B  
Lake Arrowhead CSD - Hesperia Effluent Management Site



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION**STANDARD PROVISIONS**  
FOR WASTE DISCHARGE REQUIREMENTS1. Inspection and Entry

The Discharger shall permit Regional Board staff:

- a. to enter upon premises in which an effluent source is located or in which any required records are kept;
- b. to copy any records relating to the discharge or relating to compliance with the Waste Discharge Requirements (WDRs);
- c. to inspect monitoring equipment or records; and
- d. to sample any discharge.

2. Reporting Requirements

- a. Pursuant to California Water Code 13267(b), the Discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.
- b. Pursuant to California Water Code Section 13260 (c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.
- c. The Owners/Discharger of property subject to WDRs shall be considered to have a continuing responsibility for ensuring compliance with applicable WDRs in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the WDRs shall be reported to the Regional Board. Notification of applicable WDRs shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.
- d. If a Discharger becomes aware that any information submitted to the Regional Board is incorrect, the Discharger shall immediately notify the Regional Board, in writing, and correct that information.
- e. Reports required by the WDRs, and other information requested by the Regional Board, must be signed by a duly authorized representative of the Discharger. Under Section 13268 of the California Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation.

- f. If the Discharger becomes aware that their WDRs (or permit) are no longer needed (because the project will not be built or the discharge will cease) the Discharger shall notify the Regional Board in writing and request that their WDRs (or permit) be rescinded.

3. Right to Revise WDRs

The Regional Board reserves the privilege of changing all or any portion of the WDRs upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the WDRs may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and re-issuance, or modification.

5. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the WDRs which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the WDRs. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger, when necessary to achieve compliance with the conditions of the WDRs.

7. Waste Discharge Requirement Actions

The WDRs may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for waste discharge requirement modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the WDRs conditions.

8. Property Rights

The WDRs do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the WDRs including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the WDRs shall be kept and maintained by the Discharger and be available at all times to operating personnel.

11. Severability

Provisions of the WDRs are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

12. Public Access

General public access shall be effectively excluded from treatment and disposal facilities.

13. Transfers

Providing there is no material change in the operation of the facility, this Order may be transferred to a new owner or operation. The owner/operator must request the transfer in writing and receive written approval from the Regional Board's Executive Officer.

14. Definitions

- a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters. "Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.
- b. "Ground waters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

All facilities used for collection, transport, treatment, storage, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION

REVISED MONITORING AND REPORTING PROGRAM  
NO. R6V-2009-0037  
WDID NO. 6B360107001  
FOR

LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT  
DOMESTIC WASTEWATER TREATMENT FACILITIES

San Bernardino County

---

I. MONITORING

A. Flow Monitoring

1. The following shall be recorded for the flows from the Collection System to the Grass Valley Wastewater Treatment Plant (WWTP):
  - a. Maximum instantaneous flow rate (million gallons per day) for each day;
  - b. Total volume (million gallons) for each day;
  - c. Total volume (million gallons) for each month; and
  - d. Average flowrate (million gallons per day) for each month.
2. The following shall be recorded for flows to the Irrigation Area and Percolation Ponds:
  - a. Total volume (million gallons) for each day;
  - b. Total volume (million gallons) for each month; and
  - c. Average flowrate (million gallons per day) for each month.
3. The Discharger shall measure and record the freeboard (distance from the top of the lowest part of the dike to the wastewater surface in pond) in each Percolation Pond each month. If a Percolation Pond does not contain wastewater, indicate that it is empty.
4. The Discharger shall record and report the total rainfall (inches) for each day in the Collection System area. The Discharger may report data generated by the existing Lake Arrowhead precipitation station, which is maintained by San Bernardino County Flood Control District.
5. The Discharger shall conduct and report results of routine evaluations for excessive I/I using formulae described in the discharge specifications of the attached waste discharge requirements. Raw data inputted into the formulae include data from flow meters that measure raw sewage flowrates to the TFs. Flow meter data used for I/I evaluations shall include flowrates during and following rainfall events as well as flowrates during dry weather (summer months).

B. Effluent Monitoring

Samples of effluent from the Grass Valley WWTP shall be collected and analyzed to determine the magnitude of the following parameters:

<u>Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Frequency</u> <sup>1</sup>
BOD <sup>2</sup>	mg/L	Grab	Weekly
Methylene Blue Active Substances	mg/L	Grab	Weekly

C. Outfall Monitoring

The Discharger shall collect samples of effluent from the Outfall Pipeline System at the Hesperia Disposal Site. (In lieu of sampling at the Hesperia Effluent Management Site, the Discharger may collect effluent samples at the Grass Valley WWTP.) The samples shall be analyzed to determine the magnitude of the following parameters:

<u>Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Frequency</u> <sup>1</sup>
BOD <sup>2</sup>	mg/L	6-hour composite <sup>3</sup>	Weekly
Chemical Oxygen Demand (COD)	mg/L	6-hour composite <sup>3</sup>	Weekly
Methylene Blue Active Substances	mg/L	6-hour composite <sup>3</sup>	Weekly
Dissolved Oxygen (DO)	mg/L	Grab	Weekly
pH	pH units	Grab	Weekly
Nitrate Nitrogen	mg/L as N	6-hour composite <sup>3</sup>	Weekly
Kjeldahl Nitrogen	mg/L as N	6-hour composite <sup>3</sup>	Weekly
Ammonia Nitrogen	mg/L as N	6-hour composite <sup>3</sup>	Weekly
Total Organic Carbon	mg/L	6-hour composite <sup>3</sup>	Monthly
Chloride	mg/L	24-hour composite <sup>3</sup>	Quarterly
Sodium	mg/L	24-hour composite <sup>3</sup>	Quarterly
Sulfate	mg/L	24-hour composite <sup>3</sup>	Quarterly
Total Dissolved Solids	mg/L	24-hour composite <sup>3</sup>	Quarterly
Total Trihalomethane Constituents (THMs) <sup>7</sup>	mg/L	Grab	Quarterly
Total Haloacetic Acid Constituents (HAA5s) <sup>7</sup>	mg/L	Grab	Quarterly
Total Chromium <sup>4</sup>	mg/L	24-hour composite <sup>3</sup>	Annually
Hexavalent Chromium <sup>4</sup>	mg/L	24-hour composite <sup>3</sup>	Annually
Heavy Metals <sup>5</sup>	mg/L	24-hour composite <sup>3</sup>	Annually
Semivolatile Organic Compounds (SVOCs) <sup>6</sup>	mg/L	24-hour composite <sup>3</sup>	Annually
Volatile Organic Compounds (VOCs) <sup>7</sup>	mg/L	Grab	Annually
Gross Alpha	pCi/L	24-hour composite <sup>3</sup>	Annually <sup>a</sup>
Gross Beta	pCi/L	24-hour composite <sup>3</sup>	Annually <sup>a</sup>

D. Ground Water Monitoring Hesperia Disposal Site

Grab samples of ground water shall be collected from the following wells:

<u>Well No.</u>	<u>Type</u>
PW-2	Private water supply well
PW-3 or PW-3A	Private water supply well
PW-4A	Hesperia Lakes Park supply well
MW-5	Ground water monitoring well
MW-1	Ground water monitoring well
MW-2	Ground water monitoring well
MW-3	Ground water monitoring well
MW-4	Ground water monitoring well
MW-6	Ground water monitoring well
MW-7	Ground water monitoring well
TW-1	Ground water monitoring well
TW-2	Ground water monitoring well
TW-3	Ground water monitoring well
TW-4	Ground water monitoring well
TW-5	Ground water monitoring well
TW-6	Ground water monitoring well

The frequency of well sampling shall be as described below, and the samples shall be analyzed to determine the magnitude of the parameters listed below.

<u>Parameter</u>	<u>Frequency</u> <u>(MW-1, 2, 3, 4,</u> <u>5, 6 &amp; 7)</u>	<u>Frequency</u> <u>(TW- 1, 2, 3, 4,</u> <u>5 &amp; 6)</u>	<u>Frequency</u> <u>(PW-2 &amp; 4A</u> <u>and PW 3 or</u> <u>3A)</u>
Kjeldahl Nitrogen	Quarterly	Quarterly	Semiannually
Ammonia Nitrogen	Quarterly	Quarterly	Semiannually
Nitrate Nitrogen as N	Quarterly	Quarterly	Semiannually
Total Dissolved Solids	Quarterly	Quarterly	Semiannually
BOD <sup>2</sup>	Quarterly	Semiannually	Semiannually
Chloride	Quarterly	Semiannually	Semiannually
COD	Quarterly	Semiannually	Semiannually
Methylene Blue Active Substances	Annually	Annually	Annually
Total Trihalomethane Constituents (THMs) <sup>7</sup>	Semiannually <sup>9</sup>	Semiannually <sup>9</sup>	Annually
Total Haloacetic Acid Constituents (HAA5s) <sup>7</sup>	Semiannually <sup>9</sup>	Semiannually <sup>9</sup>	Annually
Sodium	Quarterly	Semiannually	Semiannually
Sulfate	Quarterly	Semiannually	Semiannually
Total Organic Carbon	Quarterly	Semiannually	Semiannually
VOCs <sup>7</sup>	Annually	Annually	Annually
Gross Alpha	Annually	Annually	Annually
Gross Beta	Annually	Annually	Annually

The Discharger shall sufficiently purge each monitoring well before sampling. Purging shall be in accordance with generally accepted sampling practice, to obtain a "representative" ground water sample. If a non-purging method is used, the method proposed must be approved, in advance, by Water Board staff.

Quarterly, the Discharger shall measure and record the depth below the ground surface and determine the elevation above mean sea level of the ground water surface in the ground water monitoring wells listed above.

Annually, the Discharger shall plot the above-described elevations and elevation isopleths (ground water elevation contours) on an 11" x 17" copy of a site plan, which shows the boundaries of the Hesperia Disposal Site and locations of the above listed wells; and calculate and record the ground water gradient, the direction of the gradient, and velocity of ground water flow at the authorized disposal/recycle sites.

Quarterly, the Discharger shall monitor the wells for the following field parameters:

<u>Parameter</u>	<u>Units</u>
Electrical Conductivity (E <sub>c</sub> )	µMHOS/CM
Ph	Ph Units
Temperature	° F or °C
Turbidity	NTU

E. Sludge Monitoring

In the last quarterly report of the calendar year, the Discharger shall describe the methods used to dispose/recycle biosolids. Disposal/recycling must be in accordance with the provisions in the Discharger's Sludge Management Plan and US EPA regulations.

F. Supply Water Monitoring

For each semiannual period, a report shall be submitted to the Water Board detailing a chemical analysis that is representative of the average supply water used within the pertaining sewered areas. Supply water samples for this analysis shall be collected concurrently with effluent samples.

G. Operation and Maintenance

A brief summary of any operational problems and maintenance activities shall be submitted to the Water Board with each monitoring report.

This summary shall discuss:

1. Any modifications or additions to the wastewater conveyance system, treatment facilities, or disposal facilities;
2. Any major maintenance conducted on the wastewater conveyance system, treatment facilities, or disposal facilities;
3. Any major problems occurring in the wastewater conveyance system, treatment facilities, or disposal facilities; and
4. The calibration of any wastewater flow measuring devices.

I. REPORTING

A. General Provisions

1. The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of this Monitoring and Reporting Program.
2. In accordance with Provision No. 3.a. of the General Provisions for Monitoring and Reporting, the Discharger shall make a compliance statement in each submitted monitoring report, noting each violation that occurred during the reporting period and actions taken and/or proposed to return into compliance.
3. The names and grades of treatment facility operators, certified in accordance with Provision No. II.D shall be reported to the Water Board's Victorville office by **March 30th** of each year.

B. Sampling and Analysis Plan

Pursuant to General Provision No. 1d. of the General Provisions for Monitoring and Reporting, the Discharger shall submit to the Regional Board by October 31, 2009, a Sampling and Analysis Plan (SAP) for consideration of approval. The SAP shall include a detailed description of procedures and techniques for:

- i. Sample collection, including purging techniques, sampling equipment, and decontamination of sampling equipment;
- ii. Sample preservation and shipment;
- iii. Analytical procedures;
- iv. Chain of custody control; and
- v. Quality assurance/quality control (QA/QC).

C. Quarterly Reports

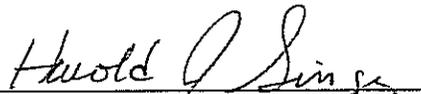
Beginning on July 31, 2009, quarterly monitoring reports including the preceding information shall be submitted to the Water Board before the end of the month following each quarterly monitoring period.

D. Annual Report

By March 30th of each year, the Discharger shall submit an annual report to the Water Board with the following information:

1. The compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the discharge requirements.
2. A time schedule for additional proposed compliance actions.
3. Any needed updates to the SAP.
4. Graphical and tabular data for the monitoring data obtained for the previous year.
3. Graphical and tabular data for the monitoring data obtained for the previous year.

Ordered by:



HAROLD J. SINGER  
EXECUTIVE OFFICER

Dated: June 10, 2009

Attachment: A General Provisions for Monitoring and Reporting Program

- 1 Samples shall be collected at a time during the day when the flowrate is at a maximum. At least one half of the samples that are collected on a weekly frequency shall be collected on weekends.
- 2 BOD (5-day, 20°C) conducted on an unfiltered sample.
- 3 Samples shall be collected at least every hour and composited in proportion to the flowrate.
- 4 Use appropriate USEPA approved methods that will quantify concentrations down to 0.001 mg/L for hexavalent chromium and 0.0025 mg/L for total chromium.
- 5 Analyze for the metals listed in Table II of Section 66261.24(a)(2)(A), Title 22, California Code of Regulations. Use appropriate USEPA approved methods with a minimum quantification limit equal to the background concentration of each metal in ground water. In no case shall the quantification limit be more than the Detection Limits for the Purposes of Reporting (DLRs). The California Department of Health Services establishes DLRs for analyses conducted on samples collected from drinking water supply systems.
- 6 Use either USEPA Method 625 or 8027.
- 7 Use an appropriate USEPA Method with a Detection Limit for the Purposes of Reporting (DLR) of 0.5 micrograms per liter or less.
- 8 Samples shall be taken after disclosure of backwash from deionization unit and there has been adequate time for the release to travel to the sampling point.
- 9 Frequency is annually following two consecutive years of non-detect results.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION

**GENERAL PROVISIONS**  
FOR MONITORING AND REPORTING

1. **SAMPLING AND ANALYSIS**

- a. All analyses shall be performed in accordance with the current edition(s) of the following documents:
  - i. Standard Methods for the Examination of Water and Wastewater
  - ii. Methods for Chemical Analysis of Water and Wastes, EPA
- b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.
- c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.
- d. The Discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.
- e. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.
- f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
- g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

## 2. OPERATIONAL REQUIREMENTS

### a. Sample Results

Pursuant to California Water Code Section 13267(b), the Discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

### b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

## 3. REPORTING

a. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

c. The Discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.

d. Monitoring reports shall be signed by:

i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

ii. In the case of a partnership, by a general partner;

iii. In the case of a sole proprietorship, by the proprietor; or

- iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- e. Monitoring reports are to include the following:
  - i. Name and telephone number of individual who can answer questions about the report.
  - ii. The Monitoring and Reporting Program Number.
  - iii. WDID Number.
- f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

#### 4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation under Section 13268 of the Water Code.

## **ENCLOSURE 2**

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**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION**

**BOARD ORDER NO. R6V-2002-0008  
WDID NO. 6B360107001**

**REVISED WASTE DISCHARGE REQUIREMENTS  
FOR**

**LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT  
DOMESTIC WASTEWATER TREATMENT FACILITIES**

\_\_\_\_\_San Bernardino County\_\_\_\_\_

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

1. Discharger

Lake Arrowhead Community Services District (Lake Arrowhead CSD) has submitted a Revised Report of Waste Discharge (RWD) for its Domestic Wastewater Treatment Facilities. The Revised RWD consists of transmittals dated January 4, 2002, January 11, 2002, and reports listed in Attachment F – List of References. For the purposes of this Regional Board Order (Order), Lake Arrowhead Community Services District is referred to as the "Discharger."

