California Regional Water Quality Control Board

Colorado River Basin Region

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ORDER NO. R7-2006-0050
NPDES NO. CA0104361

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND WASTE DISCHARGE REQUIREMENTS FOR CITY OF HOLTVILLE, OWNER/OPERATOR MUNICIPAL WASTEWATER TREATMENT PLANT, AND WASTEWATER COLLECTION AND DISPOSAL SYSTEMS

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

Table 1 Discharger Information

Discharger	**City of Holtville**
Name of Facility	**Municipal Wastewater Treatment Plant, Holtville**
Facility Address	**1250 Kamm Road**
	Holtville, CA 92250
	Imperial County

The discharge by the Holtville Municipal Wastewater Treatment Plant from the discharge point 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	**Secondary Treated Wastewater**	**32 º, 49', 48" N**	**115 º, 25', 48" W**	**Pear Drain**

Table 3 Administrative Information

This Order was adopted by the Regional Water Board on:	**June 21, 2006**
This Order shall become effective on:	**June 21, 2006**
This Order shall expire on:	**June 21, 2011**
The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Water Board have classified this discharge as a **minor** discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the Order expiration date as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that Order No. 01-002 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) 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, Robert Perdue, 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, Colorado River Basin Region, on June 21, 2006.

Robert Perdue, 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	City of Holtville
Name of Facility	Municipal Wastewater Treatment Plant, Holtville
Facility Address	1250 Kamm Road
	Holtville, CA 92250
	Imperial
Facility Contact, Title, and Phone	Gerry Peacher, Public Works Manager, (760) 356-2632
Mailing Address	121 West Fifth Street, Holtville, CA 92250
Type of Facility	Publicly-owned treatment works
Facility Design Flow	0.85 Million Gallons per Day (MGD)

II. FINDINGS

The California Regional Water Quality Control Board, Colorado River Basin Region (hereinafter Regional Water Board), finds:

A. **Background.** The City of Holtville (hereinafter Discharger) is currently discharging under Order No. 01-002 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0104361. The Discharger submitted a Report of Waste Discharge, dated March 15, 2006, and applied for a NPDES permit renewal to discharge up to 0.85 MGD of treated wastewater from the municipal Wastewater Treatment Plant (hereinafter Facility). The application was deemed complete on March 23, 2006.

B. **Facility Description.** The Discharger owns and operates the treatment plant. The total design capacity of the wastewater treatment plant is 0.85 MGD. The treatment system consists of an influent bar screen, grit chamber, three circular primary clarifiers operated in parallel, a trickling filter, three secondary clarifiers operated in parallel, effluent flow meter, three sand filters, an ultraviolet (UV) disinfection system, an aerobic digester, and three sludge drying beds. The Discharger accepts septic tank and portable toilet waste and introduces the waste prior to primary treatment. Further, the City of Holtville operates a recreational vehicle (RV) dump station that services the winter residents and the resultant wastewater is brought to the Facility. This wastewater is also added to the collection system prior to primary treatment. Leachate from the sludge drying beds is returned to the plant headworks for treatment. Sludge is pumped to drying beds, dried, and is hauled away annually to Arizona for disposal. Wastewater is discharged from Discharge Point No. 001 (see Table 2 on cover page) to the Pear Drain, a tributary to the Alamo River, a water of the United States. Attachment B provides a map of the area around the facility. Attachment C provides a 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 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 Attachments G through I are also incorporated into this Order.

E. **California Environmental Quality Act (CEQA).** This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

F. **Technology-based Effluent Limitations.** The Code of Federal Regulations (CFR) at 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on Secondary Treatment Standards at 40 CFR Part 133. 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 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter.

The immediate receiving water is the Pear Drain, which is a part of the Imperial Valley Drains. The 2002 USEPA 303(d) list of impaired waters (hereinafter 303(d) List) classifies the Imperial Valley Drains as impaired by sediment/silt, pesticides, and selenium. Further, the Alamo River, to which the Pear Drain is tributary, is listed as impaired by pesticides and selenium. There is an EPA-approved Total Maximum Daily Load (TMDL) for sedimentation/siltation for the Alamo River. The sediment TMDL has established a Waste Load Allocation (WLA) for the Discharger for sediment of twice the current Total Suspended Solids (TSS) loading rate (77.7 tons per year). The TSS effluent limitations contained in this Order are less than the WLA in the TMDL for the Discharger. In addition, the 303(d) List classifies the Salton Sea as impaired by nutrients. Tributaries to the Salton Sea, including the Alamo River, may be affected by the future TMDLs. No TMDL has been developed to date, although a nutrient TMDL is under development for the Salton Sea that may have adverse impacts on permitted discharges to tributaries to the Salton Sea (Alamo River and Pear Drain). This TMDL is tentatively scheduled for completion in 2009.

H. **Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the Colorado River Basin (hereinafter Basin Plan) on August 3, 1995 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 (includes amendments adopted by the Regional Water Board through October 2005).

The Basin Plan does not specifically identify beneficial uses for the Pear Drain; however, it does identify beneficial uses for the Imperial Valley Drains. The beneficial uses of the Imperial Valley Drains are listed below in Table 5, and are applicable to the Pear Drain.

Table 5 Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pear Drain (Imperial Valley Drains)	Existing: Freshwater replenishment (FRESH), contact (REC-1)[1, 2] and non-contact (REC-2) water recreation[1], warm freshwater habitat (WARM); wildlife habitat (WILD), preservation or rare, threatened or endangered species (RARE)[3].

The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal* and *Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters. The Thermal Plan does not apply to the Pear Drain.

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999, and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.

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 California Toxics Rule. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005.

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 18, 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 Colorado River 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 includes compliance schedules and interim effluent

1 Unauthorized use.

2 The only REC-1 usage that is known to occur is from infrequent fishing activity.

3 Rare, endangered, or threatened wildlife exists in or utilizes some of these waterway(s). If the RARE beneficial use may be affected by a water quality control decision, responsibility for substantiation of the existence of rare, endangered, or threatened species on a case-by-case basis is upon the California Department of Fish and Game on its own initiative and/or at the request of the Regional Water Board; and such substantiation must be provided within a reasonable time frame as approved by the Regional Water Board.

limitations. A detailed discussion of the basis for the compliance schedule(s) and interim effluent limitation(s) is included in the Fact Sheet (Attachment F).

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 CFR 131.21, 65 FR 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 WQBELs. The technology-based effluent limitations consist of restrictions on BOD, TSS, pH, percent removal of BOD and TSS. Restrictions on BOD, TSS, pH, percent removal of BOD and TSS are specified in federal regulations as discussed in 40 CFR § 125.3(a)(1), 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 WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR §131.38. The scientific procedures for calculating the individual WQBELs are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All 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).

N. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that 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 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet (Attachment F) the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16.

O. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 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. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

P. **Monitoring and Reporting.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards 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.

Q. **Standard and Special Provisions.** Standard Provisions, which in accordance with 40 CFR §§122.41and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D. 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 (Attachment F).

R. **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 (Attachment F) of this Order.

S. **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 (Attachment F) of this Order.

III. DISCHARGE PROHIBITIONS

A. Bypass, overflow, discharge or spill of untreated or partially treated waste is prohibited.

B. The discharge of waste to land not owned or controlled by the Discharger is prohibited.

C. Discharge of treated wastewater at a location or in a manner different from that described in Finding No. II.B, above, is prohibited.

