CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

REGION 4, LOS ANGELES REGION

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ORDER NO. <R4-2007-0046>
NPDES NO. <CA0064556>

WASTE DISCHARGE REQUIREMENTS FOR THE NEWHALL RANCH SANITATION DISTRICT (Newhall Ranch Water Reclamation Plant) DISCHARGE TO THE SANTA CLARA RIVER

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	Newhall Ranch Sanitation District
Name of Facility	Newhall Ranch Water Reclamation Plant
Facility Address	Hwy 126 at Los Angeles/Ventura County Line
	Newhall, California, 91355
	Los Angeles County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge.	

The discharge by the Newhall Ranch Sanitation District from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Tertiary treated effluent	34 º, 0.403166',” N	118º, 0.6896667',” W	Santa Clara River

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	September 6, 2007
This Order shall become effective on:	October 27, 2007
This Order shall expire on:	August 10, 2012
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	180 days prior to the Order expiration date

IT IS HEREBY ORDERED, that in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Deborah J. Smith, Interim Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on September 6, 2007.

Deborah J. Smith, Interim Executive Officer

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I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

DISCHARGER	Newhall Ranch Sanitation District
NAME OF FACILITY	Newhall Ranch Water Reclamation Plant
FACILITY ADDRESS	Hwy 126 at Los Angeles/Ventura County Line
	Newhall, California, 91355
	Los Angeles County
FACILITY CONTACT, TITLE, AND PHONE	Steve Sheridan, Principal Engineer (626) 458-7151
MAILING ADDRESS	900 South Fremont, Alhambra, CA 91803
TYPE OF FACILITY	POTW
FACILITY DESIGN FLOW	2 million gallons per day (MGD) in Phase I

II. FINDINGS

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

A. Background. Newhall Land and Farming Company (Newhall Land) submitted a Report of Waste Discharge (ROWD), dated April 23, 2004, and applied for a National Pollutant Discharge Elimination System (NPDES) permit authorization to discharge up to 2 MGD of tertiary treated wastewater from a new privately owned treatment works that would treat the sewage generated by the inhabitants of Landmark Village, a new housing development. Newhall Land indicated to Regional Water Board staff that they were interested in applying for the NPDES permit as a publicly owned treatment works, not a privately owned treatment works. However, Newhall Land was in the process of applying to the Local Agency Formation Commission for Los Angeles County (LAFCO), for approval of the formation of a new sanitation district. On July 27, 2006, the Newhall Ranch Sanitation District (Newhall Ranch SD) was formed. In September 2007, the grant deed will be transferred from Newhall Land to Newhall Ranch SD. In January 2008 grading activities are scheduled to begin. In June 2008 Newhall Ranch SD is scheduled to approve the plans for the plant design. In September 2008, construction of the Newhall Ranch Water Reclamation Plant (Newhall Ranch WRP) is scheduled to begin. By August 2009, the Newhall Ranch WRP should be constructed. The Newhall Ranch WRP would have an initial design capacity of 2 MGD, and incrementally increase its design capacity to 6.8 MGD [2.0 MGD in Phase I; 4.0 MGD in Phase II; and 6.8 MGD in Phase III], to accommodate the sewage generated by new inhabitants, as additional tracts of the Landmark Village development project are completed. Newhall Land submitted a revised ROWD on September 27, 2004. Their consultants have been submitting additional information, including receiving water sampling analytical results to supplement the ROWD. On March 30, 2007, additional receiving water data was received at the Regional Water Board, submitted by Geosyntec on behalf of Newhall Land. The application has not been deemed complete because Newhall Ranch SD has not submitted the required signatures on the ROWD. Upon receipt of the revised ROWD with the signatory requirements for the Newhall SD, the ROWD may be considered as complete as possible, except for the effluent data which will need to be collected after start-up. On May 4 and May 23, 2007, the Regional Water Board received the required signatory statement.

For the purposes of this Order, references to the “discharger” or “permittee” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. Facility Description. Newhall Land is planning on transferring ownership of the land to Newhall Ranch SD in September 2007. Newhall Ranch SD will make a formal application to the existing twenty-four County Sanitation Districts to become signatory to the amended Joint Administration Agreement, dated July 1, 1980, of the County Sanitation Districts of Los Angeles County. Newhall Ranch SD will also make a formal

application to the Santa Clarita Valley Sanitation District to enter into an agreement regarding the ownership and operation of the Newhall Ranch WRP. These agreements will allow the Los Angeles County Sanitation District to be the operator of the Newhall Ranch WRP, and to provide engineering and administrative staff at the Newhall Ranch WRP. However, Newhall Ranch SD will retain ownership of the Newhall Ranch WRP.

Treatment at the Newhall Ranch WRP, a publicly owned treatment works (POTW), will consist of screening, activated sludge secondary treatment with membrane bioreactors, nitrification/denitrification, ultraviolet disinfection, and partial reverse osmosis (RO). There will be no solids handling facilities in the near term. Waste activated sludge, or biosolids, will be hauled away to the Valencia Water Reclamation Plant for further treatment and disposal; and will be regulated under the Valencia WRP's NPDES permit No. CA0054216. Brine from the RO system will be disposed of through deep well injection, under a separate USEPA permit. Treated wastewater will be discharged from Discharge Point 001 (see Table on Cover Page) to the Santa Clara River, a water of the United States, tributary to the Santa Clara River Estuary, within the Santa Clara River Watershed. Attachment B provides a map of the area around the facility. Attachment C provides the flow schematic of the facility.

C. Legal Authorities. This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC.

D. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available environmental information. Attachment F, which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E, and others are also incorporated into this Order.

E. California Environmental Quality Act (CEQA). The discharger is not a new source, as defined in the CWA. (See 40 CFR part 122.2.) Therefore, the approval of this permit is not subject to the California Environmental Quality Act (CEQA), as stated in section 13389 of the CWC.

F. Technology-based Effluent Limitations. The Code of Federal Regulations (CFR) at 40 CFR Section 122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on tertiary treatment or equivalent requirements that meet both the technology-based secondary treatment standards, at 40 CFR Part 133, for POTWs and protect the beneficial uses of the receiving waters. The Regional Water Board has considered the factors listed in CWC Section 13241 in establishing these requirements and Best Professional Judgment (BPJ) in accordance with 40 CFR Section 125.3. A detailed

discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

G. Water Quality-Based Effluent Limitations. Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

H. Water Quality Control Plans. The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (hereinafter Basin Plan) on June 13, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic water supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to the Santa Clara River are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Santa Clara River (Hydro Unit 403.51)	Existing: Industrial Service Supply (IND), Industrial Process Supply (PROC), Agricultural Supply (AGR), Ground Water Recharge (GWR), Freshwater Replenishment (FRSH), Water Contact Recreation (REC1), Non-contact Water Recreation (REC2), Warm freshwater habitat (WARM); Wildlife habitat (WILD), preservation or rare, threatened or endangered species (RARE), and Wetland Habitat (WET). Potential*: Municipal and domestic water supply (MUN).
	Santa Clara River (Hydro Unit 403.41)	Existing: IND, PROC, AGR, GWR, FRSH, REC1, REC2, WARM, WILD, RARE, Migration of Aquatic Organisms (MIGR) and WET. Potential*: MUN.

	Santa Clara River (Hydro Unit 403.31)	Existing: IND, PROC, AGR, GWR, FRSH, REC1, REC2, WARM; WILD, RARE, MIGR and WET. Potential*: MUN.
	Santa Clara River (Hydro Unit 403.21)	Existing: IND, PROC, AGR, GWR, FRSH, REC1, REC2, WARM; WILD, RARE, MIGR and WET. Potential*: MUN.
	Santa Clara River (Hydro Unit 403.11)	Existing: IND, PROC, AGR, GWR, FRSH, REC1, REC2, WARM; Coldwater Habitat (COLD), WILD, RARE, MIGR and WET. Potential*: MUN.
	Santa Clara River Estuary (Hydro Unit 403.11)	Existing: Navigation (NAV); , REC1, REC2, Commercial and Sport Fishing (COMM); Estuarine Habitat (EST); Marine Habitat (MAR); WILD, RARE, MIGR; Spawning Reproduction, and/or Early Development (SPWN); and, WET.

* The potential municipal and domestic supply (p* MUN) beneficial use for the waterbody is consistent with the State Water Resources Control Board Order No. 88-63 and Regional Water Board Resolution No. 89-003; however, the Regional Water Board has only conditionally designated the MUN beneficial use of the surface water and at this time cannot establish effluent limitations designed to protect the conditional designation.

Requirements of this Order implement the Basin Plan.

On July 25, 2003, USEPA approved the State's most recent list of impaired waterbodies. The list (hereinafter referred to as the 303(d) list) was prepared in accordance with Section 303(d) of the Federal Clean Water Act to identify specific impaired waterbodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources.

Santa Clara River, Santa Clara River Estuary, and their tributaries were on the 2002 303(d) List. The following pollutants/stressors, from point and non-point sources, were identified as impacting the receiving waters:

1. Santa Clara River Estuary: Chem A, High Coliform Count, Toxaphene;

2. Santa Clara River Reach 3 (Freeman Diversion to A Street): Ammonia, Chloride, Total Dissolved Solids;

3. Santa Clara River Reach 7 (Blue Cut to West Pier Hwy 99 Bridge): Chloride, High Coliform Count, Nitrate and Nitrite;

4. Santa Clara River Reach 8 (W. Pier Hwy 99 to Bouquet Canyon Rd. Bridge) -- Hydrologic Unit 403.51: Chloride and High Coliform Count; and,

5. Santa Clara River Reach 9 (Bouquet Canyon Rd to above Lang Gaging) -- Hydrologic Unit 403.51: High Coliform Count.

On October 25, 2006, the State Water Board adopted a revised 303(d) list. The 2006 303(d) list was partially approved by the USEPA on November 30, 2006. However, on March 8, 2007, USEPA partially disapproved the State's 303(d) list, by disapproving the State's omission of impaired waters that met federal listing regulations or guidance. USEPA is adding 64 waters and 37 associated pollutants to the State's 303(d) list.

Santa Clara River, Santa Clara River Estuary, and their tributaries are on the 2006 303(d) List. The following pollutants/stressors, from point and non-point sources, were identified as impacting the receiving waters:

1. Santa Clara River Estuary: Chem A, Coliform Bacteria, and Toxaphene;

2. Santa Clara River Reach 1 (Estuary to Hwy 101 Bridge): Toxicity:

3. Santa Clara River Reach 3 (Freeman Diversion to A Street): Total Dissolved Solids;

4. Santa Clara River Reach 5 [formerly Reach 7 in 2002 303d list] (Blue Cut to West Pier Hwy 99 Bridge): Coliform Bacteria;

5. Santa Clara River Reach 6 [formerly Reach 8 in 2002 303d list] (W. Pier Hwy 99 to Bouquet Canyon Rd. Bridge) -- Hydrologic Unit 403.51: Chlorpyrifos, Coliform Bacteria, Diazinon, and Toxicity; and,

6. Santa Clara River Reach 7 [formerly Reach 9 in 2002 303d list] (Bouquet Canyon Rd to above Lang Gaging) -- Hydrologic Unit 403.51: Coliform Bacteria.

I. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

J. State Implementation Policy. On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes

implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

K. Compliance Schedules and Interim Requirements. Section 2.1 of the SIP provides that, based on a Discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 17, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does not include compliance schedules or interim effluent limitations.

L. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 C.F.R. § 131.21; 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

M. Stringency of Requirements for Individual Pollutants. This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on biochemical oxygen demand (BOD), total suspended solids (TSS), and hydrogen ion concentration (pH). Restrictions on BOD, TSS, and pH are specified in federal regulations as discussed in Finding F, and the permit's technology-based pollutant restrictions are no more stringent than required by the CWA. Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA"

pursuant to 40 CFR 131.21(c)(1). For the most part, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

This Order contains pollutant restrictions that are more stringent than applicable federal requirements and standards. Specifically, this Order includes effluent limitations for bis(2-ethylhexyl)phthalate that are more stringent than applicable federal standards, but that are nonetheless necessary to meet numeric objectives or protect beneficial uses. The rationale for including these limitations is explained in this Fact Sheet. In addition, the Regional Water Board has considered the factors in Water Code section 13241 in Facts Sheet Section IV.D.3.

N. Antidegradation Policy. Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

O. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR Section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. Since this is a new discharge, all effluent limitations and requirements contained in this Order are new. Therefore, there is no relaxation of effluent limitations. The WDR is consistent with the anti-backsliding requirements of the CWA and federal regulations.

P. Endangered Species Act. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

Q. Monitoring and Reporting. Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

R. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.

S. Provisions and Requirements Implementing State Law. The provisions/requirements in subsection IV.C of this Order is included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

T. Notification of Interested Parties. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.

U. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

III. DISCHARGE PROHIBITIONS

A. Wastes discharged from Discharge Serial No. 001 shall be limited to tertiary-treated wastewater, as proposed in the ROWD.

B. Discharges not specifically authorized under this Order are prohibited.

C. The bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed in Standard Provision I.G. of Attachment D, Federal Standard Provisions.

D. The effluent temperature shall not exceed 86°F, except as a result of external ambient temperature.

E. Radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Section 64443, CCR, or subsequent revisions.

F. In accordance with 40 CFR, Parts 133.102(a)(3) and 133.102(b)(3), for BOD and total suspended solids, respectively, the 30-day average percent removal shall not be less than 85 percent. Percent removal is defined as a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

G. The wastes discharged to water courses shall at all times be adequately disinfected. For the purpose of this requirement, the wastes shall be considered adequately disinfected if the median number of coliform organisms at some point in the treatment process does not exceed 2.2 per 100 milliliters, and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last seven (7) days for which analysis has been completed. Samples shall be collected at a time when wastewater flow and characteristics are most demanding on treatment facilities and the disinfection processes.

H. For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the treated wastewater does not exceed: (a) 0.2 Nephelometric turbidity units (NTUs) more than 5 percent of the time (72 minutes) during any 24 hour period; and (b) 0.5 NTUs at any time.

I. To protect underlying ground water basins, pollutants shall not be present in the wastes discharged at concentrations that pose a threat to ground water quality.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations – Discharge Point 001

a. The Discharge of tertiary-treated effluent shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001, RSW-001U, RSW-001D and RSW-002D as described in the attached Monitoring and Reporting Program (Attachment E):

Table 6. Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	20	30	45	--	--
	lbs/day[1]	330	500	750	--	--
Total Suspended Solids	mg/L	15	40	45	--	--
	lbs/day	250	670	750	--	--
pH	standard units	--	--	--	6.5	8.5
Settleable solids	mL/L	0.1	--	0.3	--	--
Oil and grease	mg/L	10	--	15	--	--
	lbs/day[1]	170	--	250	--	--
Total dissolved solids	mg/L	1000	--	--	--	--
	lbs/day[1]	16,700	--	--	--	--
Chloride	mg/L	100[2]	--	--	--	--
	lbs/day[1]	1,700	--	--	--	--
Sulfate	mg/L	400	--	--	--	--
	lbs/day[1]	6,700	--	--	--	--

[1] The mass emission rates are based on the plant design flow rate of 2.0 mgd, and are calculated as follows: Flow(MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. However, the design capacity will incrementally increase to 6.8 MGD, as the phased plant upgrades approach completion. The mass-based effluent limitation will accordingly be modified following an Anti-degradation analysis demonstration conducted by the Discharger, and upon certification and approval of increased treatment plant capacity. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

[2] This is the water quality objective for chloride in the current Basin Plan. This effluent limitation is consistent with the assumptions of the Chloride TMDL for the Santa Clara River, Resolution No. 2002-018, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Chloride in the Santa Clara River* (*Chloride TMDL)*. This effluent limitation applies immediately. However, if a chloride site specific objective (Chloride SSO) is adopted for the reach of the Santa Clara River in which Newhall Ranch WRP will discharge, then the permit may be reopened to make the necessary changes to this permit, following USEPA approval of the Chloride SSO.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Boron	mg/L	1.5	--	--	**--**	**--**
	lbs/day[1]	25	--	**--**	**--**	**--**
Total ammonia (NH_3 as N)	mg/L	1.93[3]	--	3.87[4]	--	--
	lbs/day[1]	25	--	65	--	--
Nitrate-N + Nitrite-N	mg/L	5	--	--	--	--
	lbs/day[1]	80	--	--	--	--
Nitrite-N	mg/L	0.9	--	--	--	--
	lbs/day[1]	15	--	--	--	--
Detergents (as MBAS)	mg/L	0.5	--	--	--	--
	lbs/day[1]	8	--	--	--	--
Total residual chlorine	mg/L	--	--	0.1	--	--
Antimony	µg/L	6	--	--	--	--
	lbs/day[1]	0.1	--	--	--	--
Arsenic	µg/L	10	--	--	--	--
	lbs/day[1]	0.2	--	--	--	--
Copper	µg/L	22	--	44	--	--
	lbs/day[1]	0.37	--	0.73	--	--
Lead	µg/L	13	--	26	--	--
	lbs/day[1]	0.22	--	0.43	--	--
Mercury	µg/L	0.051	--	0.10	--	--
	lbs/day[1]	0.00085	--	0.0017	--	--
Nickel	µg/L	100	--	--	--	--
	lbs/day[1]	1.7	--	--	--	--
Selenium	µg/L	4.1	--	8.2	--	--
	lbs/day	0.068	--	0.14	--	--
Zinc	µg/L	5000	--	--	--	--
	lbs/day[1]	83	--	--	--	--
Cyanide	µg/L	4.2	--	8.5	--	--
	lbs/day[1]	0.07	--	0.14	--	--
Acrylonitrile	µg/L	0.66	--	1.3	--	--
	lbs/day[1]	0.011	--	0.022	--	--
Tetrachloroethylene	µg/L	5	--	--	--	--
	lbs/day[1]	0.08	--	--	--	--

[3] This is the monthly average effluent limit calculated according to the Implementation Plan for ammonia in the Basin Plan, which specifies how to translate the Ammonia WQO into a final effluent limit, consistent with the assumptions of the Santa Clara River Nitrogen Compounds TMDL, Resolution No. 03-011.

[4] This is the daily maximum effluent limit calculated according to the Implementation Plan for ammonia in the Basin Plan, which specifies how to translate the Ammonia WQO into a final effluent limit, consistent with the assumptions of the Santa Clara River Nitrogen Compounds TMDL, Resolution No. 03-011.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Bis(2-ethylhexyl)phthalate	µg/L	4	--	--	--	--
	lbs/day[1]	0.07	--	--	--	--
p-Dichlorobenzene (1,4-Dichlorobenzene)	µg/L	5	--	--	--	--
	lbs/day[1]	0.08	--	--	--	--
Lindane	µg/L	0.2	--	--	--	--
	lbs/day	0.003	--	--	--	--
4,4-DDE	µg/L	0.00059	--	0.0012	--	--
	lbs/day	0.0000098	--	0.00002	--	--
Iron	µg/L	300	--	--	--	--
	lbs/day	5	--	--	--	--

b. **Percent Removal:** The average monthly percent removal of BOD 5-day 20°C and total suspended solids shall not be less than 85 percent.

c. Acute Toxicity Limitation and Effluent Requirements:

1. The acute toxicity of the effluent shall be such that:
   (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour static renewal bioassay tests shall be at least 90%, and
   (ii) no single test producing less than 70% survival

2. If either of the above requirements IV.A.1.c.1.i. or IV.A.1.c.1.ii. is not met, the Discharger shall conduct six additional tests over a twelve-week period. The Discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the completion of the test and the additional tests shall begin within 5 business days of the receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume testing at the regular frequency as specified in the monitoring and reporting program. However, if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the limits.

3. If the initial test and any of the additional six acute toxicity bioassay tests result in less than 70 % survival, the Discharger shall immediately implement the Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan described later in this section.

4. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program (MRP) No. YYYY.

d. Chronic Toxicity Requirements

1. The chronic toxicity of the effluent shall be expressed and reported in toxic units, where:

$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

2. There shall be no chronic toxicity in the effluent discharge

3. If the chronic toxicity of the effluent exceeds the monthly median of 1.0 TUc, the Discharger shall immediately implement accelerated chronic toxicity testing according to MRP CI No. 9322, Section V.B.3. If any three out of the initial test and the six accelerated test results exceed 1.0 TUc, the Discharger shall initiate a TIE and implement the Initial Invetsigation TRE Workplan, as specified in the MRP section of this Order (Sections V.D and V.E).

4. The Discharger shall conduct chronic toxicity monitoring as specified in MRP CI No. 9322.

5. This permit may be reopened to include effluent limitations for pollutants found to be causing chronic toxicity and to include numeric chronic toxicity effluent limitations based on direction from the State Water Resources Control Board or failure of the District to comply fully with the TRE/TIE requirements.

2. Interim Effluent Limitations

a. Interim Effluent Limitations are not applicable for new dischargers.

Table 7. Interim Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum

B. Land Discharge Specifications

[Not Applicable. Holding ponds at the Newhall Ranch WRP will be concrete-lined and are not designed for purposeful groundwater recharge.]

Table 8. Land Discharge Specifications

Parameter	Units	Discharge Specifications		
		Average Monthly	Maximum Daily	Average Annual

C. Reclamation Specifications

[Not Applicable. Water recycling requirements will be regulated under a separate order. Newhall intends on recycling all of its treated effluent during dry weather.]

Table 9. Reclamation Discharge Specifications

Parameter	Units	Discharge Specifications		
		Average Monthly	Maximum Daily	Average Annual

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in the Santa Clara River:

1. For waters designated with a warm freshwater habitat (WARM) beneficial use, the temperature of the receiving water at any time or place and within any given 24-hour period shall not be altered by more than 5°F above the natural temperature (or above 70°F if the ambient receiving water temperature is less than 60°F) due to the discharge of effluent at the receiving water station located downstream of the discharge. Natural conditions shall be determined on a case-by-case basis.

2. The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of wastes discharged. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of wastes discharged. Natural conditions shall be determined on a case-by-case basis.

3. The dissolved oxygen in the receiving water shall not be depressed below 5 mg/L as a result of the wastes discharged.

4. The fecal coliform concentration in the receiving water shall not exceed the following, as a result of wastes discharged:

    a. Geometric Mean Limits

        i. E.coli density shall not exceed 126/100 mL.

        ii. Fecal coliform density shall not exceed 200/100 mL.

    b. Single Sample Limits

        E.coli density shall not exceed 235/100 mL.

        ii. Fecal coliform density shall not exceed 400/100 mL.

5. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity attributable to controllable water quality factors shall not exceed the following limits, as a result of wastes discharged:

    a. Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%, and

b. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

6. The wastes discharged shall not produce concentrations of toxic substances in the receiving water that are toxic to or cause detrimental physiological responses in human, animal, or aquatic life.

7. The wastes discharged shall not cause concentrations of contaminants to occur at levels that are harmful to human health in waters which are existing or potential sources of drinking water.

8. The concentrations of toxic pollutants in the water column, sediments, or biota shall not adversely affect beneficial uses as a result of the wastes discharged.

9. The wastes discharged shall not contain substances that result in increases in BOD, which adversely affect the beneficial uses of the receiving waters.

10. Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.

11. The wastes discharged shall not cause the receiving waters to contain any substance in concentrations that adversely affect any designated beneficial use.

12. The wastes discharged shall not alter the natural taste, odor, and color of fish, shellfish, or other surface water resources used for human consumption.

13. The wastes discharged shall not result in problems due to breeding of mosquitoes, gnats, black flies, midges, or other pests.

14. The wastes discharged shall not result in visible floating particulates, foams, and oil and grease in the receiving waters.

15. The wastes discharged shall not alter the color of the receiving waters; create a visual contrast with the natural appearance of the water; nor cause aesthetically undesirable discoloration of the receiving waters.

16. The wastes discharged shall not contain any individual pesticide or combination of pesticides in concentrations that adversely affect beneficial uses of the receiving waters. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life as a result of the wastes discharged.

B. Groundwater Limitations

1. In ground waters used for domestic or municipal supply the concentration of coliform organisms over any seven day period shall be less than 1.1/ 100 ml.

2. Ground waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents and radionuclides in excess of the limits specified in the provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into the Basin Plan.

3. Ground waters shall not exceed 10 mg/L nitrogen as nitrate-nitrogen plus nitrite-nitrogen (NO_3-N + NO_2-N), 45 mg/L as nitrate (NO_3), 10 mg/L as nitrate-nitrogen (NO_3-N), or 1 mg/L as nitrite-nitrogen (NO_2-N).

4. Groundwaters shall not contain taste or odor producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

2. The Discharger shall comply with the following provisions:

   a. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.

   b. Odors, vectors, and other nuisances of sewage or sludge origin beyond the limits of the treatment plant site or the sewage collection system due to improper operation of facilities, as determined by the Regional Water Board, are prohibited.

   c. All facilities used for collection, transport, treatment, or disposal of "wastes" shall be adequately protected against damage resulting from overflow, washout, or inundation from a storm or flood having a recurrence interval of once in 100 years.

   d. Collection, treatment, and disposal systems shall be operated in a manner that precludes public contact with wastewater.

   e. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer of the Regional Water Board.

   f. The provisions of this order are severable. If any provision of this order is found invalid, the remainder of this Order shall not be affected.

   g. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the discharger from any responsibilities, liabilities or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the CWA.

   h. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the discharger from any responsibilities, liabilities or penalties to which the discharger is or may be subject to under Section 311 of the CWA.

   i. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of

storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Water Board to local agencies.

j. Discharge of wastes to any point other than specifically described in this Order is prohibited, and constitutes a violation thereof.

k. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the Federal CWA and amendments thereto.

l. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

m. Oil or oily material, chemicals, refuse, or other contaminating materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.

n. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.

o. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

p. The Discharger shall file with the Regional Water Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.

q. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify the Regional Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Regional Water Board.

r. The CWC provides that any person who violates a waste discharge requirement or a provision of the CWC is subject to civil penalties of up to $5,000 per day, $10,000 per day, or $25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per

day or $25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations. Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

s. Under CWC 13387, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this order, including monitoring reports or reports of compliance or noncompliance, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained in this order and is subject to a fine of not more than $25,000 or imprisonment of not more than two years, or both. For a second conviction, such a person shall be punished by a fine of not more than $25,000 per day of violation, or by imprisonment of not more than four years, or by both.

t. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.

u. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
(1) Name and general composition of the chemical,
(2) Frequency of use,
(3) Quantities to be used,
(4) Proposed discharge concentrations, and
(5) USEPA registration number, if applicable.

v. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, maximum daily effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Watershed Regulatory Section Chief at the Regional Water Board by telephone (213) 576-6616, or electronically, within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.