2. Facilities

The Discharger collects, treats and disposes of domestic wastewater generated in the Lake Arrowhead area, which is located in the San Bernardino Mountains. Boundaries of the Discharger's sewer service area encompass an area of approximately 15 square miles. The average daily flow of untreated wastewater to the treatment facilities is 1.8 million gallons per day (mgd) during years where the rainfall is close to the long-term average annual rainfall of 41.5 inches. The untreated wastewater includes approximately 0.2 mgd of filter backwash from the Discharger's drinking water treatment facilities. Lake Arrowhead is predominately a residential/recreation community. Because of this the wastewater flows can vary throughout the year, partially based on high recreational use periods. Maximum daily dry-weather flows typically occur on holiday weekends. On a recent holiday weekend (July 4, 2000), the daily flow was 2.6 mgd. The minimum daily dry-weather flow is approximately 1.3 mgd. Daily flows approach 1.3 mgd during the off-season for vacations, typically during September, October and/or January. The Facilities, which are regulated under this Order, include the:

- a. Collection System;
- b. Domestic wastewater treatment facilities, which consist of the Willow Creek Treatment Facility, Intertie Pipeline and Grass Valley Treatment Facility - (The Grass Valley Treatment Facility includes the Grass Valley Nitrogen Removal Filters);
- c. Outfall Pipeline System; and
- d. Hesperia Disposal Site (Includes the Irrigation Area and Percolation Ponds)

3. Order History

The Regional Board previously established Waste Discharge Requirements (WDRs) for the Discharger under Board Order No. 6-89-110, which was adopted on May 11, 1989, and under Board Order No. 6-89-110A1 (Amended WDRs), which was adopted on June 8, 1995. The Regional Board adopted Cease and Desist Order (CDO) No. 6-93-44 for the Discharger on May 13, 1993, for violations of Board Order No. 6-89-110, the Water Quality Control Plan for the South Lahontan Basin, and the California Water Code (CWC). The violations resulted from unauthorized wastewater discharges during infiltration/inflow (I/I) associated with rainfall in 1992/1993. The Regional Board adopted Amended CDO No. 6-93-44A1 for the Discharger on May 7, 1998. This CDO included an amended schedule for completing actions, including submittal of a report evaluating alternative projects to eliminate the violations.

The Discharger is currently compliant with CDOs No. 6-93-044 and 6-93-044A1. The Discharger has selected a preferred alternative (**Discharger's Preferred Alternative**) to eliminate violations of WDRs related to I/I and unauthorized discharges. Findings No. 6.f and No. 23 provide a description of the **Alternative** and action that the Discharger has completed to implement the **Alternative**.

4. Reason for Action

The Regional Board periodically reviews and updates WDRs in the region to ensure that permits remain consistent with the *Water Quality Control Plan for the Lahontan Region* and state and federal water pollution laws and regulations. This Order updates WDRs to incorporate water quality objectives and prohibitions contained in the 1995 Water Quality Control Plan for the Lahontan Region.

This Order includes new requirements based on US Environmental Protection Agency (USEPA) guidance for prevention of Collection System spills. The Order requires the Discharger to implement USEPA programs to prevent Collection System spills and meet limits on the amount of Collection System I/I. Provisions No. II.C.1 and II.C.2 of this Order requires that the Discharger submit a plan of action and schedule for achieving compliance with these new requirements.

Provision No. II.C.3 of this Order establishes a schedule, which the Discharger must follow to quantify the amount of ground water degradation that may be caused by total dissolved solids (TDS) discharges from the Discharger's Percolation Ponds. The amount of TDS degradation that may be caused by the discharge is needed to determine potential future actions by the Discharger to both reduce degradation and eliminate any violations of the Basin Plan WQOs.

The Board is revising flow limits in discharge specifications to increase the secondary-treatment-capacity rating of the Facilities from 3.5 mgd to 4.0 mgd. The Revised RWD requests the increase and includes technical calculations to justify the increase. Based on information in the Revised RWD a flow limit of 4.0 mgd is included for the disposal capacity of Facilities. That flow limit is based on the hydraulic capacity of the Outfall Pipeline System.

In addition, the Regional Board is:

- a. Updating the findings in WDRs to:
  - i. Describe the Discharger's actions taken toward compliance with CDO No. 6-93-44 (amended by CDO No. 6-93-44A1), and
- b. Updating monitoring and reporting to require:
  - i. Effluent monitoring for hexavalent chromium, and
  - ii. The Discharger to submit a Sludge Management Plan, and Sampling and Analysis Plan.

5. Locations of Facilities

The Willow Creek and Grass Valley Treatment Facilities are located within the W/2, Section 3, and the SE/4, Section 6, T2N, R3W, SBB&M, respectively. The Hesperia Disposal Site is located within the SE/4, Section 1, T3N, R4W, SBB&M. The treatment facilities and Hesperia Disposal Site are located as shown on Attachment "A", which is made a part of this Order. The locations of existing monitoring wells at the Hesperia Disposal Site are shown on Attachment "B", which is made a part of this Order. The location of the Discharger's sewer service area is shown on Attachment "C", which is made a part of this Order.

6. Collection System

a. Description of System

The Discharger's wastewater collection system consists of approximately 300 miles of pipeline. The pipe ranges in size from four (4) inches to 24 inches in diameter. The age of the pipe ranges from new to 75 years of age. The system includes: 10,000<sup>±</sup> manholes, 21 pump stations, and 10,000<sup>±</sup> service connections. The system includes the Willow Creek and Grass Valley Interceptor Sewers. A number of surface water bodies are located within the Discharger's sewer service area (See Finding No. 15). When Collection System overflows occur, they typically reach surface water, because of the proximity of sewers to surface waters.

b. Summary of Spill Problem

The Discharger has recently experienced an increase in the number of spills from its Collection System due to grease buildup and root intrusion. In the high precipitation years of 1992-1993, 1994-1995 and 1997-1998, the Discharger also experienced spills related to a persistent Collection System I/I problem.

Requirements in this Order require the Discharger to improve spill prevention. A discharge specification in this Order establishes limits on the amount I/I based on levels the USEPA considers acceptable. A provision of this Order requires the Discharger to implement programs for Sewer System Capacity, Management, Operation and Maintenance (CMOM Programs). The primary goal of the Programs is to prevent all spills from the Collection System.

The US Environmental Protection Agency has prepared and distributed a draft version of regulations, which would require owners of municipal sewers to implement CMOM

Programs. The US Government is currently considering approval of regulations.

c. Description of Root and Grease Problem

During the period of July 1, 2001 through December 31, 2001, there were five spills from the Collection System to surface waters. The spills resulted from obstructions within sewer pipe consisting of grease buildup and root intrusion. The total volume spilled was 3900 gallons. The Discharger has performed statistical evaluation of historic data, which shows that the Discharger can significantly reduce stoppages due to root intrusion and grease buildup by cleaning from 25% to 32% of the Collection System per year. This is equivalent to approximately 400,000 to 500,000 linear feet of pipeline/year (75 to 95 miles of pipeline/year) (*LKACSD, 2000a*). The Discharger may be able to achieve a similar reduction in stoppages using other methods.

d. Description of Infiltration/Inflow (I/I) Problem

I/I has been a persistent problem in the Discharger's Collection System for many years. When the sustained influent flows to the treatment facilities exceed the hydraulic capacity of the Outfall Pipeline System (4.0 mgd), discharges to unauthorized disposal sites occur. The frequency of the unauthorized discharges has been approximately once every four years for a duration of roughly 30 days. This frequency and duration may increase with population growth and associated increases in raw sewage flows in the sewered area. Table No. 12 of Attachment E summarizes current flows and estimated flows in 2015 of untreated wastewater to treatment facilities. For the purposes of this Order, the term "high I/I" exists when sustained influent flows exceed the hydraulic capacity of the Outfall Pipeline System (4.0 mgd).

The Discharger's 1991 Master Plan concludes that a sizable portion of the I/I is due to defective manholes (Poorly constructed pipe/manhole base connections, porous concrete manhole bases, unsealed concrete manhole ring joints, poorly seated manhole cover rings and cover lift holes). Other sources of I/I include: defective pipe joints, bad lateral taps, open cleanouts at service laterals, illegal surface drain connections and illegal removal of manhole covers to relieve local flooding problems. Pipe joints in older portions of the Discharger's Collection System allow higher infiltration than joints in newer portions of the Collection System.

e. Infiltration/Inflow (I/I) Standards

The USEPA has established two separate standards for defining excessive levels of infiltration and inflow. It uses the two standards in determining eligibility for USEPA construction grants for sewage treatment facilities. For the purposes of this Order, excessive I/I exists when infiltration and/or inflow exceeds the respective USEPA standards. A discharge specification in this Order incorporates these two standards as limits on the amount I/I allowed in the Discharger's Collection System. The discharge specification includes procedures for determining compliance with the USEPA standards. Tables No. 1 and No. 2 summarize results of an example analysis using these procedures. The results indicate both infiltration and inflow in the Discharger's Collection System is excessive and does not meet USEPA standards.

**Table No. 1**  
**Sewer Infiltration**

USEPA Standard (gpcd)	Average Influent Flowrate from Collection System to Willow Creek & Grass Valley Treatment Facilities (Period)	Reduction Required to Meet Standard
≤120	3.16 mgd (148 gpcd) (May 17 - 23, 1998 (7-day period)) (LKACSD, 1999)	23%

The average influent flowrate of 3.16 mgd in Column 2 of Table No. 1 occurred during a seven-day period with no rainfall. The seven-day period followed a storm that ended on May 16, 1998.

**Table No. 2  
 Sewer Inflow**

USEPA Standard (gpcd)	Highest Daily Flow from Collection System to Willow Creek & Grass Valley Treatment Facilities (Date)	Reduction Required to Meet Standard
≤275	8.5 mgd (400 gpcd) (January 17, 1993)	45%
	6.5 mgd (306 gpcd) (January 8, 1995)	11%
	7.0 mgd (329 gpcd) (February 23, 1998)	20%

To provide better tracking of the Discharger's progress in reducing I/I, the attached Revised Monitoring and Reporting Program requires the Discharger to conduct and report results of routine evaluations for excessive I/I. It also requires the Discharger to report total daily rainfall amounts. The Discharger needs this data to make such evaluations.

f. Reduction of Infiltration/Inflow

Since the 1992/1993-rainfall period, the Discharger has completed corrective actions that have reduced I/I. The amount of reduction since this period is difficult to measure, because the subsequent rainfall periods in 1994/1995 and 1997/1998 were smaller. Evaluation indicates the Discharger's corrective actions may have reduced I/I in the Grass Valley Sewer Subsystem by more than 0.2 mgd or 20% (LKACSD, 1998). This 0.2 mgd would equal a reduction of more than 2%<sup>1</sup> for the entire Collection System. The I/I for the entire Collection System, however, is still excessive and exceeds standards established by the USEPA.

Between 1993 and 1997, the Discharger completed an extensive program for identifying I/I sources. During this period, the Discharger conducted television inspection and smoke testing of areas within its Collection System, which it considered more problematic. TV

inspection and smoke testing identify I/I sources including defective pipe joints, bad lateral connections, open cleanouts and illegal surface drain connections. The Discharger inspected and tested 200,000 and 150,000 feet of sewer, respectively. (LKACSD, 1995)(LKACSD, 1996)(LKACSD, 1997)(LKACSD, 1998)

Results of sewer inspection show that the need for rehabilitation and replacement of pipe and manholes to reduce I/I is extensive. The Discharger has implemented a long-term program to address portions of its Collection System needing to be replaced or rehabilitated. Since 1993, the Discharger has completed a series of projects. The projects include rehabilitation of an average of 100 manholes/year. The total number of manholes rehabilitated is 705. The Discharger is proposing to rehabilitate an additional 85 manholes in 2002. In 1999 through 2001, the Discharger replaced or rehabilitated approximately 5,922 feet of sewer pipe, which included construction of 70 new manholes. During 2002, the Discharger is proposing projects to replace or rehabilitate approximately 8,000 feet of sewer pipe and replace or rehabilitate approximately 74 manholes. The Discharger is planning to continue completion of similar projects beyond 2002. (LKACSD, 2001b)

7. Description of Treatment Facilities

Separate interceptor sewers convey raw domestic wastewater to the headworks of the Willow Creek and Grass Valley Treatment Facilities. Tables No. 3 and 4 describe individual treatment units. The Discharger uses the Intertie Pipeline to convey sludge and wastewater between Willow Creek and Grass Valley Treatment Facilities. The Intertie Pipeline has a diameter of 24 inches, a length of 10,750 feet and is composed of ductile iron.

**Table No. 3**  
**Willow Creek Treatment Facility and Intertie Pipeline**

Treatment Units	Number of Units
Wastewater	---
Aerated grit chamber	1
Primary clarifiers	2
Activated sludge and secondary clarifier units	2
Intertie Pipeline (denitrification)	1
Chlorine contact tanks	2
Effluent equalization ponds	2
Sludge	---
Gravity thickener	1
Vacuum filter (inactive)	1
Sludge conveyor (inactive)	1
Incinerator (inactive)	1
Ash conveyor & storage (inactive)	1

The Discharger constructed the Grass Valley Nitrogen Removal Filters listed in Table No. 4 to comply with a cease and desist order (CDO) issued by the Board in 1989. The Board issued the CDO because concentrations of nitrate in groundwater underlying the Hesperia Disposal Site exceeded the maximum contaminant level of 10 mg/l as N. The Nitrogen Removal Filters are deep

bed sand filters that perform denitrification using methanol. At flows of about 2.5 mgd, the Filters can achieve a residual of less than 10 mg/L of nitrate as N. The Filters do not perform tertiary filtration for removal of turbidity and suspended solids. Tertiary filtration typically requires treatment by coagulation/flocculation before treatment by filters. The Discharger’s Grass Valley Treatment Facility does not use coagulation/flocculation.

**Table No. 4**  
**Grass Valley Treatment Facility**

Treatment Units	Number of Units
Wastewater	---
Aerated grit chamber	2
Primary clarifiers	2
High-rate plastic media trickling filters	2
Secondary Clarifiers	2
Effluent equalization ponds	1
Grass Valley Nitrogen Removal Filters	3
Chlorine contact tanks	2
Sludge	---
Gravity thickener	1
Belt filter press	1

8. Description of Outfall Pipeline System

The Outfall Pipeline System conveys effluent from the Treatment Facilities to the Hesperia Disposal Site, a distance of 9.4 miles (See Attachment A). It consists of three components: the Willow Creek and Grass Valley Branches, and the Common Outfall Pipeline. The Willow Creek and Grass Valley Branches connect to the Common Outfall Pipeline at a point downgradient of the Treatment Facilities. The pipe in the System is composed of steel. The respective pipe diameters for the Willow Creek and Grass Valley Branches are 12 and 24 inches. Pipe diameters for the Combined Branch are eight (8), 10 and 12 inches.

9. Description of Wastewater Characteristics

The Collection System serves the Lake Arrowhead area, which is predominantly a residential/recreation community. There are approximately 10,000 sewer connections. Less than one half of these connections provide service to permanent residents. Over 50% of the residential dwelling units are second homes. During vacation periods, the population may double on a temporary basis. During periods of high I/I, the flow from Collection System to Willow Creek and Grass Valley Treatment Facilities may be highly diluted.

10. Description of Authorized Disposal Sites

The Irrigation Area and Percolation Ponds at the Hesperia Disposal Site are the only authorized disposal sites. The sites are located adjacent to the Mojave River in Hesperia. The Hesperia Disposal Site is approximately 350 acres. The area of the Irrigation Area is approximately 150-

acres and is used for spray irrigation of fodder crops. The percolation ponds have a disposal capacity of 4.0 mgd.

11. Modes of Operation and Treatment Capacities

a. Modes of Operation

Table No. 5 summarizes modes used by the Discharger to operate treatment facilities.