D. The bypass or overflow of untreated wastewater or wastes to the Pear Drain is prohibited, except as allowed in the Standard Provisions for National Pollutant Discharge Elimination System Permit (hereinafter Standard Provisions), included as Attachment D.

E. The Discharger shall not accept waste in excess of the wastewater treatment plant design capacity.

F. The discharge shall not cause degradation of any water supply.

G. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in Section 13050, subdivision (l) and (m) of the CWC.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations – Discharge Point 001

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

Table 6 Final Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Daily Effluent Flow	Million Gallons Per Day (MGD)	0.85	---	---	---	---
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	30	45	---	---	---
	lbs/day[4]	210	320	---	---	---
pH	standard units	---	---	---	6.0	9.0
Total Suspended Solids (TSS)	mg/L	30	45	---	---	---
	lbs/day[4]	210	320	---	---	---
Copper, Total Recoverable	µg/L	2.9	---	5.8	---	---
	lbs/day[4]	0.021	---	0.041	---	---
Nickel, Total Recoverable	µg/L	6.8	---	14	---	---
	lbs/day[4]	0.048	---	0.099	---	---
Benzo(a)anthracene	µg/L	0.049	---	0.098	---	---
	lbs/day[4]	0.00035	---	0.00069	---	---
Benzo(a)pyrene	µg/L	0.049	---	0.098	---	---
	lbs/day[4]	0.00035	---	0.00069	---	---
Benzo(b)fluoranthene	µg/L	0.049	---	0.098	---	---
	lbs/day[4]	0.00035	---	0.00069	---	---
Benzo(k)fluoranthene	µg/L	0.049	---	0.098	---	---
	lbs/day[4]	0.00035	---	0.00069	---	---
Bis(2-ethylhexyl)phthalate	µg/L	5.9	---	12	---	---
	lbs/day[4]	0.042	---	0.085	---	---
Chrysene	µg/L	0.049	---	0.098	---	---
	lbs/day[4]	0.00035	---	0.00069	---	---
Ammonia, Total (as N)	mg/L	1.9	---	3.6	---	---
	lbs/day[4]	13	---	26	---	---

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. **Escherichia Coli:** Wastewater effluent discharged to the Pear Drain (an Imperial Valley Drain) shall not have an Escherichia coli (E. coli) concentration in excess of a log mean of Most Probable Number (MPN) of 126 MPN per 100 milliliters (based on a minimum of not less than five samples for any 30-day period) nor shall any sample exceed 400 MPN per 100 milliliters.

4 The mass-based effluent limitations are based on a design capacity of 0.85 MGD

d. **Total Dissolved Solids:** Discharges of wastes or wastewater shall not increase the total dissolved solids content of receiving waters, unless it can be demonstrated to the satisfaction of the Regional Water Board that such an increase in total dissolved solids does not adversely affect beneficial uses of receiving waters.

e. **Toxicity:** There shall be no acute or chronic toxicity in the treatment plant effluent nor shall the treatment plant effluent cause any acute or chronic toxicity in the receiving water, as defined in Section V.E of the Monitoring and Reporting Program (Attachment E). All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, or bioassays of appropriate duration or other appropriate methods specified by the Regional Water Board.

2. Interim Effluent Limitations

b. During the period beginning June 21, 2006 and ending on May 18, 2010, the discharge of secondary treated wastewater shall maintain compliance with the following limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the attached Monitoring and Reporting Program (Attachment E). These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision.

Table 7 Interim Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	12	---	12	---	---
	lbs/day[5]	0.085	---	0.085	---	---
Selenium, Total Recoverable	µg/L	4.1	---	8.2	---	---
	lbs/day[5]	0.029	---	0.058	---	---
Benzo(a)anthracene	µg/L	0.14	---	0.14	---	---
	lbs/day[5]	0.00099	---	0.00099	---	---
Benzo(a)pyrene	µg/L	0.1	---	0.1	---	---
	lbs/day[5]	0.00071	---	0.00071	---	---
Benzo(b)fluoranthene	µg/L	0.1	---	0.1	---	---
	lbs/day[5]	0.00071	---	0.00071	---	---
Benzo(k)fluoranthene	µg/L	0.09	---	0.09	---	---
	lbs/day[5]	0.00064	---	0.00064	---	---
Bis(2-ethylhexyl)phthalate	µg/L	6.4	---	6.4	---	---
	lbs/day[5]	0.045	---	0.045	---	---
Chrysene	µg/L	0.13	---	0.13	---	---
	lbs/day[5]	0.00092	---	0.00092	---	---
Ammonia	mg/L	23	---	34	---	---
	lbs/day[5]	160	---	240	---	---

5 The mass-based interim effluent limitations are based on a design capacity of 0.85 MGD

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

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 Pear Drain:

1. Depress the concentration of dissolved oxygen to fall below 5.0 mg/L. When dissolved oxygen in the receiving water is already below 5.0 mg/L, the discharge shall not cause any further depression.

2. The presence of oil, grease, floating material (liquids, solids, foam and scum) or suspended material in amounts that create a nuisance or adversely affect beneficial uses.

3. Result in the deposition of pesticides or combination of pesticides detectable in concentrations that adversely affect beneficial uses.

4. Aesthetically undesirable discoloration in the receiving water.

5. Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

6. Increase turbidity that results in adversely affecting beneficial uses.

7. The normal ambient pH to fall below 6.0 or exceed 9.0 standard units.

8. The natural receiving water temperature of surface waters shall not be altered by discharges of wastewater unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.

9. Result in the deposition of material that causes nuisance or adversely affects beneficial uses.

10. No individual chemical or combination of chemicals shall be present in concentrations that adversely affect beneficial uses.

11. Toxic pollutants to be present in the water column, sediments or biota in concentrations that adversely affect beneficial uses or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

12. Taste or odor-producing substances that adversely affect beneficial uses.

13. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board as required by the Federal CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA or amendments thereto, the Regional Water Board will revise and modify this Permit in accordance with such more stringent standards.

14. The concentration of total dissolved solids in the Pear Drain to exceed an annual average concentration of 4,000 mg/L or an instantaneous maximum concentration of 4,500 mg/L.