C. Special Provisions

1. Reopener Provisions

a. This Order may be modified, revoked and reissued, or terminated for cause, including, but not limited to:

(1) Violation of any term or condition contained in this Order;

(2) Obtaining this Order by misrepresentation, or by failure to disclose fully all relevant facts;

(3) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliances does not stay any condition of this Order.

b. This Order may be reopened and modified, in accordance with SIP section 2.2.2.A to incorporate the results of revised reasonable potential analyses to be conducted upon receipt of additional data.

c. This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122 and 124 to include requirements for the implementation of the watershed protection management approach.

d. The Board may modify, or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.

e. This Order may also be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR, Parts 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the

District for an Order modification, revocation and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

f. This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122 to 124, to include new MLs.

g. If applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Water Board may institute proceedings under these regulations to modify or revoke and reissue the Order to conform to the toxic effluent standard or prohibition.

h. The waste discharged shall not cause a violation of any applicable water quality standard for receiving waters. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA, or amendments, thereto, the Regional Water Board will revise and modify this Order in accordance with such standards.

i. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of a water quality objective, the adoption of a site specific objective, or the adoption of a TMDL for the Santa Clara River Watershed.

j. This Order may be reopened and modified to revise the chronic toxicity effluent limitation or the residual chlorine effluent limitation, to the extent necessary, to be consistent with State Water Board precedential decisions, new policies, new laws, or new regulations.

k. This Order may be reopened to modify final effluent limits, if at the conclusion of necessary studies conducted by the Discharger, the Regional Water Board determines that dilution credits, attenuation factors, or metal translators are warranted.

l. This Order may be reopened to increase the design capacity, following certification of the EIR for subsequent housing developments, those which will come after the Landmark Village project.

m. This Order may be reopened to re-calculate the ammonia-nitrogen water quality based final effluent limitations, if the effluent pH and temperature differ significantly from the receiving water pH and temperature monitoring data.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Treatment Plant Capacity

The Discharger shall submit a written report to the Executive Officer of the Regional Water Board within 90 days after the "30-day (monthly) average" daily dry-weather flow equals or exceeds 75 percent of the design capacity of waste treatment and/or disposal facilities. The Discharger's senior administrative officer shall sign a letter, which transmits that report and certifies that the discharger's policy-making body is adequately informed of the report's contents. The report shall include the following:

(1) The average daily flow for the month, the date on which the peak flow occurred, the rate of that peak flow, and the total flow for the day;

(2) The best estimate of when the monthly average daily dry-weather flow rate will equal or exceed the design capacity of the facilities; and

(3) A schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

This requirement is applicable to those facilities which have not reached 75 percent of capacity as of the effective date of this Order. For those facilities that have reached 75 percent of capacity by that date but for which no such report has been previously submitted, such report shall be filed within 90 days of the issuance of this Order.

b. Toxicity Reduction Requirements.

The Discharger shall prepare and submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the workplan within 60 days from the date in which it was received, the workplan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or most current version. At a minimum, the initial investigation TRE workplan must contain the provisions in **Attachment G**. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

(1) A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

(2) A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the facility; and,

(3) If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

If the effluent toxicity test result exceeds the 1.0 TUc toxicity trigger, then the Discharger shall immediately implement accelerated toxicity testing that consists of six additional tests, approximately every two weeks, over a 12-week period. Effluent sampling for the first test of the six additional tests shall commence within 5 business days of receipt of the test results exceeding the toxicity trigger.

If the results of any two of the six tests (any two tests in a 12-week period) exceed the limitation, the Discharger shall initiate a Toxicity Reduction Evaluation (TRE).

If results of the implementation of the facility's initial investigation TRE workplan (as described above) indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 15 days of completion of the initial investigation TRE.

Detailed toxicity testing and reporting requirements are contained in Section V of the MRP (Attachment E).

3. Best Management Practices and Pollution Prevention

a. **Storm Water Pollution Prevention Plan (SWPPP)**

Within 90 days from the Newhall Ranch WRP's start-up date, the Discharger shall submit an updated SWPPP that describes site-specific management practices for minimizing contamination of storm water runoff and for preventing contaminated storm water runoff from being discharged directly to waters of the State to the Regional Water Board. The SWPPP shall be developed in accordance with the requirements in *Storm Water Pollution Prevention Plan Requirements* **(Attachment H)**. If all storm water is captured and treated on-site and no storm water is discharged or allowed to run off-site from the Facility, the Discharge shall provide certification with descriptions of on-site storm water management to the Regional Water Board.

b. **Spill Contingency Plan (SCP)**

The Discharger shall maintain a SCP for the Newhall WRP and its sanitary sewage collection system in an up-to-date condition and shall amend the SCP

whenever there is a change (e.g. in the design, construction, operation, or maintenance of the sewage system or sewage facilities) which materially affects the potential for spills. The Discharger shall review and amend the SCP as appropriate after each spill from the Newhall WRP or in the service area of the Facility. Upon request of the Regional Water Board, the Discharge shall submit the SCP and any amendments to the Regional Water Board. The Discharger shall ensure that the up-to-date SPC is readily available to the sewage system personnel at all times and that the sewage system personnel are familiar with it.

c. **Pollutant Minimization Program (PMP)**

Reporting protocols in the Monitoring and Reporting Program, Attachment E, Section VIII.B.4 describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported Minimum Level (ML) and Method Detection Limit (MDL) are provided in Attachment A. These reporting protocols and definitions are used in determining the need to conduct a Pollution Minimization Program (PMP) as follows:

The Discharger shall be required to develop a PMP as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either:

(1) The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML; or

(2) The concentration of the pollutant is reported as ND and the effluent limitation is less than the MDL.

The goal of the PMP shall be to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost-effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to CWC Section 13263.3(d), shall be considered to fulfill the PMP requirements.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

(1) An annual review and semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
(2) Quarterly monitoring for the reportable pollutant(s) in the influent to the wastewater treatment system;

(3) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant(s) in the effluent at or below the effluent limitation;

(4) Implementation of appropriate cost-effective control measures for the reportable pollutant(s), consistent with the control strategy; and

(5) An annual status report that shall be sent to the Regional Water Board including:

(a) All PMP monitoring results for the previous year;

(b) A list of potential sources of the reportable pollutant(s);

(c) A summary of all actions undertaken pursuant to the control strategy; and

(d) A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

a. Wastewater treatment facilities subject to this Order shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Chapter 3, Subchapter 14, Title 23 of the California Code of Regulations (Section 13625 of the California Water Code).

b. The Discharger shall maintain in good working order a sufficient alternate power source for operating the wastewater treatment and disposal facilities. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, and other physical phenomena. The alternate power source shall be designed to permit inspection and maintenance and shall provide for periodic testing. If such alternate power source is not in existence, the discharger shall halt, reduce, or otherwise control all discharges upon the reduction, loss, or failure of the primary source of power.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. **Biosolids Requirements**

(1) The Discharger shall comply with the requirements of 40 CFR 503, in general, and in particular the requirements in **Attachment I** of this Order, [Biosolids/sludge Management]. These requirements are enforceable by USEPA.

(2) The Discharger shall ensure compliance with the requirements in SWRCB Order No. 2004- 10-DWQ, General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural and Land Reclamation Activities" for those sites receiving the Discharger's biosolids which a Regional Water Quality Control Board has placed under this general order, and with the requirements in individual Waste Discharge Requirements (WDRs) issued by a Regional Water Board for sites receiving the Discharger's biosolids.

(3) The Discharger shall comply, if applicable, with WDRs issued by other Regional Water Boards to which jurisdiction the biosolids are transported and applied, and with the State of Arizona's biosolids rule for biosolids transported to Arizona for treatment and/or use.

(4) The Discharger shall furnish this Regional Water Board with a copy of any report submitted to USEPA, State Water Board or other Regional Water Board, with respect to municipal sludge or biosolids.

b. **Pretreatment Requirements**

(1) This Order does not include any requirements for a Pretreatment Program because the discharge is less than 2.0 MGD and because the POTW does not have any significant industrial users (SIUs). In the future, once the design flow approaches 5.0 MGD, the Discharger will be required to develop a Pretreatment Program; and implement and enforce the pretreatment program in its entire service area.

(2) Once an approved Pretreatment Program has been developed, the Discharger shall evaluate whether its pretreatment local limits are adequate to meet the requirements of this Order. If the Newhall Ranch WRP becomes interconnected with the Los Angeles County Sanitation Districts of Los Angeles County's Saugus and Valencia WRPs joint outfall sewer system, then the Discharger will consider, in the development of local limits, the effluent limitations contained in these Orders, and other relevant factors due to the interconnectedness of the system and protection of the upstream plants. One year prior to increasing the design capacity to 5 MDG or prior to having a significant industrial user (SIU) discharge into the treatment plant's collection system, the Discharger shall submit to the Regional Water Board their proposed Pretreatment Program and the results of the evaluation indicating whether local limits are needed. Any revised local limits shall be

submitted to the Regional Water Board for approval under 40 CFR 403.18. In addition, the Discharger shall consider collection system overflow protection from such constituents as oil and grease, etc. Lack of adequate local limits shall not be a defense against liability for violations of effluent limitations and overflow prevention requirements contained in this Order.

(3) Any substantial modifications to the approved Pretreatment Program, as defined in 40 CFR 403.18(b), shall be submitted in writing to the Regional Water Board and shall not become effective until Regional Water Board approval is obtained.

(4) The Discharger shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the CWA with timely, appropriate, and effective enforcement actions. The Discharger shall require all nondomestic users subject to the federal categorical standards to comply with those standards and shall take enforcement actions against those users who do not comply with the standards. Such enforcement actions shall be consistent with an enforcement response plan, developed pursuant to 40 CFR 403.8(f)(5). The Discharger shall ensure that all nondomestic users subject to the federal categorical standards achieve compliance no later than the date specified in those requirements or, in the case of a new nondomestic user, upon commencement of the discharge.

(5) The Discharger shall perform the pretreatment functions as required in Federal Regulations 40 CFR 403 including, but not limited to:

(a) Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);

(b) Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;

(b) Implement the programmatic functions as provided in 40 CFR 403.8(f)(2); and

(d) Provide the requisite funding and personnel to implement the Pretreatment Program as provided in 40 CFR 403.8(f)(3).

(6) The Discharger shall submit semiannual and annual reports to the Regional Water Board, describing the Discharger's pretreatment activities over the period. The annual and semiannual reports shall contain, but not be limited to, the information required in the attached *Pretreatment Reporting Requirements* (**Attachment J**), or an approved revised version thereof. A full scan of the priority pollutants for the influent and effluent should be conducted at least annually in August. If the Discharger is not in compliance with any conditions or requirements of this Order, the Discharger shall include the

reasons for noncompliance and shall state how and when the Discharger will comply with such conditions and requirements.

(7) The Discharger shall be responsible and liable for the performance of all control authority pretreatment requirements contained in 40 CFR 403, including subsequent regulatory revisions thereof. Where Part 403 or subsequent revision places mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall complete the required actions within six months from the effective date of this Order or the effective date of Part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines, and other remedies by the Regional Water Board, USEPA, or other appropriate parties, as provided in the CWA. The Regional Water Board or USEPA may initiate enforcement action against a nondomestic user for noncompliance with applicable standards and requirements, as provided in the CWA and/or the California Water Code.

c. **Spill Reporting Requirements**

(1) Notification

For certain spills, overflows and bypasses, the Discharger shall make notifications as required below:

a. For any spills or overflows of any volume, discharged where they are, or will probably be discharged, to waters of the State, the Discharger shall immediately notify the local health agency in accordance with the California Health and Safety Code section 5411.5. This notification shall occur no later than two hours after the knowledge of the incident.

b. For any spills or overflows of 1000 gallons or more discharged where they are, or probably be discharged to waters of the State, the Discharger shall immediately notify the State Office of Emergency Services pursuant to Water Code section 13271. This notification shall occur no later than two hours after the knowledge of the incident.

c. For spills, overflows or bypasses of any volume that flowed to receiving waters or entered a shallow ground water aquifer or has public exposure, the Discharger shall notify such spills to the Regional Water Board, by telephone or electronically as soon as possible but not later than two hours of knowledge of the incident. The following information shall be included in the initial notification: location; date and time of spill; volume and nature of the spill; cause(s) of the spill; mitigation measures implemented, if known at the time.

(2) Monitoring

For certain spills, overflows and bypasses, the Discharger shall monitor as required below:

a. To define the geographical extent of spill's impact the Discharger shall obtain grab samples for spills, overflows or bypasses of any volume that reach receiving waters. The Discharger shall analyze the samples for total and fecal coliforms or E. coli, and enterococcus, and relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible and safe). This monitoring shall be done on a daily basis from time the spill is known until the results of two consecutive sets of bacteriological monitoring indicate the return to the background level or the County Department of Health Services authorizes cessation of monitoring.

b. The Discharger shall obtain a grab sample (if feasible, accessible, and safe) for spills, overflows or bypasses of any volume that flowed to receiving waters, entered a shallow ground water aquifer, or have the potential for public exposure; and for all spills, overflows or bypasses of 1,000 gallons or more. The Discharger shall analyze the sample for total and fecal coliforms or E. coli, and enterococcus, and relevant pollutants of concern depending on the area and nature of spills or overflows if feasible, accessible and safe.

(3) Reporting

The Regional Water Board initial notification shall be followed by:

a. A written preliminary report five working days after disclosure of the incident (submission to the Regional Water Board of the log number of the Sanitary Sewer Overflow Database entry shall satisfy this requirement). Within 30 days after submitting the preliminary report, the Discharger shall submit the final written report to this Regional Water Board. (A copy of the final written report, for a given incident, already submitted pursuant to a Statewide General Waste Discharge Requirements for Wastewater Collection System Agencies, may be submitted to the Regional Water Board to satisfy this requirement.) The written report shall document the information required in paragraph 4. below, monitoring results and any other information required in provisions of the Standard Provisions document including corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences. The Executive Officer for just cause can grant an extension for submittal of the final written report.

b. The Discharger shall include a certification in the annual summary report (due according to the schedule in the Monitoring and Reporting Program) that states—the sewer system emergency equipment, including alarm systems, backup pumps, standby power generators, and other critical emergency pump station components were maintained and tested in accordance with the Discharger's Preventative Maintenance Plan. Any deviations from or modifications to the Plan shall be discussed.

(4) Records

The Discharger shall develop and maintain a record of all spills, overflows or bypasses of raw or partially treated sewage from its collection system or treatment plant. This record shall be made available to the Regional Water Board upon request and a spill summary shall be included in the annual summary report. The records shall contain:

a. the date and time of each spill, overflow or bypass;

b. the location of each spill, overflow or bypass;

c. the estimated volume of each spill, overflow or bypass including gross volume, amount recovered and amount not recovered, monitoring results;

d. the cause of each spill, overflow or bypass;

e. whether each spill, overflow or bypass entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;

f. mitigation measures implemented; and,

g. corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences.

(5) Activities Coordination

In addition, Regional Water Board expects that the POTW's owners/operators will coordinate their compliance activities for consistency and efficiency with other entities that have responsibilities to implement: (i) this NPDES permit, including the Pretreatment Program, (ii) a MS4 NPDES permit that may contain spill prevention, sewer maintenance, reporting requirements and (iii) the SSO WDR.

(6) Consistency with Sanitary Sewer Overflows WDRs

The Clean Water Act prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under a NPDES permit. (33 U.S.C. §§1311, 1342). The State Water Board adopted General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, (WQ Order No. 2006-0003) on May 2, 2006, to provide a consistent, statewide regulatory approach to address Sanitary Sewer Overflows (SSOs). The SSOs WDR requires public agencies that own or operate sanitary sewer systems to develop and implement sewer system management plans and report all SSOs to the State Water Board's online SSO database.

The requirements contained in this Order in Sections VI.C.3.b. (Spill Contingency Plan Section), VI.C.4. (Construction, Operation and Maintenance Specifications Section), and VI.C.6. (Spill Reporting Requirements) are intended to be consistent with the requirements of the SSO WDR. The Regional Water Board recognizes that there may be some overlap between the NPDES permit provisions and SSO WDR requirements. The requirements of the SSO WDR are considered the minimum thresholds (see Finding 11 of WQ Order No. 2006-0003). The Regional Water Board will accept the documentation prepared by the Permittees under the SSO WDR for compliance purposes, as satisfying the requirements in Sections VI.C.3.b., VI.C.4., and VI.C.6. provided any more specific or stringent provisions enumerated in this Order, have also been addressed

(7) The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.

7. Compliance Schedules

a. Since this is a new discharge, Newhall Ranch WRP is not eligible for interim effluent limitations or compliance schedules. Final effluent limitations shall apply at all times. However, there may be an exception during the start-up operations of a new biological system. Compliance will be measured at Monitoring Location EFF 001, RSW-001U, and RSW-002D as described in the attached Monitoring and Reporting Program.

b. As effluent data becomes available, and it is demonstrated that the Discharger will have difficulty meeting an effluent limitation, Newhall Ranch SD may request that the Board revisit the idea of issuing a compliance schedule with interim limits under a separate enforcement order, such as a Time Schedule Order (TSO) or a Cease and Desist Order (CDO).

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. General.

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Appendix A of this Order. Dischargers shall be deemed out of compliance with effluent limitations if the concentration of the monitoring sample is greater than the effluent limitation and greater than or equal to the reported minimum level (ML).

B. Multiple Sample Data Reduction.

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL).

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger may be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger may be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for a given parameter, the Discharger will have demonstrated compliance with the AMEL for each day of that month for that parameter.

If the analytical result of any single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any parameter, the Discharger shall collect up to four additional samples within the same calendar month. All analytical results shall be reported in the monitoring report for that month. The concentration of pollutant (an arithmetic mean or a median) in these samples estimated from the "Multiple Sample Data Reduction" Section above, will be used for compliance determination.

In the event of noncompliance with an AMEL, the sampling frequency for that parameter shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.

D. Average Weekly Effluent Limitation (AWEL).

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

A calendar week will begin on Sunday and end on Saturday. Partial weeks consisting of four or more days at the end of any month will include the remaining days of the week, which occur in the following month in order to calculate a consecutive seven-day average. This value will be reported as a weekly average or seven-day average on the SMR for the month containing the partial week of four or more days. Partial calendar weeks consisting of less than four days at the end of any month will be carried forward to the succeeding month and reported as a weekly average or a seven-day average for the calendar week that ends with the first Saturday of that month.

E. Maximum Daily Effluent Limitation (MDEL).

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F. Instantaneous Minimum Effluent Limitation.

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

H. Six-month Median Effluent Limitation.

If the median of daily discharges over any 180-day period exceeds the six-month median effluent limitation for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is taken. If only a single sample is taken during a given 180-day period and the analytical result for that sample exceeds the six-month median, the discharger will be considered out of compliance for the 180-day period. For any 180-period during which no sample is taken, no compliance determination can be made for the six-month median limitation.

I. Percent Removal.

The average monthly percent removal is the removal efficiency expressed in percentage across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of pollutant concentrations (C in mg/L) of influent and effluent samples collected at about the same time using the following equation:
Percent Removal (%) = $[1-(C_{Effluent}/ C_{Influent})] \times 100$ %
When preferred, the Discharger may substitute mass loadings and mass emissions for the concentrations.

J. Mass and Concentration Limitations

Compliance with mass and concentration effluent limitations for the same parameter shall be determined separately with their respective limitations. When the concentration of a constituent in an effluent sample is determined to be ND or DNQ, the corresponding mass emission rate determined from that sample concentration shall also be reported as ND or DNQ.

K. Compliance with single constituent effluent limitations

Dischargers are out of compliance with the effluent limitation if the concentration of the pollutant (see Section B "Multiple Sample Data Reduction" above) in the monitoring sample is greater than the effluent limitation and greater than or equal to the RML.

L. Compliance with effluent limitations expressed as a sum of several constituents

Dischargers are out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCB's) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

M. Mass Emission Rate.

The mass emission rate shall be obtained from the following calculation for any calendar day:

$$\text{Mass emission rate (lb/day)} = \frac{8.34}{N} \sum_{i=1}^{N} Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.79}{N} \sum_{i=1}^{N} Q_i C_i$$

in which 'N' is the number of samples analyzed in any calendar day. 'Qi' and 'Ci' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' grab samples, which may be taken in any calendar day. If a composite sample is taken, 'Ci' is the concentration measured in the composite sample and 'Qi' is the average flow rate occurring during the period over which samples are composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste streams as follows:

$$\text{Daily concentration} = \frac{1}{Q_t} \sum_{i=1}^{N} Q_i C_i$$

in which 'N' is the number of component waste streams. 'Qi' and 'Ci' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Qt' is the total flow rate of the combined waste streams.

N. Bacterial Standards and Analysis.

1. The geometric mean used for determining compliance with bacterial standards is calculated with the following equation:

   Geometric Mean = (C1 x C2 x … x Cn)1/n

   where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling.

2. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for enterococcus). The detection methods used for each analysis shall be reported with the results of the analyses.

3. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR 136 (revised March 12, 2007), unless alternate methods have been approved by USEPA pursuant to 40 CFR 136, or improved methods have been determined by the Executive Officer and/or USEPA.

4. Detection methods used for enterococcus shall be those presented in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure* or any improved method determined by the Executive Officer and/or USEPA to be appropriate.

O. Single Operational Upset

A single operational upset (SOU) that leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation and limits the Discharger's liability in accordance with the following conditions:

1. A single operational upset is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.

2. A Discharger may assert SOU to limit liability only for those violations which the Discharger submitted notice of the upset as required in Provision V.E.2(b) of Attachment D – Standard Provisions.

3. For purpose outside of CWC Section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with USEPA Memorandum "Issuance of Guidance Interpreting Single Operational Upset" (September 27, 1989).

4. For purpose of CWC Section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with CWC Section 13385 (f)(2).

ATTACHMENT A – DEFINITIONS

Acutely Toxic Conditions, as used in the context of mixing zones, refers to lethality that occurs to mobile aquatic organisms that move or drift through the mixing zone.

Arithmetic Mean (μ), also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) are methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and nonpoint source discharges including storm water. BMPs include structural and non-structural controls, and operation and maintenance procedures, which can be applied before, during, and/or after pollution producing activities.

Bioaccumulative pollutants are those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Biologically-Based Receiving Water Flow refers to the method for determining receiving water flows developed by the U.S. EPA Office of Research and Development which directly uses the averaging periods and exceedance frequencies specified in the acute and chronic aquatic life criteria for individual pollutants (e.g., 1 day and 3 years for acute criteria, and 4 days and 3 years for the chronic criteria). Biologically-based flows can be calculated using the program DFLOW.

Carcinogenic pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV) is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Completely-Mixed Discharge condition means not more than a 5 percent difference, accounting for analytical variability, in the concentration of a pollutant exists across a transect of the water body at a point within two stream/river widths from the discharge point.

Daily Discharge: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ) are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Dilution Ratio is the critical low flow of the upstream receiving water divided by the flow of the effluent discharged.

Discharger-Specific WER is a WER that is applied to individual pollutant limits in an NPDES permit issued to a particular permit holder. A discharger-specific WER applies only to the applicable limits in the discharger's permit. Discharger-specific WERs are distinguished for WERs that are developed on a waterbody or watershed basis as part of a water quality standards action resulting in adoption of an SSO.

Dynamic Models used for calculating effluent limitations predict the effects of receiving water and effluent flow and of concentration variability. The outputs of dynamic models can be used to base effluent limitations on probability estimates of receiving water concentrations rather than critical conditions (which are used in the steady-state model). The three dynamic

modeling techniques recommended by the U.S. EPA for calculating effluent limitations are continuous simulation, Monte Carlo simulation, and lognormal probability modeling.

Effluent Concentration Allowance (ECA) is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration is the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Existing Discharger means any discharger that is not a new discharger. An existing discharger includes an "increasing discharger" (i.e., an existing facility with treatment systems in place for its current discharge that is or will be expanding, upgrading, or modifying its existing permitted discharge after the effective date of this Policy).

Four-Day Average of Daily Maximum Flows is the average of daily maximums taken from the data set in four-day intervals.

Harmonic Mean flows are expressed as $Q_{hm} = (n)/(\Sigma^{n}_{i=1}\ 1/x_i)$, where x_i = specific data values and n = number of data values.

Incompletely-Mixed Discharge is a discharge that contributes to a condition that does not meet the meaning of a completely-mixed discharge condition.

Infeasible means not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Inland Surface Waters are all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Load Allocation (LA) is the portion of a receiving water's total maximum daily load that is allocated to one of its nonpoint sources of pollution or to natural background sources.

Long-Term Arithmetic Mean Flow is at least two years of flow data used in calculating an arithmetic mean as defined in this appendix.

Maximum Daily Flow is the maximum flow sample of all samples collected in a calendar day.

Maximum Daily Effluent Limitation (MDEL) means the highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median is the middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Mutagenic pollutants are substances that are known to cause a mutation (i.e., change in a gene or chromosome) in living organisms.

Mutual Water Company is defined in the Public Utilities Code, section 2725 as: "any private corporation or association organized for the purpose of delivering water to its stockholders and members at cost, including use of works for conserving, treating and reclaiming water".