**Table No. 5  
 Mode of Operation**

<b>Mode</b>	<b>Operation of Treatment Facilities</b>	<b>Period of Use</b>
1	Separate	Dry weather, and wet weather where I/I is not high
2	Integrated	Dry weather, wet weather where I/I is not high, and temporary increase of population
3	Integrated	Wet weather where I/I is high

b. Mode No. 1

Under the separate mode (Mode No. 1), the Intertie Pipeline is not in use and final effluent from the Willow Creek and Grass Valley Treatment Facilities is discharged into the Willow Creek and Grass Valley Outfall Pipeline Branches, respectively. The Discharger can haul sludge generated at the Willow Creek Treatment Facility by tank truck to the Grass Valley Treatment Facility for dewatering.

c. Mode No. 2

Under the integrated modes (Mode No. 2 and 3), the Discharger operates the Willow Creek and Grass Valley Treatment Facilities so that they function as one treatment facility. When the Intertie Pipeline is in use the operation is integrated. Under Mode No. 2, the Willow Creek Treatment Facility provides secondary treatment and full nitrification of the influent flow from the Willow Creek Interceptor Sewer. Secondary effluent, primary sludge and return activated sludge generated by the Willow Creek Treatment Facility flows into the Intertie Pipeline. The Intertie Pipeline conveys the flow to the headworks of the Grass Valley Treatment Facility for further treatment. Denitrification of the wastewater occurs inside the Intertie Pipeline. The Grass Valley Treatment Facility provides treatment of the combined flows from the Grass Valley Interceptor and the Intertie Pipeline. Wastewater treatment at the Grass Valley Treatment Facility includes secondary treatment with full nitrification, denitrification by the Nitrogen Removal Filters, and disinfection (chlorination).

d. Mode No. 3

Under Mode No. 3 (high I/I), the treatment facilities are operated similar to the methods described above for Mode No. 2. The Discharger’s treatment facilities can treat raw wastewater influent flows (wet weather, maximum peak hour flows) of 10<sup>+</sup> mgd. The Outfall Pipeline System cannot convey sustained flows above 4 mgd. The Discharger releases effluent to unauthorized disposal sites (Hillside Ponds and Grass Valley Creek), as described in more detail under Finding No. 23 titled: Cease and Desist Order. Finding No. 23 also describes the **Discharger’s Preferred Alternative** for addressing the violations related to high I/I.

e. Treatment Capacities

Under Mode 1 and 2, the total capacity to treat raw wastewater is 4.0 mgd (dry weather, maximum average 24-hour flow). Table No. 6 lists the treatment capacities in terms of mgd of untreated wastewater flow to the Willow Creek and Grass Valley Treatment Facilities (TFs).

**Table No. 6**  
**Secondary Treatment Capacities (mgd)**

<b>Willow Creek TF</b>	<b>Grass Valley TF</b>	<b>Total</b>	<b>Type of Design Capacity</b>
1.7	2.3	4.0	Dry weather, maximum average 24-hour flow
2.0	---	---	Wet weather (with high I/I), maximum average 24-hour flow
---	2.5	---	Dry weather, maximum average 72-hour flow
3.35	6.7	10	Dry weather, maximum peak hour
---	7.4	---	Wet weather, maximum peak hour

f. Hydraulic Capacities

Table No. 7 summarizes maximum flowrates (hydraulic capacities) of key facilities.

**Table No. 7**  
**Hydraulic Capacities (Maximum Instantaneous)**

<b>Facility</b>	<b>Hydraulic Capacity (mgd)</b>
Willow Creek Interceptor Sewer	6.3
Willow Creek Treatment Facility	5.6
Intertie Pipeline	12.7
Grass Valley Interceptor Sewer	3.1
Grass Valley Treatment Facility	8.0
Outfall Pipeline System	4.0

12. Sludge Treatment and Disposal

Dewatered sludge is hauled offsite to either the Mitsubishi Cement Plant in Lucerne Valley for incineration or to a composting facility for treatment.

13. Land Ownership

The Willow Creek and Grass Valley Treatment Facilities are located on federal lands administered by the US Forest Service. The Outfall Pipeline System is located on federal lands administered by the US Forest Service and state land administered by Caltrans. The Hesperia Disposal Site is located on land owned by the Discharger.

14. Recycling Regulation

The State Department of Health Services has established statewide reclamation criteria for the use of recycled water for the irrigation of fodder crops. In accordance with Section 13523 of the CWC, the Regional Board consulted with and received the recommendations of the State Department of Health Services concerning reclamation requirements, which are incorporated within this Order.

15. Surface Hydrology and Climate

The Facilities are located in the Mojave River watershed, which has an area of about 1,600 square miles. Its headwaters are in the San Bernardino Mountains, which reach a maximum elevation of about 8,500 feet. The Mojave River has two large perennial tributaries, the West Fork of the Mojave River and Deep Creek. These streams converge immediately upstream of the Mojave Forks Dam, a flood control facility, to form the main Mojave River. The Mojave River channel is about 120 miles long and ends at Soda and Silver Dry Lakes near the town of Baker. Most of the flow in the Mojave River channel is underground.

The Discharger’s Collection System and treatment facilities are located in a coniferous forest (San Bernardino Mountains) at elevations above mean sea level (elevation above msl) ranging from 4500 to 6000 feet. The Hesperia Disposal Site is located adjacent to the Mojave River Channel in the Mojave Desert (high desert) at an elevation above msl of 2930 feet. Table No. 10 of Attachment E summarizes the rainfall amounts where the Discharger’s Facilities are located. Surface waters located within the Discharger’s sewer service area include Lake Arrowhead, Grass Valley Lake, Papoose Lake, Grass Valley Creek, Lower Little Bear Creek, Willow Creek and the streams listed in Table No. 8, which are tributary to Lake Arrowhead.

**Table No. 8**

<b>Stream</b>	<b>Upgradient Tributary Stream</b>
Upper Little Bear Creek	Blue Jay Creek
Burnt Mill Creek	---
Fleming Creek	Kuffel Canyon Creek
Orchard Creek	---

Grass Valley Creek is tributary to the West Fork of the Mojave River. Lower Little Bear Creek and Willow Creek are tributary to Deep Creek.

16. Hydrogeology at Disposal Site

The Discharger’s Hesperia Disposal Site is located in the City of Hesperia approximately two miles downstream of the Mojave Forks Dam mentioned above. It is located adjacent to the west bank of the Mojave River. The soils underlying the Site consist of riverbed deposits (primarily of sands and gravels), which extend to depths between 100 and 200 feet. The average depth to ground water at the Disposal Site is approximately 30 feet. The general direction of ground water flows is in a northerly direction parallel to the Mojave River channel.

17. Water Supply Wells

The distance (feet) from the authorized disposal locations (Percolation Ponds and Irrigation Area) to the nearest downgradient domestic water supply wells is summarized in Table No. 9. The Lake Arrowhead CSD Farmhouse Water Supply Well referenced in Table No. 9 is currently the only active domestic well located on the Discharger’s Hesperia Disposal Site. It is used by Lake Arrowhead CSD employees located at the Farmhouse. Bottled water is also available to employees. The Hesperia Water District has four municipal water supply wells located near the Hesperia Disposal Site. Two are located in Hesperia Lakes Park (See Table No. 9) and two more are located further to the north where Main Street becomes Arrowhead Lake Road. There are no other municipal wells located closer than 4000<sup>+</sup> feet to the authorized disposal sites. Table No. 9 provides the distance to the nearest downgradient water supply wells. There are individual domestic water supply wells located on private land either upgradient or cross gradient from the Hesperia Disposal Site. These wells are located a distance greater than 150 feet from the Disposal Site.

**Table No. 9**  
**Distance (Feet) from Disposal Locations to**  
**Nearest Downgradient Domestic Water Supply Wells**

<b>Type of Water Supply Well</b>	<b>Irrigation Area</b>	<b>Percolation Ponds</b>
Municipal	2200 (Hesperia Lakes Park Wells)	4000 <sup>+</sup> (Hesperia Lakes Park Wells)
Private Individual	> 2200	> 4000 <sup>+</sup>
Individual (Lake Arrowhead CSD Farmhouse)	150	500
Individual (Lake Arrowhead CSD Well) (PW-1, Inactive)	500	3000

18. Water Quality

Total dissolved solids concentrations in ground water at the Hesperia Disposal Site range from 150-350 mg/L. Nitrate as nitrogen concentrations are below 10 mg/L.

19. Receiving Waters

The receiving waters are the ground waters of the Upper Mojave Hydrologic Area of the Mojave Hydrologic Unit, (Department of Water Resources Unit No. 6-42).

20. Lahontan Basin Plan

The Regional Board adopted a Basin Plan, which became effective on March 31, 1995. This Order implements the Basin Plan, as amended.

21. Beneficial Uses

The beneficial uses of the ground waters of the Upper Mojave Hydrologic Area of the Mojave Hydrologic Unit as set forth and defined in the Basin Plan are:

- a. Municipal and domestic supply (MUN)
- b. Agricultural supply (AGR)
- c. Industrial service supply (IND)
- d. Freshwater replenishment (FRSH)

22. Non-degradation

a. Non-Degradation Water Quality Objective (WQO)

State Water Resources Control Board (SWRCB) Resolution No. 68-16 (Statement of policy for maintaining high quality of waters in California) represents the Non-Degradation WQO in the Basin Plan. This WQO requires maintenance of existing high quality in surface waters, ground waters and wetlands. Whenever the existing quality of water is better than the quality of water established in the Basin Plan, such existing quality shall be maintained unless appropriate findings are made under Resolution No. 68-16. TDS concentrations in the discharge exceed background concentrations of TDS in ground water underlying the Hesperia Disposal Site.

b. WQO Compliance

The cumulative effect of the discharge and other discharges (not regulated by this Order) are believed to be causing an overall trend of TDS increases in the Victor Valley ground water. Evaluation is currently underway to determine if the TDS increases are causing exceedance of any applicable WQOs for TDS. Irrigation of fodder crops with recycled water in the Discharger's Irrigation Area may be exempt from compliance with TDS WQOs under Section 13523.5, California Water Code.

A provision of these WDRs includes a schedule the Discharger must meet to prepare a Phase I Report to quantify the magnitude and extent of TDS degradation of ground water that may be caused by use of the Percolation Ponds for disposal.

23. Cease and Desist Orders

a. Status of Compliance: May 13, 1993 to May 17, 1998

The Discharger is currently compliant with CDOs No. 6-93-044 and 6-93-044A1, which were issued on May 13, 1993 and May 7, 1995, respectively. The Regional Board issued CDO No. 6-93-044 in 1993 for discharges to unauthorized sites, which included Grass Valley Creek, Hillside Ponds and Willow Creek, which are shown in Attachments A and D. These discharges (violations) occurred during high I/I associated with rainfall in 1992/1993. The volumes of the discharges are shown in the attached Table No. 11 of Attachment E. Within several months of issuance of the CDO, the Discharger directed additional resources for sewer inspection and reduction of I/I. The inspections indicated that the need for corrective action is extensive. The Discharger evaluated reduction of I/I to USEPA standards (20% reduction) and further reduction to prevent unauthorized discharges (40% reduction). Reduction of I/I by either 20% or 40% is not feasible to complete within a short time frame. The need for rehabilitation and replacement of pipe and manholes within the Collection System is extensive.

By January 1995, the Discharger had constructed and begun operating facilities to further address the problem. The facilities reduce impacts to water quality from unauthorized discharges during high I/I. The new facilities consisted of the Intertie Pipeline and Grass Valley Nitrogen Removal Filters. These facilities provided a higher degree of treatment for unauthorized discharges to Grass Valley Creek that occurred during rainfall periods in 1994/1995 and 1997/1998 (See Table No. 11 of Attachment E). The previous unauthorized discharges to Grass Valley Creek, which occurred during 1992/1993, did not receive this higher degree of treatment.

The Intertie Pipeline (placed into operation by January 1995) helped to prevent unauthorized discharges to Willow Creek during the rainfall periods in 1994/1995 and 1997/1998. The Pipeline conveyed excess wastewater from the Willow Creek Interceptor Sewer to the Grass Valley Treatment Facility, thereby preventing overflow from the Hillside Ponds to Willow Creek.

b. Status of Compliance: May 17, 1998 to Present

Because prevention of the discharges (violations) by reduction of I/I alone is not feasible within a short time frame, the Regional Board issued CDO No. 6-93-044A1 in 1998. This CDO included an amended schedule for completing actions, including submittal of a report evaluating alternative projects to eliminate the violations. In 1999, the Discharger evaluated several alternatives for eliminating violations. The Discharger selected a preferred alternative (**Discharger's Preferred Alternative**). The Discharger had evaluated its **Preferred Alternative** in earlier evaluations. In the 1999 evaluation, the Discharger retained this **Alternative**.

Under the **Discharger's Preferred Alternative**, the Discharger would reduce I/I to meet USEPA standards and obtain WDRs that permit disposal of treated effluent to alternate disposal sites (Hillside Ponds and Grass Valley Creek) during periods of high I/I. Finding No. 23c provides a more detailed description of the **Discharger's Preferred Alternative**. Finding No. 6f describes Discharger actions completed and proposed to reduce I/I in the Collection System, which is part of the **Alternative**.

On March 27, 1996, the Discharger filed a Revised RWD with the Regional Board for its **Preferred Alternative**. The Discharger's Revised RWD requests that the Regional Board issue WDRs, which would authorize/permit disposal of wastewater to the Hillside Ponds and Grass Valley Creek thereby eliminating violations. The Regional Board has not been able to process the March 27, 1996 Revised RWD. Waste discharge prohibitions in the current Basin Plan do not allow the Regional Board to consider approval of the **Discharger's Preferred Alternative**. The Regional Board is currently processing Basin Plan amendments that would allow the Regional Board to consider approval of exemptions to the prohibitions and approval of the **Discharger's Preferred Alternative**. The status is discussed below under Status of Basin Plan Amendments. The Discharger's March 27, 1996 RWD is currently in the Regional Board's pending application file to allow time for processing of amendments to the Basin Plan. In the mean time:

- The Discharger has established surface water monitoring stations for Grass Valley Creek and plans to establish ground water monitoring stations for the Hillside Ponds.
- Continues sampling of Grass Valley Creek when surface flow is present including times when unauthorized discharges occur to the Creek
- Hired a consulting geologist who has prepared a hydrogeology report for the Hillside Ponds dated April 26, 1999

The Discharger is performing the above work in accordance with the Executive Officer's letter of February 24, 2000 to the Discharger.

c. Description of Discharger's Preferred Alternative

Under the **Discharger's Preferred Alternative**, the Discharger would reduce I/I to meet USEPA standards and obtain WDRs that permit disposal of treated effluent to alternate sites (Hillside Ponds and Grass Valley Creek) when I/I is high and sustained influent flows exceeds 4.0 mgd (Outfall Pipeline System hydraulic capacity). The Discharger would initiate a discharge to the Hillside Ponds first. Discharge to Grass Valley Creek would only occur when:

- The storage and disposal capacity at the Hillside Ponds is reached, and
- The flowrate of storm runoff in Grass Valley Creek (upgradient of the discharge point) is equal to or greater than 40 mgd (60 cfs).

The discharge to the alternate disposal sites would consist of disinfected secondary effluent. The proposed discharge to Grass Valley Creek would pass through the Nitrogen Removal Filters (for nitrogen removal) before disinfection and discharge to the Creek. The flowrates to the Hillside Ponds and Grass Valley Creeks would be from zero to 2.0 mgd and zero to 4.0 mgd, respectively. Most of the facilities, which the Discharger would use for treating discharges to these sites, are currently in place and operating. At the Grass Valley Treatment Facility, the Discharger would either replace the existing chlorination facilities with ultraviolet disinfection or add dechlorination using sulfur dioxide. Finding No. 6.f discusses the frequency and duration of the discharge to the alternate disposal sites.

At the Grass Valley Treatment Facility, the Nitrogen Removal Filters, which are granular media filters, can hydraulically accept a secondary effluent flow of 4.0 mgd at a loading rate of 3.1 gallons per square foot per minute. The nitrogen removal efficiency, however, is significantly reduced from that described above under the finding titled Description of Treatment Facilities. The Grass Valley Treatment Facility does not perform tertiary filtration for removal of turbidity and suspended solids, although some removal is realized following the Nitrogen Removal Filters.