B. Groundwater Limitations

1. The discharge shall not cause the underlying groundwater to be degraded, to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

VI. PROVISIONS

A. Standard Provisions

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

2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions:

   a. The City of Holtville Wastewater Treatment Plant shall be protected from any washout or erosion of wastes or covering material, and from any inundation, which could occur as a result of floods having a predicted frequency of once in 100 years.

   b. The Discharger shall comply with all conditions of this Board Order. Noncompliance constitutes a violation of the Federal Clean Water Act and Porter-Cologne Water Quality Control Act, and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification of waste discharge requirements; or denial of a Permit renewal application.

   c. The Discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order, and shall maintain a copy of this Board Order at the site.

   d. The Discharger's wastewater treatment plant shall be supervised and operated by persons possessing certification of appropriate grade pursuant to Section 3680, Chapter 26, Division 3, Title 23 of the California Code of Regulations. The Discharger shall ensure that all operating personnel are familiar with the contents of this Board Order.

   e. The Discharger shall immediately report orally information of any noncompliance that may endanger human health or the environment as soon as (1) the Discharger has knowledge of the discharge, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures, to the Regional Board office and the Office of Emergency Services. During non-business hours, the Discharger shall leave a message on the Regional Board office voice recorder, phone number is (760) 346-7491. A written report shall also be provided within five (5) business days of the time the Discharger becomes aware of the incident. The written report shall contain a description of the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and the steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance. The Discharger shall report all intentional or unintentional spills in excess of one thousand (1,000) gallons occurring within the facility or collection system to the Regional Board office in accordance with the above time limits.

f. The Discharger shall provide a report to the Regional Water Board upon determining that the treatment plant's monthly average flow rate for any month exceeds 80 percent of the current design treatment capacity, specified in Finding No. II.A above. The report should indicate what steps, if any the Discharger intends to take to provide for the expected wastewater treatment capacity necessary when the plant reaches design capacity.

g. Prior to any change in ownership or management of this operation, the Discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Water Board.

h. Prior to any modifications in this facility, which would result in material change in the quality or, quantity of wastewater treated or discharged, or any material change in the location of discharge, the Discharger shall report all pertinent information in writing to the Regional Board and obtain revised requirements before any modifications are implemented.

i. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.

j. This Board Order does not authorize violation of any federal, state, or local laws or regulations.

B. Monitoring and Reporting Program Requirements

The discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto as specified by the Regional Board's Executive Officer, found in Attachment E of this Order.

C. Special Provisions

1. Reopener Provisions

a. The Discharger shall submit data sufficient to determine if a water quality–based effluent limitation is required in the discharge permit as required under the SIP. It is the Discharger's responsibility to provide all information requested by the Regional Water Board for use in the analysis. The permit shall be reopened to establish WQBELs, if necessary.

b. This Board Order may be modified, rescinded and reissued, for cause. The filing of a request by the Discharger for a Board Order modification, rescission and reissuance, or a notification of planned changes or anticipated noncompliance does not stay any Board Order condition. Causes for modification include the promulgation of new regulations, modification of land application plans, or modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or the Regional Water Board, including revisions to the Basin Plan.

c. The Clean Water Act requires the Regional Water Board to modify, or terminate and reissue, the NPDES permit if a discharger must implement a pretreatment program. Public notice and a comment period are mandatory.

d. This Order may be reopened and the Whole Effluent Toxicity (WET) Testing Requirements, contained in the Attachment E, Monitoring and Reporting Program, Section V may be modified to address changes to USEPA or State Water Board policies or guidance regarding the testing or reporting requirements for WET testing.

e. TMDLs for nutrients, pesticides, and selenium are to be developed by the Regional Water Board. The permit may be reopened and modified in the future to include appropriate requirements necessary to fully implement the approved TMDL if needed.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. **Toxicity Identification Evaluations or Toxicity Reduction Evaluations.** The Discharger shall submit to the Regional Water Board a Toxicity Reduction Evaluation (TRE) workplan (1-2 pages) within 90 days of the effective date of this permit. This plan shall describe the steps the Discharger intends to follow in the event that 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/sources of toxicity, effluent variability, and treatment system efficiency;

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

3) If a Toxicity Identification Evaluation (TIE) is necessary, who will conduct it (i.e., in-house or outside consultant).

b. **Translator Study.** In addition, should the Discharger request to use a translator for metals and selenium different than the USEPA conversion factor, it shall complete a translator study within two years from the date of the issuance of this permit as stated in the SIP. In the event a translator study is not completed within the specified time, the USEPA conversion factor-based effluent limitation as specified in the CTR shall be effective as a default limitation.

c. **Antidegradation Analysis and Engineering Report for Proposed Plant Expansion.** All proposed changes to the facility that will result in the increase in flows, facility changes, and/or change in the nature and character of the discharge, must be reviewed and approved by the Executive Officer, prior to the start of construction of changes to the treatment facility. The Discharger shall submit a technical report that provides an analysis and justification to support the proposed plant expansion and improvement project. At a minimum, the report will evaluate treatment capacity, address mass increases of pollutants discharged, and propose additional units as necessary to enable adequate treatment. The report shall include time schedules for the ongoing and planned projects and address project status. The report shall also include documentation that any proposed increases in discharges will not violate the State Water Board's antidegradation policy. This analysis is necessary before the Regional Water Board will consider approving any adjustment in effluent limitations.

d. **Operations Plan for Proposed Plant Expansion.** At least 30 days in advance of the operation of the new treatment systems the Discharger shall submit an Operations Plan

in accordance with Section 13385(j)(1)(D) of the CWC. The Operations Plan will describe the actions the Discharger will take during the period of adjusting or testing, including steps to prevent violations and identifies the shortest reasonable time required for the period of adjusting and testing, not to exceed 90 days. Upon written acceptance of the Operations Plan by the Executive Officer, Sections 13385(h) and 13385(i) of the CWC do not apply, in accordance with Section 13385(j)(1) of the CWC, if a violation is caused by the operation or a new or reconstructed wastewater treatment unit during a defined period of adjusting or testing, not to exceed 90 days.

e. **Total Dissolved Solids Study**. The Discharger shall perform a study to evaluate whether a 400 mg/L incremental increase in salinity above the source water is practical and if not, what incremental increase is practical for their discharge. This report shall be submitted to the Regional Board's Executive Officer prior to the filing date for re-application. The following items describe the purpose and description of the minimum requirements for the report:

1) The permitting authority may permit a discharge in excess of the 400 mg/L incremental increase at the time of issuance or reissuance of a NPDES discharge permit, upon satisfactory demonstration by the permittee that it is not practicable to attain the 400 mg/L limit.

2) Demonstration by the applicant must include information on the following factors relating to the potential discharge:

(a) Description of the municipal entity and facilities.

(b) Description of the quantity and salinity of various waste streams into the collection system and contributing to TDS of the discharge.

(c) Description of significant salt sources of the municipal wastewater collection system, and identification of entities responsible for each source, if available.

(d) Description of water rights, including diversions and consumptive use quantities.

(e) Description of the wastewater discharge, receiving waters, quantity, salt load, and salinity.

(f) Alternative plans for minimizing salt contribution from the various sources affecting TDS of the discharge. Alternative plans should include:
(1) Description of system salt sources and alternative means of control; and
(2) Cost of alternative plans in dollars per ton, of salt removed from discharge

(g) Such other information pertinent to demonstration of non-practicability as the permitting authority may deem necessary.

3) In determining what permit conditions shall be required, the permit issuing authority shall consider the following criteria including, but not limited to:

(a) The practicability of achieving the 400 mg/L incremental increase.