New Discharger includes any building, structure, facility, or installation from which there is, or may be, a discharge of pollutants, the construction of which commenced after the effective date of this Policy.

Not Detected (ND) are those sample results less than the laboratory's MDL.

Objectionable Bottom Deposits are an accumulation of materials or substances on or near the bottom of a water body, which creates conditions that adversely impact aquatic life, human health, beneficial uses, or aesthetics. These conditions include, but are not limited to, the accumulation of pollutants in the sediments and other conditions that result in harm to benthic organisms, production of food chain organisms, or fish egg development. The presence of such deposits shall be determined by RWQCB(s) on a case-by-case basis.

Ocean Waters are the territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program (PMP) means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

Process Optimization means minor changes to the existing facility and treatment plant operations that optimize the effectiveness of the existing treatment processes.

Public Entity includes the federal government or a state, county, city and county, city, district, public authority, or public agency.

Reporting Level (RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Satellite Collection System is the portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Source of Drinking Water is any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ) is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

Teratogenic pollutants are substances that are known to cause structural abnormalities or birth defects in living organisms.

Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

Use Attainability Analysis is a structured scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological and economic factors as described in 40 CFR 131.10(g) (40 CFR 131.3, revised as of July 1, 1997).

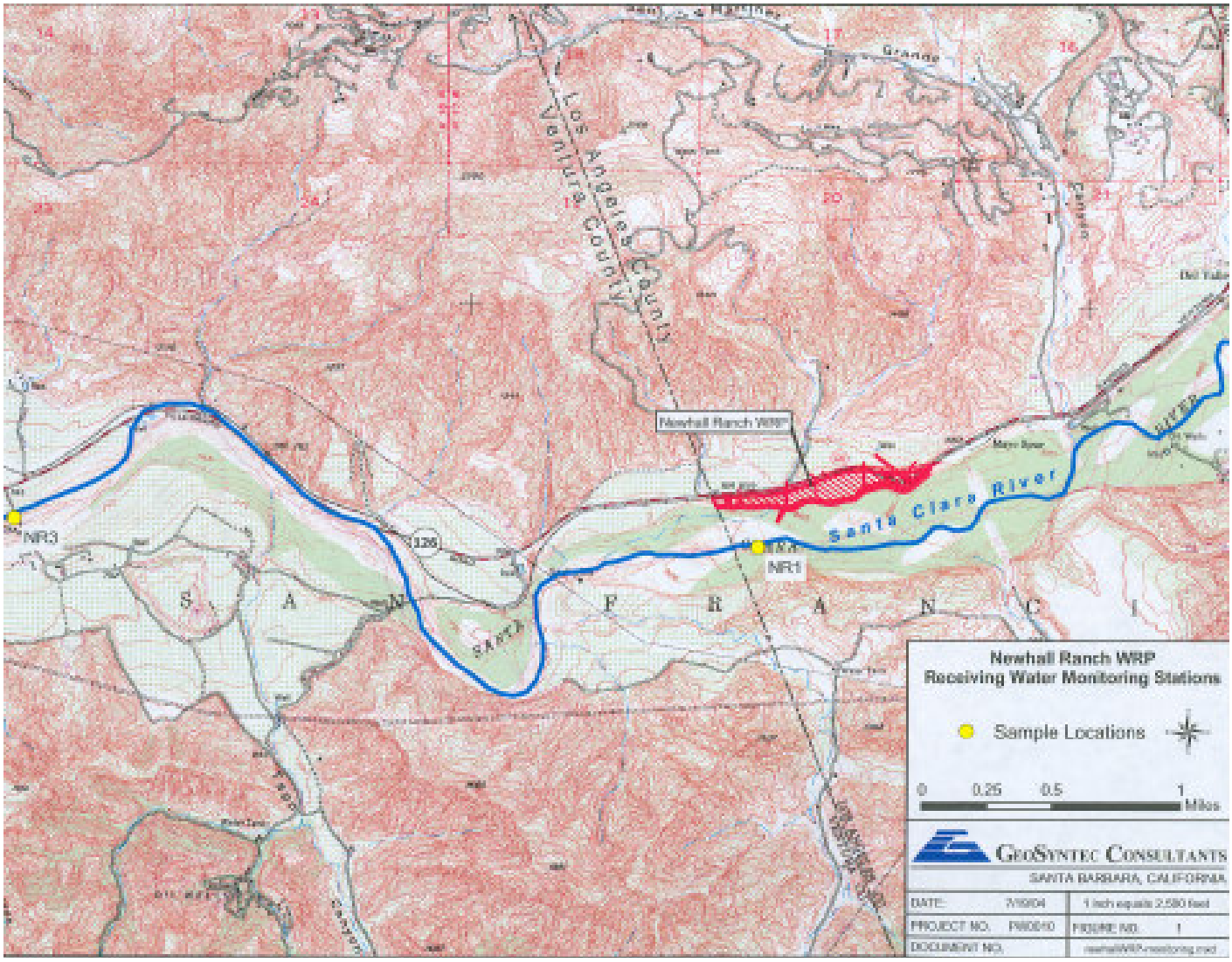
Water Effect Ratio (WER) is an appropriate measure of the toxicity of a material obtained in a site water divided by the same measure of the toxicity of the same material obtained simultaneously in a laboratory dilution water.

1Q10 is the lowest flow that occurs for one day with a statistical frequency of once every 10 years.

7Q10 is the average low flow that occurs for seven consecutive days with a statistical frequency of once every 10 years.

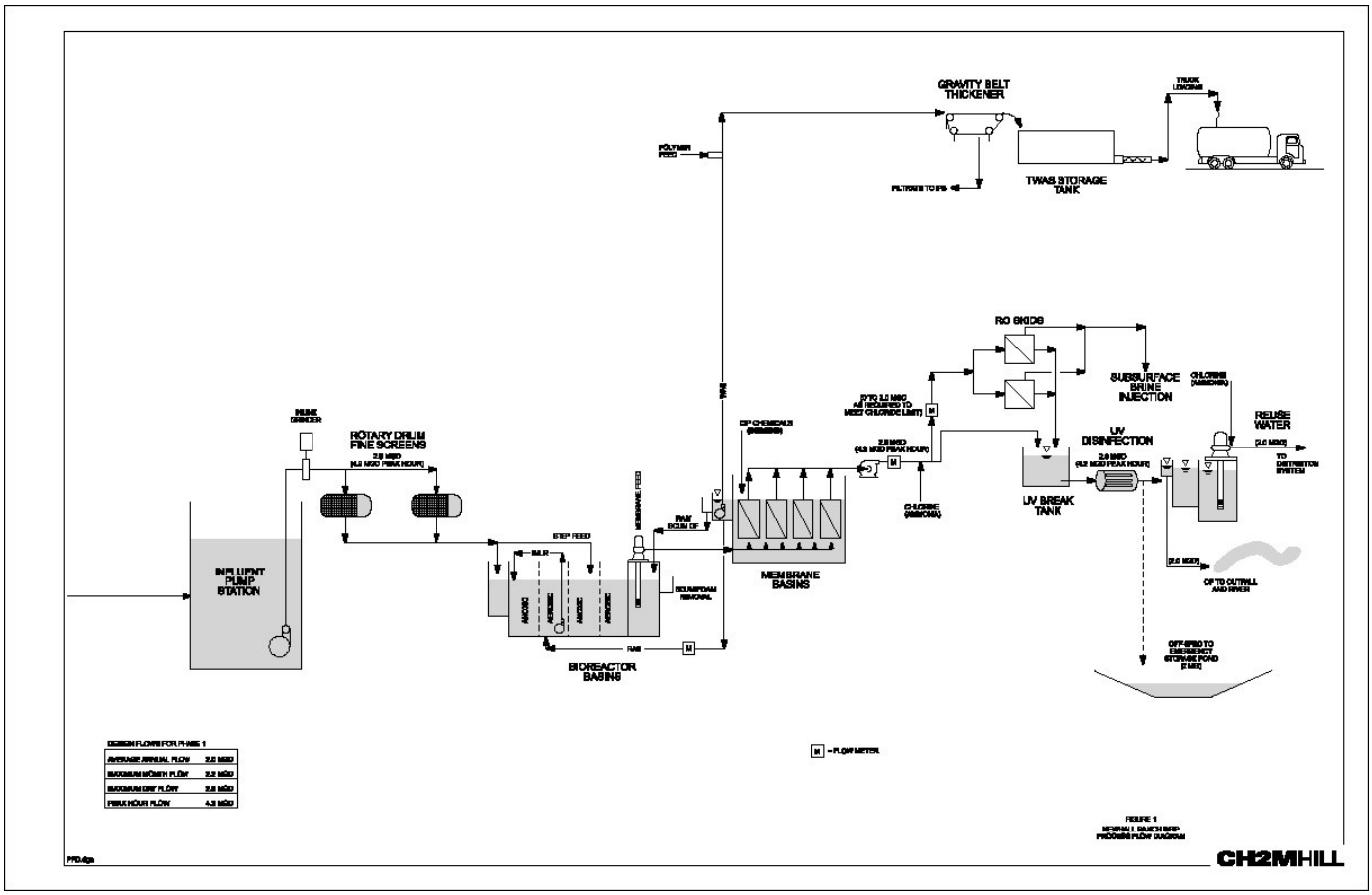
90^{th} Percentile of Observed Data is the measurement in the ordered set of data (lowest to highest) where 90 percent of the reported measurements are less than or equal to that value.

ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC

Phase I



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

D. 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) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Wat. Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 C.F.R. § 122.41(i)(1));

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 C.F.R. § 122.41(i)(2));

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 C.F.R. § 122.41(i)(3)); and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 C.F.R. § 122.41(i)(4).)

G. Bypass

1. Definitions

   a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)

   b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does

not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)

3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and

   c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

   a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)

   b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).).

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):

   a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

   b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));

   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

   d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or

termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)

2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 C.F.R. § 122.22(a)(3).).

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and

   c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 C.F.R. § 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.22(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

   b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R.§ 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 C.F.R. § 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 C.F.R. § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 C.F.R. § 122.42(b)(2).)

3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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List of Tables

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Water Code Sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. All samples shall be representative of the waste discharge under conditions of peak load. Quarterly effluent analyses shall be performed during the months of January, April, July, and October. Semiannual analyses shall be performed during the months of January and July. Annual analyses shall be performed during the month of July (except for bioassessment monitoring, which will be conducted in the spring/summer). Should there be instances when monitoring could not be done during these specified months, the Discharger must notify the Regional Water Board, state the reason why monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule. Results of quarterly, semiannual, and annual analyses shall be reported in the third monthly monitoring report following the analysis.

B. Pollutants shall be analyzed using the analytical methods described in 40 CFR, Part 136.3, 136.4, and 136.5 (revised March 12, 2007); or where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.

C. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR, Part 136.3. All QA/QC analyses must be run on the same dates that samples are actually analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit them when requested by the Regional Water Board. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the monthly report.

D. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.

E. For any analyses performed for which no procedure is specified in the USEPA guidelines, or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.

F. Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP."

G. The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL), the minimum level (ML), and the Reported Minimum Level (RML) for each pollutant. The MLs are those published by the State Water Board in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California,* February 9, 2005, Appendix 4. The ML represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interference. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the method analytical procedures, such as dilution or concentration of samples, other factors may be applied to the ML depending on the sample preparation. The resulting value is the reported minimum level.

H. The Discharger shall select the analytical method that provides a ML lower than the permit limit established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR, Part 136, and obtains approval for a higher ML from the Executive Officer, as provided for in Section J below. If the effluent limitation is lower than all the MLs in Appendix 4, SIP, the Discharge must select the method with the lowest ML for compliance purposes. The Discharger shall include in the Annual Summary Report a list of the analytical methods employed for each test.

I. The Discharger shall instruct its laboratories to establish calibration standards so that the ML (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section J, below, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix 4 of the SIP.

J. In accordance with Section 2.4.3 of the SIP, the Regional Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program Manager, may establish an ML that is not contained in Appendix 4 of the SIP to be included in the discharger's permit in any of the following situations:

a. When the pollutant under consideration is not included in Appendix 4, SIP;

b. When the discharger and the Regional Water Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR, Part 136 (revised as of March 12, 2007);

c. When a discharger agrees to use an ML that is lower than those listed in Appendix 4;

d. When a discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix 4 and proposes an appropriate ML for the matrix; or,

e. When the discharger uses a method, which quantification practices are not consistent with the definition of the ML. Examples of such methods are USEPA-approved method 1613 for dioxins, and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the discharger, the Regional Water Board, and the State Water Resources Control Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

If there is any conflict between foregoing provisions and the State Implementation Policy (SIP), the provisions stated in the SIP (Section 2.4) shall prevail.

K. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by this Program using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with average effluent, receiving water, etc., limitations.

L. The Discharger shall develop and maintain a record of all spills or bypasses of raw or partially treated sewage from its collection system or treatment plant according to the requirements in the WDR section of this Order. This record shall be made available to the Regional Water Board upon request and a spill summary shall be included in the annual summary report.

M. For all bacteriological analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for enterococcus). The detection methods used for each analysis shall be reported with the results of the analyses.

a. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR, Part 136 (revised March 12, 2007), unless alternate methods

have been approved in advance by the United State Environmental Protection Agency (USEPA) pursuant to 40 CFR Part 136.

b. Detection methods used for enterococcus shall be those presented in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure* or any improved method determined by the Regional Water Board to be appropriate.

N. Since compliance monitoring focuses on the effects of a point source discharge, it is not designed to assess impacts from other sources of pollution (e.g., non-point source run-off, aerial fallout) or to evaluate the current status of important ecological resources on a regional basis.

A watershed-wide Monitoring Program will be developed within two years from the effective date of this Order and permit for the Santa Clara River Watershed, under the leadership of the Regional Water Board and the stakeholder groups developing salt and nutrient TMDLs that the Santa Clara River Watershed and in compliance with those TMDLs. The goals of the watershed-wide monitoring program will include evaluating or assessing: compliance with receiving water objectives, trends in surface water quality, impacts to beneficial uses, the health of the biological community, data needs for modeling contaminants of concern, and attaining the goals of the TMDLs under implementation in the Santa Clara River. The Discharger shall participate in the development and implementation of the watershed-wide monitoring program, and submit a copy of the proposed program to the Regional Water Board.

Changes to the compliance monitoring program may be required to fulfill the goals of the watershed-wide monitoring program, while retaining the compliance monitoring component required to evaluate compliance with the NPDES permit. Revisions to the Discharger's program will be made under the direction of the Regional Water Board, as necessary, to accomplish the goal, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, and/or the number of samples collected.

Until such time when a watershed-wide monitoring program is developed, Newhall Land shall implement the monitoring program in the following sections.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table 1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description (include Latitude and Longitude when available)
--	INF-001	Sampling stations shall be established at each point of inflow to the sewage treatment plant and shall be located upstream of any in-plant return flows and where representative samples of the influent can be obtained.
001	EFF-001	The effluent sampling station shall be located downstream of any inplant return flows and after the final disinfection process, where representative samples of the effluent can be obtained. Latitude 34°0.403166' and Longitude 118°0.689667'
--	RSW-001U	Santa Clara River, approximately 100 feet upstream of the discharge point
--	RSW-001D	Santa Clara River, approximately 100 feet downstream of the discharge point
--	RSW-002D*	Santa Clara River, approximately 300 feet downstream of the discharge point
--	RGW-001	Groundwater aquifer, upgradient of discharge point
--	RGW-002	Groundwater aquifer, downgradient of discharge point
--	RGW-003	Groundwater aquifer, downgradient of discharge point

* The location of this receiving water station may vary depending upon the meander of the river. The Discharger shall endeavor to take a sample representative of actual downstream receiving water conditions, after flows are commingled. However, if flows do not commingle, the receiving water sample shall still be collected. The monitoring report shall specify whether or not there was commingling.

III. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions.
- Assess treatment plant performance.
- Assess effectiveness of the Pretreatment Program

A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the facility at INF-001 as follows:

Table 2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	recorder	continuous[1]	[2]
pH	pH unit	grab	daily	[2]

[1] Total daily flow and instantaneous peak daily flow (24-hr basis). Actual monitored flow shall be reported (not the maximum flow, i.e., design capacity).

[2] Pollutants shall be analyzed using the analytical methods described in 40 CFR 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total suspended solids	mg/L	24-hour composite	daily	[2]
BOD_5 20℃	mg/L	24-hour composite	daily	[2]
Nitrite nitrogen	mg/L	24-hour composite	weekly	[2]
Nitrate nitrogen	mg/L	24-hour composite	weekly	[2]
Ammonia nitrogen	mg/L	24-hour composite	weekly	[2]
Total Nitrogen	mg/L	24-hour composite	weekly	[2]
Total phosphorus	mg/L	24-hour composite	weekly	[2]
Orthophosphate-P	mg/L	24-hour composite	weekly	[2]
Chloride	mg/L	24-hour composite	monthly	[2]
Antimony	µg/L	24-hour composite	monthly	[2]
Arsenic	µg/L	24-hour composite	monthly	[2]
Cadmium	µg/L	24-hour composite	quarterly	[2]
Chromium III	µg/L	grab	quarterly	[2]
Chromium VI	µg/L	grab	quarterly	[2]
Copper	µg/L	24-hour composite	monthly	[2]
Lead	µg/L	24-hour composite	monthly	[2]
Mercury	µg/L	24-hour composite	monthly	[2]
Selenium	µg/L	24-hour composite	quarterly	[2]
Silver	µg/L	24-hour composite	quarterly	[2]
Thallium	µg/L	24-hour composite	quarterly	[2]
Zinc	µg/L	24-hour composite	quarterly	[2]
Cyanide	µg/L	grab	quarterly	[2]
Acrylonitrile	µg/L	grab	quarterly	[2]
Tetrachloroethylene	µg/L	grab	quarterly	[2]
Bis(2-ethylhexyl)phthalate	µg/L	grab	quarterly	[2]
p-Dichlorobenzene	µg/L	grab	quarterly	[2]
Lindane	µg/L	grab	quarterly	[2]
4,4-DDE	µg/L	grab	quarterly	[2]
Iron	µg/L	24-hour composite	quarterly	[2]
Remaining EPA priority pollutants [3] excluding asbestos	µg/L	24-hour composite/grab for VOCs	semiannually	[2]

Influent monitoring must be performed at plant start-up.

IV. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to:

- . Determine compliance with NPDES permit conditions and water quality standards.

[3] Priority pollutants are those constituents referred to in 40 CFR 401.15; a list of these pollutants is provided as Appendix A to 40 CFR 423.

- . Assess plant performance, identify operational problems and improve plant performance.
- Provide information

A. Monitoring Location EFF-001

1. The Discharger shall monitor the discharge of tertiary-treated effluent at EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

Table 3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Total waste flow	mgd	recorder	continuous[4]	4
Turbidity[7]	NTU	recorder	continuous	[5]
Total residual chlorine	mg/L	grab	daily[6]	[5]
Total coliform[7]	MPN/ 100mL	grab	daily	[5]
Fecal coliform[7]	MPN/ 100mL	grab	daily	[5]
E.coli	MPN/ 100mL	grab	daily[8]	[5]
Temperature	°F	grab	daily	[5]
pH	pH units	grab	daily	[5]
Settleable solids	mL/L	grab	daily	[5]
Suspended solids	mg/L	24-hour composite	weekly	[5]
BOD_5 20°C	mg/L	24-hour composite	weekly[9]	[5]
Oil and grease	mg/L	grab	monthly	[5]

[4] Where continuous monitoring of a constituent is required, the following shall be reported:
Total waste flow – Total daily and peak daily flow (24-hr basis);
Turbidity – Maximum daily value, total amount of time each day the turbidity exceeded 0.2 turbidity units, flow-proportioned average daily value.

[5] Pollutants shall be analyzed using the analytical methods described in 40 CFR 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

[6] Daily grab samples shall be collected at monitoring location EFF-001B, Monday through Friday only, except for holidays. Analytical results of daily grab samples will be used to determine compliance with total residual chlorine effluent limitation.

[7] Coliform and turbidity samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facilities, filtration, and disinfection procedures. Fecal coliform testing shall be conducted only if total coliform test result is positive.

[8] E. coli testing shall be conducted only if fecal coliform testing is positive. If the fecal coliform analysis results in no detection, a result of less than (<) the reporting limit for fecal coliform will be reported for E. coli.

[9] If the result of the weekly BOD analysis yields a value greater than the 30-day average limit, the frequency of analysis shall be increased to daily within one week of knowledge of the test result for at least 30 days and until compliance with the 7-day and 30-day average BOD limits is demonstrated; after which the frequency shall revert to weekly.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Dissolved oxygen	mg/L	grab	weekly	[5]
Total dissolved solids	mg/L	24-hour composite	monthly	[5]
Chloride	mg/L	24-hour composite	monthly	[5]
Sulfate	mg/L	24-hour composite	monthly	[5]
Boron	mg/L	24-hour composite	monthly	[5]
Fluoride	mg/L	24-hour composite	monthly	[5]
Ammonia Nitrogen[10]	mg/L	24-hour composite	weekly	[5]
Nitrite nitrogen	mg/L	24-hour composite	weekly	[5]
Nitrate nitrogen	mg/L	24-hour composite	weekly	[5]
Organic nitrogen	mg/L	24-hour composite	weekly	[5]
Total nitrogen	mg/L	24-hour composite	weekly	[5]
Surfactants (MBAS)[11]	mg/L	24-hour composite	monthly	[5]
Surfactants (CTAS)	mg/L	24-hour composite	monthly	[5]
Total hardness ($CaCO_3$)	mg/L	24-hour composite	weekly	[5]
Chronic toxicity	TUc	24-hour composite	monthly	[5]
Acute toxicity	% Survival	24-hour composite	monthly	[5]
Perchlorate	µg/L	grab	semiannually	[5]
1,4-Dioxane	µg/L	grab	semiannually	[5]
1,2,3-Trichloropropane	µg/L	grab	semiannually	[5]
Methyl tert-butyl ether (MTBE)	µg/L	grab	semiannually	[5]
Antimony	µg/L	24-hour composite	monthly	[5]
Arsenic	µg/L	24-hour composite	monthly	[5]
Beryllium	µg/L	24-hour composite	monthly	[5]
Cadmium	µg/L	24-hour composite	monthly	[5]
Chromium III	µg/L	grab	monthly	[5]
Chromium VI	µg/L	grab	monthly	[5]
Copper	µg/L	24-hour composite	monthly	[5]
Lead	µg/L	24-hour composite	monthly	[5]
Mercury	µg/L	24-hour composite	monthly	[5]
Nickel	µg/L	24-hour composite	monthly	[5]
Selenium	µg/L	24-hour composite	monthly	[5]
Silver	µg/L	24-hour composite	monthly	[5]
Thallium	µg/L	24-hour composite	monthly	[5]

[10] Nitrate nitrogen, nitrite nitrogen, ammonia nitrogen, organic nitrogen, pH, and temperature sampling shall be conducted concurrently.

[11] MBAS is Methylene blue active substances and CTAS is cobalt thiocyanate active substances. Reaches of the Santa Clara River are unlined in several reaches downstream of the points of wastewater discharge and are designated with the beneficial use of groundwater recharge (GWR) in the Basin Plan. Monitoring is required to assess compliance with the Title 22-based limit prescribed to protect underlying groundwater quality with the MUN beneficial use.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Zinc	µg/L	24-hour composite	monthly	[5]
Cyanide	µg/L	grab	monthly	[5]
2,3,7,8-TCDD[12]	µg/L	24-hour composite	quarterly	[5]
Acrylonitrile	µg/L	grab	quarterly	[5]
Bromoform	µg/L	grab	quarterly	[5]
Dibromochloromethane	µg/L	grab	quarterly	[5]
Chloroform	µg/L	grab	quarterly	[5]
Bromodichlorormethane	µg/L	grab	quarterly	[5]
1,2-Dichloroethane	µg/L	grab	quarterly	[5]
Methyl bromide (Bromomethane)	µg/L	grab	quarterly	[5]
Methyl chloride (Chloromethane)	µg/L	grab	quarterly	[5]
Methylene chloride	µg/L	grab	quarterly	[5]
Tetrachloroethylene	µg/L	grab	quarterly	[5]
Benzidine	µg/L	24-hour composite	quarterly	[5]
Benzo(a)anthracene	µg/L	24-hour composite	quarterly	[5]
Bis(2-ethylhexyl)phthalate	µg/L	24-hour composite	quarterly	[5]
p-Dichlorobenzene (1,4-Dichlorobenzene)	µg/L	24-hour composite	quarterly	[5]
3,3-Dichlorobenzidine	µg/L	24-hour composite	quarterly	[5]
1,2-Diphenylhydrazine	µg/L	24-hour composite	quarterly	[5]
Hexachlorobenzene	µg/L	24-hour composite	quarterly	[5]
Aldrin	µg/L	24-hour composite	quarterly	[5]
Gamma-BHC(Lindane)	µg/L	24-hour composite	quarterly	[5]
Chlordane	µg/L	24-hour composite	quarterly	[5]
4,4-DDT	µg/L	24-hour composite	quarterly	[5]
4,4-DDE	µg/L	24-hour composite	quarterly	[5]
4,4-DDD	µg/L	24-hour composite	quarterly	[5]
Dieldrin	µg/L	24-hour composite	quarterly	[5]

[12] In accordance with the SIP, the Discharger shall conduct effluent monitoring for the seventeen 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or dioxin) congeners in the effluent and in the receiving water Station RSW-002D, located downstream of the discharge point. The Discharger shall use the appropriate Toxicity Equivalence Factor (TEF) to determine Toxic Equivalence (TEQ). Where TEQ equals the product between each of the 17 individual congeners' (i) concentration analytical result (C_i) and their corresponding Toxicity Equivalence Factor (TEF_i)., (i.e., $TEQ_i = C_i \times TEF_i$). Compliance with the Dioxin limitation shall be determined by the summation of the seventeen individual TEQs, or the following equation:

$$\text{Dioxin concentration in effluent} = \sum_{1}^{17}(TEQ_i) = \sum_{1}^{17}(C_i)(TEF_i)$$

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Endrin	µg/L	24-hour composite	quarterly	[5]
Heptachlor	µg/L	24-hour composite	quarterly	[5]
Heptachlor epoxide	µg/L	24-hour composite	quarterly	[5]
PCBs	µg/L	24-hour composite	quarterly	[5]
Toxaphene	µg/L	24-hour composite	quarterly	[5]
Barium	µg/L	24-hour composite	quarterly	[5]
Iron	µg/L	24-hour composite	quarterly	[5]
Methoxychlor	µg/L	24-hour composite	quarterly	[5]
2,4-D	µg/L	24-hour composite	quarterly	[5]
2,4,5-TP (Silvex)	µg/L	24-hour composite	quarterly	[5]
Remaining EPA priority pollutants (except asbestos)	µg/L	24-hour composite; grab for VOCs	semiannually	[5]
Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)	PCi/L	24-hour composite	quarterly	[13]

Effluent monitoring shall be performed at plant start-up.