Grass Valley Creek is ephemeral at the point of discharge as well as downgradient of that point. Under the **Discharger's Preferred Alternative**, the flow of effluent in Grass Valley Creek would constitute less than 10% of the flow in the Creek. In terms of dry-weather effluent strength, the effluent would constitute less than 1.6% of the flow in Grass Valley Creek.

d. Status of Basin Plan Amendments

There are three waste discharge prohibitions in the current Basin Plan (Mojave Hydrologic Unit Prohibitions No. 1, 2 and 4), which do not allow the Regional Board to consider approval of the **Discharger's Preferred Alternative**. Two separate Basin Plan amendments (described below) are currently underway, which if approved would allow the Regional Board to consider approval of exemptions to the prohibitions and approval of the **Discharger's Preferred Alternative**. If the amendments are approved and the Discharger subsequently submits remaining items to complete its RWD, the Regional Board can remove the RWD from the pending file and begin processing of the RWD.

On July 12, 2000, the Regional Board adopted Resolution No. 6-00-66 approving the

proposed amendments to Mojave Hydrologic Unit Prohibition No. 1 and other portions of the Basin Plan. The proposed change is not effective until the following additional agencies grant their approvals: State Water Resource Control Board (SWRCB), California Office of Administrative Law (OAL), and USEPA.

Regional Board staff has also begun processing Basin Planning amendments, which includes proposed changes to Mojave Hydrologic Unit Prohibitions No. 2 and 4. Regional Board staff expects to present these proposed changes to the Regional Board during the latter part of 2002. Processing of the proposed changes began following a December 14, 2000 letter to the Regional Board's office from Discharger's staff. The letter expressed concern about whether Prohibitions No. 2 and 4 applied to the **Discharger's Preferred Alternative**. Legal review of Prohibitions No. 2 and 4 indicate that the prohibitions do apply. Moreover, the exemption criteria wording of these prohibitions indicates the **Discharger's Preferred Alternative** is not currently eligible for an exemption from the prohibitions. Regional Board staff is currently formulating proposed exemption criteria, which (if approved) would allow consideration of exemptions for the **Discharger's Preferred Alternative**.

24. California Environmental Quality Act Compliance

These revised WDRs govern existing facilities, which the Discharger is currently operating. The project consists only of the continued operation of the existing facilities governed by these revised WDRs and is therefore exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21,000 et seq.) in accordance with Section 15301, Chapter 3, Title 14, California Code of Regulations (CCR).

25. Notification of Interested Parties

The Regional Board has notified the Discharger and interested parties of its intent to revise WDRs for the discharge.

26. Consideration of Public Comments

The Regional Board in a public meeting, heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED** that the Discharger shall comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Effluent Limits

1. The total dry-weather untreated wastewater flow to the Willow Creek Treatment Facility during a 24-hour period shall not exceed 1.7 million gallons.
2. During wet weather with high I/I, the total untreated wastewater flow to the Willow Creek Treatment Facility during a 24-hour period shall not exceed 2.0 million gallons.
3. During holiday weekends (temporary increases in population), the average (dry-weather) untreated wastewater flowrates to the Grass Valley Treatment Facility

during a 72-hour period shall not exceed 2.5 mgd. For all other dry-weather periods, the total untreated wastewater flow to the Grass Valley Treatment Facility during a 24-hour period shall not exceed 2.3 million gallons.

4. The maximum hourly average, dry-weather flowrates to the treatment facilities during a one-hour period shall not exceed 3.35 mgd at the Willow Creek Treatment Facility and 6.7 mgd at the Grass Valley Treatment Facility.
5. The total effluent flow to the Outfall Pipeline System pipelines during a 24-hour period shall not exceed 4.0 million gallons.
6. All wastewater discharged to the authorized disposal sites shall not contain concentrations of parameters in excess of the following limits:

<u>Parameter</u>	<u>Units</u>	<u>30-Day Mean<sup>2</sup></u>	<u>Daily Maximum<sup>3</sup></u>
Biochemical Oxygen Demand <sup>4</sup>	mg/L	20	30
Methylene Blue Active Substances	mg/L	1.0	2.0
Total Nitrogen as N	mg/L	8	10

7. All wastewater made available to the authorized disposal sites shall have a pH of not less than 6.0 pH units nor more than 9.0 pH units. A pH value over 9.0 is allowed if it results from a biological process within the treatment facilities.
8. All wastewater discharged to the authorized disposal sites shall have a dissolved oxygen concentration not less than 1.0 mg/L.

**B. Receiving Water Limitation**

1. The discharge shall not cause the nitrate concentration in ground waters beneath the Hesperia Disposal Site to exceed the USEPA drinking water maximum contaminant level of 10.0 mg/l as nitrogen.
2. This discharge shall not cause a violation of any applicable water quality standards for receiving water adopted by the Regional Board or the State Water Resources Control Board (SWRCB).
3. The discharge shall not cause the presence of the following substances or conditions in ground waters of the Mojave Hydrologic Unit:
  - a. Bacteria: In ground waters, the median concentration of coliform organisms over any seven-day period shall be less than 1.1/100 milliliters.
  - b. Chemical Constituents: Ground waters shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking

water standards specified in the following provisions of Title 22 of the CCR: Table No. 64431-A of Section 64431 (Inorganic Chemicals), Table No. 64431-B of Section 64431 (Fluoride), Table No. 6444-A of Section 64444 (Organic Chemicals), Table No. 64449-A of Section 64449 (SMCLs - Consumer Acceptance Limits), and Table No. 64449-B of Section 64449 (SMCLs - Ranges). This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect. Waters designated as Agricultural Supply shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes).

Ground waters shall not contain concentrations of chemical constituents that adversely affect the water for beneficial uses.

- c. Radioactivity: Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life, or that result in the accumulation of radionuclides in the food chain to an extent that it presents a hazard to human, plant, animal, or aquatic life. Waters shall not contain concentrations of radionuclides in excess of limits specified in the CCR, Title 22, Chapter 15, Article 5, Section 64443.
- d. Taste and Odors - Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses. For ground waters designated as Municipal or Domestic Supply at a minimum, concentrations shall not exceed adopted SMCLs specified in Table No. 64449-A of Section 64449 (SMCLs - Ranges), and Table No. 64449-B of Section 64449 (SMCLs - Ranges) of Title 22 of the CCR, including future changes as the changes take effect.

C. Recycling Requirements

- 1. All effluent made available for recycling shall comply with the Department of Health Services Water Recycling Criteria as specified in Chapter 3, Division 4, Title 22 of the CCR.
- 2. All wastewater discharged to the Outfall Pipeline System pipelines shall be at all times an adequately disinfected, oxidized wastewater. The median concentration of total coliform bacteria in the disinfected effluent shall not exceed a most probable number (MPN) 23 per 100 ml, utilizing the bacteriological results of the last seven (7) days for which analyses have been completed, and the number of total coliform bacteria shall not exceed an MPN of 240 per 100 ml in more than one sample in any 30 day period.

D. General Requirements and Prohibitions

1. There shall be no discharge, bypass, or diversion of raw or partially treated sewage, sewage sludge, grease, or oils from the collection, transport, treatment, or disposal facilities to adjacent land areas or surface waters.
2. Surface flow or visible discharge of sewage or sewage effluent from the authorized disposal sites to adjacent land areas or surface waters is prohibited.
3. All facilities used for collection, transport, treatment or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage, or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.
4. The vertical distance between the liquid surface elevation and the lowest point of a pond dike or the invert of an over flow structure shall not be less than 1.5 feet.
5. Neither the treatment nor the discharge shall cause pollution, threatened pollution or nuisance as defined in the California Water Code.
6. The Discharger shall comply with USEPA standards for Collection System infiltration, which is 120 gallons per capita per day (gpcd). During any seven-day period, which has no measurable rainfall but follows a day with measurable rainfall, the average daily influent flowrates ( $Q_{\text{gpcd, infiltration}}$ ) to the treatment facilities shall not exceed 120 gpcd. [ $Q_{\text{gpcd, infiltration}} = Q_{\text{gpd, infiltration}} \div P$  where:
  - i.  $Q_{\text{gpd, infiltration}}$  is the average daily influent flowrate (gallons per day) for the seven-day period
  - ii. P equals the estimated population, which is determined by dividing the average monthly dry-weather influent flow ( $Q_{\text{gpd, dw}}$ ) to the treatment facilities by 80 gpcd.<sup>5</sup>  $Q_{\text{gpd, dw}}$  is the average influent flowrate during dry weather (A period during the previous summer when there is no rainfall.)]
7. The Discharger shall comply with USEPA standards for Collection System inflow, which is 275 gpcd. The daily flow ( $Q_{\text{gpcd, inflow}}$ ) on any day shall not exceed 275 gpcd. [ $Q_{\text{gpcd, inflow}} = Q_{\text{gpd, inflow}} \div P$  where  $Q_{\text{gpd, inflow}}$  is the flow for the day in gpd and P equals the estimated population, which is calculated as described in the preceding discharge specification.
8. The discharge of wastewater except to the authorized disposal sites is prohibited.
9. The discharge of waste, as defined in the CWC, which causes violation of any narrative WQO contained in the Basin Plan, including the Non-Degradation Objective, is prohibited.
10. The discharge of waste, which causes violation of any numeric WQO contained in the Basin Plan, is prohibited.
11. Where any numeric or narrative WQO contained in the Basin Plan is already being

violated, the discharge of waste, which causes further degradation or pollution, is prohibited.

12. The Discharger shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices.

## II. PROVISIONS

### A. Cease and Desist Orders

Cease and Desist Orders No. 6-93-44 and 6-93-44A1 shall remain in effect.

### B. Rescission of Waste Discharge Requirements

Discharge Specifications No. I.D.1, I.D.3 and I.D.5 of Board Order No. 6-89-110 shall remain in effect and unchanged. All other Discharge Specifications and Findings of Board Order No. 6-89-110, and all Provisions of Board Order No. 6-89-110 are no longer in effect. Board Order No. 6-89-110A1 is hereby rescinded.

### C. Time Schedules

1. By **April 12, 2002**, the Discharger shall submit to the Regional Board's Victorville office a plan of action and schedule for achieving compliance with Discharge Specifications No. I.D.6 and I.D.7 of this Order (USEPA standards for I/I).
2. By **June 13, 2002**, the Discharger shall submit a **Workplan** to the Regional Board's Victorville office for establishing and implementing programs that include but are not limited to the Sewer System Capacity, Management, Operation and Maintenance Programs (CMOM Programs) described in the most current version of the USEPA CMOM regulations. The **Workplan** shall include a schedule for submitting **Report(s)** to the Regional Board's Victorville office, which describe each of the proposed programs. Each **Report** shall include a schedule for implementing the program(s) described in the **Report**. The **Reports** shall address all of the elements contained in the USEPA CMOM regulations. If the Discharger believes a certain element is not applicable, the Discharger shall include justification for not addressing that element.
3. The Discharger shall:
  - a. By **April 12, 2002**, submit a **Workplan** to the Regional Board's Victorville office for completing a **Phase I Study**. The primary purpose of the **Phase I Study** is to quantify the magnitude and extent of TDS degradation of ground water that may be caused by use of the Percolation Ponds for disposal. This information will be used to determine potential future actions by the Discharger to both reduce degradation and address any violations of the Basin Plan WQOs.
  - b. Following approval of the **Workplan** and by **June 13, 2002**, begin the **Phase I Study** for evaluation of TDS degradation of ground water.

- c. Submit a **Phase I Report** to the Regional Board's Victorville office by **April 18, 2003**. The **Phase I Report** shall:
- i. Contain the information described in the **Workplan**;
  - ii. Describe the total amount of TDS degradation (i.e, the current concentrations of TDS in the Aquifer minus the respective background concentrations.); and
  - iii. Describe the portion of the total TDS degradation contributed by use of the Percolation Ponds for disposal.

D. Operator Certificates

The Discharger's treatment facilities shall be supervised by persons possessing a wastewater treatment plant operator certificate of appropriate grade pursuant to Title 23, of the CCR.

E. Standard Provisions

The Discharger shall comply with the "Standard Provisions for WDRs" dated September 1, 1994, in (Attachment "G") which is made part of this Order.

F. Monitoring and Reporting

1. Pursuant to Section 13267(b), the Discharger shall comply with the Monitoring and Reporting Program R6V-2002-0008 as specified by the Executive Officer.
2. The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of the Monitoring and Reporting Program.

3. The names and grades of treatment facility operators, certified in accordance with Provision No. II.D shall be reported to the Regional Board's Victorville office by **March 30<sup>th</sup>** of each year.

I, Harold J. Singer, 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, Lahontan Region, on February 13, 2002.

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HAROLD J. SINGER  
EXECUTIVE OFFICER

- Attachments:
- A. Location Map
  - B. Hesperia Disposal Site
  - C. Sewer Service Area
  - D. Hillside Ponds
  - E. Tables No. 10, 11 and 12
  - F. List of References
  - G. Standard Provisions for Waste Discharge Requirements

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<sup>1</sup>  $I/I_{\text{reduction}} = (I/I_{\text{reduction in mgd}} \div I/I_{\text{maximum in mgd}}) \times 100 = (0.2 \text{ mgd} \div 6.8 \text{ mgd}) \times 100 = 2.9\%$  (Calculations assume the highest daily I/I occurred during the 1992/1993-rainfall period on January 17, 1993. On that date, the total daily flow to the treatment facilities was 8.5 mgd.  $I/I_{\text{maximum in mgd}} = 8.5 \text{ mgd} - (\text{base flow}) = 8.5 \text{ mgd} - 1.7 \text{ mgd} = 6.8 \text{ mgd}.$ )

<sup>2</sup> Compliance is determined by comparing the limit to the arithmetic mean of laboratory results for 6-hour composite samples collected during a period of 30 days.

<sup>3</sup> Compliance is determined by comparing the limit to the laboratory result for any single 6-hour composite sample.

<sup>4</sup> Biochemical Oxygen Demand (five-day, 20°C) of an unfiltered sample.

<sup>5</sup> The Discharger developed the value of 80 gpcd in its 1983 Sewer Master Plan (*LKACSD, 1998*).

# **ENCLOSURE 3**

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**California Regional Water Quality Control Board  
Lahontan Region**

**CEASE AND DESIST ORDER NO. R6V-2013-(-DRAFT-)  
WDID NO. 6B360107001**

**LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT  
VIOLATIONS OF WASTE DISCHARGE REQUIREMENTS  
BOARD ORDER NO. R6V-2009-0037  
FOR  
DOMESTIC WASTEWATER TREATMENT FACILITIES**

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San Bernardino County

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

1. Discharger and Facility

The Lake Arrowhead Community Services District (Discharger) provides wastewater (sewage) collection and treatment services for the Lake Arrowhead community in the San Bernardino Mountains. Wastewater is collected in a community sewer system and is treated at the Discharger's Grass Valley Wastewater Treatment Plant, hereafter called the facility. The facility design average daily flow is 3.75 million gallons per day (MGD). The facility can adequately treat this flow amount. The average daily flow in 2011 was 1.41 MGD. Treated wastewater is transported in the Hesperia outfall and is discharged to percolation ponds at the Hesperia Effluent Management Site, which is located about 2 miles south of Hesperia Lakes near the Mojave River. The capacity of the outfall is 4.0 MGD.

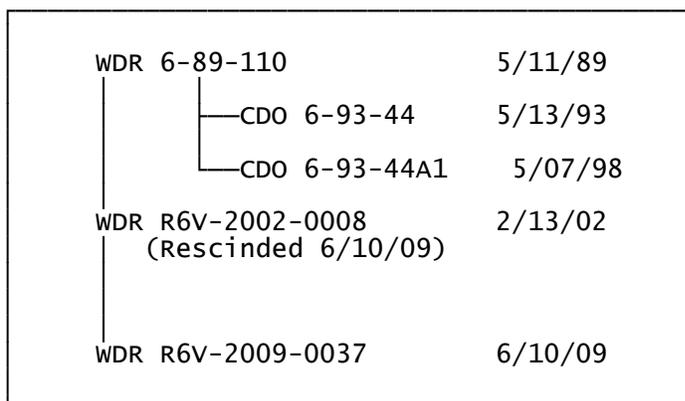
Lake Arrowhead is a mountain alpine resort community characterized by steep hillsides, shallow soils, and high precipitation rates (on average 46 inches per year). Because of shallow soils, some sewers are laid at shallow depths and are thus more subject to cracks from surface loads. The San Bernardino Mountains compress moisture in Pacific storms, resulting in substantially higher precipitation rates than in areas below the mountains. The combination of primary and secondary residences causes variations in dry weather wastewater flow.