(b) Where the 400 mg/L incremental increase is not determined to be practicable, the discharger shall provide the following:

(1) The impact of the proposed salt input of each alternative on the beneficial uses of the surface water in terms of tons per year and concentration;
(2) Costs per ton of salt removed from discharge of each alternative plan;
(3) Capability of minimizing the salt discharge;
(4) A proposed value for the practical incremental increase; and
(5) A justification for the proposed practical incremental increased value; including justification that it would not affect beneficial uses or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

Following review of the report, this permit may be re-opened to establish an appropriate TDS effluent limit.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

Reporting protocols in the Monitoring and Reporting Program, Attachment E, Section X.B.4 describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a Minimum Level (ML) and Method Detection Limit (MDL) are provided in Attachment H. A Reporting Level (RL) is the ML associated with an analytical method selected by the Discharger that is authorized for monitoring effluent limitations under this Order. These reporting protocols and definitions are used in determining the need to conduct a Pollution Minimization Program (PMP) as follows:

In accordance with section 2.4.5 of the SIP, the Discharger shall be required to develop and conduct a Pollutant Minimization Program (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 priority pollutant is present in the effluent above an effluent limitation and either:

i. A sample result is reported as DNQ and the effluent limitation is less than the RL; or

ii. A sample result 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 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 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:

i. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

ii. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;

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

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

v. An annual status report that shall be sent to the Regional Water Board including:

1. All PMP monitoring results for the previous year;

2. A list of potential sources of the reportable priority pollutant(s);

3. A summary of all actions undertaken pursuant to the control strategy; and

4. A description of actions to be taken in the following year.

b. **Storm Water**

1) In the event that there are storm water discharges associated with industrial activities, the Discharger shall submit a Notice of Intent to be covered under the General Storm Water Permit and/or maintain coverage under the General Storm Water Permit.

(a) All storm water discharges from this facility must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies, regarding discharges of storm water to storm water drain systems or other courses under their jurisdiction.

(b) Storm water discharges from the facility shall not cause or threaten to cause pollution or contamination.

(c) Storm water discharges from the facility shall not contain hazardous substances equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.

4. Construction, Operation and Maintenance Specifications

a. Facility and Treatment Operation

1) The Discharger shall, at all times, properly operate and maintain all systems and components of collection, treatment and control which are installed or used by the Discharger to achieve compliance with the conditions of this Board Order. Proper operation and maintenance includes effective performance, adequate process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of this Board Order. All systems both in service and reserved, shall be inspected and maintained on a regular basis. Records shall be kept of the inspection results and maintenance performed and made available to the Regional Water Board upon demand.

2) Temporary power shall be provided to maintain the plant in operation in the event of commercial power failure.

c. Spill Response Plan

1) The Discharger shall review its current Spill Response Plan (SRP) developed under previous Order No. 01-002 and revise if needed within 60 days after the effective date of this Order. Revised plans shall be submitted for Regional Water Board staff review. Thereafter, the plan shall be updated annually, and shall be available for staff review during Regional Water Board inspections. The Discharger shall ensure that all operating personnel are familiar with the contents of the SRP. A copy of the SRP shall be maintained at the site and shall be accessible to all operating personnel.

d. Adequate measures shall be taken to assure that unauthorized persons are effectively excluded from contact with the wastewater disposal facilities.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Sludge Disposal Requirements

1) The Discharger shall provide a plan as to the method, treatment, handling and disposal of sludge that is consistent with all State and Federal laws and regulations and obtain prior written approval from the Regional Water Board specifying location and method of disposal, before disposing of treated or untreated sludge, or similar solid waste materials using an alternative method than that described in the Findings of the Order.

2) The Discharger shall maintain a permanent log of all solids hauled away from the treatment facility for use/disposal elsewhere and shall provide a summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and the destination in accordance with the Monitoring and Reporting Program of this Board Order. The sludge that is stockpiled at the treatment facility shall be sampled and analyzed for those constituents listed in the sludge monitoring section of the Monitoring and Reporting Program of this Board Order and as required by Title 40, Code of Federal Regulations, Part 503. The results of the analyses should be submitted to the Regional Water Board as part of the Monitoring and Reporting Program.

3) All sludge generated at the wastewater treatment plant will be disposed, treated, or applied to land in accordance with Federal Regulations 40 CFR Part 503.

4) Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner that is consistent with State Water Resources Control Board and Integrated Waste Management Board's joint regulations (Title 27) of the California Code of Regulations and approved by the Regional Water Board's Executive Officer.

b. Pretreatment

1) In the event that (i) the facility has a treatment capacity greater than 5 MGD and Industrial Users [40 CFR §403.3(h) are discharging pollutants which Pass Through [40 CFR §403.3(n)] or Interfere [40 CFR §403.3(i)] with the operation of the wastewater treatment facility or are otherwise subject to National Pretreatment Standards [40 CFR §403.3(j)], (ii) Cal. Code of Regs, Title 23, section 2233 requires the facility to have and enforce an adequate pretreatment program, or (iii) the Regional Water Board or its Executive Officer determines that other circumstances warrant in order to prevent Interference with the wastewater treatment facility or Pass Through, then:

(a) The Discharger shall be responsible for the performance of all pretreatment requirements contained in the Code of Federal Regulations, Part 40, Section 403, and shall be subject to enforcement actions, penalties, and other remedies by the United States Environmental Protection Agency, or the Regional Water Board, as provided in the Federal Clean Water Act, as amended (33 USC 1251 et. seq.) (hereafter "Act").

(b) Within 365 days of the significant industrial wastewaters being discharged to the wastewater treatment plant, the Discharger shall seek a formal approval of its Pretreatment Plan, from the Regional Water Board.

(c) The Discharger must seek approval of its Pretreatment Program from the Regional Water Board subject to Provision VI.C.1.c of this Order in the event a Pretreatment Program is developed.

6. Other Special Provisions

a. The Discharger may be required to submit technical reports as directed by the Regional Water Board's Executive Officer.

b. The Discharger shall exclude from the wastewater treatment plant any liquid or solid waste that could adversely affect the plant operation or effluent quality. The excluded liquid or solid waste shall be disposed of in accordance with applicable regulations.

7. Compliance Schedules

a. **Compliance Plan.** The Discharger shall implement its compliance plan provided with its Infeasibility Report submitted on April 11, 2006 that identified the measures that will be taken to reduce the concentrations of copper, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, and ammonia in their discharge to achieve compliance with the permit limitations specified in Effluent Limitations, IV.A.1.a. of this Order.

Table 8 Compliance Schedule for Priority Pollutants

Activity	Description	Due Date
Task 1	Monitor and test monthly the influent and effluent waters for the pollutants indicated above. Report findings on a quarterly basis.	Ongoing
Task 2	Submit to the Regional Water Board a Plan of Study to determine the source of priority pollutants in the discharge and to identify source control and operating practices, and/or design features, and/or treatment technologies to attain compliance with effluent limitations.	Within 12 months of the effective date of the Order
Task 3	Initiate an assessment of aquatic and shore organisms in the Pear Drain/Alamo River by a qualified biologist to render an opinion to classify the component biota as members of a freshwater or saltwater community.	Within 12 months of the effective date of the Order
Task 4	Perform study referred to in Task 2 above to determine the source of priority pollutants in the discharge and to identify source control and operating practices, design features, and/or treatment technologies to attain compliance with effluent limitations. Monthly sampling will continue as well as sampling from the collection system.	Within 2 years of the effective date of the Order
Task 5	Analyze the results and prepare a Summary Report to establish a course of action. Identify the source control measures, operating practices, design features, and/or treatment technologies, which may be implemented by the City of Holtville to attain compliance with final effluent limitations of this Order for priority pollutants. The Report shall include a time schedule, which will be subject to Regional Board approval, to implement the chosen alternative(s). The time schedule shall be as short as reasonable to fully implement the chosen alternative(s).	Within 3 years of the effective date of the Order
Task 6	Fund appropriation for capital expenditures. Prepare Engineering Design Report. Obtain permits, prepare bid package, perform bidding and procurement and commence construction of facilities if necessary. Perform operating changes if necessary.	Within 4 years of the effective date of the Order
Task 7	Continue construction if necessary to implement the chosen alternative(s) to meet effluent limitations for toxic pollutants.	May 17, 2010