B. Other Effluent Monitoring Location

1. Not Applicable. The Discharger only proposes to have one effluent discharge point.

Table 4. Other Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
N/A				

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

1. Definition of Acute Toxicity

[13] Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined Radium-226 & 228 shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L or beta greater than 50 pCi/L. If Radium-226 & 228 exceeds the stipulated criteria, analyze for Tritium, Strontium-90 and uranium.

Acute toxicity is a measure of primarily lethal effects that occur over a 96-hour period. Acute toxicity shall be measured in percent survival measured in undiluted (100%) effluent.

a. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and

b. No single test shall produce less than 70% survival.

2. Acute Toxicity Effluent Monitoring Program

a. **Method.** The Discharger shall conduct acute toxicity tests on 100% effluent and receiving water grab samples by methods specified in 40 CFR Part 136, which cites USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, October, 2002 (EPA-821-R-02-012) or a more recent edition to ensure compliance.

b. **Test Species.** The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish discharges. However, if the salinity of the receiving water is between 1 to 32 parts per thousand (ppt), the Discharger may have the option of using the inland silverslide, *Menidia beryllina*, instead of the topsmelt. The method for topsmelt is found in USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, October, 2002 (EPA-821-R-02-012).

c. **Alternate Reporting.** In lieu of conducting the standard acute toxicity testing with the fathead minnow, the Discharger may elect to report the results or endpoint from the first 96 hours of the chronic toxicity test as the results of the acute toxicity test, but only if the Discharger uses USEPA's October 2002 protocol (EPA-821-R-02-013) and fathead minnow is used to conduct the chronic toxicity test.

d. **Acute Toxicity Accelerated Monitoring.** If either of the effluent or receiving water toxicity requirements in Section IV.A.1.c.(i) and (ii), and Section V.A.17.c. respectively, of this Order is not met, the Discharger shall conduct six additional tests approximately every two weeks, over a six-week period. The Discharger shall ensure that results of a failing acute toxicity test are received by the Discharger within 24 hours of completion of the test and the additional tests shall begin within 5 business days of receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume regular testing.

However, if the extent of the acute toxicity of the receiving water upstream of the discharge is greater than the downstream and the results of the effluent acute toxicity test comply with acute toxicity limitation, the accelerated monitoring need not be implemented for the receiving water.

e. **Toxicity Identification Evaluation (TIE).**

1. If the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the objective.

2. If the initial test and any of the additional six acute toxicity bioassay tests results are less than 70% survival, the Discharger shall immediately implement Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan. Once the sources are identified the Discharger shall take all reasonable steps to reduce toxicity to meet the requirements.

B. Chronic Toxicity Testing

1. Definition of Chronic Toxicity

Chronic toxicity is a measure of adverse sub-lethal effects in plants, animals, or invertebrates in a long-term test. The effects measured may include lethality or decreases in fertilization, growth, and reproduction.

2. Chronic Toxicity Effluent Monitoring Program

a. **Test Methods**. The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite 100 % effluent samples or receiving water samples in accordance with EPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, October 2002 (EPA-821-R-02-013) or EPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, October 2002 (EPA-821-R-02-014), or current version.

b. **Frequency**

1. **Screening and Monitoring**. - The Discharger shall conduct the first chronic toxicity test screening for three consecutive months beginning from the date of initial discharge. The Discharger shall conduct short-term tests with the cladoceran, water flea (*Ceriodaphnia dubia* - survival and reproduction test), the fathead minnow (*Pimephales promelas* - larval survival and growth test), and the green alga (*Selenastrum capricornutum* - growth test) as an initial screening process for a minimum of three, but not to exceed, five suites of tests to account for potential variability of the effluent / receiving water. After this screening period, monitoring shall be conducted using the most sensitive species.

2. **Re-screening** Re-screening is required every 24 months. The Discharger shall re-screen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrates that the same species is the most sensitive then the re-screening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

3. Regular toxicity tests - After the screening period, monitoring shall be conducted monthly using the most sensitive species.

c. **Toxicity Units.** The chronic toxicity of the effluent shall be expressed and reported in Chronic Toxic Units, TUc, where,

$$TUc = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

3. Accelerated Monitoring

If the chronic toxicity of the effluent or the receiving water downstream the discharge exceeds the monthly trigger median of 1.0 TU_c, the Discharger shall conduct six additional tests, approximately every two weeks, over a 12-week period. The Discharger shall ensure that they receive results of a failing chronic toxicity test within 24 hours of the completion of the test and the additional tests shall begin within 5 business days of the receipt of the result. However, if the chronic toxicity of the receiving water upstream of the discharge is greater than the downstream and the TUc of the effluent chronic toxicity test is less than or equal to a monthly median of 1 TU_c trigger, then accelerated monitoring need not be implemented for the receiving water.

a. If any three out of the initial test and the six additional tests results exceed 1.0 TU_c the Discharger shall immediately implement the Initial Investigation TRE workplan.

b. If implementation of the initial investigation TRE workplan indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger shall return to the normal sampling frequency required in Table 3 and Table 4 of this MRP.

c. If all of the six additional tests required above do not exceed 1 TUc, then the Discharger may return to the normal sampling frequency.

d. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

C. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).

2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manual (EPA-821-R-02-012 and/or EPA-821-R-02-013), then the Discharger must re-sample and re-test within 14 days.

3. Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.

D. Preparation of an Initial Investigation TRE Workplan

The Discharger shall prepare and submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the workplan within 60 days, the workplan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or most current version. At a minimum, the TRE Workplan must contain the provisions in Attachment G. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

1. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

2. A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the facility; and,

3. If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor). See MRP Section V.E.3 for guidance manuals.

E. Steps in Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE)

1. If results of the implementation of the facility's initial investigation TRE workplan indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 15 days of completion of the initial investigation TRE. The detailed workplan shall include, but not be limited to:

   a. Further actions to investigate and identify the cause of toxicity;

   b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and

   c. A schedule for these actions.

2. The following section summarizes the stepwise approach used in conducting the TRE:

   a. Step 1 includes basic data collection.

   b. Step 2 evaluates optimization of the treatment system operation, facility housekeeping, and selection and use of in-plant process chemicals.

   c. If Steps 1 and 2 are unsuccessful, Step 3 implements a Toxicity Identification Evaluation (TIE) and employment of all reasonable efforts using currently available TIE methodologies. The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity.

   d. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options.

   e. Step 5 evaluates in-plant treatment options.

   f. Step 6 consists of confirmation once a toxicity control method has been implemented.
   Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of compliance with those requirements may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there are no longer toxicity violations.

3. The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the USEPA acute manual, chronic manual, EPA/600/R-96-054 (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III), as guidance.

4. If a TRE/TIE is initiated prior to completion of the accelerated testing required in Section V.D. of this program, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

5. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance, if appropriate.

6. The Regional Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based, in part, on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

    a. If all the results of the six additional tests are in compliance with the chronic toxicity limitation, the Discharger may resume regular monthly testing.

    b. If the results of any of the six accelerated tests exceeds the limitation, the Discharger shall continue to monitor bi-weekly until six consecutive weekly tests are in compliance. At that time, the Discharger may resume regular monthly testing.

    c. If the results of two of the six tests, or any two tests in a six-week period, exceed the limitation, the Discharger shall initiate a TRE.

    d. If implementation of the initial investigation TRE workplan (see item D.3, above) indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger shall return to the regular testing frequency.

F. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia *because of increasing test pH* when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not other toxicants before the Executive Officer would allow for control of pH in the test.

a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.

b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.

c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.

d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.

2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board , and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

G. Reporting

The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month, as required by this permit. Test results shall be reported in percent Survival (% Survival) for Acute Toxicity and Chronic Toxicity Units (TUc) for chronic toxicity, as required, with the self-monitoring report (SMR) for the month in which the test is conducted. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, pursuant to Section V.A.2.d and V.B.3, then those results also shall be submitted with the SMR for the period in which the Investigation occurred.

1. The full report shall be received by the Regional Water Board by the 15th day of the third month following sampling.

2. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the toxicity trigger; and, (4) printout of the toxicity program (ToxCalc or CETIS).

3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include, at a minimum, as applicable, for each test, as appropriate:

   a. sample date(s)

   b. test initiation date

c. test species

d. end point value(s) for each dilution (e.g. number of young, growth rate, percent survival)

e. NOEC values in percent effluent

f. TUc value(s), where $TU_c = \frac{100}{NOEC}$

g. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable)

h. NOEC and LOEC (Lowest Observable Effect Concentration) values for reference toxicant test(s)

i. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).

4. The Discharger shall provide a compliance summary that includes a summary table of toxicity data from at least eleven of the most recent samples.

5. The Discharger shall notify this Regional Water Board immediately of any toxicity trigger exceedance and in writing 14 days after the receipt of the results of the exceedance. The notification will describe actions the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

Not Applicable.

VII. RECLAMATION MONITORING REQUIREMENTS

Not applicable. Water Recycling Requirements (WRR) monitoring will be required in a separate Order.

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

A. Monitoring Location RSW-001U and RSW-002D

1. The Discharger shall monitor The Santa Clara River at RSW-001U and RSW-002D as follows:

Table 7a.1. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total waste flow	mgd	grab	weekly	[14]
Turbidity	NTU	grab	weekly	14
Total residual chlorine	mg/L	grab	weekly	14
Total coliform	MPN/ 100mL	grab	daily	14
Fecal coliform	MPN/ 100mL	grab	daily	14
E.coli	MPN/ 100mL	grab	daily[15]	14
Temperature[16]	°F	grab	daily	14
pH[16]	pH units	grab	daily	14
Settleable solids	mL/L	grab	daily	14
Suspended solids	mg/L	grab	weekly	14
BOD_5 20°C	mg/L	grab	weekly	14
Oil and grease	mg/L	grab	monthly	14
Dissolved oxygen	mg/L	grab	weekly	14
Total dissolved solids	mg/L	grab	monthly	14
Chloride	mg/L	grab	monthly	14
Sulfate	mg/L	grab	monthly	14
Boron	mg/L	grab	monthly	14
Fluoride	mg/L	grab	quarterly	14
Ammonia Nitrogen[16]	mg/L	grab	weekly	14
Nitrite nitrogen[16]	mg/L	grab	weekly	14
Nitrate nitrogen[16]	mg/L	grab	weekly	14
Organic nitrogen[16]	mg/L	grab	weekly	14
Total nitrogen	mg/L	grab	weekly	14
Total phosphorus	mg/L	grab	monthly	14
Orthophosphate-P	mg/L	grab	monthly	14
Algal biomass[17]	mg/L	grab	monthly	14

[14] Pollutants shall be analyzed using the analytical methods described in 40 CFR 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

[15] E. coli testing shall be conducted only if fecal coliform testing is positive. If the fecal coliform analysis results in no detection, a result of less than (<) the reporting limit for fecal coliform will be reported for E. coli.

[16] Nitrate nitrogen, nitrite nitrogen, ammonia nitrogen, organic nitrogen, pH, and temperature sampling shall be conducted concurrently.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Surfactants (MBAS)[18]	mg/L	grab	monthly	14
Surfactants (CTAS)[18]	mg/L	grab	monthly	14
Total hardness ($CaCO_3$)	mg/L	grab	weekly	14
Chronic toxicity	TUc	grab	monthly	14
Acute toxicity	% Survival	grab	monthly	14
Perchlorate	µg/L	grab	semiannually	14
1,4-Dioxane	µg/L	grab	semiannually	14
1,2,3-Trichloropropane	µg/L	grab	semiannually	14
Methyl tert-butyl ether (MTBE)	µg/L	grab	semiannually	14
Antimony	µg/L	grab	monthly	14
Arsenic	µg/L	grab	monthly	14
Beryllium	µg/L	grab	semiannually	14
Cadmium	µg/L	grab	quarterly	14
Chromium III	µg/L	grab	quarterly	14
Chromium VI	µg/L	grab	quarterly	14
Copper	µg/L	grab	monthly	14
Lead	µg/L	grab	monthly	14
Mercury	µg/L	grab	monthly	14
Nickel	µg/L	grab	monthly	14
Selenium	µg/L	grab	monthly	14
Silver	µg/L	grab	quarterly	14
Thallium	µg/L	grab	quarterly	14
Zinc	µg/L	grab	monthly	14
Cyanide	µg/L	grab	monthly	14
2,3,7,8-TCDD[19]	µg/L	grab	semiannually	14

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[17] Algal biomass or Chlorophyll A samples shall be collected by obtaining scrapings from the substrate. This will be a measure of benthic algae, rather than algae in the water column. Percent cover shall also be reported.

[18] MBAS is Methylene blue active substances and CTAS is cobalt thiocyanate active substances. Reaches of the Santa Clara River are unlined in several reaches downstream of the points of wastewater discharge and are designated with the beneficial use of groundwater recharge (GWR) in the Basin Plan. Monitoring is required to assess compliance with the Title 22-based limit prescribed to protect underlying groundwater quality with the MUN beneficial use.

[19] In accordance with the SIP, the Discharger shall conduct effluent monitoring for the seventeen 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or dioxin) congeners in the effluent and in the receiving water Station RSW-002D, located downstream of the discharge point. The Discharger shall use the appropriate Toxicity Equivalence Factor (TEF) to determine Toxic Equivalence (TEQ). Where TEQ equals the product between each of the 17 individual congeners' (i) concentration analytical result (C_i) and their corresponding Toxicity Equivalence Factor (TEF_i)., (i.e., $TEQ_i = C_i \times TEF_i$). Compliance with the Dioxin limitation shall be determined by the summation of the seventeen individual TEQs, or the following equation:

$$\text{Dioxin concentration in effluent} = \sum_{1}^{17}(TEQ_i) = \sum_{1}^{17}(C_i)(TEF_i)$$

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Acrylonitrile	µg/L	grab	monthly	14
Bromoform	µg/L	grab	quarterly	14
Dibromochloromethane	µg/L	grab	quarterly	14
Chloroform	µg/L	grab	quarterly	14
Bromodichloromethane	µg/L	grab	quarterly	14
1,2-Dichloroethane	µg/L	grab	semiannually	14
Methyl bromide (Bromomethane)	µg/L	grab	semiannually	14
Methyl chloride (Chloromethane)	µg/L	grab	semiannually	14
Methylene chloride	µg/L	grab	semiannually	14
Tetrachloroethylene	µg/L	grab	monthly	14
Benzidine	µg/L	grab	semiannually	14
Benzo(a)anthracine	µg/L	grab	semiannually	14
Bis(2-ethylhexyl)phthalate	µg/L	grab	quarterly	14
p-Dichlorobenzene (1,4-Dichlorobenzene)	µg/L	grab	quarterly	14
3,3-Dichlorobenzidine	µg/L	grab	semiannually	14
1,2-Diphenylhydrazine	µg/L	grab	semiannually	14
Hexachlorobenzene	µg/L	grab	semiannually	14
Aldrin	µg/L	grab	semiannually	14
Gamma-BHC(Lindane)	µg/L	grab	semiannually	14
Chlordane	µg/L	grab	semiannually	14
4,4-DDT	µg/L	grab	semiannually	14
4,4-DDE	µg/L	grab	semiannually	14
4,4-DDD	µg/L	grab	semiannually	14
Dieldrin	µg/L	grab	semiannually	14
Endrin	µg/L	grab	semiannually	14
Heptachlor	µg/L	grab	semiannually	14
Heptachlor epoxide	µg/L	grab	semiannually	14
Diazinon[20]	µg/L	grab	semiannually	14
PCBs	µg/L	grab	semiannually	14
Toxaphene	µg/L	grab	semiannually	14
Barium	µg/L	grab	semiannually	14
Iron	µg/L	grab	monthly	14
Methoxychlor	µg/L	grab	semiannually	14
2,4-D	µg/L	grab	semiannually	14
2,4,5-TP (Silvex)	µg/L	grab	semiannually	14
Remaining EPA priority pollutants (except for asbestos)	µg/L	grab	semiannually	14

[20] Diazinon sampling shall be conducted concurrently with the receiving water chronic toxicity sampling.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Radioactivity(Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)[21]	PCi/L	grab	semiannually	14

Receiving water samples need not be collected during months in which there is no discharge to the Santa Clara River. However, a minimum of two samples per year, for each constituent, are required to be collected.

2. The Discharger shall monitor the Santa Clara River at a receiving water station RSW-001D located 100 feet downstream of the discharge as follows:

Table 7.a.2. Ammonia Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Temperature	°F	grab	monthly	14
pH	pH units	grab	monthly	14
Ammonia Nitrogen	mg/L	grab	monthly	14
Acute Toxicity	% Survival	grab	monthly	14
Chronic Toxicity	TUc	grab	monthly	14

a. Toxicity Testing Requirement

   i. Acute Toxicity – For this particular testing, only Fathead Minnow shall be used as the test species.

   ii. Chronic Toxicity testing procedures shall follow the requirements described in Section V.B. of the MRP.

b. Ambient Receiving Water Requirements

   The Discharger shall delineate the pH and temperature of the ambient receiving water conditions within 100 feet downstream from the point of discharge. A workplan describing the pH and temperature fluctuation study shall be submitted to the Executive Officer for Approval within 60 days from the date of adoption of this permit.

[21] Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined Radium-226 & 228 shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L or beta greater than 50 pCi/L. If Radium-226 & 228 exceeds the stipulated criteria, analyze for Tritium, Strontium-90 and uranium.

3. Receiving water samples shall not be taken during or within 48 hours following the flow of rainwater runoff into the Santa Clara River system. Sampling may be rescheduled at receiving water stations if weather and/or flow conditions would endanger personnel collecting receiving water samples. The monthly monitoring report shall note such occasions.

B. Monitoring Location RGW-001, RGW-002, and RGW-003

1. The Discharger shall monitor the groundwater aquifer at RGW-001 (Upgradient well), RGW-002 (Downgradient well) and RGW-003 (Downgradient well) as follows:

Table 7b. Receiving Ground Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Nitrite nitrogen	mg/L	grab	quarterly	1
Nitrate nitrogen	mg/L	grab	quarterly	1
Organic nitrogen	mg/L	grab	quarterly	1
Total nitrogen	mg/L	grab	quarterly	1
Total phosphorus	mg/L	grab	quarterly	1
Orthophosphate-P	mg/L	grab	quarterly	1
Total Dissolved Solids	mg/L	grab	quarterly	1
Chloride	mg/L	grab	quarterly	1
Sulfate	mg/L	grab	quarterly	1
Boron	mg/L	grab	quarterly	1
Methyl tert-butyl ether (MTBE)	µg/L	grab	semiannually	USEPA 8260B (2 µg/L detection limit)
Perchlorate	µg/L	grab	semiannually	USEPA 314 (2 µg/L detection limit)
1,4-Dioxane	µg/L	grab	semiannually	USEPA 8270c (2 µg/L detection limit)
1,2,3-Trichloropropane	µg/L	grab	semiannually	USEPA 504.1 (0.005 µg/L detection limit)

1 Pollutants shall be analyzed using the analytical methods described in 40 CFR 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

A workplan for a groundwater monitoring network capable of detecting any impact to the groundwater as a result of Newhall Ranch WRP's discharge, is due to the Regional Water Board 180 days upon the adoption of this Order. Groundwater monitoring shall commence no later than six months before the Newhall Ranch WRP's start-up date.

IX. OTHER MONITORING REQUIREMENTS

A. Watershed Monitoring

The goals of the Watershed-wide Monitoring Program for the Santa Clara River Watershed are to:

- Determine compliance with receiving water limits;
- Monitor trends in surface water quality;
- Ensure protection of beneficial uses;
- Provide data for modeling contaminants of concern;
- Characterize water quality including seasonal variation of surface waters within the watershed;
- Assess the health of the biological community; and
- Determine mixing dynamics of effluent and receiving waters in the estuary.

1. The Discharger shall participate in the implementation of the Watershed-wide Monitoring Program. The District's responsibilities under the Watershed-wide Monitoring Program are described in the Receiving Water Monitoring Requirements section. To achieve the goals of the Watershed-wide Monitoring Program, revisions to the Receiving Water Monitoring Requirements will be made under the direction of USEPA and the Regional Board. The District shall participate with the Santa Clara River Enhancement and Management Plan Steering Committee, and other stakeholders, in the development and implementation of a watershed-wide monitoring program. The Discharger shall submit a draft Watershed-wide Monitoring Program by October 15, 2009, to the Regional Board. In the interim, the Discharger shall submit quarterly progress reports detailing ongoing efforts towards the development of a Watershed-wide Monitoring Program. The first report should be received in the Regional Board office by April 15, 2008.

2. In coordination with interested stakeholders in the Santa Clara River Watershed, the Discharger shall conduct instream bioassessment monitoring once a year, during the spring/summer period (unless an alternate sampling period is approved by the Executive Officer). Over time, bioassessment monitoring will provide a measure of the physical condition of the waterbody and the integrity of its biological communities.

   A. The bioassessment program shall include an analysis of the community structure of the instream macroinvertebrate assemblages and physical habitat assessment at the monitoring stations RSW-001U and RSW-002D.

      This program shall be implemented by appropriately trained staff. Alternatively, a professional subcontractor qualified to conduct bioassessments may be selected to perform the bioassessment work for the Discharger. Analyses of the results of the bioassessment monitoring program, along with photographs of the monitoring site locations taken during sample collection, shall be submitted in the corresponding annual report. If another stakeholder, or interested party in the watershed subcontracts a

qualified professional to conduct bioassessment monitoring during the same season and at the same location as specified in the MRP, then the Discharger may, in lieu of duplicative sampling, submit the data, a report interpreting the data, photographs of the site, and related QA/QC documentation in the corresponding annual report.

B. The Discharger must provide a copy of their Standard Operation Procedures (SOPs) for the Bioassessment Monitoring Program to the Regional Board upon request. The document must contain step-by-step field, laboratory and data entry procedures, as well as, related QA/QC procedures. The SOP must also include specific information about each bioassessment program including: assessment program description, its organization and the responsibilities of all its personnel; assessment project description and objectives; qualifications of all personnel; and the type of training each member has received.

C. Field sampling must conform to the SOP established for the California Stream Bioassessment Procedure (CSBP) or more recently established sampling protocols, such as used by the Surface Water Ambient Monitoring Program (SWAMP). Field crews shall be trained on aspects of the protocol and appropriate safety issues. All field data and sample Chain of Custody (COC) forms must be examined for completion and gross errors. Field inspections shall be planned with random visits and shall be performed by the Discharger or an independent auditor. These visits shall report on all aspects of the field procedure with corrective action occurring immediately.

D. A taxonomic identification laboratory shall process the biological samples that usually consist of subsampling organisms, enumerating and identifying taxonomic groups and entering the information into an electronic format. The Regional Board may require QA/QC documents from the taxonomic laboratories and examine their records regularly. Intra-laboratory QA/QC for subsampling, taxonomic validation and corrective actions shall be conducted and documented. Biological laboratories shall also maintain reference collections, vouchered specimens (the Discharger may request the return of their sample voucher collections) and remnant collections. The laboratory should participate in an (external) laboratory taxonomic validation program at a recommended level of 10% or 20%. External QA/QC may be arranged through the California Department of Fish and Game's Aquatic Bioassessment Laboratory located in Rancho Cordova, California.

3. The Executive Officer of the Regional Water Board may modify Monitoring and Reporting Program to accommodate the watershed-wide monitoring.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

2. If there is no discharge during any reporting period, the report shall so state.

3. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.

4. The Discharger shall inform the Regional Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

5. Each monthly monitoring report shall include a determination of compliance with receiving water ammonia water quality objectives at RSW-001D. Any exceedances of an ammonia water quality objective shall be noted in the "Summary of Non-Compliance" section of the monitoring report.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. Additionally, the Discharger shall report in the SMR the results of any special studies, acute and chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions of this Order. The Discharger shall submit monthly and annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table 8. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	By the 15th day of the third month after the month of sampling
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	June15 September 15 December 15 March 15
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	September15 March15
Annually	January 1 following (or on) permit effective date	January 1 through December 31	April 15

4. Reporting Protocols. The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

   The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

   a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The *estimated chemical concentration of the sample shall also be reported.

      For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the

reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.

5. The Discharger shall submit SMRs in accordance with the following requirements:

a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below: (Reference the reports to Compliance File No. YYYY to facilitate routing to the appropriate staff and file.)

California Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013
Attention: Information Technology Unit

C. Discharge Monitoring Reports (DMRs)

1. As described in Section X.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below**.**

2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharge shall submit the original DMR and one copy of the DMR to the address listed below:

STANDARD MAIL	FEDEX/UPS/ OTHER PRIVATE CARRIERS
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15th Floor Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated will not be accepted unless they follow the exact same format of EPA Form 3320-1.

D. Other Reports

1. Annual Summary Report

By April 15 of each year, the Discharger shall submit an annual report containing a discussion of the previous year's influent/effluent analytical results and receiving water bacterial monitoring data. The annual report shall contain graphical and tabular summaries of the monitoring analytical data. The annual report shall also contain an overview of any plans for upgrades to the treatment plant's collection system, the treatment processes, or the outfall system. The Discharger shall submit a hard copy annual report to the Regional Water Board in accordance with the requirements described in subsection B.5 above.

Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether or not reasonable potential was triggered for pollutants which do not have a final effluent limitation in the NPDES permit. This section shall contain the following statement:" The analytical results for this sampling period did/ did not trigger reasonable potential." If reasonable potential was triggered, then the following information should also be provided:

a. A list of the pollutant(s) that triggered reasonable potential;
b. The Basin Plan or CTR criteria that was exceeded for each given pollutant;
c. The concentration of the pollutant(s);
d. The test method used to analyze the sample; and,
e. The date and time of sample collection.

2. The Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

3. The Regional Board requires the Discharger to file with the Regional Board, within 90 days after the effective date of this Order, a technical report on his preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:

   a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks, and pipes should be considered.

   b. Evaluate the effectiveness of present facilities and procedures and state when they become operational.

   c. Describe facilities and procedures needed for effective preventive and contingency plans.
   d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational.

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table 1. Facility Information

WDID	
Discharger	Newhall Ranch Sanitation District
Name of Facility	Newhall Ranch Water Reclamation Plant
Facility Address	Hwy 126 at Los Angeles/Ventura County Line
	Newhall, California, 91355
	Los Angeles County
Facility Contact, Title and Phone	Steve Sheridan, Principal Engineer (626) 458-7151
Authorized Person to Sign and Submit Reports	Steve Sheridan, Principal Engineer (626) 458-7151
Mailing Address	900 South Fremont, Alhambra, CA 91803
Billing Address	900 South Fremont, Alhambra, CA 91803
Type of Facility	POTW
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	N
Reclamation Requirements	Future producer, applied for new water recycling requirements under separate Order
Facility Permitted Flow	2 million gallons per day (MGD)
Facility Design Flow	2 MGD
Watershed	Santa Clara River
Receiving Water	Santa Clara River
Receiving Water Type	Inland surface water

A. Ownership.

Newhall Land and Farming Company (Newhall Land) is planning on transferring ownership of the land to Newhall Ranch Sanitation District (Newhall Ranch SD) in September 2007. Newhall Ranch SD will make a formal application to the existing twenty-four County Sanitation Districts to become signatory to the amended Joint Administration Agreement (JAA), dated July 1, 1980, of the County Sanitation Districts of Los Angeles County. Newhall Ranch SD will also make a formal application to the Santa Clarita Valley Sanitation District to enter into an agreement regarding the ownership and operation of the Newhall Ranch WRP. These agreements will allow the County Sanitation Districts of Los Angeles County to be the operator of the Newhall Ranch WRP, and to provide engineering and administrative staff at the Newhall Ranch WRP. However, the Los Angeles County Department of Public Works will staff the Newhall Ranch SD until such time as Newhall Ranch SD joins the JAA. Newhall Ranch SD will retain ownership of the Newhall Ranch WRP.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. Proposed Discharge.

The Discharger proposes to discharge tertiary-treated wastewater to the Santa Clara River, a water of the United States. The Newhall Ranch Water Reclamation Plant will be a new discharger and is currently not regulated by any other Order. Although Newhall Land has obtained coverage under the General Order No. R4-2003–0111, National Pollutant Discharge Elimination System (NPDES) permit No. CAG994004, to discharge groundwater associated with dewatering and construction activities. Discharge of tertiary-treated effluent, as proposed in the Report of Waste Discharge (ROWD), should commence several months after the effective date of this NPDES Order.

C. ROWD.

The Discharger filed a report of waste discharge and submitted an application for new Waste Discharge Requirements (WDRs) and NPDES permit on April 23, 2004, years in advance of the anticipated discharge date and prior to the formation of the new Newhall Ranch Sanitation District. Supplemental information, including the analytical results of receiving water sampling, was submitted between September 27, 2004 and March 30, 2007. The required signatory requirements for the ROWD were received on May 4, 2007 and May 23, 2007. A site visit was conducted on May 23, 2007, to observe the site where the new POTW would be constructed.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment or Controls

Treatment at the Newhall Ranch WRP, a publicly owned treatment works (POTW), will consist of screening, activated sludge secondary treatment with membrane bioreactors, nitrification/denitrification, ultraviolet disinfection, and partial reverse osmosis. There will

be no solids handling facilities in the near term. Waste activated sludge will be hauled away to the Valencia Water Reclamation Plant for further treatment and disposal. Brine from the RO system will be disposed of through deep well injection, under a separate USEPA permit. Treated wastewater will be discharged from Discharge Point 001 (see Table on Cover Page) to the Santa Clara River, a water of the United States, tributary to the Santa Clara River Estuary, within the Santa Clara River Watershed.

B. Discharge Points and Receiving Waters

The Newhall Ranch WRP will discharge tertiary-treated wastewater to an unlined section of the Santa Clara River, a water of the United States, through Discharge Serial No. 001(Latitude 34° 0.403166'N, Longitude 118° 0.6896667'W), within the Santa Clara River Watershed. The Newhall Ranch WRP will be located downstream of the Los Angeles County Sanitation District's Saugus and Valencia WRPs It will have an initial design capacity of 2 MGD, and incrementally increase its design capacity to 6.8 MGD [2.0 MGD in Phase I; 4.0 MGD in Phase II; and 6.8 MGD in Phase III], to accommodate the sewage generated by new inhabitants, as additional tracts of the Landmark Village development project are completed.

The Santa Clara River is one of the largest river systems in southern California. The River originates in the northern slope of the San Gabriel Mountains in Los Angeles County, traverses Ventura County, and flows into the Pacific Ocean, halfway between the cities of San Buenaventura and Oxnard.

Extensive patches of riparian habitat are present along the length of the River and its tributaries. The endangered fish, the unarmored stickleback, is resident in the river. One of the largest of the Santa Clara River's tributaries, Sespe Creek, is designated as a wild trout stream by the state of California and supports significant spawning and rearing habitat. The Sespe Creek is also designated a wild and scenic river. Piru and Santa Paula Creeks, which are tributaries to the Santa Clara River, support habitat for steelhead. In addition, the river serves as an important wildlife corridor. A lagoon exists at the mouth of the river and supports a large variety of wildlife.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Not applicable. Newhall Ranch WRP does not have any existing requirements.

Table 2. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitation			Monitoring Data (From <Date> – To <Date>)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge

D. Compliance Summary

Not applicable. Newhall Ranch WRP does not have any existing requirements.

E. Planned Changes

The Newhall Ranch WRP would have an initial design capacity of 2 MGD, and incrementally increase its design capacity to 6.8 MGD [2.0 MGD in Phase I; 4.0 MGD in Phase II; and 6.8 MGD in Phase III], to accommodate the sewage generated by new inhabitants, as additional tracts of the Landmark Village development project are completed.

- In January 2008 grading activities are scheduled to begin.
- In June 2008 Newhall Ranch SD is scheduled to approve the plans for the plant design.
- In September 2008, construction of the Newhall Ranch WRP is scheduled to begin.
- By August 2009, the Newhall Ranch WRP (2 MGD capacity) should be constructed.

Pending the outcome of TMDL-based studies being conducted in the Santa Clara River Watershed, the plant may be modified in the future to provide reverse osmosis treatment to a portion of the treated effluent, in an effort to reduce the chloride concentrations discharged.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

The discharger is not a new source, as defined in the CWA. (See 40 CFR part 122.2.) Therefore, the approval of this permit is not subject to the California Environmental Quality Act (CEQA), as stated in section 13389 of the CWC.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (hereinafter Basin Plan) on June 13, 1994 that designates beneficial uses, establishes water quality objectives, and contains

implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic water supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Beneficial uses applicable to the Santa Clara River are as follows:

Table 3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Santa Clara River (Hydro Unit 403.51)	Existing: Industrial Service Supply (IND); Industrial Process Supply (PROC); Agricultural Supply (AGR); Ground Water Recharge (GWR); Freshwater Replenishment (FRSH);Water Contact Recreation (REC-1); Non-contact Water Recreation (REC-2); Warm Freshwater Habitat (WARM); Wildlife Habitat (WILD); preservation or rare, threatened or endangered species (RARE); and, Wetland Habitat (WET). Potential*: Municipal and domestic water supply (MUN).
	Santa Clara River (Hydro Unit 403.41)	Existing: IND; PROC; AGR; GWR; FRSH; REC-1; REC-2; WARM; WILD; RARE; Migration of Aquatic Organisms (MIGR) and, WET. Potential*: MUN
	Santa Clara River (Hydro Unit 403.31)	Existing: IND; PROC; AGR; GWR; FRSH; REC-1; REC-2; WARM; WILD; RARE; MIGR and, WET. Potential*: MUN
	Santa Clara River (Hydro Unit 403.21)	Existing: IND; PROC; AGR; GWR; FRSH; REC-1; REC-2; WARM; WILD; RARE; MIGR and, WET. Potential*: MUN.
	Santa Clara River (Hydro Unit 403.11)	Existing: IND; PROC; AGR; GWR; FRSH; REC-1; REC-2; WARM; Cold Water Habitat (COLD); WILD; RARE; MIGR and, WET. Potential*: MUN.
	Santa Clara River Estuary (Hydro Unit 403.11)	Existing: Navigation (NAV); REC-1; REC-2; Commercial and Sport Fishing (COMM); Estuarine Habitat (EST); Marine Habitat (MAR); WILD; RARE; MIGR; Spawning, Reproduction, and/or Early Development (SPWN); and, WET.

Requirements of this Order implement the Basin Plan and subsequent amendments.

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

4. **Alaska Rule**. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 C.F.R. § 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

5. **Antidegradation Policy.** Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

6. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations[1] section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require

[1] All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. Since this is a new discharge, all effluent limitations and requirements contained in this Order are new. Therefore, there is no relaxation of effluent limitations. The WDR is consistent with the anti-backsliding requirements of the CWA and federal regulations.

D. Impaired Water Bodies on CWA 303(d) List

On November 30, 2006, USEPA approved the State's 2004-2006 303(d) list of impaired waterbodies. The list (hereinafter referred to as the 303(d) list) was prepared in accordance with section 303(d) of the Federal Clean Water Act to identify specific impaired waterbodies where water quality standards are not expected to be met after the implementation of technology-based effluent limitations on point sources.

Santa Clara River, Santa Clara River Estuary, and their tributaries are on the 2006 303(d) List. The following pollutants/stressors, from point and non-point sources, were identified as impacting the receiving waters:

7. Santa Clara River Estuary: Chem A, and Coliform Bacteria;

8. Santa Clara River Reach 1 (Estuary to Hwy 101 Bridge): Toxicity:

9. Santa Clara River Reach 3 (Freeman Diversion to A Street): Total Dissolved Solids;

10. Santa Clara River Reach 5 [formerly Reach 7 in 2002 303d list] (Blue Cut to West Pier Hwy 99 Bridge): Coliform Bacteria;

11. Santa Clara River Reach 6 [formerly Reach 8 in 2002 303d list] (W. Pier Hwy 99 to Bouquet Canyon Rd. Bridge) -- Hydrologic Unit 403.51: Chlorpyrifos, Coliform Bacteria, Diazinon, and Toxicity; and,

12. Santa Clara River Reach 7 [formerly Reach 9 in 2002 303d list] (Bouquet Canyon Rd to above Lang Gaging) -- Hydrologic Unit 403.51: Coliform Bacteria.

E. Other Plans, Polices and Regulations

1. **Sources of Drinking Water Policy**. On May 19, 1988, the State Water Board adopted Resolution No. 88-63, *Sources of Drinking Water (SODW) Policy*, which established a policy that all surface and ground waters, with limited exemptions, are suitable or potentially suitable for municipal and domestic supply. To be consistent with State Water Board's SODW policy, on March 27, 1989, the Regional Water Board adopted Resolution No. 89-03, *Incorporation of Sources of Drinking Water Policy into the Water Quality Control Plans (Basin Plans) – Santa Clara River Basin (4A)/ Los Angeles River Basin (4B).*

Consistent with Regional Water Board Resolution No. 89-03 and State Water Board Resolution No. 88-63, in 1994 the Regional Water Board conditionally designated all inland surface waters in Table 2-1 of the 1994 Basin Plan as existing, intermittent, or potential for Municipal and Domestic Supply (MUN). However, the conditional designation in the 1994 Basin Plan included the following implementation provision: "no new effluent limitations will be placed in Waste Discharge Requirements as a result of these [potential MUN designations made pursuant to the SODW policy and the Regional Water Board's enabling resolution] until the Regional Water Board adopts [a special Basin Plan Amendment that incorporates a detailed review of the waters in the Region that should be exempted from the potential MUN designations arising from SODW policy and the Regional Water Board's enabling resolution]." On February 15, 2002, the USEPA clarified its partial approval (May 26, 2000) of the 1994 Basin Plan amendments and acknowledged that the conditional designations do not currently have a legal effect, do not reflect new water quality standards subject to USEPA review, and do not support new effluent limitations based on the conditional designations stemming from the SODW Policy until a subsequent review by the Regional Water Board finalizes the designations for these waters. This permit is designed to be consistent with the existing Basin Plan.

2. **Secondary Treatment Regulations**. Section 133 of 40 CFR establishes the minimum levels of effluent quality to be achieved by secondary treatment. These limitations, established by USEPA, are incorporated into this Order, except where more stringent limitations are required by other applicable plans, policies, or regulations.

3. **Storm Water**. CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR, Section 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, on November 1991, the State Water Board issued a statewide general permit, *General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities.* This permit was amended in September 1992 and reissued on April 17, 1997 in State Water Board Order No. 97-03-DWQ to regulate storm water discharges associated with industrial activity.

   General NPDES permit No. CAS000001 is applicable to storm water discharges from the Newhall Ranch WRP's premises. Newhall Ranch SD will file a Notice of Intent to comply with the requirements of the general permit. Newhall Ranch SD will develop and implement a Storm Water Pollution Prevention Plan (SWPPP), to comply with the State Water Board's (Order No. 97-03-DWQ). Newhall Ranch SD will capture and treat a percentage of the first flush runoff that falls on the Newhall Ranch WRP.

4. **Sanitary Sewer Overflows.** The Clean Water Act prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 U.S.C. §§1311, 1342). The State Water Board adopted Statewide General Waste Discharge Requirements (WDRs) for

Sanitary Sewer Systems, Water Quality Order No. 2006-0003 on May 2, 2006, to provide a consistent, statewide regulatory framework to address Sanitary Sewer Overflows (SSOs). The WDR requires public agencies that own or operate sanitary sewer systems to develop and implement sewer system management plans and report all SSOs to the State Water Board's online SSO database.

The requirements contained in this Order in Sections VI.C.3.b, VI.C.4, and VI.C.5.c.6. are intended to be consistent with the requirements in the SSO WDR. The Regional Water Board recognizes that there are areas of overlapping interest between the NPDES permit conditions and the SSO WDR requirements. The requirements of the SSO WDR are considered the minimum thresholds (see Finding 11 of WQ Order N0. 2006-0003). The Regional Water Board will accept the documentation prepared by the Permittee under the SSO WDR for compliance purposes, as satisfying the requirements in Sections VI.C.3.b, VI.C.4, and VI.C.5.c.6, provided for any more specific or stringent provisions enumerated in this Order, have also been addressed.

5. **Watershed Management -** This Regional Water Board has been implementing a Watershed Management Approach (WMA), to address water quality protection in the Los Angeles Region, as detailed in the Watershed Management Initiative (WMI). The WMI is designed to integrate various surface and ground water regulatory programs while promoting cooperative, collaborative efforts within a watershed. It is also designed to focus limited resources on key issues and use sound science. Information about the Santa Clara River Watershed and other watersheds in the region can be obtained from the Regional Water Board's web site at *http://www.swrcb.ca.gov/rwqcb4/* and clicking on the word "Watersheds".

6. **Relevant Total Maximum Daily Loads -** A Total Maximum Daily Load (TMDL) is a determination of the amount of a pollutant, from point, non-point, and natural background sources, including a margin of safety that may be discharged to a water quality-limited water body. Section 303(d) of the CWA established the TMDL process. The statutory requirements are codified at 40 CFR, Part 130.7. TMDLs must be developed for the pollutants of concern, which impact the water quality of water bodies on the 303(d) list. The Regional Water Board has developed a TMDL that assesses the extent and sources of the ammonia and algae (nutrient/nitrogen) problems in the Santa Clara River. According to the TMDL schedule, under the amended concent decree*, Heal the Bay, Santa Monica Bay Keeper, et al. v. Browner, et al.* (March 23, 1999), the nitrogen and chloride TMDLs for the Santa Clara River must be completed by 2004 and 2003, respectively. The coliform TMDL was scheduled for completion by 2006.

   a. **Chloride TMDL**.
      i. On October 24, 2002, the Regional Water Board adopted Resolution No. 2002-018, *Amendment to the Basin Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load to Reduce Chloride Loading in the Upper Santa Clara River*. Soon after, the Regional Water Board submitted the TMDL to the State Water Board for approval. On February 19, 2003, the

State Water Board adopted Resolution No. 2003-0014, the "Remand Resolution," finding that the Regional Water Board staff prepared the documents and followed procedures satisfying environmental documentation requirements in accordance with the California Environmental Quality Act, scientific peer review, and other State laws and regulations to develop a TMDL. However, the Remand Resolution directed the Regional Water Board to consider revising the implementation provisions of the chloride TMDL. On July 10, 2003, the Regional Water Board reconsidered Resolution No. 2002-018, in light of the Remand Resolution, and adopted Resolution No. 2003-008 which modified the chloride TMDL implementation provisions by:

(1) Expanding the phased-TMDL approach to allow CSDLAC to complete the implementation tasks sequentially and within 13 years;
(2) Extending the interim limits beyond the proposed two and a half years but not to exceed 13 years, so that the interim limits may remain in effect during the planning, construction, and execution portions of the TMDL's implementation tasks; and,
(3) Modifying the TMDL analysis task list to include an assessment/ evaluation of alternative water supplies for agricultural beneficial uses.

On May 6, 2004, the Regional Water Board adopted Resolution No. 2004-004, amending the Upper Santa Clara River Chloride TMDL. State Water Board, OAL, and USEPA approval occurred on July 22, 2004, November 15, 2004, and April 28, 2005, respectively. The Chloride TMDL became effective on May 4, 2005.

On August 3, 2006, the Regional Water Board adopted Resolution No. R4-2006-016, Amendment to the Water Quality Control Plan for the Los Angeles Region through revision of the Implementation Plan for the Upper Santa Clara River Chloride TMDL, which shortened the compliance schedule from thirteen to eleven years. State Water Board approved the resolution on May 22, 2007. OAL, and USEPA approval is pending.

ii. On March 26, 2007, TMDL staff wrote a technical memo regarding the waste load allocation for chloride for Newhall Ranch WRP. The memo included the following background information and conclusions

(1) Background.
   a. The Newhall Ranch WRP, currently in the planning stages, is part of the Newhall Ranch Specific Plan which guides the long-term development of the 11963-acre Newhall Ranch Community. Based on information provided by the Newhall Ranch Company on November 22, 2006, the Newhall Ranch WRP treatment capacity will be 6.8 MGD of municipal and commercial wastewater that will be generated by the prospective Newhall Ranch community. The treated wastewater will be reclaimed for landscape irrigation during dry weather conditions. During wet weather, when irrigation demands are lower, unused reclaimed water will be

discharged to Reach 5 of the Santa Clara River. A new sanitation district will be formed to maintain and operate the Newhall Ranch WRP.

b. The existing water quality objective (WQO) for chloride in Reaches 5 and 6 of the Santa Clara River is 100 milligrams per liter (mg/L). The most sensitive beneficial uses for chloride is agricultural supply (AGR). Because chloride levels in the Upper Santa Clara River (USCR) exceeded the water quality objective WQO, the USCR was listed on the 1998 303(d) list and a total maximum daily load (TMDL) for chloride in the USCR was adopted by the Regional Water Board. The USCR Chloride TMDL became effective on May 4, 2005, and the chloride wasteload allocation for existing major Publicly-Owned Treatment Works (POTWs) discharging to the USCR is also 100 mg/L. The TMDL found that the nonpoint sources of chloride were not significant relative to the point sources and that concentration based wasteload allocations were effective in protecting beneficial uses. The TMDL identified wastewater discharges from the Los Angeles County Sanitation Districts (Districts) Saugus and Valencia Water Reclamation Plants (WRPs) as the primary source of chloride and assigns waste load allocations (WLAs) of 100 mg/L chloride to the Districts WRPs. Other NPDES discharges contribute a minor chloride load and the chloride WLAs for these point sources is 100 mg/L.

c. The USCR chloride WLAs are expressed on a concentration basis derived from and equivalent to the existing WQO, thereby providing direct protection of the most sensitive beneficial use, , agricultural supply (AGR). Under the TMDL Implementation Plan, a special study was conducted to confirm that the concentration-based WLA of 100 mg/L chloride is protective of AGR. That study has been completed and confirms that the concentration-based WLA of 100 mg/L is protective of salt sensitive AGR. A concentration-based WLA also accommodates future growth and provides beneficial uses protection from chloride loads that were in place at the time of the TMDL development. Protection of beneficial uses from additional chloride loads that were not assigned wasteload allocations is provided by using the WLAs as effluent limits in permits for new and future sources such as Newhall Ranch WRP.

d. The Staff Report for the TMDL, dated August 21, 2002, states “A concentration-based target accommodates future growth by allowing increased mass as long as it is accompanied by additional flow. This analysis is based on existing discharge locations in the Upper Santa Clara River. Regional Water Board staff understands that an additional water reclamation plant is planned to accommodate future growth in the Santa Clarita Valley and that this plant will discharge only during rain events. Permitting of additional discharges may compromise the success of the TMDL without additional studies." Although the Staff Report implies that permitting of additional discharges may require

additional studies, it is a general statement that does not define the types of studies needed. Staff finds that additional studies are not needed in order to conclude that water quality will not be degraded if concentration-based wasteload allocations that are equivalent to the WQO are assigned to new facilities. If the WLAs and effluent limits for new facilities in the Upper Santa Clara River watershed are set at the end-of pipe and are equivalent to the TMDL WLA and WQO staff finds that these WLAs will not cause degradation of water quality. Studies regarding the effect of additional chloride load on groundwater basins underlying the USCR River are underway and scheduled for completion by November 2007. Initial results from these studies show that discharges at effluent limits of 100 mg/L chloride will not degrade groundwater quality. Staff finds that results from these studies may be used to revise the effluent limits for all dischargers discharging at 100 mg/L if necessary. If this occurs, the NPDES permit for Newhall Ranch WRP will be reopened.

e. The majority of effluent from the Newhall Ranch WRP will be used for reclaimed water purposes. Discharge to the Santa Clara River (SCR) will primarily occur during periods when the effluent supply exceeds the reclaimed demand, such as during the peak wet months of the November through March. During years 1 and 2 of the WRP operation, the WRP will operate at a maximum of 2 mgd, with an estimated average discharge flow rate of 0.2 mgd during the 5 month wet period. No sooner than year 3 will the WRP be expanded to 6.8 mgd, with an approximate average discharge flowrate of 0.6 mgd during this 5 month wet period. Therefore, discharge periods will coincide with peak wet months when dilution capacity is maximal (i.e., instream flows are highest). The average November-March instream flowrate at USGS station 11109000 (Newhall Bridge, approximately 2.5 miles downstream of the County line) is 188 cfs (121 mgd) based on measured average daily flow data for water years 1977-2006. Newhall WRP effluent will represent less than 1% of this average volume. Consequently, TMDL staff finds that the proposed discharge will not add appreciable chloride loads to the surface water or underlying groundwater.

(2) Conclusion.
The Upper Santa Clara River Chloride TMDL WLAs for discharges from the Saugus and Valencia WRPs into Reach 5 and 6 of the Santa Clara River are concentration-based which protects sensitive AGR uses in the River while accommodating future growth. The TMDL does not prohibit future growth or increased loads. Use of concentration-based WLAs requires that increased chloride loads are concurrent with increased discharge flow to the USCR. The increased flow increases the capacity of the receiving water to assimilate chloride. Because the Newhall Ranch WRP will increase flow in the WRP, the discharge of the NRWRP would not contribute to further impairment of surface water in Reaches 5 and 6 of

the Santa Clara River if the chloride concentration in discharge is equal to or less than the WQO and TMDL WLA of 100 mg/L. An NPDES discharge permit with an effluent limit of 100 mg/L chloride would be consistent with the TMDL. Additional studies are not needed at this time if the effluent limit for chloride is concentration-based and set at, or is less than the WQO the of 100 mg/L.

b. **Nitrogen Compounds TMDL**. On August 7, 2003, the Regional Water Board adopted Resolution No. 2003-11, the *Santa Clara River Nitrogen Compounds TMDL (Nitrogen Compounds TMDL)*. State Water Board, OAL, and USEPA approval occurred on November 19, 2003, February 27, 2004, and March 18, 2004, respectively. The Nitrogen Compounds TMDL became effective on March 23, 2004. Although the Nitrogen Compounds TMDL does not specify an individual WLA for the Newhall Ranch WRP, the Nitrogen Compounds TMDL staff report does discuss future growth. The staff report states that "the numeric targets for POTWs with increasing capacity or new POTWs will be set on a concentration basis…."

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: section 122.44(a) requires that permits include applicable technology-based limitations and standards; and section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

Effluent and receiving water limitations in this Board Order are based on the Federal Clean Water Act, Basin Plan, State Water Board 's plans and policies, USEPA guidance and regulations, and best practicable waste treatment technology. This order authorizes the discharge of tertiary-treated wastewater through Discharge Serial No. 001 only. It does not authorize any other types of discharges.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Technology-based effluent limits require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the discharger to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level--referred to as "secondary

treatment"--that all POTWs were required to meet by July 1, 1977. More specifically, Section 301(b)(1)(B) of the CWA required that EPA develop secondary treatment standards for POTWs as defined in Section 304(d)(1). Based on this statutory requirement, EPA developed national secondary treatment regulations which are specified in 40 CFR 133. These technology- based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of five-day biochemical oxygen demand, total suspended solids, and pH.

Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at Part 133 and Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3.

2. Applicable Technology-Based Effluent Limitations

This facility is subject to the technology-based regulations for the minimum level of effluent quality attainable by secondary treatment in terms of $BOD_5 20^oC$, TSS, and pH. The following Table summarizes the technology-based effluent limitations applicable to the Facility:

Summary of Technology-based Effluent Limitations
Discharge Point 001

Table 4. Summary of Technology-based Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
$BOD_5 20^oC$	mg/L	20	30	45	--	--
	lbs/day *	330	500	750	--	--
Total Suspended solids (TSS)	mg/L	15	40	45	--	--
	lbs/day	250	670	750	--	--
pH	standard units	--	--	--	6.5	8.5
Removal Efficiency for BOD and TSS	%	85	--	--	--	--

* The mass emission rates are based on the plant design flow rate of 2.0 mgd, and are calculated as follows: Flow(MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. However, the design capacity will incrementally increase to 6.8 MGD, as the phased plant upgrades approach completion. The mass-based effluent limitation will accordingly be modified following an Anti-degradation analysis demonstration conducted by the Discharger, and upon certification and approval of increased treatment plant capacity. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

However, this facility is also subject to technology-based effluent limitations contained in similar NPDES permits, for similar facilities, based on the treatment level achievable by tertiary-treated wastewater treatment systems. These effluent limitations are consistent with the State Water Board precedential decision, State Water Board Order No. WQ 2004-0010 for the City of Woodland. Further, mass-based effluent limitations are based on a design flow rate of 2.0 MGD for Phase I, and ultimately on a 6.8 MGD flow rate for Phase III.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as a technology equivalence requirement, more stringent than secondary treatment requirements that are necessary to meet applicable water quality standards. The rationale for these requirements, which consist of tertiary treatment or equivalent requirements or other provisions, is discussed starting from Section IV.C.2.b.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR. Table R1 contains the RP analysis.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

a. The Basin Plan establishes the beneficial uses for surface water bodies in the Los Angeles region. The beneficial uses of the Santa Clara River affected by the

discharge have been described previously in this Fact Sheet and in the WDR findings.

b. The Basin Plan also specifies narrative and numeric water quality objectives applicable to surface water as shown in the following discussions.

i. Table 5 summarizes the applicable water quality criteria/objective for priority pollutants reported in detectable concentrations in the effluent or receiving water. These criteria were used in conducting the Reasonable Potential Analysis for this Order.

ii. <u>Biochemical Oxygen Demand (BOD) and Suspended solids</u>

Biochemical oxygen demand (BOD) is a measure of the quantity of the organic matter in the water and, therefore, the water's potential for becoming depleted in dissolved oxygen. As organic degradation takes place, bacteria and other decomposers use the oxygen in the water for respiration.

Unless there is a steady resupply of oxygen to the system, the water will quickly become depleted of oxygen. Adequate dissolved oxygen levels are required to support aquatic life. Depressions of dissolved oxygen can lead to anaerobic conditions resulting in odors, or, in extreme cases, in fish kills.

40 CFR, Part 133 describes the minimum level of effluent quality attainable by secondary treatment, for BOD and suspended solids, as:

a. the monthly average shall not exceed 30 mg/L; and,
b. the 7-day average shall not exceed 45 mg/L.

The Newhall Ranch WRP will provide tertiary treatment, as such, the limits in the permit are more stringent than secondary treatment requirements. The Plant will achieve solids removal rates that are better than secondary-treated wastewater by adding a polymer/coagulant to enhance the precipitation of solids, and by filtering the effluent.

In addition to having mass-based and concentration-based effluent limitations for BOD and suspended solids, the Newhall Ranch WRP also has a percent removal requirement for these two constituents. In accordance with 40 CFR, Sections 133.102(a)(3) and 133.102(b)(3), the 30-day average percent removal shall not be less than 85 percent. Percent removal is defined as a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

iii. pH

The hydrogen ion activity of water (pH) is measured on a logarithmic scale, ranging from 0 to 14. While the pH of "pure" water at 25°C is 7.0, the pH of natural waters is usually slightly basic due to the solubility of carbon dioxide from the atmosphere. Minor changes from natural conditions can harm aquatic life. The effluent limitation for pH which reads, "the wastes discharged shall at all times be within the range of 6.5 to 8.5," is taken from the Basin Plan (page 3-15) which reads" the pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharge.

iv. Settleable solids

Excessive deposition of sediments can destroy spawning habitat, blanket benthic (bottom dwelling) organisms, and abrade the gills of larval fish. The limits for settleable solids are based on the Basin Plan (page 3-16) narrative, "Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses." The numeric limits are empirically based on results obtained from the settleable solids 1-hour test, using an Imhoff cone.

It is impracticable to use a 7-day average limitation, because short term spikes of settleable solid levels that would be permissible under a 7-day average scheme would not be adequately protective of all beneficial uses.

v. Oil and Grease

Oil and grease are not readily soluble in water and form a film on the water surface. Oily films can coat birds and aquatic organisms, impacting respiration and thermal regulation, and causing death. Oil and grease can also cause nuisance conditions (odors and taste), are aesthetically unpleasant, and can restrict a wide variety of beneficial uses. The limits for oil and grease are based on the Basin Plan (page 3-11) narrative, "Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses."

The numeric limits are empirically based on concentrations at which an oily sheen becomes visible in water. It is impracticable to use a 7-day average limitation, because spikes that occur under a 7-day average scheme could cause visible oil sheen. A 7-day average scheme would not be sufficiently protective of beneficial uses.

vi. Residual chlorine

Disinfection of wastewaters with chlorine produces chlorine residual. Chlorine and its reaction products are toxic to aquatic life. The limit for residual chlorine is based on the Basin Plan (page 3-9) narrative, "Chlorine residual shall not be present in surface water discharges at concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses."

It is impracticable to use a 7-day average or a 30-day average limitation, because it is not as protective as of beneficial uses as a daily maximum limitation is. Chlorine is very toxic to aquatic life and short-term exposures of chlorine may cause fish kills.

Although the Newhall Ranch WRP proposes to use UV light as its primary means of disinfection, similar facilities have had to use small concentrations of residual chlorine to supplement UV disinfection, in order to kill certain virus present in wastewater or for maintenance purposes to clean the UV lamps. The facility has reasonable potential for residual chlorine because it proposes to use sodium hypochlorite to clean and wash the UV lamps. In addition, all potable water has traces of residual chlorine. In addition, the facility may choose to add residual chlorine to their effluent at a later date, similar to what other POTWs with UV have done.

vii. Total Dissolved Solids, Chloride, Sulfate, and Boron

The limits for total dissolved solids, sulfate, chloride, and boron are based on Basin Plan Table 3-8 (page 3-12), for the Santa Clara River watershed (between West Pier Highway 99 and Blue Cut Gauging Station). TDS = 1000 mg/L; Sulfate = 400 mg/L; Chloride = 100 mg/L; and Boron = 1.5 mg/L. It is practicable to express these limits as monthly averages, since they are not expected to cause acute effects on beneficial uses. These limits will protect waters of the US and prevent degradation.

viii. Methylene Blue Activated Substances (MBAS)

The MBAS procedure tests for the presence of anionic surfactants (detergents) in surface and ground waters. Surfactants disturb the water surface tension, which affects insects and can affect gills in aquatic life. The MBAS can also impart an unpleasant soapy taste to water, as well as cause scum and foaming in waters, which impact the aesthetic quality of both surface and ground waters.

Given the nature of the facility (a POTW) which accepts domestic washwater into the sewer system and treatment plant, and the characteristics of the wastes discharged, the discharge has reasonable potential to exceed both the numeric MBAS water quality objective (WQO) and the narrative WQO for prohibition of floating material such as foams and scums. Therefore an effluent limitation is required.

The Discharger has collected receiving water samples and has reported detectable quantities of MBAS concentrations in the Santa Clara River in the vicinity of the proposed discharge. The discharge from the Newhall Ranch WRP may have reasonable potential to contribute to an exceedance of the 0.5 mg/L WQO. The 0.5 mg/L concentration (which has been determined to be protective of beneficial uses and the aesthetic quality of waters), is based on the Department of Health Services' secondary drinking water standard, and on the Basin Plan WQO (p.3-11) which reads, "Waters shall not have MBAS concentrations greater than 0.5 mg/L in waters designated MUN." While the wastewater from this POTW is not directly discharged into a MUN designated surface water body, it will percolate into unlined reaches of the Santa Clara River [via ground water recharge designated beneficial use (GWR)] to ground water designated for MUN beneficial use. In addition, the Basin Plan states that "Ground water shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses." Therefore, the secondary MCL should be the MBAS limit for this discharge to protect ground water recharge and the MUN use of the underlying ground water, while also protecting surface waters from exhibiting scum or foaming.

Since the Basin Plan objective is based on a secondary drinking water standard, it is practicable to have a monthly average limitation in the permit, rather than a daily maximum.

ix. <u>Total Inorganic Nitrogen</u>

Total inorganic nitrogen is the sum of Nitrate-nitrogen and Nitrite-nitrogen. High nitrate levels in drinking water can cause health problems in humans. Infants are particularly sensitive and can develop methemoglobinemia (blue-baby syndrome). Nitrogen is also considered a nutrient. Excessive amounts of nutrients can lead to other water quality impairments, ex. algae.

(1) **Concentration-based Limit -** The effluent limit for total inorganic nitrogen (NO_2-N + NO_3-N) of 5 mg/L is based on Basin Plan Table 3-8 (page 3-12), for the Santa Clara River watershed (between West Pier Highway 99 and Blue Cut Gaging Station).

(2) **Mass-based Limit -** The mass bases limits are based on the Phase I initial plant design flow rate of 2.0 mgd, and are calculated as follows: Flow(MDG) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. However, the design capacity will incrementally increase to 6.8 MGD, as the phased plant expansion approaches completion. The mass-based effluent limitation will accordingly be modified upon certification and approval of increased treatment plant capacity. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

x. Nitrite as Nitrogen

Chapter 3 of the Basin Plan (page 3-11) contains the following water quality objective, "Waters shall not exceed the 10 mg/L nitrogen as nitrate-nitrogen plus nitrite-nitrogen (NO_3-N + NO_2-N), 45 mg/L as nitrate (NO_3), 10 mg/L as nitrate-nitrogen (NO_3-N), or 1 mg/L as nitrite-nitrogen (NO_2-N) or as otherwise designated in Table 3-8."

However, the TMDL for Nitrogen Compounds in the Santa Clara River *(Nitrogen Compounds* TMDL), Resolution No. 2003-011, adopted by the Regional Water Board on August 7, 2003, contains a 0.9 mg/L concentration-based WLA for POTWs in the Santa Clara River Watershed. The 0.9 mg/L WLA is based upon the Basin Plan WQO, with a 10% margin of safety. The TMDL supercedes the generic Basin Plan WQO. Given the nature of the facility, the Discharger has reasonable potential to cause or contribute to an exceedance based on best professional judgment, and therefore needs a limit for Nitrite-N. The 0.9 mg/L limit will have to be met at the end-of-pipe, because dilution is not an option at the present time.

xi. Ammonia Nitrogen

Ammonia is a pollutant routinely found in the wastewater effluent of Publicly Owned Treatment Works (POTWs), in landfill-leachate, as well as in run-off from agricultural fields where commercial fertilizers and animal manure are applied. Ammonia exists in two forms – un-ionized ammonia (NH_3) and the ammonium ion (NH_4^+). They are both toxic, but the neutral, un-ionized ammonia species (NH_3) is much more toxic, because it is able to diffuse across the epithelial membranes of aquatic organisms much more readily than the charged ammonium ion. The form of ammonia is primarily a function of pH, but it is also affected by temperature and other factors. Additional impacts can also occur as the oxidation of ammonia lowers the dissolved oxygen content of the water, further stressing aquatic organisms. Oxidation of ammonia to nitrate may lead to groundwater impacts in areas of recharge. [There is groundwater recharge in these reaches]. Ammonia also combines

with chlorine (often both are present in POTW treated effluent discharges) to form chloramines – persistent toxic compounds that extend the effects of ammonia and chlorine downstream.

Ammonia was 303(d) listed in Reach 3 of the Santa Clara River, downstream of the discharge, in the 2002 303(d) list. Due to the nature of the facility, ammonia has reasonable potential to cause or contribute to an excursion of a water quality objective. Therefore, a water quality-based effluent limitation for total ammonia is required in order to be protective of the water quality objective.

The 1994 Basin Plan contained water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Water Board, with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) with Beneficial Use designations for protection of Aquatic Life*. This Resolution also modified the Basin Plan to include an implementation provision which specifies the procedure for translating the ammonia WQO into final effluent limitations. Resolution No. 2002-011 was approved by the State Water Board, the Office of Administrative Law, and USEPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively.

On August 7, 2003, the Regional Water Board adopted Resolution No. 2003-011, *Amendment to the Basin Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds in the Santa Clara River (Nitrogen Compounds* TMDL). The TMDL does not contain an ammonia nitrogen Waste Load Allocations (WLA) for the Newhall Ranch WRP. However, the TMDL staff report contains the following statement: "The numeric targets for POTWs with increasing capacity or new POTWs will be set on a concentration basis…". The final effluent limitations for ammonia prescribed in this Order are based on the Nitrogen Compounds TMDL numeric target for TMDL-Reach 7 at the County Line, and apply at the end of pipe.

On December 1, 2005, the Regional Water Board adopted Resolution No. 2005-014, *Amendment to the Water Quality Control Plan for the Los Angeles Region Revise the Early Life Stage Implementation Provision of the Freshwater Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) for Protection of Aquatic Life.* Resolution No. 2005-014 was approved by the State Water Board, the Office of Administrative Law, and USEPA on July 19, 2006, August 31, 2006, and April 5, 2007, respectively. This amendment contains ammonia objectives to protect Early Life Stages (ELS) of fish in inland surface water supporting aquatic life. It revised the implementation provision included as part of the

freshwater ammonia objectives relative to the protection of ELS of fish in inland surface waters. ELS of fish has been determined to be present in the Santa Clara River, because the receiving water is not included in the list of waterbodies where ELS is absent.

The limitations for ammonia prescribed in this Order are based on the ammonia criteria as revised by Resolution 2002-011 and Resolution No. R4-2005-014. Consistent with methods used to develop ammonia waste load allocation for TMDLs in the Los Angeles region (such as the Los Angeles River Nutrient TMDL and the Malibu Creek Nutrient TMDL), the 50th percentile of receiving water pH and temperature data (7.8 pH units and 15.6^{o}C, respectively), as measured at what would be the immediate downstream receiving water location, were used to calculate the monthly average ammonia limitation that resulted to 1.93 mg-N/L. The 90th percentile of pH data (8.4 pH units), as measured at what would be the immediate downstream receiving water location, was used to calculate the daily maximum ammonia effluent limitation that resulted to 3.87 mg-N/L.

Use of 50th percentile receiving water data to set monthly average limitations and 90th percentile data to set daily maximum limitations is protective of downstream receiving water bodies. Although there are no available ammonia effluent data points with which to determine seasonal or other long-term trends, for this newly proposed POTW,bsed on other POTWs with NDN systems ammonia concentrations are expected to fluctuate around the 50th percentile value over the course of a month. Use of a 50th percentile value is more representative of average conditions in the receiving water body that one or only a few grab samples taken over the course of a month. Note that half the time the limit would be expected to be overly protective. Use of a 90th percentile value to set a daily maximum limit is also protective. Ninety percent of the time the limit will be overly protective, and the limit will only be under protective ten percent of the time.

Table 3, Basin Plan Beneficial Uses of this Fact Sheet summarizes the applicable beneficial uses for the receiving water body. This Table indicates that Santa Clara River does not have a “COLD” or “MIGR” beneficial use designation.

a. One-Hour Average Objective (Maximum Daily Effluent Limit, MDEL)

The Facility discharges into a receiving waterbody that does not have a “COLD” or “MIGR” beneficial use designation. It is assumed that salmonids may be absent. The one-hour average objective is dependent upon pH and the presence of coldwater fish species, such as salmonids, but it is independent of temperature.

For freshwater, the one-hour average concentration of total ammonia as nitrogen (in mg N/L) shall not exceed the values in Table 3-1 (amended on April 25, 2002) of the Basin Plan or as described in the equation below:

$$\text{One-hour Average Concentration} = \frac{0.275}{1+10^{7.204-pH}} + \frac{39.0}{1+10^{pH-7.204}}$$

The 90th percentile of pH is 8.4, measured at the immediate downstream receiving water (Station R-A). Using the pH value of 8.4 in the formula above, the resulting MDEL is equal to 3.87 mg/L.

b. 30-Day Average Objective (Average Monthly Effluent Limit, AMEL)

Early life stage of fish is presumptively present and must be protected at all times of the year unless the water body is listed in Table 3-X of the Basin Plan (in Resolution No. 2005-014) or unless a site-specific study is conducted, which justifies applying the ELS absent condition or a seasonal ELS present condition. The Santa Clara River is not included in Table 3-X. Therefore, the above-mentioned receiving waters are considered "ELS Present". For freshwaters subject to the "Early Life Stage Present" condition, the thirty-day average concentration of total ammonia as nitrogen (in mg N/L) shall not exceed the values in Table 3-2 of the Basin Plan or as described in the equation below:

$$\text{30-day Average Concentration} = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * \text{MIN}(2.85, 1.45 * 10^{0.028*(25-(T))})$$

Where T = temperature expressed in °C.

The 30-day average objective[1] is dependent on pH, temperature, and the presence or absence of early life stages of fish. The 50th percentile of pH and temperature at the immediate downstream receiving water is 7.8 pH and 15.6°C, respectively. Using the Discharger's monitoring data in the formula above, the resulting AMEL is equal to 1.93 mg/L.

[1] This is the current Basin Plan definition of the 30-day average objective, according to the Ammonia Basin Plan Amendment, Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (including enclosed bays, estuaries and wetlands) with Beneficial Use designations for protection of "Aquatic Life*," adopted by the Los Angeles Regional Water Quality Control Board on April 25, 2002. It was amended by Resolution No. 2005-014, adopted by the Regional Board on December 1, 2005 and was approved by the USEPA on April 5, 2007. This new Resolution implements ELS Provision as described under "implementation", subparagraph 3. In this Resolution, the Discharger's receiving waterbody is designated as ELS absent.

c. Site Specific Objective (SSO)

On June 7, 2007, the Regional Water Board adopted Amendments to the Water Quality Control Plan-Los Angeles Region-To Incorporate Site-Specific Objectives for Select Inland Surface Waters in the San Gabriel River, Los Angeles River, and Santa Clara River Watersheds. This amendment to the Basin Plan will incorporate site-specific 30-day average objectives for ammonia along with corresponding site-specific early life stage implementation provisions for select waterbody reaches and tributaries in Santa Clara, Los Angeles, and San Gabriel River watersheds. Once the amendment is approved by USEPA, this permit will be opened to incorporate the SSO-derived 30-day objective. The application of the SSO is not considered backsliding under Exemption (2) of Section 402(0)(2) of the Clean Water Actand 40 CFR 122.44. At this time any calculation of SSO derived effluent limitations will not be included in this permit. However, the ammonia chronic SSO will not impact the final effluent limits for ammonia, because it is the acute ammonia criteria that drives the more stringent ammonia final effluent limits. The dischargers may wish to embark on a SSO study that would lead to a Basin Plan amendment to modify the acute ammonia criteria. This permit contains a reopener which would allow the Regional Water Board to open up the permit and insert applicable new provisions resulting from future TMDLs or other Basin Plan Amendments, such as a new SSO.

This permit includes final effluent ammonia-nitrogen effluent limitations based on receiving water pH and temperature, because there is no effluent pH and temperature available at this time. Conditions in the effluent may be significantly different than the receiving water conditions. The Basin Plan's water quality objective for ammonia shall be met at the receiving water at all times. In this permit, the Discharger has to meet the ammonia water quality objective within the first 100 feet downstream of the discharge outfall. In order to determine the variability and changing conditions in the receiving water, additional receiving water monitoring and compliance determinations will be required in addition to the effluent limits, to ensure that ammonia water quality objectives are met in the receiving water at all times.

This permit requires the Discharger to submit an approvable workplan to determine the pH and temperature fluctuations in the first 100 feet downstream of the discharge outfall. This workplan shall be submitted to this Regional Water Board for approval by the Executive Officer within 60 days from the date of adoption of this permit.

xii. Coliform Bacteria

Total and fecal coliform bacteria are used to indicate the likelihood of pathogenic bacteria in surface waters. Given the nature of the facility, a

wastewater treatment plant, pathogens are likely to be present in the effluent in cases where the disinfection process is not operating adequately. As such, the permit contains the following:

i. Effluent Limitations:

- The 7 day median number of coliform organisms at some point in the treatment process must not exceed a Most Probable Number (MPN) or Colony Forming Unit (CFU) of 2.2 per 100 milliliters, and

- The number of coliform organisms must not exceed an MPN or CFU of 23 per 100 milliliters in more than one sample within any 30-day period.

These disinfection-based effluent limitations for coliform are for human health protection and are consistent with requirements established by the Department of Health Services. These limits for coliform must be met at the point of the treatment train immediately following disinfection, as a measure of the effectiveness of the disinfection process.

ii. Receiving Water Limitation

- Geometric Mean Limits
  - E.coli density shall not exceed 126/100 mL.
  - Fecal coliform density shall not exceed 200/100 mL.

- Single Sample Limits
  - E.coli density shall not exceed 235/100 mL.
  - Fecal coliform density shall not exceed 400/100 mL.

These receiving water limitations are based on Resolution No. 01-018, Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Water Bodies Designated for Water Contact Recreation, adopted by the Regional Water Board on October 25, 2001. The Resolution was approved by State Water Board, OAL, and USEPA, on July 18, 2002, September 19, 2002, and September 25, 2002, respectively.

xiii. <u>Temperature</u>

USEPA document, *Quality Criteria for Water 1986* [EPA 440/5-86-001, May 1, 1986], also referred to as the *Gold Book*, discusses temperature and its effects on beneficial uses, such as recreation and aquatic life.

- The Federal Water Pollution Control Administration in 1967 called temperature “a catalyst, a depressant, an activator, a restrictor, a

stimulator, a controller, a killer, and one of the most important water quality characteristics to life in water." The suitability of water for total body immersion is greatly affected by temperature. Depending on the amount of activity by the swimmer, comfortable temperatures range from 20°C to 30°C (68 °F to 86 °F).

- Temperature also affects the self-purification phenomenon in water bodies and therefore the aesthetic and sanitary qualities that exist. Increased temperatures accelerate the biodegradation of organic material both in the overlying water and in bottom deposits which makes increased demands on the dissolved oxygen resources of a given system. The typical situation is exacerbated by the fact that oxygen becomes less soluble as water temperature increases. Thus, greater demands are exerted on an increasingly scarce resource which may lead to total oxygen depletion and obnoxious septic conditions. Increased temperature may increase the odor of water because of the increased volatility of odor-causing compounds. Odor problems associated with plankton may also be aggravated.

- Temperature changes in water bodies can alter the existing aquatic community. Coutant (1972) has reviewed the effects of temperature on aquatic life reproduction and development. Reproductive elements are noted as perhaps the most thermally restricted of all life phases, assuming other factors are at or near optimum levels. Natural short-term temperature fluctuations appear to cause reduced reproduction of fish and invertebrates.

The Basin Plan lists temperature requirements for the receiving waters. Based on the requirements of the Basin Plan and a white paper developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region*, a maximum effluent temperature limitation of 86 °F is included in the Order. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. The new temperature effluent limitation is reflective of new information available that indicates that the 100°F temperature which was formerly used in permits was not protective of aquatic organisms. A survey was completed for several kinds of fish and the 86°F temperature was found to be protective. It is impracticable to use a 7-day average or a 30-day average limitation for temperature, because it is not as protective as of beneficial uses as a daily maximum limitation is. A daily maximum limit is necessary to protect aquatic life and is consistent with the fishable/swimmable goals of the CWA.

xiv. <u>Turbidity</u>

Turbidity is an expression of the optical property that causes light to be scattered in water due to particulate matter such as clay, silt, organic matter, and microscopic organisms. Turbidity can result in a variety of water quality impairments. The effluent limitation for turbidity which reads, "For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the wastewater does not exceed: (a) a daily average of 0.2 Nephelometric turbidity units (NTUs) more than 5 percent of the time (72 minutes) during any 24 hour period; and (b) 0.5 NTUs at any time," is based on the Basin Plan's incorporation by reference of Title 22 and the definition of filtered wastewater. In comparison to other POTWs in this region, the turbidity limit for the Newhall Ranch WRP is more stringent than the typical turbidity requirement for other POTWs because the Newhall POTW proposes, according to their ROWD, to have microfiltration, rather than the conventional soils or bed of media filter which is typical in most other tertiary-level POTWs. The limitation, therefore reflects what the technology of choice by the Discharger is designed to achieve.

xv. Radioactivity

Radioactive substances are generally present in natural waters in extremely low concentrations. Mining or industrial activities increase the amount of radioactive substances in waters to levels that are harmful to aquatic life, wildlife, or humans. Section 301 (f) of the CWA contains the following statement with respect to effluent limitations for radioactive substances: "Notwithstanding any other provisions of this Act it shall be unlawful to discharge any radiological, chemical, or biological warfare agent, any high-level radioactive waste, or any medical waste, into the navigable waters." Chapter 5.5 of the Water Code contains a similar prohibition under Section 13375, which reads as follows: "The discharge of any radiological, chemical, or biological warfare agent into the waters of the state is hereby prohibited." However, rather than give a hard and fast absolute prohibition on radioactive substances, Regional Water Board staff have set the following effluent limit for radioactivity: "Radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Section 64443, of the California Code of Regulations, or subsequent revisions." The limit is based on the Basin Plan incorporation of Title 22, *Drinking Water Standards,* by reference, to protect beneficial uses. Therefore, the accompanying Order will retain the limit for radioactivity.

xvi. Iron

The effluent limitation of 300 mg/l for iron was developed based on the USEPA document, *Quality Criteria for Water 1986* [EPA 440/5-86-001, May 1, 1986], also referred to as the *Gold Book*, for the protection of GWR beneficial use.