2. Waste Discharge Requirements

Waste Discharge Requirements (WDR) in Order No. R6V-2009-0037 authorize the discharge of waste from the Grass Valley Plant to the Hesperia Effluent Management Site. To meet the WDRs, the Discharger provides secondary treatment using trickling filter technology and nitrogen removal using denitrification beds with methanol dosing as a carbon source.

The Water Board adopted the Lahontan Basin Plan and the WDRs implement the Basin Plan, as amended.

In addition, specifications I.D.1, I.D.3, and I.D.5 of Order No. 6-89-110 are in effect because the Discharger's past Cease and Desist Order (CDO) Nos. 6-93-44 and 6-93-44A1 were in regard to violations of these three specifications. The relationship between the WDR and past CDO Orders is presented in Figure A. As described in other findings, this CDO (1) replaces Cease and Desist Order Nos. 6-93-44 and 6-93-44A and (2) rescinds Specifications D.1, D.3, and D.5 in Order No. 6-89-110.



**Figure A. WDR and past CDO Order Relationships**

3. Violations

The Discharger's outfall design capacity from the Grass Valley Plant to the Hesperia Effluent Disposal Site is 4.0 MGD. ~~(Above 4.0 MGD, treated wastewater begins to flow out of stand pipe relief valves located at various points along the outfall).~~ During large storms, excessive I/I cause the Grass Valley Plant influent flow to exceed the capacity of the outfall. Although the influent is treated at the plant, the Discharger must bypass flows in excess of the outfall's capacity to Grass Valley Creek. This bypass is an unauthorized discharge to surface waters. The occurrences and magnitude recent unauthorized discharges are presented in Table A. These unauthorized discharges violate the Basin Plan prohibition for the Mojave Hydrologic Unit, Discharger's WDRs, and are violations of the California Water Code (CWC) sections 13350 and 13385.

**Table A. Violation Occurrences and Quantities.**

Event No. 1 Beginning 01/02/2005, 23.4 in rain on 23.4 in snow Discharge 13.876 million gallons (Mgal) to Grass Valley Creek			
Date	Rainfall in.	Daily Flow, MGD	To Grass Valley Creek?
01/02/2005	0.1	2.549	No
01/03/2005	2.2	2.138	No

01/04/2005	0	1.912	No
01/05/2005	0	1.772	No
01/06/2005	0	1.561	No
01/07/2005	3.3	3.157	No
01/08/2005	8.2	6.547	Yes
01/09/2005	3.1	7.133	Yes
01/10/2005	6.5	7.905	Yes
01/11/2005	0	7.070	Yes
01/12/2005	0	3.456	Yes

Event No. 2 Beginning 02/10/2005, 17 in rain. Discharge 12.064 Mgal to Grass Valley Creek and 8.134 Mgal to Hillside Ponds

Date	Rainfall in.	Daily Flow, MGD	To Grass Valley Creek?
02/10/2005	1.0	1.807	No
02/11/2005	3.5	3.314	No
02/12/2005	0	2.904	No
02/13/2005	0	3.104	No
02/14/2005	0	2.958	No
02/15/2005	0	2.498	No
02/16/2005	0	2.459	No
02/17/2005	2.2	2.459	No
02/18/2005	2.2	3.363	No
02/19/2005	2.2	3.662	No
02/20/2005	2.2	3.825	Yes
02/21/2005	2.2	4.383	Yes
02/22/2005	1.4	3.841	Yes
02/23/2005	0	4.156	Yes
02/24/2005	0	4.079	Yes
02/25/2005	0	4.020	Yes
02/26/2005	0	3.662	Yes
02/27/2005	0	1.993	Yes

Event No. 3 Beginning 01/27/2008, 4.5 in rain on 20 in snow  
 Discharge 0.880 Mgal to Grass Valley Creek

Date	Rainfall in.	Daily Flow, MGD	To Grass Valley Creek?
01/27/2008	4.5	3.358	Yes

Event No. 4 Beginning 02/06/2010, 6.7 in rain on 18 in snow,  
 Discharge of 0.67 Mgal to Grass Valley Creek

Date	Rainfall in.	Daily Flow, MGD	To Grass Valley Creek?
02/05/2010	1.2	2.282	No
02/06/2010	5.5	4.980	Yes
02/07/2010	0	3.274	Yes

Event No. 5 Beginning 12/17/2010, 30 in rain  
 Discharge of 9.184 Mgal to Grass Valley Creek

Date	Rainfall in.	Daily Flow, MGD	To Grass Valley Creek?
12/16/2010	0.2	0.997	No
12/17/2010	1.3	1.339	No
12/18/2010	0.8	1.552	No
12/19/2010	7.0	4.076	No
12/20/2010	9.1	7.339	Yes
12/21/2010	4.7	7.552	Yes
12/22/2010	6.9	7.633	Yes
12/23/2010	0	4.288	Yes
12/24/2010	0	3.734	Yes

The National Oceanic and Atmospheric Administration provides precipitation frequency estimates for storm events that have average recurrence intervals ranging from one to 1,000 years and durations ranging from 5-minutes to 60-days. For Lake Arrowhead, a 100 year, 24 hour storm event is 16.5 inches.<sup>1</sup>

4. Descriptions of Violations

a. Narrative requirements

The Discharger violated the narrative requirements listed in Table B.

**Table B. Narrative Requirements.**

No	Requirement	6-89-110	R6V-2009-0037
1.	There shall be no discharge, bypass, or diversion of raw or partially treated sewage, sewage sludge, grease, or oils from the collection, transport, treatment, or disposal facilities to adjacent land areas or surface waters.	I.D.1	I.D.1
2.	All facilities used for collection, transport, treatment, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage, or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.	I.D.3	I.D.3
3.	Neither the treatment nor the discharge shall cause pollution, threatened pollution, or nuisance as defined in the California Water Code.	I.D.5	I.D.7

Requirement I.D.1 of Board Order 6-89-110 and R6V-2009-0037 was violated when the Discharger discharged wastewater to Grass Valley Creek under the occurrences identified in Table A.

<sup>1</sup> NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES, Volume 6, Version 2, Lake Arrowhead (04-4671), [http://hdsc.nws.noaa.gov/hdsc/pfds/pfds\\_map\\_cont.html?bkmrk=ca](http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca)

Requirement I.D.3 of Board Order 6-89-110 and R6V-2009-0037 was violated for the events listed in Table A because a significant reduction in the treatment efficiency occurred when flows to the facility exceeded the treatment plant design capacity of 3.75 MGD.

Requirement I.D.5 of Board Order 6-89-110 and Requirement I.D.7 of Board Order R6V-2009-0037 was violated because the discharges identified in Table A contained inadequately-treated sewage, ~~which - Surface waters containing partially or untreated sewage~~ contains pathogenic organisms and constitutes a pollution and/or a nuisance as defined in the California Water Code. ~~Available bacteriological (total coliform) sample results during unauthorized discharges are shown in Table C.~~

**Table C. Event 1 and 2 Coliform Results.**

Date	Value	Units
01/18/2005	46	Most probable number per 100 mL
02/23/2005	79	Most probable number per 100 mL
02/26/2005	8	Most probable number per 100 mL

b. Numeric requirements

Title II of the Clean Water Act included a construction grants program to assist municipalities in complying with the Act. The regulations for administration of the program are in the Code of Federal Regulations, Title 40, Part 35, Subpart I. In particular, the regulations defined the eligibility requirement to receive a construction grant. For I/I, EPA specified the condition for grant eligibility criteria to expand the treatment facility to treat excessive I/I. The criteria include the following I/I definitions:

*(16) Excessive infiltration/inflow.* The quantities of infiltration/inflow which can be economically eliminated from a sewer system as determined in a cost-effectiveness analysis that compares the costs for correcting the infiltration/inflow conditions to the total costs for transportation and treatment of the infiltration/inflow. (See §§35.2005(b) (28) and (29) and 35.2120.)

*(28) Nonexcessive infiltration.* The quantity of flow which is less than 120 gallons per capita per day (domestic base flow and infiltration) or the quantity of infiltration which cannot be economically and effectively eliminated from a sewer system as determined in a cost-effectiveness analysis. (See §§35.2005(b)(16) and 35.2120.)

*(29) Nonexcessive inflow.* The maximum total flow rate during storm events which does not result in chronic operational problems related to hydraulic overloading of the treatment works or which does not result in a

total flow of more than 275 gallons per capita per day (domestic base flow plus infiltration plus inflow). Chronic operational problems may include surcharging, backups, bypasses, and overflows. (See §§35.2005(b)(16) and 35.2120).

The status of the three Federal requirements incorporated into the Discharger's WDRs is described below:

(1) Excessive infiltration/inflow

The scope of this requirement is to determine the cost effectiveness of I/I correction. The requirement for the cost effectiveness evaluated was incorporated into Requirement 5.b. of past CDO 6-93-44A1. The Discharger completed the report, and submitted the *Facilities Planning and Project Report for I/I Remediation and Effluent Disposal Facilities* in July 1999 (1999 I/I Facilities Plan).

In this report, the Discharger identified and evaluated four alternatives. The alternative description, I/I reduction goal, and present worth costs (2000 year cost basis) are presented in Table D.

**Table D. Alternatives to Address Excessive I/I.**

No	Improvements	I/I reduction	Present worth cost (\$M)
1	15 Mgal effluent storage impoundments to retain storm induced effluent flow	20 %	5.032
2	Second outfall line	20 %	8.640
3	Treatment upgrade and Grass Valley Creek discharge during major storms	20 %	4.224
4	Enhanced I/I reduction	40 %	9.500

Based on cost effectiveness, the apparent best alternative was Alternative 3. However, the Discharger selected Alternative 1 because it offered habitat enhancements and recycled water opportunities such as water for fire suppression.

Implementation commenced after submission of the Facilities Planning Report. The Discharger could not implement Alternative 1 because the proposed storage ponds required extensive land area and the US Forest Service would not lease the land for this use.

The Discharger then decided to implement Alternative 3 and applied for a National Pollution Discharge Elimination System (NPDES) permit to discharge effluent to Grass Valley Creek. Water

Board staff prepared a draft NPDES permit in early 2008 and found that the Discharger may not meet the California Toxics Rule (CTR) for selected constituents. The Discharger collected special samples in December 2010. The sample results confirmed that the Discharger could not meet CTR. Failure to meet CTR would result in mandatory minimum penalties and therefore the Discharger and Water Board staff considered this alternative unacceptable and infeasible.

Alternative 2, second outfall line, is not feasible because the project would cause significant environmental impacts including disruption steep hillsides, resulting in erosion and sediment runoff, habitat removal, and permanent visual impacts.

After considering both the feasibility of the possible alternatives and the costs, the Discharger selected Alternative 4, enhanced I/I reduction. The other projects, though less expensive, had unavoidable issues that resulted in elimination from implementation.

The Discharger has complied with the requirement to determine the excessive I/I flow cost effectiveness requirement in both the Federal regulation in 40 CFR 35.2005(b)(28), 40 CFR 35.2005(b)(29), 40 CFR 35.2120, as well as requirement 5.b. of past CDO 6-93-44A1.

(2) Non-excessive infiltration

The Federal requirement defines non-excessive infiltration to be less than 120 gallons per capita per day. This requirement was included in the WDR for the first time with Order R6V-2002-0008 and was continued in Order R6V-2009-0037 as requirement I.D.5.

Pursuant to Investigative Order R6V-2011-0083, the Discharger produced the Past Inflow/Infiltration Activities Report. The Discharger showed in a quantitative manner that system-wide infiltration meets the Federal non-excessive infiltration requirement. Water Board staff conducted its own evaluation in 2007 and found that infiltration is not excessive. Therefore, at this time, the Water Board considers the Discharger in compliance with (1) the Federal requirement for non-excessive infiltration and (2) requirement I.D.5 of WDR Order R6V-2009-0037. If the implementation of controls required by this Order or the receipt of new information regarding infiltration shows that the problems with inflow and infiltration are not being adequately addressed, the Water Board may request an updated evaluation of excessive infiltration.

(3) Non-excessive inflow

The Federal requirement defines non-excessive inflow to be less than 275 gallons per capita per day. This requirement was included in the WDR for the first time with Order R6V-2002-0008 and was continued in Order R6V-2009-0037 as requirement I.D.6.

Pursuant to Investigative Order R6V-2011-0083, the Discharger produced the Past Inflow/Infiltration Activities Report. The Discharger showed in a quantitative manner that the maximum system-wide inflow value of 483 gal-capita/day does not meet the Federal non-excessive inflow requirement and WDR Order R6V-2009-0037, requirement I.D.6. (In deriving the maximum inflow value, the Discharger assumed a dry weather per-capita flow of 80 gal-capita/day and a permanent population of 15,800).

c. Requirement violation summary

The violation status for the Discharger is the following:

- Requirement I.D.1 of Board Order 6-89-110 and R6V-2009-0037 was violated when the Discharger discharged wastewater to Grass Valley Creek under the occurrences identified in Table A.
- Requirement I.D.3 of Board Order 6-89-110 and R6V-2009-0037 was violated during large storm events. During these occurrences the treatment efficiency decreased since the facility received influent flows above the treatment capacity.
- Requirement I.D.5 of Board Order 6-89-110 and Requirement I.D.7 of Board Order R6V-2009-0037 were violated because the discharge contained inadequately-treated sewage. Surface waters containing raw or partially treated sewage contains pathogenic organisms and constitutes a pollution and/or nuisance as defined in the California Water Code.
- Requirement I.D.6 of Board Order R6V-2009-0037 is violated because the Discharger does not meet the Federal non-excessive inflow limit of 275 gallons per capita per day.

The Federal non-excessive infiltration and non-excessive inflow apply only after a cost-effective analysis demonstrates that the alternative of I/I correction is less expensive than the alternative of facility expansion to treat excessive flow. The Discharger completed the cost-effective analysis with an outcome that I/I correction is the most cost effective alternative.

5. Discharger Corrective Actions

a. Past CDO 6-93-44A1, Reporting Requirement 3.

(1) Requirement

Reporting requirement no. 3 of past CDO 6-93-44 states the following:

LACSD [The Discharger] shall submit progress reports summarizing accomplishments toward obtaining compliance with WDRs, the Basin Plan and the CWC [California Water Code] on September 1, 1993, again on January 1, 1994, and semi-annually thereafter until such time that compliance with the WDRs, the Basin Plan and the CWC is achieved.

(2) Reported I/I Correction Progress

The Discharger has an ongoing program to collect the I/I reduction data and report the data in progress reports. The last report received before Investigative Order No. R6V-2011-0083 is the report dated July 13, 2011. Quantitative data from the report is presented in Table E.

**Table E. Discharger Reported I/I Corrective Activities since 1993.**

Activity	Quantity
Manholes rehabilitated	1139 manholes
Gravity sewers slip-lined, rehabilitated, or replaced	50,000 linear feet.

In the Discharger's July 13, 2011 progress report, the Discharger references its 2008 Wastewater Facilities Master Plan (hereafter referred to as 2008 Master Plan). The 2008 Master Plan was hand-delivered to Water Board staff on February 29, 2008.

b. Investigative Order No. R6V-2011-0083, Past Inflow/Infiltration Activities Report

(1) Requirement

Although the Discharger complied with the progress-reporting requirement of CDO No. 6-93-44, the requirement failed (1) to delineate different types of I/I reduction activities and (2) to compare the progress relative to the whole system. Therefore, in Order No. R6V-2011-0083, the Water Board required the Past Inflow/Infiltration Activities Report to collect this information. The

Investigative Order time period is from June 1, 1998 to November 1, 2011.

(2) Reported I/I Correction Progress

The Discharger completed and submitted the Past I/I Activities Report on April 27, 2012. The information in the report for gravity sewer rehabilitation is presented in Table F.