Table 9 Compliance Schedule for Ammonia

Activity	Description	Due Date
Task 1	Monitor and test monthly the influent and effluent waters for ammonia. Report findings to your office on a quarterly basis	Ongoing
Task 2	As part of the Wastewater Treatment Plant Expansion Report currently being prepared, include ammonia removal technology as part of the report. Identify the source control measures, operating practices, design features, and/or treatment technologies, which may be implemented by the City of Holtville to attain compliance with final effluent limitations of this Order for ammonia. The Report shall include a time schedule, which will be subject to Regional Board approval, to implement the chosen alternative(s). The time schedule shall be as short as reasonable to fully implement the chosen alternative(s).	Within 12 months of the effective date of the Order
Activity	**Description**	**Due Date**
Task 3	Fund appropriation for capital expenditures. Prepare Engineering Design Report. Obtain permits, prepare bid package, perform bidding and procurement and commence construction of facilities if necessary. Perform operating changes if necessary.	Within 3 years of the effective date of the Order
Task 4	Continue construction if necessary to implement the chosen alternative(s) to meet effluent limitations for ammonia	Within 4 years of the effective date of the Order

b. **Compliance Plan Annual Reports.** The Discharger shall submit annual progress reports to describe the progress of studies and or actions undertaken to reduce copper, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, chrysene, and ammonia in the effluent, and to achieve compliance with the limitations in this Order by the deadline specified in section IV.A.2.a. The Regional Water Board shall receive the first annual progress report at the same time the annual summary report is due, as required in Section X.B.3 of MRP in Attachment E.

Table 10 Compliance Schedule

Activity	Description	Due Date
TRE Workplan	Description of steps the Discharger will take in the event toxicity is detected. Workplan should describe investigation and evaluation techniques used to identify sources of toxicity; method for maximizing in-house efficiency; and identify party to conduct TIE.	Within 90 days of the effective date of this Order
TDS Study	Submit a report indicating whether a 400 mg/L increase in salinity above the source water is practical.	Prior to filing date for re-application
Spill Response Plan	The Discharger shall review its current Spill Response Plan (SRP) developed under previous Order No. 01-001 and revise if needed	Within 60 days of the effective date of this Order

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 Monitoring and Reporting Program (Attachment E) 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 reporting level (RL).

B. Multiple Sample Data Reduction.

When determining compliance with an Average Monthly Effluent Limitation (AMEL) for priority pollutants and more than one sample result is available in a month, the Discharger shall compute the arithmetic mean unless 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. Effect of Conducting a Pollutant Minimization Program (PMP).

If a sample result for a priority pollutant, or the arithmetic mean or median of multiple sample results is below the RL, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the discharger conducts a PMP for the priority pollutant (as described in Provision VI.C.3), the discharger shall not be deemed out of compliance.

D. Average Monthly Effluent Limitation (AMEL).

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the Discharger will 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). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

E. 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.

F. 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.

G. 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).

H. 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).

I. 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.

J. Water Quality-Based Effluent Limitations.

1. In accordance with Section 2.4.5 of the SIP, compliance with water quality-based effluent limitations shall be determined as follows:

    a. Dischargers shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).

b. When determining compliance with an average monthly effluent limitation and more than one sample result is available in a month, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or 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, reported ND determinations lowest, DNQ determinations next, and 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.

If a sample result, or the arithmetic mean or median of multiple sample results, is below the reported ML, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a PMP, the Discharger shall not be deemed out of compliance.

K. Mass and Concentration Limitation.

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 (MER) determined from that sample concentration shall also be reported as "ND" or "DNQ"

L. Percent Removal.

Compliance with the secondary treatment standard for monthly average percent removal of biochemical oxygen demand, carbonaceous biochemical oxygen demand, and total suspended solids pursuant to 40 CFR Part 133 shall be determined separately for each wastewater treatment facility discharging through an outfall. For each wastewater treatment facility, the monthly average percent removal is the average of the calculated daily discharge percent removals only for days on which the constituent concentrations is monitored in both the influent and effluent of the wastewater treatment facility at locations specified in the Monitoring and Reporting Program (Attachment E) within a calendar month.

The percent removal for each day shall be calculated according to the following equation:

Daily discharge percent removal = ((Influent concentration – Effluent concentration)/ Influent Concentration) X 100%

M. State Water Board Water Quality Enforcement Policy.

1. Acute and Chronic Narrative Effluent Limitations

a. Compliance with whole effluent toxicity (WET) limitations established in the Order shall be determined in accordance with Section III.B of the State Water Resources Control Board's Water Quality Enforcement Policy.

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.

A

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): 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*): 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: A 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.

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

Discharger-Specific Water Effect Ratio (WER): 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 from WERs that are developed on a waterbody or watershed basis as part of a water quality standards action resulting in adoption of a Site Specific Objective.

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 U.S. EPA 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: The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries: 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 Order).

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

Infeasible: 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: 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 and/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 Attachment A.

Maximum Daily Effluent Limitation (MDEL): the highest allowable daily discharge of a pollutant.

Maximum Daily Flow: the maximum flow value in a calendar day.

Median: 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 = (Xn/2 + X(n/2)+1)/2 (i.e., the midpoint between the *n*/2 and *n*/2+1).

Method Detection Limit (MDL): The 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 40 CFR 136, Appendix B, revised as of May 14, 1999.

Minimum Level (ML): The 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.

Minimum Level Usage: The ML value in Appendix 4 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 interferences. Assuming that all method-specific analytical steps are followed, the ML value will also represent, after the appropriate application of method-specific factors, the lowest

standard in the calibration curve for that specific analytical technique. Common analytical practices sometimes require different treatment of the sample relative to calibration standards.

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 California 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 Order.

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 Regional Water Board shall determine the presence of such deposits 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: Pollutant Minimization 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.

Pollution Prevention: 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 Water Board 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.

Reportable Level (RL): The RL is selected from the MLs listed in Appendix 4 in accordance with Section 2.4.2 or established in accordance with Section 2.4.3 of the State Implementation Policy.

Reporting Level Selection: When there is more than one ML value for a given substance, the Regional Water Board shall include as RLs, in the permit, all ML values, and their associated analytical methods, listed in Appendix 4 of the State Implementation Policy that are below the calculated effluent limitation. The discharger may select any one of those cited analytical methods for compliance determination. If no ML value is below the effluent limitation, then the Regional Water Board shall select as the RL, the lowest ML value, and its associated analytical method, listed in Appendix 4 for inclusion in the permit.

Six-month Median Effluent Limitation: the highest allowable moving median of all daily discharges for any 180-day period.

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.

State Implementation Policy (SIP): The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

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

Toxicity Reduction Evaluation (TRE): The 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: A 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): A 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.