300 µg/L is the secondary MCL for iron, however iron is not a priority pollutant. Some POTWs have a final effluent limitation for iron. Using the receiving water sample resultsand the TSD methodology, the discharge currently has reasonable potential to contribute to an exceedance of the Gold Book criteria; the secondary Federal MCL; and, the secondary California MCL for iron. The limit was expressed as a monthly average rather than a daily maximum, because it was assumed that the groundwater basins have assimilative capacity for iron. A WQBEL is now proposed which has to be met at the end of pipe, for protection of the GWR beneficial use in the surface water, since the discharge has reasonable potential to cause or contribute to an exceedance.

The California Toxic Rule (CTR) and State Implementation Policy (SIP) specify numeric objectives for toxic substances and the procedures whereby these objectives are to be implemented. The procedures include those used to conduct reasonable potential analysis to determine the need for effluent limitations for priority and non-priority pollutants.

3. Determining the Need for WQBELs

The Regional Water Board developed WQBELs for ammonia-nitrogen, nitrite-nitrogen, nitrite plus nitrite as nitrogen, and chloride based upon Total Maximum Daily Loads (TMDLs). The effluent limitations for these pollutants were established regardless of whether or not there is reasonable potential for the pollutants to be present in the discharge at levels that would cause or contribute to a violation of water quality standards. The Regional Water Board developed water quality-based effluent limitations for these pollutants pursuant to section 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis. The Regional Water Board has determined that the WQBEL is consistent with the assumptions of the TMDL. Similarly, compliance with the effluent limitation will satisfy the requirements of the TMDL. Similarly, the SIP at Section 1.3 recognizes that reasonable potential analysis is not appropriate if a TMDL has been developed.

In accordance with Section 1.3 of the SIP, the Regional Water Board conducted a reasonable potential analysis for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Water Board analyzed effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that demonstrate reasonable potential, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives specified in the Basin Plan. To conduct the RPA, the Regional Water Board staff would normally identified the maximum effluent concentration (MEC) and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limitation is needed.

Trigger 2 – If background water quality (B) > C and the pollutant is detected in the effluent, a limitation is needed.

Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, then best professional judgment is used to determine that a limit is needed.

Sufficient effluent and ambient data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

However, since the Newhall Ranch WRP has yet to be constructed, there is no effluent data available from which to select the MEC. Although, there is ample receiving water data available. This receiving water data provides information to be able to determine that the discharge could contribute to an exceedance. In the absence of final effluent data, Reasonable potential analysis was also conducted using the procedure in section 3.2 of the Technical Support Document, where other information and best professional judgement was used to prescribe effluent limits based on similar facilities with similar processes.

The RPA was performed for the priority pollutants regulated in the CTR for which data are available. Based on the RPA, there was reasonable potential for the Discharge to contribute to an exceedance of the following pollutants: antimony, arsenic, copper, lead, mercury, nickel, selenium, zinc, cyanide, acrylonitrile, iron, tetrachloroethylene, bis(2-ethylhexyl)phthalate, 1,4-dichlorobenzene, lindane, and 4,4-DDE.

4. WQBEL Calculations

a. **Calculation Options**. Once RPA has been conducted using either the TSD or the SIP methodologies, WQBELs are calculated. Alternative procedures for calculating WQBELs include:

1. Use WLA from applicable TMDL
2. Use a steady-state model to derive Maximum Daily Effluent Limits and Average Monthly Effluent Limits.
3. Where sufficient data exist, use a dynamic model which has been approved by the State Water Board.

b. **SIP Calculation Procedure**. Section 1.4 of the SIP requires the step-by-step procedure to "adjust" or convert CTR numeric criteria into Average Monthly Effluent Limitations (AMELs) and Maximum Daily Effluent Limitations (MDELs), for toxics.

Step 3 of Section 1.4 of the SIP (page 8) lists the statistical equations that adjust CTR criteria for effluent variability.

Step 5 of Section 1.4 of the SIP (page 10) lists the statistical equations that adjust CTR criteria for averaging periods and exceedance frequencies of the criteria/objectives. This section also reads, "For this method only, maximum daily effluent limitations shall be used for publicly-owned treatment works (POTWs) in place of average weekly limitations.

Sample calculation for 4,4'-DDE:

Step 1: Identify applicable water quality criteria.

From California Toxics Rule (CTR), we can obtain the Criterion Maximum Concentration (CMC) and the Criterion Continuous Concentration (CCC).

Freshwater Aquatic Life Criteria:
CMC = NA µg/L (CTR page 31715, column B1) and
CCC = NA µg/L (CTR page 31715, column B2); and
Human Health Criteria for Organisms only = 0.00059 µg/L (CTR page 31715, column D2).

Step 2: Calculate effluent concentration allowance (ECA)

ECA = Criteria in CTR, since no dilution is allowed.

Step 3: Determine long-term average (LTA) discharge condition

i. Calculate CV:

CV = Standard Deviation/Mean
= 0.6 (By default because data was > 80% nondetect, SIP page 6)

ii. Find the ECA Multipliers from SIP Table 1 (page 7), or by calculating them using equations on SIP page 6. When CV = 0.6, then:

ECA Multiplier acute = 0.321 and
ECA Multiplier chronic = 0.527

iii. LTA acute = ECA acute x ECA Multiplier acute
= NA µg/L x 0.321 = NA µg/L

iv. LTA chronic = ECA chronic x ECA Multiplier chronic
= NA µg/L x 0.527 = NA µg/L

Step 4: Select the lowest LTA

In this case, the lowest LTA is not applicable.

Step 5: Calculate the Average Monthly Effluent Limitation (AMEL) & Maximum Daily Effluent Limitation (MDEL) for AQUATIC LIFE

i. Find the multipliers. You need to know CV and n (frequency of sample collection per month). If effluent samples are collected 4 times a month or less, then n = 4. CV was determined to be 0.6 in a previous step.

AMEL Multiplier = 1.552
MDEL Multiplier = 3.114

ii. AMEL aquatic life = lowest LTA (from Step4) x AMEL Multiplier
= NA µg/L x 1.552 = NA µg/L

iii. MDEL aquatic life = lowest LTA (from Step4) x AMEL Multiplier
= NA µg/L x 3.114 = NA µg/L

Step 6: Find the Average Monthly Effluent Limitation (AMEL) & Maximum Daily Effluent Limitation (MDEL) for HUMAN HEALTH

i. Find factors. Given CV = 0.6 and n = 4.

For AMEL human health limit, there is no factor.
The MDEL/AMEL human health factor = 2.006

ii. AMEL human health = ECA = 0.00059 µg/L

iii. MDEL human health = ECA x MDEL/AMEL factor
= 0.00059 µg/L x 2.006 = 0.001184 µg/L

Step 7: Compare the AMELs for Aquatic life and Human health and select the lowest. Compare the MDELs for Aquatic life and Human health and select the lowest

i. Lowest AMEL = 0.00059 µg/L (Based on Human Health protection)

ii. Lowest MDEL = 0.001184 µg/L (Based on Human Health protection)

c. **Mass based limits**. 40 CFR section 122.45(f)(1) requires that except under certain conditions, all permit limits, standards, or prohibitions be expressed in terms of mass units. 40 CFR section 122.45(f)(2) allows the permit writer, at its discretion, to express limits in additional units (e.g., concentration units). The regulations mandate that, where limits are expressed in more than one unit, the permittee must comply with both.

Generally, mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limits. Concentration-based effluent limits, on the other hand, discourage the reduction in treatment efficiency during low-flow periods and require proper operation of the treatment units at all times. In the absence of concentration-based effluent limits, a permittee would be able to increase its effluent concentration (i.e., reduce its level of treatment) during low-flow periods and still meet its mass-based limits. To account for this, this permit includes mass and concentration limits for some constituents

d. Mixing Zones and Dilution Credits - Mixing zones, dilution credits, and attenuation factors are not allowed in the accompanying Order. Allowance of a mixing zone is in the Regional Water Board's discretion under Section 1.4.2 of the SIP and under the Basin Plan (Basin Plan Chapter 4, page 30). If the Discharger subsequently conducts appropriate mixing zone and dilution credit studies, the Regional Water Board can evaluate the propriety of granting a mixing zone or establishing dilution credits. The Regional Water Board has concluded mixing zones and dilution credits would be inappropriate to grant, at this time, in light of the following factors:

1. Several reaches of the Santa Clara River [including those subject to this Order] are 303(d) listed (i.e., impaired) for certain constituents;

2. Impaired waters do not have the capacity to assimilate pollutants of concern at concentrations greater than the applicable objective;

3. For the protection of the beneficial uses is listed in the Order;

4. Consistent with Antidegradation Policies;

5. Because a mixing zone study has not been conducted; and,

6. Because hydrologic models of the discharge and the receiving waters have not been conducted.

On July 16, 2003, the State Water Board adopted Order No. WQO 2003-0009, directing Regional Water Board staff to work with CSDLAC, once data was provided, to determine whether dilution and attenuation are appropriate factors to consider in developing effluent limits to protect the GWR beneficial use, in the Whittier Narrows WRP NPDES permit. However, this does not apply to the Newhall Ranch WRP because Newhall has not provided the necessary site-specific data or studies regarding the ground water basins in the Newhall area.

e. Interim Monitoring Requirements - In accordance with the SIP, the Regional Water Board may impose interim monitoring requirements upon the Discharger, so that the Discharger obtains adequate ambient, background water data for priority pollutants upstream of the discharge point as well as suitable effluent data. The Executive Officer directed major Dischargers to begin an interim monitoring program for the duration of 18 months, beginning July 2001. The monitoring results that will be obtained when Newhall Ranch WRP implements the monitoring requirements contained in Attachment E will be used by Regional Water Board staff to conduct RPA once again, to determine if additional numeric limitations are necessary. Section 1.3, Step 8, of the SIP authorizes the Regional Water Board to use the gathered data to conduct RPA, as outlined in Steps 1 through 7, and determine if a water quality-based effluent limitation is required.

A reopener provision is included in this Order that allows the permit to be reopened to allow the inclusion of new numeric limitations for any constituent that exhibits reasonable potential to cause or contribute to exceedance of applicable water quality objectives.

Summary of Water Quality-based Effluent Limitations
Discharge Point 001

Table 5. Summary of Water Quality-based Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total ammonia (NH_3 as N)	mg/L	1.93[2]	--	3.87[3]	--	--
	lbs/day[1]	25	--	65	**--**	**--**
Nitrate-N + Nitrite-N	mg/L	5	--	--	--	--
	lbs/day[1]	80	**--**	**--**	**--**	**--**
Nitrite-N	mg/L	0.9	--	--	--	--
	lbs/day[1]	15	--	--	--	--
Detergents (as MBAS)	mg/L	0.5	--	--	--	--
	lbs/day[1]	8	--	--	--	--
Total residual chlorine	mg/L	--	--	0.1	--	--
Antimony	µg/L	6	--	--	--	--
	lbs/day[1]	0.1	--	--	--	--
Arsenic	µg/L	10	--	--	--	--
	lbs/day[1]	0.2	--	--	--	--
Copper	µg/L	22	--	44	--	--
	lbs/day[1]	0.37	--	0.73	--	--
Lead	µg/L	13	--	26	--	--
	lbs/day[1]	0.22	--	0.43	--	--
Mercury	µg/L	0.051	--	0.10	--	--
	lbs/day[1]	0.00085	--	0.0017	--	--
Nickel	µg/L	100	--	--	--	--
	lbs/day[1]	1.7	--	--	--	--
Selenium	µg/L	4.1	--	8.2	--	--

[1] The mass emission rates are based on the plant design flow rate of 2.0 mgd, and are calculated as follows: Flow(MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. However, the design capacity will incrementally increase to 6.8 MGD, as the phased plant upgrades approach completion. The mass-based effluent limitation will accordingly be modified following an Anti-degradation analysis demonstration conducted by the Discharger, and upon certification and approval of increased treatment plant capacity. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

[2] This is the monthly average effluent limit calculated according to the Implementation Plan for ammonia in the Basin Plan, which specifies how to translate the Ammonia WQO into a final effluent limit, consistent with the assumptions of the Santa Clara River Nitrogen Compounds TMDL, Resolution No. 03-011.

[3] This is the daily maximum effluent limit calculated according to the Implementation Plan for ammonia in the Basin Plan, which specifies how to translate the Ammonia WQO into a final effluent limit, consistent with the assumptions of the Santa Clara River Nitrogen Compounds TMDL, Resolution No. 03-011.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
	lbs/day	0.068	--	0.14	--	--
Zinc	µg/L	5000	--	--	--	--
	lbs/day[1]	83	--	--	--	--
Cyanide	µg/L	4.2	--	8.5	--	--
	lbs/day[1]	0.07	--	0.14	--	--
Acrylonitrile	µg/L	0.66	--	1.3	--	--
	lbs/day[1]	0.011	--	0.022	--	--
Tetrachloroethylene	µg/L	5	--	--	--	--
	lbs/day[1]	0.08	--	--	--	--
Bis(2-ethylhexyl)phthalate	µg/L	4	--	--	--	--
	lbs/day[1]	0.07	--	--	--	--
p-Dischlorobenzene (1,4-Dichlorobenzene)	µg/L	5	--	--	--	--
	lbs/day[1]	0.08	--	--	--	--
Lindane	µg/L	0.2	--	--	--	--
	lbs/day	0.003	--	--	--	--
4,4-DDE	µg/L	0.00059	--	0.0012	--	--
	lbs/day	0.0000098	--	0.00002	--	--
Iron	µg/L	300	--	--	--	--
	lbs/day	5	--	--	--	--

5. Whole Effluent Toxicity (WET)

Ambient monitoring data indicates that the background concentration in the lower Santa Clara is toxic to aquatic organisms, and therefore exceeds water quality standards. Final effluent water quality data for the Newhall WRP is not available. However, effluent data contained in monitoring reports for other POTWs in the watershed, shows that chronic toxicity in the effluent has sometimes exceeded 1TUc (monthly median). Therefore, pursuant to the TSD, reasonable potential exists for toxicity. As such, the permit should contain a numeric effluent limitation for toxicity.

The toxicity numeric effluent limitations are based on:

a. CFR 122.44(d)(v) – limits on whole effluent toxicity are necessary when chemical-specific limits are not sufficient to attain and maintain applicable numeric or narrative water quality standards;

b. 40 CFR 122.44(d)(vi)(A) – where a State has not developed a water quality criterion for a specific pollutant that is present in the effluent and has reasonable potential, the permitting authority can establish effluent limits using numeric water quality criterion;

c. Basin Plan objectives and implementation provisions for toxicity;

d. Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Programs Final May 31, 1996;

e. Whole Effluent Toxicity (WET) Control Policy July 1994; and,

f. Technical Support Document (several chapters and Appendix B).

However, the circumstances warranting a numeric chronic toxicity effluent limitation when there is reasonable potential were under review by the State Water Resources Control Board (State Water Board) in SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, at a public hearing, the State Water Board adopted Order No. 2003-0012 deferring the issue of numeric chronic toxicity effluent limitations until Phase II of the SIP is adopted. In the mean time, the State Water Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. This permit contains a similar narrative chronic toxicity effluent limitation, with a numeric trigger for accelerated monitoring.

Phase II of the SIP has been adopted, however, the toxicity control provisions were not revised.

On January 17, 2006, the State Water Board Division of Water Quality held a California Environmental Quality Act (CEQA) scoping meeting to seek input on the scope and content of the environmental information that should be considered in the planned revisions of the Toxicity Control Provisions of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP). However, the Toxicity Control Provisions of the SIP continue unchanged.

This Order contains a reopener to allow the Regional Water Board to modify the permit, if necessary, consistent with any new policy, law, or regulation. Until such time, this Order will have toxicity limitations that are consistent with the State Water Board's precedential decision.

Acute Toxicity Limitation:

The Dischargers may test for Acute toxicity by using USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, October 2002 (EPA-821-R-02-012). Acute toxicity provisions in the accompanying Order are derived from the Basin Plan's toxicity standards (Basin Plan 3-16 and 3-17). The provisions require the Discharger to accelerate acute toxicity monitoring and take further actions to identify the source of toxicity and to reduce acute toxicity.

Chronic Toxicity Limitation and Requirements:

Chronic toxicity provisions in the accompanying Order are derived from the Basin Plan's toxicity standards (Basin Plan 3-16 and 3-17). The provisions require the Discharger to accelerate chronic toxicity monitoring and take further actions to identify the source of toxicity and to reduce chronic toxicity. The monthly median trigger of 1.0 TU_c for chronic toxicity is based on *USEPA Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity (WET) Programs* Final May 31, 1996 (Chapter 2 – Developing WET Permitting Conditions, page 2-8). In cases where effluent receives no dilution or where mixing zones are not allowed, the 1.0 TU_c chronic criterion should be expressed as a monthly median. The "median" is defined as the middle value in a distribution, above which and below which lie an equal number of values. For example, if the results of the WET testing for a month were 1.5, 1.0, and 1.0 TU_c, the median would be 1.0 TU_c.

The *USEPA Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity (WET) Programs* Final May 31, 1996 (Chapter 2 – Developing WET Permitting Conditions, page 2-8) recommends two alternatives: using 2.0 TUc as the maximum daily limit; or using a statistical approach to develop a maximum daily effluent limitation.

D. Final Effluent Limitations

Section 402(o) of the CWA and 40 CFR 122.44 require that effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Orders based on the submitted sampling data. However, since this is a new discharge, there is no existing Order. The final effluent limitations established in this Order, for the discharge of tertiary-treated effluent through Discharge Serial No.EFF-001, as proposed in the ROWD, are listed below in Table 7:

1. Satisfaction of Anti-Backsliding Requirements

Since this is a new discharge, all proposed effluent limitations and requirements contained in the accompanying Order are new. Therefore, there is no relaxation of effluent limitations. Furthermore, the proposed effluent limitations are at least as stringent as the effluent limitations contained in a similar Order for a nearby facility, the Valencia Water Reclamation Plant. The proposed Order is consistent with the anti-backsliding requirements of the CWA and federal regulations.

2. Satisfaction of Antidegradation Policy

The Discharger proposes to use microfiltration and reverse osmosis in their treatment process. These are state-of-the art treatment facilities which are expected to produce high quality tertiary-treated effluent. Because modeling for chloride indicates no adverse impact or degradation of existing water quality, there should be no impact from other less conservative pollutants. In addition, groundwater monitoring will ensure that no degradation to groundwater resources occurs. The proposed discharge is consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution No. 68-16.

3. Stringency of Requirements for Individual Pollutants

This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on biochemical oxygen demand (BOD), total suspended solids (TSS), and hydrogen ion concentration (pH). Restrictions on BOD, TSS, and pH are specified in federal regulations as discussed in Finding F, and the permit's technology-based pollutant restrictions are no more stringent than required by the CWA. Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on

May 18, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR 131.21(c)(1). For the most part, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

This Order contains pollutant restrictions that are more stringent than applicable federal requirements and standards. Specifically, this Order includes effluent limitations for bis(2-ethylhexyl)phthalate that are more stringent than applicable federal standards, but that are nonetheless necessary to meet numeric objectives or protect beneficial uses. The rationale for including these limitations is explained in this Fact Sheet. In addition, the Regional Water Board has considered the factors in Water Code section 13241.

The California MCLs are the same as the USEPA MCL for iron and tetrachloroethylene, therefore the limits for iron and tetrachloroethylene, based on the MCLs, are not more stringent than federal requirements. The California MCL for Arsenic is less stringent than the USEPA MCL, therefore the limit for Arsenic is not more stringent than the federal requirement. The California MCL for Bis(2-ethylhexyl)phthalate is more stringent than the USEPA MCL and more stringent than the CTR criteria, therefore the monthly average effluent limitation for Bis(2-ethylhexyl)phthalate is the only limit more stringent than the federal requirements. Therefore, an economic analysis should be done for Bis(2-ethylhexyl)phthalate.

According to Section 13241 of the CWC, the factors to be considered by a regional board in establishing water quality objectives include, but are not necessarily be limited to, all of the following:

(a) Past, present, and probable future beneficial uses of water.
(b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
(c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.
(d) Economic considerations.
(e) The need for developing housing within the region.
(f) The need to develop and use recycled water.

Regional Board staff have considered all of the above factors.

The proposed Order is protective of all beneficial uses of surface waters (using CWA) and ground water (using CWC);

The environmental characteristics of the discharge and of the watershed in which the facility is located have been taken into consideration and provisions of the applicable TMDLs have been incorporated into the Order, in an attempt to restore waters under section 303(d) of the CWA;

Limitations which could reasonably be achieved have been placed in the Order to protect the water quality of the immediate receiving waters and those located downstream of the discharge point;

Economic considerations have also been considered

1. **DHS' Economic Analysis**. The technical and economic feasibility of regulating MCLs is evaluated as part of the MCL development and adoption process by the California Department of Health Services, a sister agency. The technical feasibility includes an evaluation of commercial laboratories' ability to analyze for and detect the chemical in drinking water, the costs of monitoring, and the costs of treatment required to remove it.

2. **Requirements under future WDR,WRR Order for Recycling** Newhall Ranch Sanitation District will apply for water recycling requirements. They will be required to comply with the Maximum Contaminant Levels of the current California Drinking Water Standards for inorganic and organic chemicals, under a separate order ahich serves as waste discharge requirements for water recycling. Since the Newhall Ranch WRP will have advanced treatment technology, the discharge is expected to meet the MCLs, and no additional treatment units are believed to be necessary in order to meet the limitations in the accompanying NPDES permit.

3. **Similar Facilities**. Other POTWs in Region 4 have similar NPDES permit requirements. When Regional Board staff was preparing the first set of permits that would implement the SIP and the CTR, they asked the State Board, Division of Water Quality's Standard Development Section to prepare an economic analysis of the cost of complying with the California Toxics Rule for the five Los Angeles County Sanitation District (LACSD) inland POTWs in the San Gabriel River Watershed. The State Board contracted Sciences Applications International Corporation (SAIC) to prepare the economic analysis. Their report titled, *Potential Costs of Complying with the California Toxics Rule for Five Los Angeles County Sanitation District Facilities* (March 21, 2001), presented a worst case scenario and a most likely control scenario for all five facilities. Of the five LACSD POTWs, the smallest is the Pomona WRP, with a 15 MGD capacity. For the Pomona WRP, the worst case control scenario would require the use of Granular Activated Carbon (GAC), with a construction cost of about

$12 Million, and an operation costs of $387,000 per year. The most likely control scenario required implementation of a source control or pollutant minimization program, a plant study for process optimization, and an improved coagulant chemical addition process, at a cost of $141,000 per year. Although the focus of the study was to consider CTR-based limits, the study did include consideration of the 4 µg/L MCL-based limit for Bis(2-ethylhexyl)phthalate. The LACSD plants have focused on source control and pollution prevention, process optimization, and cleaner laboratory analytical techniques to achieve compliance with their permit limitations. In the case of Bis(2-ethylhexyl)phthalate, using cleaner sampling techniques has made a big difference in eliminating the amounts of detects (or false positives) obtained. The clean hands technique involved using gloves and bottles that were free of phthalates, for example using teflon and glassware. In no case did any of the LACSD POTWs have to install costly treatment systems for the removal of CTR-based or MCL-based pollutants.

Regional Board staff conclude that additional treatment units would not be required to meet the new limitations contained in the accompanying Order. Newhall Ranch Sanitation District may conduct an economic analysis and submit it to the Regional Board for consideration, during the public comment period, if so desired.

We are aware that Newhall Land anticipates building additional housing projects, aside from the Landmark Village project. The Newhall Ranch WRP is designed in such a way that it will be able to expand its treatment capacity in phases, to accommodate the additional sewage generated by the new housing developments.

The Discharger has not submitted any economic information to indicate what the cost of complying with this Order would be. As discussed in other sections of the Fact Sheet, the individual pollutant restrictions are reasonably necessary to protect beneficial uses identified in the Basin Plan, and the economic information related to costs of compliance are not sufficient, in the Regional Water Board's determination, to justify failing to protect beneficial uses. Since this is a new discharge, it is not appropriate to issue a Time Schedule Order.

Summary of Final Effluent Limitations
Discharge Point 001

Table 6. Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Minimum	Instant-aneous Maximum	
$BOD_5$20°C	mg/L	20	30	45	--	--	Technology
	lbs/day	330	500	750	--	--	Calculated
Total Suspended solids (TSS)	mg/L	15	40	45	--	--	Technology
	lbs/day	250	670	750	--	--	Calculated
pH	standard units	--	--	--	6.5	8.5	Basin Plan
Total ammonia (NH_3 as N)	mg/L	1.93[4]	--	3.87[5]	--	--	TMDL/Basin Plan WQO
	lbs/day[1]	25	--	65	--	--	Calculated
Nitrate-N + Nitrite-N	mg/L	5	--	--	--	--	TMDL/Basin Plan WQO
	lbs/day[1]	80	--	--	--	--	Calculated
Nitrite-N	mg/L	0.9	--	--	--	--	Basin Plan WQO
	lbs/day[1]	15	--	--	--	--	Calculated
Detergents (as MBAS)	mg/L	0.5	--	--	--	--	Basin Plan WQO
	lbs/day[1]	8	--	--	--	--	Calculated
Total residual chlorine	mg/L	--	--	0.1	--	--	Basin Plan WQO
Antimony	µg/L	6	--	--	--	--	TSD Chap.3.2
	lbs/day[1]	0.1	--	--	--	--	Calculated
Arsenic	µg/L	10	--	--	--	--	TSD Chap.3.2
	lbs/day[1]	0.2	--	--	--	--	Calculated
Copper	µg/L	22	--	44	--	--	CTR Aquatic Life
	lbs/day[1]	0.37	--	0.73	--	--	Calculated

[4] This is the thirty-day Ammonia-N (NH_3-N) numeric target for Reach 7 of the Santa Clara River at the County Line, according to the Santa Clara River Nitrogen Compounds TMDL, Resolution No. 03-011, applied as the average monthly effluent limitation.