**Table F. Gravity Sewer Rehabilitation.**

Activity	Quantity (linear feet)
Slip-lining	42,952
Rehabilitation	8,945
Replacement	1,455
Total	53,352 <sup>1</sup>

<sup>1</sup>This value is different than the value of 50,000 linear feet reported in the past CDO Progress Report. The value in the progress report is a rounded value.

While each of these rehabilitation methods are used for acceptable for reducing I/I, most of the past sewer pipe rehabilitation projects have been to address pipe capacity issues, including inadequate slope. The percent rehabilitation between 1988 and 2011 (13 ½ years) is 5.2% (53,352 ÷ 1,034,301). replacement, relative to other rehabilitation, provides the highest improvement in I/I reduction. Yet of the total rehabilitation, only 2.7 percent (1,455 ÷ 53,352) is replacement.

According to Table 3-1 of the 2008 Master Plan, the Discharger has 1,034,201 linear feet of gravity sewer. The percentage of gravity sewers that has been replaced between 1998 and 2011 (13½ years) is 0.14% (1,455 ÷ 1,034,201).

c. Investigative Order No. R6V-2011-0083, 2008 Master Plan Status Report

(1) Background

The 2008 Master Plan identifies a specific capital improvement program for I/I reduction over the period of the Plan, which is from 2008 to 2030. The I/I reduction programs consist of 4 phases, and the phases are presented in relative chronological order in Attachment A of this Order. The first three phases are various system analyses, and the fourth phase is I/I reduction projects. The Discharger was to use the characterization results to develop I/I reduction project scope and priority. The costs are presented in Attachment B of this Order. In terms of estimated costs, annual I/I reduction project costs averaged 6 times higher from 2011 to 2015

than from 2016 to 2025. Therefore, most of the I/I reduction projects were to be completed by 2015.

(2) Requirement

The 2011 Investigative Order required the Discharger to submit a 2008 Master Plan Status Report. The Report was required to include:

- Schedule completion date as identified in the 2008 Master Plan
- Implementation status (e.g. completed projects, anticipated project schedule)
- Explanation of why activities or activity sub-types were completed later than scheduled or have been delayed
- Financial status (e.g., activity is funded or activity is not funded).

(3) Submitted Status Reports

The Discharger submitted three reports:

- 2008 Master Plan Status Report on February 1, 2012
- Revised 2008 Master Plan Status Report on April 20, 2012
- Inflow Remediation Plan on October 1, 2012

In a March 7, 2012 letter to the Discharger, Water Board staff found the 2008 Master Plan Status Report to be unacceptable because the Discharger did not adequately address the requirements of the Investigative Order. The Discharger was required to submit a revised report by April 27, 2012.

The summary of the Revised 2008 Master Plan Status Report is as follows:

- The Discharger is 2 to 4 years behind the 2008 Master Plan schedule
- The Discharger's Board of Directors has not authorized the I/I characterization tasks and projects that were identified in the 2008 Master Plan

The Water Board requested an addendum from the Discharger that describes the short term and long-term approach to reduce I/I via a letter dated August 21, 2012.

The Discharger submitted the addendum on October 1, 2012, which is titled Inflow Remediation Plan. This plan differs from the 2008 Master Plan as follows:

- The 2008 Master Plan I/I reduction activities cover the period of 2008 to 2030, whereas the Inflow Remediation Plan covers activities through February 2013.
- In regard to the flow characterization task, the 2008 Master Plan funded flow characterization for the entire system in the first year, whereas the Inflow Remediation Plan funds flow characterization for one drainage of the sanitary sewer system.

With these reports, the Water Board finds the Discharger has yet to commit to a system-wide I/I reduction program and is in violation of Cease and Desist Orders 6-93-44 and 6-93-44A-1.

6. Final compliance date considerations

The 2008 Master Plan includes the Discharger's program for I/I reduction. The Discharger's I/I reduction program cost and schedule is graphically shown in Attachment B. (The data in Attachment B is for evidence purposes only and it is not part of the requirements of this Order.)

In the development of a final compliance date for this Cease and Desist Order, the Water Board has performed an analysis of the Discharger's 2008 Master Plan I/I reduction program and all more recent Discharger submissions.

(a) ~~The Discharger, as of December 2012, has yet to launch its 2008 proposed I/I reduction program. Therefore, the Discharger is four years behind the schedule in the 2008 Master Plan.~~

(b) — The Water Board's review of the Discharger's I/I reduction program cost and schedule shows that the Discharger's schedule is not realistic, even if the Discharger were to begin an I/I reduction program in January 2013. First, a three-year period to perform characterization is too brief given the linear feet of sewer, steep terrain, and large storm event frequency. Large storms occur once every two to three years. Given the variables, a 4-year (2013 to 2017) period is reasonable to fully characterize the Discharger's sanitary sewer system. Enough information should be known in three years so that I/I construction projects may commence in the 4<sup>th</sup> year of the I/I reduction program.

(be) The scheduling of most projects in the first third of the Discharger’s I/I reduction program is also not realistic. Capital-improvement programs usually have a ramp-up phase for the first few years (increasing over the three years), and then the funding remains constant during the duration of the program.

(cd) The 17-year program results in an average cost of \$900,000 per year. Based on review of the Discharger’s 2008 Master Plan Status Report and a focus on the I/I reduction activities described in the 2008 Master Plan rather than other projects and programs, the Discharger has the ability to finance the I/I reduction improvements at this level. Based on review of all the information that the Discharger has provided, a system-wide I/I reduction is achievable in a 13-year period. With the program beginning in July 2013, the completion date for the I/I program is June 30, 2026. Therefore, the Water Board in this Order is specifying June 30, 2026 as the final compliance date for achieving compliance with the non-excessive I/I requirements of WDR in Order R6V-2009-0037.

7. Interim compliance dates

The Water Board is specifying intermediate compliance dates to demonstrate that the Discharger is making progress towards achievement of final compliance.

8. Final Compliance standard

The final compliance standard is the system non-excessive inflow limitation. Water Board derives this limitation using the following equation:

$$\left\{ \begin{array}{l} \text{Non-excessive} \\ \text{flow limitation} \\ \text{MGD} \end{array} \right\} = \left\{ \begin{array}{l} \text{System dry} \\ \text{weather flow} \\ \text{MGD} \end{array} \right\} \times \frac{\left\{ \begin{array}{l} \text{Inflow per} \\ \text{capita criterion} \\ \text{gal/capita-day} \end{array} \right\}}{\left\{ \begin{array}{l} \text{System per} \\ \text{capita flow} \\ \text{gal/capita-day} \end{array} \right\}}$$

The definition of the terms on the right side of the equation is the following:

- System dry weather flow is the average daily flow from collection system service area
- Inflow per capita criterion is 275 gallons per capita per day (or gal/capita per day), as defined in 40CFR Part 35 and requirement I.D.6. of WDR in Board Order R6V-2009-0037

- System per capita flow is influent flow divided by the served population.

Normally system dry weather flow would be the average dry weather flow to the wastewater treatment facility. However, Lake Arrowhead is a resort area, and their sanitary sewer system serves both permanent and second-home residences. The sanitary sewer system is designed to serve both permanent and second-home residents. Therefore, any system dry-weather flow value must include the contribution from second-home residents.

Dry weather flows corresponds to the California dry weather season, which is from May to September each year. The existing average dry weather flow during these months from 2009 to 2012 is 1.125 MGD. The system dry-weather flow, however, must account for second-home residents. Therefore, the Water Board uses the maximum dry weather daily flow in each year from 2009 to 2012 to derive the system dry weather flow. The system dry-weather flow is the average of the yearly maximum dry weather flow, which is calculated as follows

Date	Flow	
July 4, 2009	1.495	
July 4, 2010	2.247	Average: 1.92 MGD
July 3, 2011	2.285	
September 2, 2012	1.628	

Average = 1.92 MGD = system dry weather flow.

The Discharger developed the value of 80 gallons per capita per day in its 1983 Sewer Master Plan. However, the Discharger's value probably is underestimated and does not include current existing water treatment plant backwash and flow from major commercial users, including lodging establishments. Therefore, the Water Board has selected a system per capita per day flow of 90 gal per capita per day. This figure does not factor population increases over the duration of the time schedule contained in this Order.

The values for system dry weather flow, inflow per capita criterion, and system per capita values are inserted into the above equation to calculate the non-excessive inflow limitation:

$$\left\{ \begin{array}{l} \text{Non-excessive} \\ \text{flow limitation} \\ \text{MGD} \end{array} \right\} = 1.92 \times \frac{275}{90}$$

$$\left\{ \begin{array}{l} \text{Non-excessive} \\ \text{flow limitation} \\ \text{MGD} \end{array} \right\} = 5.9 \text{ MGD}$$

The non-excessive flow limitation needs to be compared with the 1999 I/I Facilities Plan. The Discharger's selected I/I reduction program in the 2008 Master Plan is the same as Alternative 4 of the 1999 I/I Facilities Plan. The I/I reduction objective of Alternative 4 is 40%. The maximum recorded plant flow was 8.5 MGD on January 17, 1993. Therefore, the 100-year maximum daily flow is projected to be 9.0 MGD. This flow consists of two components: (1) sewage and (2) 100 year I/I flow. The selected sewage flow value is the existing dry-weather flow of 1.125 MGD, rounded to 1.1 MGD. The 100 year I/I flow then is 7.9 MGD.

The calculation of a plant flow that reflects a 40% I/I reduction objective is the following:

$$\left\{ \begin{array}{l} \text{Reduced 100} \\ \text{year I/I flow} \\ \text{MGD} \end{array} \right\} = \left\{ \begin{array}{l} \text{100 year I/I} \\ \text{flow} \\ \text{MGD} \end{array} \right\} \times 0.6$$

$$\left\{ \begin{array}{l} \text{Reduced 100} \\ \text{year I/I flow} \\ \text{MGD} \end{array} \right\} = 7.9 \times 0.6$$

$$\left\{ \begin{array}{l} \text{Reduced 100} \\ \text{year I/I flow} \\ \text{MGD} \end{array} \right\} = 4.7 \text{ MGD}$$

$$\left\{ \begin{array}{l} \text{Future 100 year} \\ \text{maximum flow} \\ \text{MGD} \end{array} \right\} = \left\{ \begin{array}{l} \text{Reduced 100} \\ \text{year I/I flow} \\ \text{MGD} \end{array} \right\} + \left\{ \begin{array}{l} \text{Existing dry} \\ \text{weather flow} \\ \text{MGD} \end{array} \right\}$$

$$\left\{ \begin{array}{l} \text{Future 100 year} \\ \text{maximum flow} \\ \text{MGD} \end{array} \right\} = 4.7 + 1.1$$

$$\left\{ \begin{array}{l} \text{Future 100 year} \\ \text{maximum flow} \\ \text{MGD} \end{array} \right\} = 5.8 \text{ MGD}$$

Therefore, the proposed non-excessive inflow limitation is consistent with Alternative 4 of the 1999 I/I Facilities Plan.

10. Final Compliance Standard – Infiltration

By definition, infiltration is excess flow into a community sewer system after abatement of storm effects. According to EPA non-excessive I/I standards, the period of infiltration begins 7 days following a storm event.

In the Discharger's service area, community sewer system flow drops quickly following rainfall periods. The Discharger has conducted analysis that shows that the Discharger meets the EPA criterion for non-excessive infiltration, which is 120 gal per capita per day. Rather than determining if the Discharger currently meets the non-excessive infiltration criterion, the Water Board will first observe the effects of inflow correction required by this Order before requiring the Discharger remove flows caused by infiltration.

11. Relationship to Existing Orders

- a. This Order replaces and supersedes the requirements in Cease and Desist Orders adopted for violations of Order Nos. 6-93-44 and 6-93-44A1.
- b. WDR requirements 1.D.1, 1.D.3, and 1.D.5 of Order No. 6-89-110 are the basis for Cease and Desist Orders 6-93-44 and 6-93-44A1. Because this Order replaces and supersedes the previous Cease and Desist orders, requirements of 1.D.1, 1.D.3, and 1.D.5 in Board Order 6-89-110 no longer need to remain in effect.

12. California Water Code

California Water Code Section 13301 states, in part, "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."

The Discharger's acts and failure to act have caused or permitted waste to be discharged or deposited where it has or could be discharged or deposited where it has or could discharge to waters of the state and has created, and continues to threaten to create a condition of pollution and nuisance.

The Water Board is authorized to seek this proposed CDO based on CWC 13301.

13. Submittal of Technical Reports

Pursuant to California Water Code section 13267, subdivision (a), the Water Board may investigate the quality of any waters of the state within its region “in connection with any action relating to any plan or requirement authorized by this division.” The need for a technical report pursuant to California Water Code section 13267, subdivision (b) must bear a reasonable relationship to the benefits to be obtained from the report. In compliance with California Water Code section 13267, subdivision (b), the Water Board is required to provide a written explanation with regard to the need for the report and shall identify the evidence that supports requiring the person to provide the report. In this case:

- a. The Discharger is in violation of its waste discharge requirements and the required information is needed to evaluate the Discharger’s interim compliance efforts.
- b. The Water Board needs periodic reports to track the progress of the Discharger in implementing the I/I reduction program it needs to comply with waste discharge requirements.

14. California Environmental Quality Act

This enforcement action is being taken to enforce provisions of the California Water Code and, as such, it is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) in accordance with Section 15308, Chapter 3, Division 6, Title 14, California Code of Regulations.

15. Notification of Interested Parties

The Water Board notified the Discharger and interested parties of public hearings scheduled for the Regional Board meetings on March 13, 2013. During the public hearings conducted during these meetings, the Water Board heard and considered all comments related to the proposed Order.

16. Petitions

Any person adversely affected by this action of the Water Board may petition the State Water Resources Control Board for review of this action. The State Water Resources Control Board, Office of Chief Counsel, P.O. Box 100, Sacramento, CA 95812-0100 (e-mail or facsimile copies acceptable) must receive the petition within 30 days of the date on which this action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

Therefore, it is hereby ordered that, pursuant to Water Code sections 13301 and 13267, the Discharger shall cease and desist from discharging wastes or threatening to discharge wastes, in violation of provisions specified in Water Board WDR Order No. R6V-2009-0037, and shall comply with the other provisions of this Order:

## Order

### I. Final Standard

By **June 30, 2026**, the maximum daily flow (on any day up to and including a 100-year storm event) from the Discharger's community sewer system shall not exceed 5.8 MGD. This reflects a 40% reduction in the 100-yr maximum I/I flow of 7.9 MGD with a base average dry weather flow of 1.1 MGD.

### II. Interim Standard

A. By **March 31, 2018**, take actions in accordance with the Discharger's I/I reduction plan to reduce excessive inflow by 10%. To achieve this standard, the maximum daily flow (on any day up to and including a 100-year storm event) from the Discharger's community sewer system must not exceed 8.2 MGD. This reflects a 10% reduction in the 100-yr maximum I/I flow of 7.9 MGD with a base average dry weather flow of 1.1 MGD.

B. By **March 31, 2021**, Take actions in accordance with the Discharger's I/I reduction plan to reduce excessive inflow by 25%. To achieve this standard, the maximum daily flow (on any day up to and including a 100-year storm event) from the Discharger's community sewer system must not exceed 7.0 MGD. This reflects a 25% reduction in the 100-yr maximum I/I flow of 7.9 MGD with a base average dry weather flow of 1.1 MGD.

### III. Reports

A. By **June 15 of each year**, beginning June 15, 2013, the Discharger must submit an annual I/I system analysis status report describing actions taken to complete Steps 1, 2 and 3 as shown on Attachment A of this Order.

By **June 15, 2017**, the Discharger must submit a final I/I system analysis status report describing actions taken to complete Steps 1, 2, and 3 as shown on Attachment A of this Order.