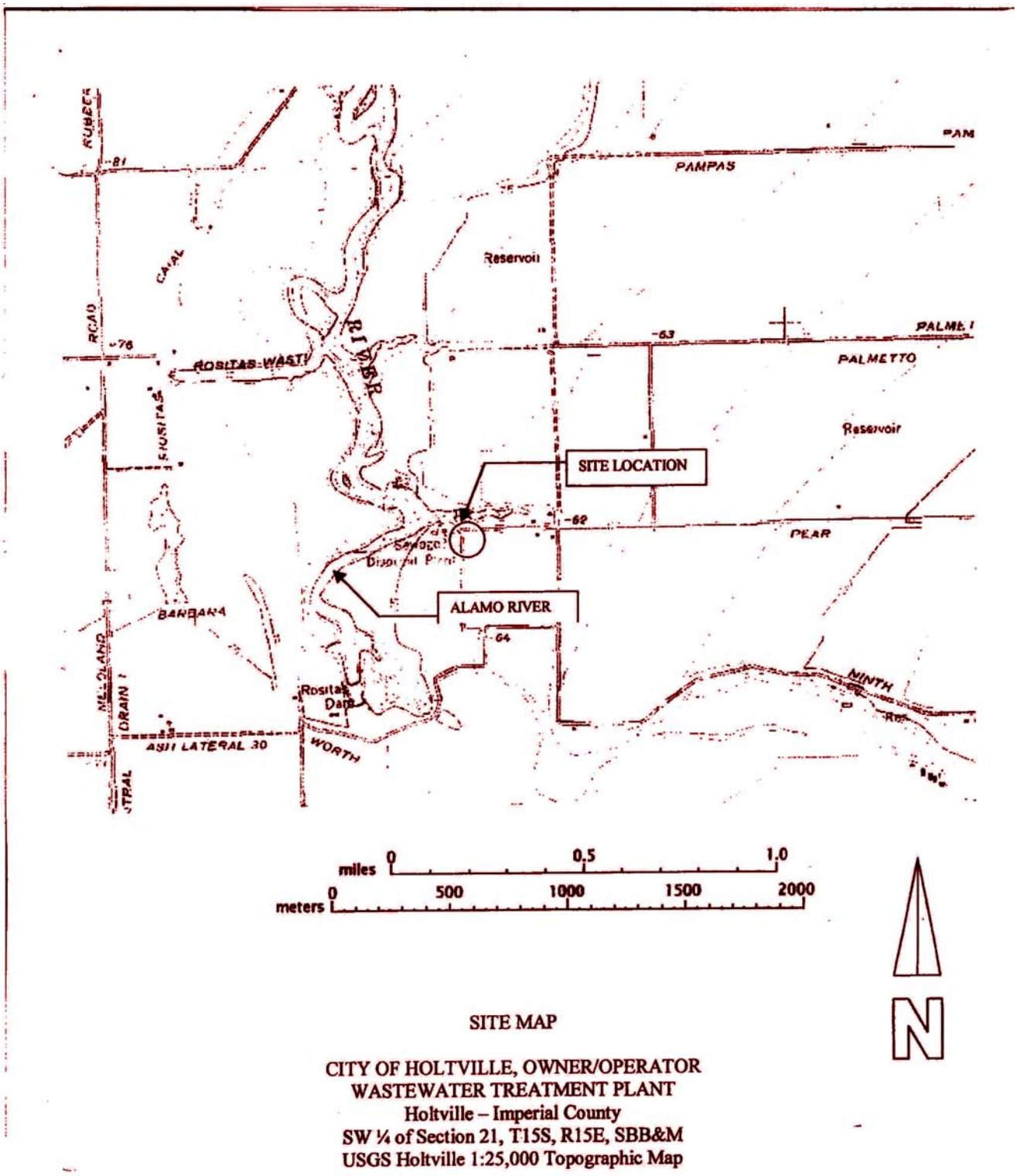
1Q10: is the lowest flow that occurs for one day with a statistical frequency of once every 10 years.

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

90th PERCENTILE OF OBSERVED DATA: 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

B

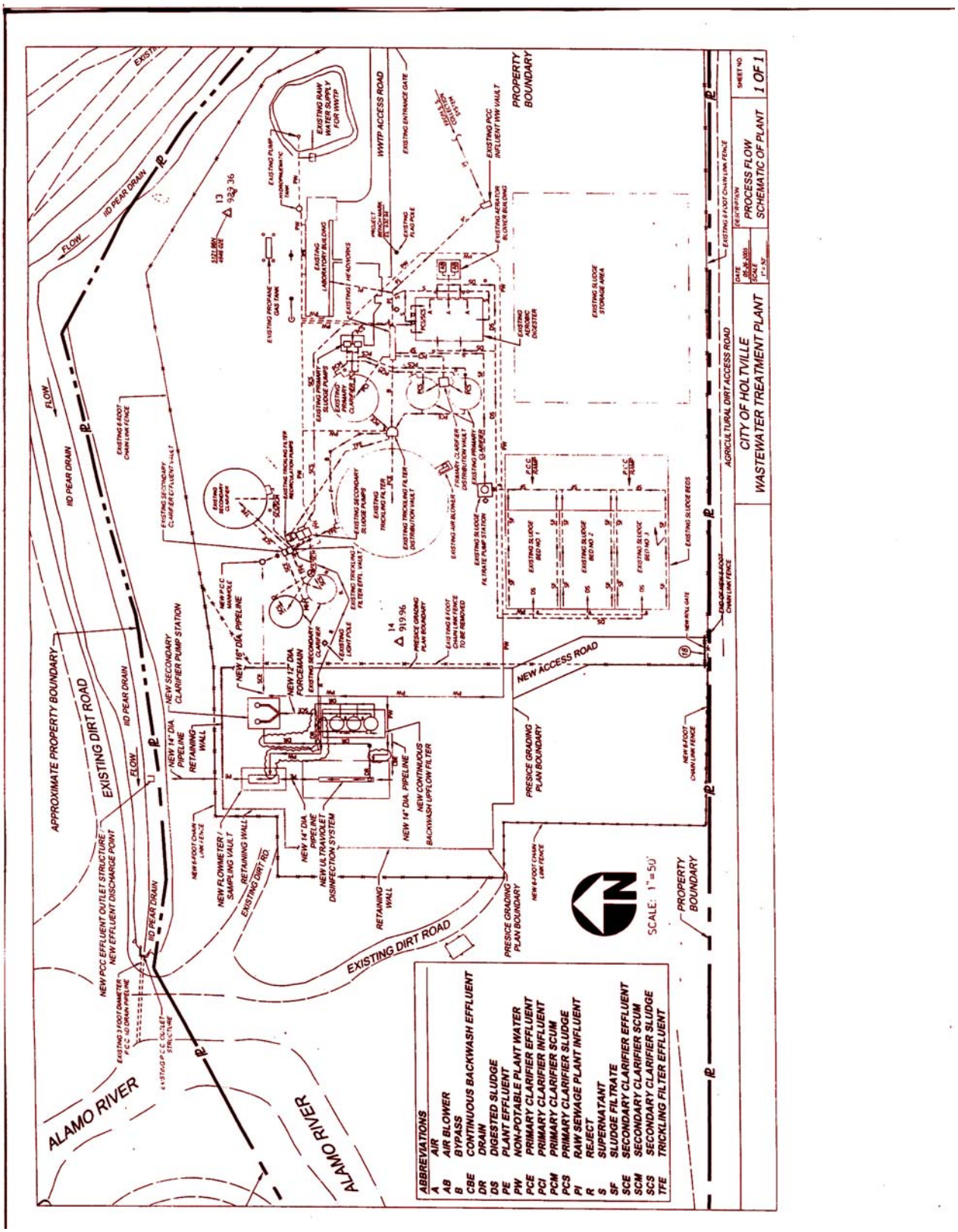


SITE MAP

CITY OF HOLTVILLE, OWNER/OPERATOR
WASTEWATER TREATMENT PLANT
Holtville – Imperial County
SW ¼ of Section 21, T15S, R15E, SBB&M
USGS Holtville 1:25,000 Topographic Map