[5] This is the one-hour Ammonia-N (NH_3-N) numeric target for Reach 7 of the Santa Clara River at the County Line, according to the Santa Clara River Nitrogen Compounds TMDL, Resolution No. 03-011, applied as the daily maximum effluent limitation.

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Minimum	Instantan-eous Maximum	
Lead	µg/L	13	--	26	--	--	CTR Aquatic Life
	lbs/day[1]	0.22	--	0.43	--	--	Calculated
Mercury	µg/L	0.051	--	0.10	--	--	CTR Human health
	lbs/day[1]	0.00085	--	0.0017	--	--	Calculated
Nickel	µg/L	100	--	--	--	--	TDS Chap.3.2
	lbs/day[1]	1.7	--	--	--	--	Calculated
Selenium	µg/L	4.1	--	8.2	--	--	CTR Aquatic Life
	lbs/day	0.068	--	0.14	--	--	Calculated
Zinc	µg/L	5000	--	--	--	--	TSD Chap.3.2
	lbs/day[1]	83	--	--	--	--	Calculated
Cyanide	µg/L	4.2	--	8.5	--	--	TSD Chap.3.2
	lbs/day[1]	0.07	--	0.14	--	--	Calculated
Acrylonitrile	µg/L	0.66	--	1.3	--	--	TSD Chap.3.2
	lbs/day[1]	0.011	--	0.022	--	--	Calculated
Tetrachloroethy-lene	µg/L	5	--	--	--	--	TSD Chap.3.2
	lbs/day[1]	0.08	--	--	--	--	Calculated
Bis(2-ethylhexyl) phthalate	µg/L	4	--	--	--	--	TSD Chap.3.2
	lbs/day[1]	0.07	--	--	--	--	Calculated
p-Dichlorobenzene (1,4-Dichlorobenzene)	µg/L	5	--	--			TSD Chap.3.2--
	lbs/day[1]	0.08	--	--			Calculated
Lindane	µg/L	0.2	--	--			TSD Chap.3.2
	lbs/day	0.003	--	--			Calculated
4,4-DDE	µg/L	0.00059	--	0.0012			CTR Human health
	lbs/day	0.0000098	--	0.00002			Calculated
Iron	µg/L	300	--	--			Basin Plan/ MCL
	lbs/day	5	--	--			Calculated

E. Interim Effluent Limitations

Not Applicable. This is a new discharge.

F. Land Discharge Specifications

Not Applicable. Holding ponds at the Newhall Ranch WRP will be concrete-lined and are not designed for purposeful groundwater recharge.

G. Reclamation Specifications

Not Applicable. Water recycling requirements will be regulated under a separate order. Newhall intends on recycling almost 100% of its treated effluent during dry weather.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (40 CFR § 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in the Order are included to ensure protection of beneficial uses of the receiving water and are based on the water quality objectives contained in the Basin Plan.

B. Groundwater

The Basin Plan contains numeric and narrative water quality objectives applicable to all groundwaters within the Los Angeles Region. Water quality objectives include incorporation by reference to Title 22 drinking water standards, bacteria objectives, and others. Limitations are included in this Order to ensure protection of beneficial uses of the groundwater receiving water.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

Influent monitoring is required:

- To determine compliance with the permit conditions for BOD_5 20°C and suspended solids removal rates;
- To assess treatment plant performance;
- To assess the effectiveness of the Pretreatment Program (once a pretreatment program is in place); and,
- As a requirement of the Pollution Minimization Program

B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the proposed Monitoring and Reporting Program (Attachment E). This provision requires compliance with the Monitoring and Reporting Program, and is based on 40 CFR 122.44(i), 122.62,122.63, and 124.5. The Monitoring and Reporting Program is a standard requirement in almost all NPDES permits (including the proposed Order) issued by the Regional Water Board. In addition to containing definition of terms, it specifies general sampling/analytical protocols and the requirements of reporting spills, violation, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and Regional Water Board policies. The Monitoring and Reporting Program also contains sampling program specific for the Discharger's wastewater treatment plant. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with Section 1.3 of the SIP, a periodic monitoring is required for all priority pollutants defined by the CTR, for which criteria apply and for which no effluent limitations have been established, to evaluate reasonable potential to cause or contribute to an excursion above a water quality standard.

Monitoring for those pollutants expected to be present in the discharge from the facility, will be required as shown on the proposed Monitoring and Reporting Program (Attachment E) and as required in the SIP. Monitoring requirements are similar to those found in the near-by Valencia WRP's Monitoring and Reporting Program. Annual monitoring for priority pollutants in the effluent is required in accordance with the SIP.

Since this is a new discharge, the effluent monitoring requirements are new.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

This requirement establishes conditions and protocol by which compliance with the Basin Plan narrative water quality objective for toxicity will be demonstrated and in accordance with Section 4.0 of the SIP. Conditions include required monitoring and evaluation of the effluent for acute and chronic toxicity and numerical values for chronic toxicity evaluation to be used as 'triggers' for initiating accelerated monitoring and toxicity reduction evaluation(s).

D. Receiving Water Monitoring

1. Surface Water

Receiving water monitoring is required to determine compliance with receiving water limitations and to characterize the water quality of the receiving water.

2. Groundwater

Groundwater monitoring is required to determine compliance with groundwater limitations and to track impacts to the groundwater basins.

E. Other Monitoring Requirements

1. Watershed Monitoring and Bioassessment Monitoring

The goals of the Watershed-wide Monitoring Program including the bioassessment monitoring for the San Gabriel River Watershed are to:

- Determine compliance with receiving water limits;
- Monitor trends in surface water quality;
- Ensure protection of beneficial uses;
- Provide data for modeling contaminants of concern;
- Characterize water quality including seasonal variation of surface waters within the watershed;
- Assess the health of the biological community; and
- Determine mixing dynamics of effluent and receiving waters in the estuary.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

This provision is based on 40 CFR Part 123. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan.

2. Special Studies and Additional Monitoring Requirements

a. **Antidegredation Analysis and Engineering Report for Proposed Plant Expansion.** This provision is based on the State Water Resources Control Board Resolution No. 68-16, which requires the Regional Water Board in regulation the discharge of waste to maintain high quality waters of the State, the Discharger must demonstrate that it has implemented adequate controls (e.g., adequate treatment capacity) to ensure that high quality waters will be maintained. This provision requires the Discharger to clarify it has increase plant capacity through the addition of new treatment system(s) to obtain alternative effluent limitations for the discharge from the treatment system(s). This provision requires the Discharger to report specific time schedules for the plants projects. This provision requires the Discharger to submit report to the Regional Water Board for approval.

b. **Operations Plan for Proposed Expansion.** This provision is based on Section 13385(j)(1)(D) of the CWC and allows a time period not to exceed 90 days in which the Discharger may adjust and test the treatment system(s). This provision requires the Discharger to submit an Operations Plan describing the actions the Discharger will take during the period of adjusting and testing to prevent violations.

c. Treatment Plant Capacity. The treatment plant capacity study required by this Order shall serve as an indicator for the Regional Water Board regarding Facility's increasing hydraulic capacity and growth in the service area.

3. Best Management Practices and Pollution Prevention

a. **Pollutant Minimization Program.** This provision is based on the requirements of Section 2.4.5 of the SIP.

4. Construction, Operation, and Maintenance Specifications

This provision is based on the requirements of 40 CFR 122.41(e) and similar requirements for similar facilities.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. **Biosolids Requirements.** To implement CWA Section 405(d), on February 19, 1993, USEPA promulgated 40 CFR 503 to regulate the use and disposal of municipal sewage sludge. This regulation was amended on September 3, 1999. The regulation requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. It is the responsibility of the Discharger to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program. The Discharger is also responsible for compliance with WDRs and NPDES permits for the generation, transport and application of biosolids issued by the State Water Board, other Regional Water Boards, Arizona Department of Environmental Quality or USEPA, to whose jurisdiction the Facility's biosolids will be transported and applied.

b. **Pretreatment Requirements.** This Order does not include any requirements for a Pretreatment Program because the discharge is less than 2.0 MGD and because the POTW does not have any significant industrial users (SIUs). In the future, once the design flow approaches 5.0 MGD, the Discharger will be required to develop a Pretreatment Program; and implement and enforce the pretreatment program in its entire service area. At that time, the permit will contain pretreatment requirements consistent with applicable effluent limitations, national standards of performance, and toxic and performance effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, 403,

404, 405, and 501 of the CWA, and amendments thereto. The permit would also contain requirements for the implementation of an effective pretreatment program pursuant to Section 307 of the CWA; 40 CFR 35 and 403; and/or Section 2233, Title 23, California Code of Regulations.

c. **Spill Reporting Requirements.** This Order established a reporting protocol for how different types of spills, overflow or bypasses of raw or partially treated sewage from its collection system or treatment plant covered by this Order shall be reported to regulatory agencies.

The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ (General Order) on May 2, 2006. The General Order requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General Order. The General Order requires agencies to develop sanitary sewer management plans (SSMPs) and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions.

Furthermore, the General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. The Discharger must comply with both the General Order and this Order.

6. Other Special Provisions

Not applicable.

7. Compliance Schedules

Not applicable because this is a new disharge.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the Newhall Ranch Sanitation District's Newhall Ranch Water Reclamation Plant. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and

has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the following: publication in local newspapers.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments must be received at the Regional Water Board offices by 5:00 p.m. on July 6, 2007. However, the comment period was extended by a few days. Comments were due by the close of business on July 18, 2007. Comments on the strikeout & underline sections of the Revised Tentative were due by close of business on August 20, 2007.

C. Public Hearing Date and Location

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: September 6, 2007
Time: 9:00 AM
Location: Metropolitan Water District of Southern California Board Room
700 North Alameda Street
Los Angeles, California

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is http://www.waterboards.ca.gov/losangeles/ where you can access the current agenda for changes in dates and locations.

D. Scope of Hearing

The validity of the TMDL for Chloride in the Upper Santa Clara River, the TMDL for Nitrogen Compounds in the Upper Santa Clara River, nor the EIR for the Newhall Land development are at issue before the Regional Water Board in this proceeding. Evidence or argument that challenges the validity of those TMDLs or the EIR, or any aspects of them will not be permitted. The only matter before the Board is the adoption of new Waste Discharge Requirements and permit under the National Pollutant

Discharge Elimination System (NPDES) to incorporate applicable water quality objectives associated with discharges to the waters of the United States.

E. Availability of Documents

The Report of Waste Discharge (ROWD), other documents relied upon, tentative effluent limitations and special provisions, comments received, and other information are on file are available for inspection and copying between the hours of 8:00 a.m. and 4:30 p.m. by appointment at the following address:

Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Arrangements for file review and/or obtaining copies of the documents may be made by calling the Los Angeles Regional Water Board at (213) 576-6600. Additionally, the agenda, the fact sheet, the draft order will be available online at:

http://www.waterboards.ca.gov/losangeles/

under the "Tentative Permits" heading in the left hand margin.

The entire file will become a part of the administrative record of this proceeding, irrespective of whether individual documents are specifically referenced during the hearing or contained in the agenda packet. The entire file will not be present in the hearing room. In addition to the materials generated for this proceeding, the file includes the administrative records for Resolution 2002-011 (relating to the Ammonia Criteria Implementation Plan) and other applicable Basin Plan amendments. Should any interested persons desire staff to bring to the hearing any particular documents that are not included in the agenda packet, they must submit a written or electronic request to staff during business hours, not later than five business days before the hearing. The request must identify the documents with enough specificity for staff to locate them.

F. Public Comments and Submittal of Evidence

Persons wishing to comment on, or object to, the tentative waste discharge requirements, or submit evidence for the Board to consider, are invited to submit them in writing to Veronica Cuevas at the above address, or send them electronically to vcuevas@waterboards.ca.gov. To be evaluated and responded to by Regional Water Board staff, included in the Board's agenda folder, and fully considered by the Board, written comments or testimony regarding the tentative must be received no later than close of business July 18, 2007. Failure to comply with these requirements is grounds for the Regional Water Board to refuse to admit the proposed written comment or exhibit into evidence pursuant to section 648.4, title 23 of the California Code of Regulations.

G. Nature of Hearing

This proceeding will be a formal adjudicatory proceeding. For such proceedings, the Regional Water Board follows procedures established by the State Water Resources Control Board. These procedures are set forth in regulations commencing with section 647 of title 23 of the California Code of Regulations, in particular, Article 2, commencing with section 648.

H. Parties to the Hearing

The following are the parties to this proceeding:

1. The applicant/permittee (Newhall Ranch Sanitation District)
2. Regional Water Board Staff

Any other persons requesting party status must submit a written or electronic request to staff not later than 20 business days before the hearing. All parties will be notified if other persons are so designated.

I. Hearing Procedure

The board meeting, of which this hearing is a part, will start at 9:00 a.m. Interested persons are invited to attend. When the agenda item is called, staff will present the matter under consideration, after which oral statements from parties or interested persons will be heard. For accuracy of the record, all important testimony should be in writing. The Board will include in the administrative record written transcriptions of oral testimony that is actually presented at the hearing. Oral testimony may be limited to five minutes or less for each interested person, depending on the number of interested persons wishing to be heard.

Parties or interested persons with similar concerns or opinions are encouraged to choose one representative to speak, and are encouraged to coordinate their presentations with each other. Parties will be advised after the receipt of public comments, but prior to the date of the hearing, of the amount of time each is allocated for presentations. That decision will be based upon the complexity and number of issues under consideration, the extent to which the parties have coordinated, the number of parties and interested persons anticipated, and the time available for the hearing. The parties are invited to contact staff not later than July 26, 2007 (two weeks prior to the hearing) to discuss how much time they believe is necessary for their presentations, and staff will endeavor to accommodate reasonable requests.
At the conclusion of testimony, the Board will deliberate in open or close session, and render a decision.

The Board does not generally require the prior identification of witnesses or the cross examination of witnesses, or other procedures not specified in this notice. Parties or persons with special procedural requests or requests for alternative hearing procedures should contact staff, who will endeavor to accommodate reasonable requests. Objections to any procedure to be used during this hearing must be submitted in writing no later than close of business 15 business days prior to the date of the hearing. (Any objections related to the amount of time allocated for parties' presentations much be submitted within two business days of notice thereof, if that date is less than 15 business before the hearing.) Absent such objections, any procedure not specified in this hearing notice will be waived pursuant to section 648(d) of title 23 of the California Code of Regulations. Procedural objections will not be entertained at the hearing.

If there should not be a quorum on the scheduled date of this meeting, all cases will be automatically continued to the next scheduled meeting on October 4, 2007. A continuance will not extend any time set forth herein.

J. Staff Contacts

If you have any question regarding this proposed action, please contact Veronica Cuevas at (213) 576-6662 or via email at vcuevas@waterboards.ca.gov or her supervisor, Blythe Ponek-Bacharowski at (213) 576-6720 or via email at bponek@waterboards.ca.gov .

K. Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

TABLE R1
Reasonable Potential Analysis and Limit Derivation

Newhall Ranch Sanitation District - Newhall Ranch WRP
(Receiving Water Data only, No POTW Data Avail.)
(CA0064556, CI#9322)

					CTR CRITERIA				Basin Plan	REASONABLE POTENTIAL ANALYSIS (RPA)								HUMAN HEALTH CALCULATIONS			
					Freshwater		Human Health											Organisns Only			
CTR#	DATE	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O	Title 22 GWR	Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B at NR1	B at NR3	Tier 2 - Need limit?	Tier 3 - other info. ?	Tier 3 - need limit?	AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)
1	Antimony	µg/L		Not available	NONE	NONE	14	4300	6	6	Not available	Go to Tier 2	1.4	1.3	Go to tier 3	YES	Similar facility		2.01		
2	Arsenic	µg/L		Not available	340	150	NONE	NONE	10 (Federal MCL)	10	Not available	Go to Tier 2	3.6	4.5	NO	YES	Similar Facility		2.01		0.321
3	Beryllium	µg/L		Not available	NONE	NONE	Narrative	Narrative	4	4	Not available	Go to Tier 2	0.4	0.5	Go to tier 3	NO	NO				
4	Cadmium*	µg/L		Not available	18.6	6.6	Narrative	Narrative	5	5	Not available	Go to Tier 2	0.69	1.73	Go to tier 3	NO	NO	NA		NA	
5a	Chromium III*	µg/L		Not available	4844	577	Narrative	Narrative		577	Not available	Go to Tier 2			Go to tier 3	NO	NO				
5b	**Chromium VI**	**µg/L**		Not available	**16.3**	**11.4**	**Narrative**	**Narrative**	**50**	**11**	Not available	Go to Tier 2	**7.6**	**9.6**	**NO**	**NO**	**NO**	**N/A**	**2.01**	**N/A**	
6	**Copper***	**µg/L**	**0.6**	Not available	**45**	**27**	**1300**	**NONE**		**27**	Not available	Go to Tier 2	**11**	**15**	**No**	**Yes, may contri-bute to exceeda nce**	**Yes**	**N/A**	**2.01**	**N/A**	**0.321**
7	**Lead***	**µg/L**	**0.6**	Not available	**402**	**16**	**Narrative**	**Narrative**		**16**	Not available	Go to Tier 2	**4.6**	**5.8**	**No**	**Yes, may contribu te to exceeda nce**	**YES**				**0.321**
8	**Mercury**	µg/L	**0.6**	Not available	Reserved	Reserved	**0.05**	**0.051**	**2**	**0.051**	Not available	Go to Tier 2	**0.31**	**<0.01**	**YES**			**0.051**	**2.01**	**0.10251**	**0.321**
9	**Nickel***	µg/L		Not available	1353	150	610	4600	100	100	Not available	Go to Tier 2	12	17	Go to tier 3	YES	Similar Facility				
10	**Selenium**	µg/L	0.6	Not available	Reserved	5	Narrative	Narrative	50	5	Not available	Go to Tier 2	4.4	6.2	YES			NA	2.01	NA	0.321
11	**Silver***	µg/L		Not available	35	none	NONE	NONE		35	Not available	Go to Tier 2	0.8	0.5	Go to tier 3	NO	NO				
12	Thallium	µg/L		Not available	NONE	NONE	1.7	6.3	2	2	Not available	Go to Tier 2	0.5	<0.2	Go to tier 3	NO	NO				
13	**Zinc***	µg/L	0.6	Not available	346	346	none	NONE		346	Not available	Go to Tier 2	30	51	NO	YES	Similar facility		2.01	NA	
14	**Cyanide**	µg/L	**0.6**	Not available	**22**	**5.2**	**700**	**220,000**	**200**	**5.2**	Not available	Go to Tier 2	**<5**	**<5**	NO	**YES**	**Similar facility**				0.321
18	Acrylonitrile	µg/L	0.6	Not available	NONE	NONE	0.059	0.66		0.66	Not available	Go to Tier 2	<10	<10	Go to tier 3	**YES**	**Similar facility**	**0.66**	**2.01**	**1.3266**	
38	Tetrachloroethylene	µg/L	0.6	Not available	NONE	NONE	0.8	8.85	5	5	Not available	Go to Tier 2	<0.5	<0.5	NO	**YES**	**Similar facility**				

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(CA0064556, CI#9322)

CTR#	DATE	Units	AQUATIC LIFE CALCULATIONS Freshwater LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AQUATIC LIFE CALCULATIONS Freshwater AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	PROPOSED LIMITS Lowest AMEL	Lowest MDEL	Recommendation
1	Antimony	µg/L									6	--	Need Limit Tier 3 - Similar facility
2	Arsenic	µg/L	**109.14**	0.527	**79.05**	**79.05**	1.55	**122.528**	3.11	**245.846**	10	--	Need Limit Tier 3 - Similar facility
3	Beryllium	µg/L									--	--	Interim Monitoring - No CTR-based Limit
4	Cadmium*	µg/L									--	--	Interim Monitoring - No CTR-based Limit
5a	Chromium III*	µg/L									--	--	Interim Monitoring - No CTR-based Limit
5b	**Chromium VI**	**µg/L**									--	--	Interim Monitoring - No CTR-based Limit
6	**Copper***	**µg/L**	**14.445**	**0.527**	**14.229**	**14.229**	**1.55**	**22.055**	**3.11**	**44.2522**	**22**	**44**	**Need Limit. RP to exceed the CTR Freshwater Aquatic life criteria.**
7	**Lead***	**µg/L**	**129.042**	**0.527**	**8.432**	**8.432**	**1.55**	**13.0696**	**3.11**	**26.2235**	**13**	**26**	**Need limit. RP to exceed the CTR Freshwater Aquatic life criteria.**
8	**Mercury**	µg/L	**NA**	**0.527**	**NA**	**NA**	**1.55**	**NA**	**3.11**	**NA**	**0.051**	**0.1**	**Need Limit. RP to exceed the CTR Human Health Organims only criteria.**
9	**Nickel***	µg/L									100	--	Need Limit Tier 3 - Similar facility
10	**Selenium**	µg/L	**#VALUE!**	0.527	**2.635**	2.635	1.55	**4.08425**	3.11	**8.19485**	**4.1**	**8.2**	**Need Limit. RP to exceed the CTR Freshwater Aquatic Life Criteria.**
11	**Silver***	µg/L									--	--	No new limit, because there was no RP to exceed the CTR criteria.
12	Thallium	µg/L									--	--	No new limit, because there was no RP to exceed the CTR criteria.
13	**Zinc***	µg/L									**5000.0**	--	Need Limit Tier 3 - Similar facility
14	**Cyanide**	µg/L	**7.062**	0.527	**2.7404**	**2.7404**	1.55	**4.24762**	3.11	**8.52264**	**4.2**	**8.5**	Need Limit Tier 3 - Similar facility
18	Acrylonitrile	µg/L									**0.66**	**1.3**	Need Limit Tier 3 - Similar facility
38	Tetrachloroethylene	µg/L									5.0	--	Need Limit Tier 3 - Similar facility

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					CTR CRITERIA				Basin Plan	REASONABLE POTENTIAL ANALYSIS (RPA)								HUMAN HEALTH CALCULATIONS			
					Freshwater		Human Health											Organisns Only			
CTR#	DATE	Units	CV	MEC	C acute = CMC tot	C chronic = CCC tot	Not applicable C hh W&O	C hh O	Title 22 GWR	Lowest C	MEC >= Lowest C	Tier 1 - Need limit?	B at NR1	B at NR3	Tier 2 - Need limit?	Tier 3 - other info. ?	Tier 3 - need limit?	AMELhh = ECA = C hh O	MDEL/ AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)
68	**Bis(2-Ethylhexyl) Phthalate**	**µg/L**	**0.6**	Not available	**NONE**	**NONE**	**1.8**	**5.9**	**4**	**4**	Not available	Go to Tier 2	**<2**	**<2**	**NO**	**YES**	**Similar facility**	**5.9**	**2.83**	**17**	
77	1,4-Dichlorobenzene	µg/L	0.6	Not available	NONE	NONE	400	2,600	5	5	Not available	Go to Tier 2	<2	<2	Go to tier 3	**YES**	**Similar facility**				
105	**gamma-BHC (aka Lindane)**	**µg/L**	**0.6**	Not available	**0.95**	**NONE**	**0.019**	**0.063**	**0.2**	**0.063**	Not available	Go to Tier 2	**<0.001**	**<0.001**	**NO**	**YES**	**Similar facility**				
109	4,4'-DDE	µg/L	0.6	Not available	NONE	NONE	0.00059	0.00059		0.00059	Not available	Go to Tier 2	<0.001	0.011	YES			0.00059	2.01	**0.0012**	
126	**Toxaphene**	µg/L	0.6	Not available	0.73	0.0002	0.0073	0.00075	3	0.00075	Not available	Go to Tier 2	<0.2		Go to tier 3	NO	NO				
	Iron	µg/L	0.6						300	300			10,000	13,800							
FOOTNOTE:																					
*	These metals are hardness dependent. CTR criteria was calculated using a minimum receiving water hardness of 350 mg/L at station NR1. Individual hardness values were capped at 400 mg/L, pursuant to CTR.																				

TABLE R1
Reasonable Potential Analysis and Limit Derivation

Newhall Ranch Sanitation District - Newhall Ranch WRP
(Receiving Water Data only, No POTW Data Avail.)
(CA0064556, CI#9322)

CTR#	DATE	Units	AQUATIC LIFE CALCULATIONS Freshwater LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AQUATIC LIFE CALCULATIONS Freshwater AMEL multiplier (n=4)	AMEL aq.life	MDEL multiplier (n=4)	MDEL aqlife	PROPOSED LIMITS Lowest AMEL	Lowest MDEL	Recommendation
68	**Bis(2-Ethylhexyl) Phthalate**	**µg/L**									**4.0**	--	Need Limit Tier 3 - Similar facility
77	1,4-Dichlorobenzene	µg/L									5	--	Need Limit Tier 3 - Similar facility
105	**gamma-BHC (aka Lindane)**	**µg/L**									**0.2**	**--**	Need Limit Tier 3 - Similar facility
109	4,4'-DDE	µg/L									**0.00059**	**0.0012**	Need Limit - RP to exceed CTR Human Health criteria
126	**Toxaphene**	µg/L									--	--	Interim Monitoring - No Limit
	Iron	µg/L									300	--	**Need Limit RP to exceed MCL Basin Plan WQO**
FOOTNOTE:													
*	These metals are hardness dependent. CTR criteria was calculated using a minimum receiving water hardness of 350 mg/L at station NR1. Individual hardness values were capped at 400 mg/L, pursuant to CTR.												