Each status report including the final report, must contain the following information commencing with September 14, 2012, for each ~~of the 22~~ flow basins in the Discharger's legal boundaries indicated on Figure 5-2 of the 2008 Master Plan:

1. Flow monitoring and rainfall analysis results;
  2. Field surveys for each basin targeted for further analysis, including, but not limited to:
    - a. Linear feet of sewer line evaluated and detected locations of I/I from closed circuit TV or other surveys,
    - b. Linear feet of sewer line with suspected elevated I/I and detected location, and
    - c. Number of inspected manholes and number of manholes with cracks, holes, etc that indicate I/I source;
  3. Results of computer model calibration;
  4. Cost effectiveness analysis; and
  5. Identified I/I correction projects that are placed on the Discharger's capital improvement program, to include scope, cost, and schedule.
  6. In the final I/I system analysis report due June 30, 2017, the Discharger must also identify all proposed actions, estimated annual costs, and an implementation schedule to meet the interim and final standards described in Order No's. 1 and 2, above. The final report must also explain or justify why the proposed actions will achieve the anticipated flow reductions.
- B. By **September 30, 2013, and annually thereafter**, the Discharger must submit an I/I project completion and outfall analysis report. The report must:
1. Describe I/I reduction projects and activities completed including, but not limited to, expenditures, location, extent, and sewer sizes,
  2. Include projects that were completed in the previous fiscal year, beginning with Fiscal Year 2012-13 (July 1, 2012 through June 30, 2013), and
  3. Evaluate outfall flow and precipitation events for the prior Fiscal Year including, but not limited to the following:
    - Precipitation dates (day, including snowfall),
    - Amount (inches),
    - Duration (minutes or days),
    - Temperature (deg F),
    - Statement comparing the precipitation event to a 100-year event,

- Outfall line flow for each date (MGD),
- Statement whether an overflow event occurred (date),
- Estimated overflow volume (gallons),
- Estimated overflow duration (days), and
- Comparison of overflow event to outfall line capacity.

- C. By ~~August~~**June 15, 2013, and annually thereafter**, the Discharger must submit an I/I project plan that describes I/I reduction actions that will be completed the subsequent Fiscal Year. ~~The project plan must include both system analysis activities and I/I rehabilitation projects. The annual project plan must contain the following:~~
1. Specific I/I reduction projects that the Discharger has budgeted to be completed for the coming fiscal year.
    - a. For system analysis activities, describe the activity, the activity type (e.g., sub-basin flow monitoring), activity objective, location, number of feet of sewer, number of manholes, or other actions planned.
    - b. For rehabilitation projects, the Discharger must describe the project, project type (e.g replacement), project objective, project location, number of feet of sewer to be lined, grouted, repaired or replaced, size of sewers, and location and number of manholes to be inspected, repaired or replaced, or other actions planned.
  2. Certification, signed by the District's General Manager, that the District's board of directors has authorized funds to complete the planned projects.
  3. Beginning in 2018 project plan, and annually thereafter, describe how the project plan meets or exceeds the anticipated activities and costs proposed in the final system analysis report.
  4. Failure to achieve the expected excess I/I flow reductions will be considered a violation of the Order unless met within 18 months of the year when the interim or final standard applies.
  5. Beginning in 2018, compare budget to expected cost expenditures from final system analysis report and explain when expenditures budgeted are less than proposed in final system analysis report. Provide plan to achieve proposed expenditures established in the final system analysis report.
- D. Signatory Requirements. All reports required pursuant to this Cease and Desist Order shall be signed and certified by a duly authorized

representative of the Discharger and submitted to the Water Board. A person is a duly authorized representative of the Discharger only if: (1) the authorization is made in writing by the Discharger and (2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity. A duly authorized representative may thus be either a named individual or any individual occupying a named position.

E. Certification. Include the following signed certification with all reports submitted pursuant to this Order: "I certify under penalty of perjury under the laws of the State of California 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 submitted, the document and all attachments are, 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."

F. Report Submittals. All monitoring and technical reports required pursuant this Order shall be submitted via electronic e-mail and hard copy to:

California Regional Water Quality Control Board-Lahontan Region  
14440 Civic Drive, Suite 200  
Victorville, CA 92392  
Attn: Mike Coony  
Email: mcoony@waterboards.ca.gov

#### IV. Rescissions

- A. Cease and Desist Orders 6-93-44 and 6-93-44A-1 are hereby rescinded.
- B. Waste Discharge Requirements in Board Order 6-89-110 are hereby rescinded.

#### V. Enforcement Notification

Failure to comply with the terms or conditions of this Cease and Desist Order may result in additional enforcement action, which may include the imposition of administrative civil liability pursuant to California Water Code section 13350 or 13385 for up to \$10,000 a day for each violation or \$10 per gallon discharged; and/or section 13268 for up to \$1,000 a day for each violation; and/or referral to the Attorney General of the State of California for injunctive relief or civil or criminal liability. The Water Board reserves its right to take any further

enforcement action authorized by law, and by seeking this Cease and Desist Order does not authorize any action or non-action by the Discharger.

I, Patty Z. Kouyoumdjian, Executive Officer, hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region on March 10, 2013.

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Patty Z. Kouyoumdjian  
EXECUTIVE OFFICER

Attachments:

- A. 2008 Master Plan I/I reduction phases
- B. 2008 Master Plan I/I reduction program cost and schedule
- C. Water Code Section 13267 Fact Sheet

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# **ENCLOSURE 5**

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## **Smith, Doug@Waterboards**

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**From:** Mark Veysey <mveysey@lakearrowheadcsd.com>  
**Sent:** Wednesday, February 20, 2013 6:12 PM  
**To:** Macedo, Julie@Waterboards; Kouyoumdjian, Patty@Waterboards; Cass, Jehiel@Waterboards; Niemeyer, Kim@Waterboards; Coony, Mike@Waterboards; Plaziak, Mike@Waterboards; andre.monette@bbklaw.com  
**Cc:** Smith, Doug@Waterboards; Kemper, Lauri@Waterboards; Ferguson, Scott@Waterboards; Genera, Sue@Waterboards; Wike, Amber@Waterboards  
**Subject:** RE: Lake Arrowhead CSD - Redline of draft CDO

**Dear Advisory Team:**

**Again I wish to express my thanks to all of you for your help and participation in resolving this matter. I believe we are back on the path of resolving problems, not creating them, which I believe is our common cause as public servants.**

**I look forward to seeing you on the Lake Tour in March.**

**Sincerely,**

**Mark E Veysey  
Interim General Manager  
Lake Arrowhead Community Services District**

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**From:** Macedo, Julie@Waterboards [<mailto:Julie.Macedo@waterboards.ca.gov>]  
**Sent:** Wednesday, February 20, 2013 4:16 PM  
**To:** Kouyoumdjian, Patty@Waterboards; Cass, Jehiel@Waterboards; Niemeyer, Kim@Waterboards; Coony, Mike@Waterboards; Plaziak, Mike@Waterboards; [andre.monette@bbklaw.com](mailto:andre.monette@bbklaw.com); Mark Veysey  
**Cc:** Smith, Doug@Waterboards; Kemper, Lauri@Waterboards; Ferguson, Scott@Waterboards; Genera, Sue@Waterboards; Wike, Amber@Waterboards  
**Subject:** Lake Arrowhead CSD - Redline of draft CDO

Advisory Team – Attached please find a redline of the CDO incorporating the changes we previously provided in note form, along with a cover letter explaining the reason for the changes.

Amber – In terms of interested persons, we didn't have a formal list, but checking previous correspondence, I see your January 4, 2013 email transmission of the Hearing Procedures seems to reach the broadest audience, beyond posting it on the web. I would be happy to send a second email to those addressees, but am traveling so didn't generate a proper cc list. If you prefer to send the email, please feel free to do so and copy me. Those addressees get the redline IN PDF FORM ONLY. Thanks! The current addressees are parties and the Advisory Team. – JM

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**Lahontan Regional Water Quality Control Board**

February 20, 2013

Re: Lake Arrowhead Community Services District Draft Cease and Desist Order under Consideration at the March 13, 2013 RWQCB Meeting

**Advisory Team and Other Interested Persons:**

Attached please find a redline version of the draft Cease and Desist Order (CDO) that was originally sent to Lake Arrowhead Community Services District (LACSD) on or about December 31, 2012. The Prosecution Team and LACSD met and conferred regarding the terms of the draft CDO and came to agreement reflected in the attached document. Accordingly, the parties would like this draft to be considered by the Regional Board to be considered during the upcoming March 13, 2013 meeting.

I have spoken to Mark Veysey, LACSD's Interim General Manager, and Andre Monette, Counsel for LACSD, both of whom asked that this matter be heard on consent, since the terms of the proposed CDO are in agreement. The Prosecution Team does not object to this, and both parties will be available to answer questions at the hearing.

Formatting changes to the draft CDO have been accepted so as not to appear in the document. The Word version of the redline will be sent to the Advisory Team in order to assist with any final modifications and the ultimate Order, while a pdf version of the redline will be sent to the parties and posted to the website. Any errors should be brought to my attention, and are unintentional.

Sincerely,



Julie Macedo  
Senior Staff Counsel  
Prosecution Team

## Smith, Doug@Waterboards

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**From:** Niemeyer, Kim@Waterboards  
**Sent:** Tuesday, February 26, 2013 1:27 PM  
**To:** Smith, Doug@Waterboards  
**Subject:** FW: Changes from Settlement Meeting

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**From:** Macedo, Julie@Waterboards  
**Sent:** Thursday, February 14, 2013 10:57 AM  
**To:** Mark Veysey; Kouyoumdjian, Patty@Waterboards; Niemeyer, Kim@Waterboards; Coony, Mike@Waterboards  
**Cc:** Cass, Jehiel@Waterboards; Smith, Doug@Waterboards; Kemper, Lauri@Waterboards; scott.campbell@bbklaw.com; Ferguson, Scott@Waterboards; Andre.Monette@BBKLAW.com  
**Subject:** RE: Changes from Settlement Meeting

Advisory Team –

Please let me know if you have any questions following the email exchange that Mr. Veysey forwarded, which we understand may be unclear. Basically, the parties have met and conferred regarding the draft CDO that was proposed by the Prosecution Team in December and resolved outstanding issues (the changes are reflected in the document attached to Mr. Veysey's email). While we had hoped to narrow the Board's focus for the hearing on contested issues, we actually came to resolution on all items. I have spoken to both Mr. Veysey and counsel for LACSD, and LACSD does not prefer to have a contested hearing wherein both parties argue for and against the CDO, since the terms of the proposed CDO are in agreement. The Prosecution Team does not object to this procedure. However, both parties will be available to answer questions at the hearing.

In terms of the hearing schedule, the Prosecution Team plans to incorporate all of the agreed-upon changes into a redline for submission to the Advisory Team by February 21 (the PT's next deadline) for submission to the Board members.

Please let the parties know if this is acceptable or if there are any other submissions we can do for your convenience. Thanks – JM

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**From:** Mark Veysey [<mailto:mveysey@lakearrowheadcsd.com>]  
**Sent:** Thursday, February 14, 2013 10:46 AM  
**To:** Kouyoumdjian, Patty@Waterboards; Niemeyer, Kim@Waterboards; Coony, Mike@Waterboards; Macedo, Julie@Waterboards  
**Cc:** Cass, Jehiel@Waterboards; Smith, Doug@Waterboards; Kemper, Lauri@Waterboards; [scott.campbell@bbklaw.com](mailto:scott.campbell@bbklaw.com); Ferguson, Scott@Waterboards; [Andre.Monette@BBKLAW.com](mailto:Andre.Monette@BBKLAW.com)  
**Subject:** FW: Changes from Settlement Meeting  
**Importance:** High

**Dear Advisory Team:**

**I am forwarding our request to you in regard to the CDO for Lake Arrowhead Community Services District. I apologize that this item did appear to you on Tuesday February 12, 2013, however on that day I was evacuating parts of my staff and crews because of the tragic events unfolding on our mountain.**

**Please accept my apologies for the misunderstanding and thank you for the time and effort that all parties have committed to crafting this solution.**

**Mark E Veysey**  
**Interim General Manager**  
**Lake Arrowhead Community Services District**

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**From:** Andre Monette [<mailto:Andre.Monette@bbklaw.com>]  
**Sent:** Thursday, February 14, 2013 10:25 AM  
**To:** Mark Veysey  
**Subject:** FW: Changes from Settlement Meeting  
**Importance:** High

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**From:** Andre Monette  
**Sent:** Tuesday, February 12, 2013 4:16 PM  
**To:** 'Mark Veysey'  
**Cc:** Scott Campbell; Shawn Hagerty  
**Subject:** FW: Changes from Settlement Meeting  
**Importance:** High

Dear Mark,

We have reviewed the proposed changes to the Cease and Desist Order and based on our discussions with you and our understanding of the District's ability and commitment to comply with the effluent limits and deadlines contained therein, we have no changes. Please forward to the Lahontan Regional Water Quality Control Board advisory staff notice that the District will not be submitting any additional evidence in opposition to the CDO, and a request that the CDO be placed on the consent calendar for the March 13, 2013 Board meeting.

We have been in contact with Regional Board prosecution counsel Julie Macedo, and she concurs that because the CDO is at this point a stipulated document that is not opposed by the District, that it is appropriate for placement on the consent calendar. Both the District (including District counsel), and Ms. Macedo will be present at the meeting to answer any questions from the Board in the event that they come up.

Thank you for your attention to this matter, please feel free to contact me with any questions or concerns.

Sincerely,

Andre Monette

J.G. Andre Monette  
Best Best & Krieger  
655 West Broadway, 15th Floor  
San Diego, CA 92101  
(619) 525-1374  
[Andre.Monette@bbklaw.com](mailto:Andre.Monette@bbklaw.com)

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**From:** Mark Veysey [<mailto:mveysey@lakearrowheadcsd.com>]  
**Sent:** Tuesday, February 12, 2013 1:51 PM  
**To:** Andre Monette  
**Subject:** FW: Changes from Settlement Meeting  
**Importance:** High

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**From:** Macedo, Julie@Waterboards [<mailto:Julie.Macedo@waterboards.ca.gov>]

**Sent:** Tuesday, February 12, 2013 12:18 PM

**To:** Mark Veysey

**Cc:** Coony, Mike@Waterboards; Cass, Jehiel@Waterboards; Kemper, Lauri@Waterboards; Ferguson, Scott@Waterboards; Plaziak, Mike@Waterboards

**Subject:** Changes from Settlement Meeting

**Importance:** High

Mark –

Mike C. graciously typed up the proposed changes from last week's settlement meeting. If these are acceptable, you can propose a CDO on consent when you submit whatever you submit tomorrow. I will then respond in agreement. If you have no changes, I will be able to provide a redline by February 21, which is our next deadline. If you have any questions or concerns, we can probably set up a conference call between now and February 21. If there are any errors or omissions, I'm sure they are mine because I am traveling.

Thank you for your consideration of this and I hope they respond to your concerns. – JM

**IRS CIRCULAR 230 NOTICE:** To ensure compliance with requirements imposed by the IRS, we inform you that any U.S. tax advice contained in this communication (or in any attachment) is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding penalties under the Internal Revenue Code or (ii) promoting, marketing or recommending to another party any transaction or matter addressed in this communication (or in any attachment).

This email and any files or attachments transmitted with it may contain privileged or otherwise confidential information. If you are not the intended recipient, or believe that you may have received this communication in error, please advise the sender via reply email and immediately delete the email you received.

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# **ENCLOSURE 6**

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**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION**

**HEARING PROCEDURES  
CONSIDERATION OF ADOPTION OF A  
CEASE AND DESIST ORDER  
TO**

**LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT, GRASS VALLEY  
WASTEWATER TREATMENT PLANT, SAN BERNARDINO COUNTY**

**HEARING SCHEDULED FOR MARCH 13-14, 2013**

**IMPORTANT**

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Please read these hearing procedures carefully. Failure to comply with the deadlines and other requirements contained herein may result in the exclusion of your documents and/or testimony.