C

ATTACHMENT C – FLOW SCHEMATIC



D

ATTACHMENT D – FEDERAL 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 (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or denial of a permit renewal application [*40 CFR §122.41(a)*].

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act 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 been modified to incorporate the requirement [*40 CFR §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 CFR §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 CFR §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 CFR §122.41(e)*].

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges [*40 CFR §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 CFR §122.5(c)*].

F. Inspection and Entry

The Discharger shall allow the Regional Water Quality Control Board (Regional Water Board), State Water Resources Control 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 CFR §122.41(i)*] [*CWC 13383(c)*]:

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 CFR §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 CFR §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 CFR §122.41(i)(3)*];

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location [*40 CFR §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 CFR §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 CFR §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 and I.G.5 below [*40 CFR §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 CFR §122.41(m)(4)(i)*]:

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [*40 CFR §122.41(m)(4)(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 CFR §122.41(m)(4)(B)*]; and

c. The Discharger submitted notice to the Regional Water Board as required under Standard Provision – Permit Compliance I.G.5 below [*40 CFR §122.41(m)(4)(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 CFR §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 CFR §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 [*40 CFR §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 permittee. 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 CFR §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 paragraph H.2 of this section 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 CFR §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 CFR §122.41(n)(3)*]:

a. An upset occurred and that the Discharger can identify the cause(s) of the upset [*40 CFR §122.41(n)(3)(i)*];

b. The permitted facility was, at the time, being properly operated [*40 CFR §122.41(n)(3)(i)*];

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b [*40 CFR §122.41(n)(3)(iii)*]; and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above [*40 CFR §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 CFR §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 CFR §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 CFR §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 CWC [*40 CFR §122.41(l)(3)*] [*40 CFR §122.61*].

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [*40 CFR §122.41(j)(1)*].

B. Monitoring results must be conducted according to test procedures under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order [*40 CFR §122.41(j)(4)*] [*40 CFR §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 40 CFR 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 CFR §122.41(j)(2)*].

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [*40 CFR §122.41(j)(3)(i)*];

2. The individual(s) who performed the sampling or measurements [*40 CFR §122.41(j)(3)(ii)*];

3. The date(s) analyses were performed [*40 CFR §122.41(j)(3)(iii)*];

4. The individual(s) who performed the analyses [*40 CFR §122.41(j)(3)(iv)*];

5. The analytical techniques or methods used [*40 CFR §122.41(j)(3)(v)*]; and

6. The results of such analyses [*40 CFR §122.41(j)(3)(vi)*].

C. Claims of confidentiality for the following information will be denied [*40 CFR §122.7(b)*]:

1. The name and address of any permit applicant or Discharger [*40 CFR §122.7(b)(1)*]; and

2. Permit applications and attachments, permits and effluent data [*40 CFR §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 CFR §122.41(h)*] [*CWC 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 paragraph (2.) and (3.) of this provision [*40 CFR §122.41(k)*].

2. All permit applications shall be signed as follows:

   a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures [*40 CFR §122.22(a)(1)*];

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively [*40 CFR §122.22(a)(2)*]; or

c. For a municipality, State, federal, or other public agency: 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 CFR §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 paragraph (b) of this provision, 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 paragraph (2.) of this provision [*40 CFR §122.22(b)(1)*];

   b. The authorization specified 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 CFR §122.22(b)(2)*]; and

   c. The written authorization is submitted to the Regional Water Board, State Water Board, or USEPA [*40 CFR §122.22(b)(3)*].

4. If an authorization under paragraph (3.) of this provision 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 paragraph (3.) of this provision must be submitted to the Regional Water Board, State Water Board or USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR §122.22(c)].

5. Any person signing a document under paragraph (2.) or (3.) of this provision 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 CFR §122.22(d)*].

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order [*40 CFR §122.41(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 CFR §122.41(l)(4)(i)*].

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR 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 CFR §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 CFR §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 CFR §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 CFR §122.41(l)(6)(i)*].

2. The following shall be included as information that must be reported within 24 hours under this paragraph [*40 CFR §122.41(l)(6)(ii)*]:

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order [*40 CFR §122.41(l)(6)(ii)(A)*].

   b. Any upset that exceeds any effluent limitation in this Order [*40 CFR §122.41(l)(6)(ii)(B)*].

   c. Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours [*40 CFR §122.41(l)(6)(ii)(C)*].

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 CFR §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 CFR §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 40 CFR §122.29(b) [*40 CFR §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 which are subject neither to effluent limitations in this Order nor to notification requirements under 40 CFR Part 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1) [*40 CFR §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 CFR §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 CFR §122.41(l)(2)].*

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting E.3, E.4, and E.5 at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E [*40 CFR §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 CFR §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 CWC, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Regional Water Board as soon as they know or have reason to believe [*40 CFR §122.42(a)*]:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [*40 CFR §122.42(a)(1)*]:

   a. 100 micrograms per liter (µg/L) [*40 CFR §122.42(a)(1)(i)*];

b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [*40 CFR §122.42(a)(1)(ii)*];

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [*40 CFR §122.42(a)(1)(iii)*]; or

d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [*40 CFR §122.42(a)(1)(iv)*].

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [*40 CFR §122.42(a)(2)*]:

a. 500 micrograms per liter (µg/L) [*40 CFR §122.42(a)(2)(i)*];

b. 1 milligram per liter (mg/L) for antimony [*40 CFR §122.42(a)(2)(ii)*];

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [*40 CFR §122.42(a)(2)(iii)*]; or

d. The level established by the Regional Water Board in accordance with 40 CFR §122.44(f) [*40 CFR §122.42(a)(2)(iv)*].

B. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following [*40 CFR §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 CFR §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 CFR §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 CFR §122.42(b)(3)*].

Attachment E – Monitoring and Reporting Program

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E

LIST OF TABLES

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (CFR) at 40 CFR §122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC 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. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of this Regional Water Board.

B. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ±10 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

1. "A Guide to Methods and Standards for the Measurement of Water Flow," U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)
2. "Water Measurement Manual," U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)
3. "Flow Measurement in Open Channels and Closed Conduits," U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)
4. "NPDES Compliance Sampling Manual," U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, CO 80225.)

C. Unless otherwise approved by the Regional Water Board's Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

D. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program.