- A. The California Regional Water Quality Control Board, Lahontan Region (Water Board) must receive the following information no later than 5:00 p.m. on Friday, **January 11, 2013**:
1. Written requests from persons requesting designated party status.
  2. Written objections to these hearing procedures.
- B. The Water Board must receive written objections to requests for designated party status no later than 5:00 p.m. on Friday, **January 18, 2013**.
- C. The Water Board must receive from the Prosecution Team submission of evidence, witness lists, including summary of proposed testimony and qualifications of any expert witness, no later than 5:00 p.m. on Wednesday, **January 23, 2013**.
- D. The Water Board must receive the following information no later than 5:00 p.m. on Tuesday, **February 12, 2013**:
1. Written non-evidentiary policy statements from interested persons.
  2. Written requests from designated parties or interested persons for additional time for presentation at the hearing.
  3. Submission of evidence, witness lists, including summary of proposed testimony and qualifications of any expert witness, from all designated parties, except the Prosecution Team.
  4. Written evidentiary objections (if any) to evidence and proposed witness testimony submitted by the Prosecution Team.
- E. The Water Board must receive from all of the designated parties (including Prosecution Team) written evidentiary objections (if any) to evidence or testimony submitted by all of the designated parties on February 12, 2013, no later than 5:00 p.m. on Wednesday, **February 20, 2013**.

- F. The Water Board must receive from the Prosecution Team, written rebuttal evidence or testimony no later than 5:00 p.m. on Thursday, **February 21, 2013**.
- G. The Water Board must receive from all of the other designated parties, besides the Prosecution Team, written evidentiary objections (if any) to rebuttal evidence submitted by the Prosecution Team no later than 5:00 p.m. on Friday, **March 1, 2013**.

### **Requirements for All Submittals**

All submittals must be on 8½ x 11" size (including attachments and figures), must be in a legible font no smaller than 11-point size, and shall be submitted electronically in a searchable pdf format that does not exceed 10 megabytes in size and not more than 100 pages in length. In an effort to save paper and electronic file space, you may reference documents that have been previously submitted or are part of the public record for this case, and there is no need or requirement to include full copies of those documents. For each document included by reference, identify the name of that document within the submittal, the location of where the document resides, a copy of the relevant pages referenced, and a statement explaining why those excerpts of the document are relevant to your case. Examples of such documents that need not be submitted in full include, but are not limited to, previously submitted monitoring reports, documents that have been shared between designated parties, and documents that can be downloaded from the Water Board's website regarding this case:

[http://www.waterboards.ca.gov/la\\_hontan/water\\_issues/programs/enforcement/index.shtml](http://www.waterboards.ca.gov/la_hontan/water_issues/programs/enforcement/index.shtml)

The file size limit applies to each submittal in total, which means that one submittal cannot be made up of several parts submitted separately that when combined exceed the 10 megabyte and 100 page limit. Participants who would like to submit additional material in excess of the size limitations must submit their request to the Advisory Team no later than 5:00 p.m. on the business day that is least ten working days prior to the required submittal due date. Additional file size may be provided at the discretion of the Advisory Team (prior to the hearing) or the Water Board Chair (at the hearing) upon a showing that the additional file size is necessary. Files submitted in excess of approved size limits will not be accepted.

In addition to the electronic original, 15 hard copies of each submittal must be sent to the Executive Officer by the due date specified above. Each hard copy must be three hole punched and all pages must be sized 8 ½ x 11." Each e-mail submittal must have the e-mail subject line, "Lake Arrowhead CSD CDO Hearing." In addition to submitting the information to the Executive Officer, all designated parties must provide a copy of the materials to the Primary Contacts for all other designated parties.

## Background

On December 31, 2012, Assistant Executive Officer of the Water Board issued Lake Arrowhead Community Services District (CSD) a draft Cease and Desist Order for alleged violations at the CSD's Grass Valley wastewater treatment plant in San Bernardino County. The draft Cease and Desist order alleged that the CSD's facility had unauthorized releases of wastewater on several occasions during the months of January 2005, February 2005, January 2008, February 2010, and December 2010, and that these unauthorized discharges violated Board Order 6-89-110 and R6V-2009-0037. The Water Board will consider adopting the Cease and Desist Order during its regularly scheduled meeting on **March 13-14, 2013**, tentatively scheduled at Lake Arrowhead.

## Purpose of Hearing

The purpose of the hearing is to consider relevant evidence and testimony regarding the proposed Cease and Desist Order. At the hearing, the Water Board will consider whether to adopt the proposed Order, modify it, or reject it. If it adopts an Order, then the Water Board will issue a Cease and Desist Order.

The public hearing on **March 13-14, 2013** will commence at a time and location as announced in the Water Board meeting agenda. An agenda for the meeting will be available on the Water Board's web page at <http://www.waterboards.ca.gov/lahontan/> no later than about **March 1, 2013**.

## Hearing Procedures

The hearing will be conducted in accordance with these hearing procedures or as they may be amended. A copy of the general procedures governing adjudicatory hearings before the Water Board may be found at Title 23 of the California Code of Regulations, section 648 et seq., and is available at <http://www.waterboards.ca.gov> or upon request. In accordance with California Code of Regulations, title 23, section 648, subdivision (d), any procedure not provided by these Hearing Procedures is deemed waived. Chapter 5 of the Administrative Procedures Act (commencing with section 11500 of the Government Code) does not apply to this hearing, except as provided in these Hearing Procedures and the California Code of Regulations, title 23, section 648 subdivision (b).

The Water Board's Advisory Team must receive any objections to these hearing procedures no later than 5:00 p.m. on Friday, **January 11, 2013** or they will be considered waived. Procedural objections about the matters contained in this notice will not be entertained at the hearing. Further, except as otherwise stipulated, any procedure not specified in this hearing notice will be deemed waived pursuant to section 648(d) of Title 23 of the California Code of Regulations, unless a timely objection is filed.

### Hearing Participants

Participants in this proceeding are designated as either “parties” or “interested persons.” Designated parties to the hearing may present evidence and cross-examine witnesses and are subject to cross-examination. Interested persons may present non-evidentiary policy statements, but may not cross-examine witnesses and are not subject to cross-examination. Both designated parties and interested persons may be asked to respond to clarifying questions from the Water Board, staff or others, at the discretion of the Water Board.

The following participants are hereby designated as parties in this proceeding:

1. Water Board Prosecution Team
2. Lake Arrowhead Community Services District

### Requesting Designated Party Status

Persons who wish to participate in the hearing as a designated party must request party status by submitting a request in writing (with copies to the existing designated parties) no later than 5:00 p.m. on Friday, **January 11, 2013** to Patty Kouyoumdjian, Water Board Executive Officer and one copy to Kimberly Niemeyer, Advisory Team counsel, at the addresses provided below. The request shall include an explanation of the basis for status as a designated party (e.g., how the issues to be addressed in the hearing and the potential actions by the Water Board affect the person), the contact information required of designated parties as provided below, and a statement explaining why the party or parties designated above do not adequately represent the person’s interest. Any opposition to the request must be submitted no later than 5:00 p.m. on Friday, **January 18, 2013**.

### Primary Contacts

For the Water Board (Advisory Team):

Originals and specified number of copies of all documents to:	And one copy to:
Patty Kouyoumdjian Executive Officer Regional Water Quality Control Board, Lahontan Region 2501 Lake Tahoe Boulevard South Lake Tahoe, CA 96150 <a href="mailto:Patty.Kouyoumdjian@waterboards.ca.gov">Patty.Kouyoumdjian@waterboards.ca.gov</a> <a href="http://www.waterboards.ca.gov">v</a> Phone (530) 542-5412 Fax (530) 544-2271	Kimberly Niemeyer Staff Counsel State Water Resources Control Board, Office of Chief Counsel 1001 I Street Sacramento, CA 95814 <a href="mailto:Kim.Niemeyer@waterboards.ca.gov">Kim.Niemeyer@waterboards.ca.gov</a> Phone (916) 341-5547 Fax (916) 341-5199

For Water Board Staff (Prosecution Team):

One copy of all documents to both:	
Lauri Kemper Assistant Executive Officer Regional Water Quality Control Board, Lahontan Region 2501 Lake Tahoe Boulevard South Lake Tahoe, CA 96150 <a href="mailto:Lauri.Kemper@waterboards.ca.gov">Lauri.Kemper@waterboards.ca.gov</a> Phone (530) 542-5460 Fax (530) 544-2271	Julie Macedo Staff Counsel State Water Resources Control Board, Office of Enforcement 1001 I Street Sacramento, CA 95814 <a href="mailto:Julie.Macedo@waterboards.ca.gov">Julie.Macedo@waterboards.ca.gov</a> Phone (916) 323-6847 Fax (916) 341-5896

One copy of all documents to:
Mark Veysey, Interim General Manager Lake Arrowhead Community Services District PO Box 700 Lake Arrowhead, CA 92352

### Separation of Functions

To help ensure the fairness and impartiality of this proceeding, the functions of those who will act in a prosecutorial role by presenting evidence for consideration by the Water Board (Prosecution Team) have been separated from those who will provide advice to the Water Board (Advisory Team). Members of the Advisory Team are: Patty Kouyoumdjian, Executive Officer, Doug Smith, Supervising Engineering Geologist; Alan Miller, Senior Water Resources Control Engineer (WRCE); and Kimberly Niemeyer, Staff Counsel. Members of the Prosecution Team are: Lauri Kemper, Assistant Executive Officer; Chuck Curtis, Manager, Cleanup and Enforcement Division; Scott Ferguson, Senior WRCE; Mike Coony, WRCE; Mike Plaziak, Supervising Engineering Geologist; Jay Cass, Senior WRCE; Eric Taxer, WRCE; and Julie Macedo, Staff Counsel, State Water Resource Control Board, Office of Enforcement. Any members of the Advisory Team who normally supervise any members of the Prosecution Team are not acting as their supervisors in this proceeding, and vice versa. Members of the Prosecution Team may have acted as advisors to the Water Board in other, unrelated matters, but they are not advising the Water Board in this proceeding. Members of the Prosecution Team have not had any ex parte communications with the members of the Water Board or the Advisory Team regarding this proceeding.

### Ex Parte Communications

The designated parties and interested persons are forbidden from engaging in ex parte communications regarding this matter with members of the Advisory Team or members of the Water Board. An ex parte contact is any written or verbal communication pertaining to the investigation, preparation or prosecution of this matter between a member of a designated party or interested person on the one hand, and a Water Board member or an Advisory Team member on the other hand, unless the communication is copied to all other designated parties (if written) or made in a manner open to all other designated parties (if verbal). Communications

regarding non-controversial procedural matters are not ex parte contacts and are not restricted. Communications among one or more designated parties and interested persons themselves are not ex parte contacts.

### **Hearing Time Limits**

To ensure that all participants have an opportunity to participate in the hearing, the following time limits shall apply: each designated party shall have a combined forty-five minutes (45) to present evidence, cross-examine witnesses, and provide a closing statement; and each interested person shall have five (5) minutes to present a non-evidentiary policy statement. Participants with similar interests or comments are requested to make joint presentations, and participants are requested to avoid redundant comments. Participants who would like additional time must submit their request to the Advisory Team no later than 5:00 p.m. on Tuesday, **February 12, 2013**. Additional time may be provided at the discretion of the Advisory Team (prior to the hearing) or the Water Board Chair (at the hearing) upon a showing that additional time is necessary.

### **Evidence, Exhibits and Policy Statements**

The following information must be submitted in advance of the hearing:

1. All written evidence and exhibits that the designated party would like the Water Board to consider. Evidence and exhibits already in the public files of the Water Board may be submitted by reference as long as the exhibits and their location are clearly identified in accordance with California Code of Regulations, title 23, section 648.3.
2. All legal and technical arguments or analysis.
3. The name of each witness, if any, whom the designated party intends to call at the hearing, the subject of each witness' proposed testimony.
4. The qualifications of each expert witness, if any.

In conformance with the procedures set out on page 2, the Prosecution Team must submit to Patty Kouyoumdjian, Water Board Executive Officer, an original and 15 hard copies, and one electronic copy (in searchable pdf format) all of the information identified above no later than 5:00 p.m. on Wednesday, **January 23, 2013**. In addition, one hard copy and one electronic copy should be sent to Kimberly Niemeyer, Staff Counsel, each primary contact for the Prosecution Team, and each primary contact(s) for other designated parties, as specified in the section above identifying primary contacts.

No later than 5:00 p.m. on Tuesday, **February 12, 2013**, the remaining designated parties shall submit an original, 15 hard copies, and one electronic copy (in searchable pdf format) of the information to Patty Kouyoumdjian, Water Board Executive Officer, in conformance with the procedure set out on page 2. In addition, one hard copy and one electronic copy should be sent to Kimberly Niemeyer, Staff Counsel, each primary contact for the Prosecution Team, and each primary contact(s) for other designated parties, as specified in the section above identifying primary contacts.

The Prosecution Team has the opportunity to submit rebuttal evidence or testimony. This material shall be submitted no later than 5:00 p.m. on Thursday, **February 21, 2013**. The original, 15 hard copies and one electronic copy (in searchable pdf format) of the material must be submitted to Patty Kouyoumdjian, Water Board Executive Officer, in conformance with the procedure set out on page 2. In addition, one hard copy and one electronic copy should be sent to Kimberly Niemeyer, Staff Counsel, each primary contact for the designated parties, as specified in the section above identifying primary contacts.

Interested persons who would like to submit written non-evidentiary policy statements are encouraged to submit them to the Advisory Team as early as possible, but no later than 5:00 p.m. on Friday, **March 1, 2013**. If over 10 pages, including attachments, this information should be sent to Patty Kouyoumdjian in conformance with the procedure on page 2. If less than 10 pages, the non-evidentiary policy statements may be sent either in hard copy or electronically. Comments should also be sent to Kimberly Niemeyer, Staff Counsel, each primary contact for the Prosecution Team, and each primary contact(s) for other designated parties, as specified in the section above identifying primary contacts. Interested persons do not need to submit written comments to speak at the hearing.

In accordance with Title 23, California Code of Regulations, section 648.4, the Water Board endeavors to avoid surprise testimony or evidence. Absent a showing of good cause and lack of prejudice to the parties, the Water Board may exclude evidence and testimony that is not submitted in accordance with this hearing procedure. Excluded evidence and testimony will not be considered by the Water Board and will not be included in the administrative record for this proceeding. Power Point and other visual presentations may be used at the hearing, but their content may not exceed the scope of other timely submitted written material. A written and electronic copy of such material that Designated Parties or Interested Persons intend to present at the hearing must be submitted to the Advisory Team at or before the hearing for inclusion in the administrative record. Additionally, any witness who has submitted written testimony for the hearing shall appear at the hearing and affirm that the written testimony is true and correct, and shall be available for cross-examination.

### **Evidentiary Objections**

The Water Board Advisory Team (original to Patty Kouyoumdjian, Executive Officer, and one copy to Kimberly Niemeyer, Staff Counsel) must receive all written objections to the evidence or testimony submitted by the Prosecution Team no later than 5:00 p.m. on Tuesday, **February 12, 2013**. Objections by the Prosecution Team and other designated parties to evidence or testimony submitted by designated parties the other designated parties must be received no later than 5:00 p.m. on **February 20, 2013**. Any objections to rebuttal evidence or testimony submitted by the Prosecution Team must be received no later than 5:00 p.m. on Friday, **March 1, 2013**. Written objections must also be sent to the other designated parties. The Advisory Team will notify the parties about further action to be taken on such objections (if any) and when that action will be taken.

### **Request for Pre-hearing Conference**

A designated party may request that a pre-hearing conference be held before the hearing in accordance with Water Code section 13228.15. A pre-hearing conference may address any of the matters described in subdivision (b) of Government Code section 11511.5. Requests must contain a description of the issues proposed to be discussed during that conference, and must be submitted to the Advisory Team, with a copy to all other designated parties, as early as practicable.

### **Evidentiary Documents and File**

The Proposed Order and related evidentiary documents are on file and may be inspected or copied at the Water Board offices at 2501 Lake Tahoe Boulevard, South Lake Tahoe or 14440 Civic Drive, Suite 200, Victorville. This file shall be considered part of the official administrative record for this hearing. Other submittals received for this proceeding will be added to this file and will become a part of the administrative record absent a contrary ruling by the Water Board Chair.

### **Questions**

Questions concerning these hearing procedures may be addressed to Patty Kouyoumdjian, Executive Officer, at (530) 542-5412 or Kimberly Niemeyer, Staff Counsel, at (916) 341-5547 or at the addresses shown above.



\_\_\_\_\_  
Patty Kouyoumdjian  
Executive Officer

DATE: \_\_\_\_\_ December 31, 2012