F. If the facility is not in operation, or there is no discharge during a required reporting period, the discharger shall forward a letter to the Regional Water Board indicating that there has been no activity during the required reporting period.

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 E-1 Monitoring Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	Wastewater influent to the treatment plant
001	EFF-001	Effluent wastewater from the treatment facility; 32° 49' 48" N, 115° 25' 48" W
--	REC-001	Receiving water (Pear Drain) monitoring location at least 50 feet upstream from the location where the effluent enters the Pear Drain
--	REC-002	Receiving water (Pear Drain) monitoring location at least 50 feet downstream from the location where the effluent enters the Pear Drain
--	SLD-001	Sludge removed for disposal

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

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

Table E-2 Influent Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Reporting Level, units), respectively
Biochemical Oxygen Demand (BOD) (5-day 20°C)	mg/L	24-Hr. Composite	1x/Week	See Footnote 1
Total Suspended Solids	mg/L	24-Hr. Composite	1x/Week	See Footnote 1

1 Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor secondary treated wastewater at EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger may select from the listed methods and associated Reporting Level:

Table E-3 Effluent Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Reporting Level, units), respectively
Daily Effluent Discharge (Flow)	MGD	Flow Meter Reading	Continuous	See Footnote 2
Escherichia Coli (E. Coli)	Number/100 ml	Grab	5x/Month[3]	See Footnote 3
BOD 5-day 20°C	mg/L	24-Hr. Composite	1x/Week	See Footnote 4
pH	pH Units	Grab	1x/Week	See Footnote 4
Temperature	°F	Grab	1x/Week	See Footnote 4
Total Suspended Solids	mg/L	24-Hr. Composite	1x/Week	See Footnote 4
Ammonia Nitrogen, Total (as N)	mg/L	24-Hr. Composite	1x/Month	See Footnote 4
Benzo(a)anthracene	µg/L	Grab	1x/Month	See Footnote 4
Benzo(b)fluoranthene	µg/L	Grab	1x/Month	See Footnote 4
Benzo(k)fluoranthene	µg/L	Grab	1x/Month	See Footnote 4
Benzo(a)pyrene	µg/L	Grab	1x/Month	See Footnote 4
Bis(2-ethylhexyl)phthalate	µg/L	Grab	1x/Month	See Footnote 4
Chrysene	µg/L	Grab	1x/Month	See Footnote 4
Copper, Total Recoverable	µg/L	Grab	1x/Month	See Footnote 4
Nickel, Total Recoverable	µg/L	Grab	1x/Month	See Footnote 4
Nitrates as Nitrogen (as N)	mg/L	24-Hr. Composite	1x/Month	See Footnote 4
Nitrites as Nitrogen (as N)	mg/L	24-Hr. Composite	1x/Month	See Footnote 4

2 Report Total Daily Flow

3 The Discharger shall collect at least one sample per week. The Discharger may monitor E. coli using analytical methods, Standard Method 9221.F or 9223, (APHA.1998, 1995, 1992. Standard Methods for Examination of Water and Wastewater. American Public Health Association, 20th, 19th and 18 editions. Amer. Publ. Hlth. Assoc., Washington, D.C.).

4 Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Reporting Level, units), respectively
Nitrogen, Total (as N)	mg/L	24-Hr. Composite	1x/Month	See Footnote 4
Orthophosphate (as P)	mg/L	24-Hr. Composite	1x/Month	See Footnote 4
Phosphate, Total (as P)	mg/L	24-Hr. Composite	1x/Month	See Footnote 4
Selenium, Total Recoverable	µg/L	Grab	1x/Month	See Footnote 4
Total Dissolved Solids	mg/L	24-Hr. Composite	1x/Month	See Footnote 4
Oil and Grease	mg/L	Grab	1x/Year	See Footnote 4
Priority Pollutants[5]	µg/L	Grab	1x/Year	See Footnote 4

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Monitoring Requirements

1. Bioassays shall be performed to evaluate the toxicity of the discharged wastewater in accordance with the following procedures unless otherwise specified by the Regional Water Board's Executive Officer or his designee:

   a. Bioassays shall be conducted on a sensitive fish species and an invertebrate species as approved by the Regional Water Board's Executive Officer. *Pimephales promelas* (fathead minnow) and *Ceriodaphnia dubia* (water flea) are suggested test species that may be utilized. The bioassays shall be conducted in accordance with the protocol given in EPA/821-R-02-013 – Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Freshwater Organisms, 4th Edition, and EPA/821-R-02-012 – Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters for Freshwater and Marine Organisms, 5th Edition, or subsequent editions.

2. The Discharger shall conduct chronic and acute toxicity testing on the final effluent discharged to the Pear Drain at monitoring point EFF-001 as follows:

Table E-4 Whole Effluent Toxicity Testing

Test	Units	Sample Type	Minimum Sampling Frequency
Chronic Toxicity	TUc [6]	24-hr Composite	1x/Quarter
Acute Toxicity	TUa[7,8]	24-hr. composite	1x/Quarter

5 Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment G.

6 Chronic Toxicity Units

7 Acute Bioassay results can be calculated from chronic bioassay test for Pimephales promelas

8 Discharger can provide Pass/Fail when using a t-test

3. Both test species given below shall be used to measure chronic and acute toxicity:

Table E-5 Approved Test for Acute and Chronic Toxicity

Species	Effect	Test Duration (days)	Reference
Fathead Minnow (*Pimephales promela*	Larval Survival and Growth	7	EPA/821-R-02-013 (Chronic) EPA/821-R-02-012 [9](Acute)
Water Flea (*Ceriodaphnia dubia*)	Survival and Reproduction	7	EPA/821-R-02-013 (Chronic) EPA/821-R-02-012 (Acute)

4. Toxicity Test References for Conducing Toxicity Tests

   a. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, EPA/821-R-02-012, October 2002 or subsequent editions.

   b. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water for Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002 or subsequent editions.

B. Quality Assurance

1. Dilution and control waters may be obtained from an unaffected area of receiving waters. Synthetic (standard) dilution is an option and may be used if the above source is suspected to have toxicity greater than 1.0 TU_c.

2. A series of at least five dilutions and a control shall be tested for chronic toxicity testing and may be used for acute toxicity testing. The series shall include the following concentrations: 12.5, 25, 50, 75, and 100 percent effluent.

3. For the acute toxicity testing using a t-test, two dilutions shall be used, i.e., 100 percent effluent and a control (when a t-test is used instead of an LC50).

4. If organisms are not cultured in-house, concurrent testing with a referenced toxicant shall be conducted. Where organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests also shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc.).

5. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the toxicity test references, then the permittee must re-sample and retest within 15 working days or as soon as possible. The retesting period begins when the Discharger collects the first sample required to complete the retest.

9 Acute Bioassay results can be calculated from chronic bioassay test for Pimephales promelas

6. The reference toxicant and effluent tests must meet the upper and lower bounds on test sensitivity as determined by calculating the percent minimum significant difference (PMSD) for each test result. The test sensitivity bound is specified for each test method in the respective methods manuals.

C. Accelerated Monitoring Requirements

When the numeric toxicity trigger is exceeded during regular toxicity monitoring, and the testing meets all test acceptability criteria, the Discharger shall initiate accelerated monitoring to confirm the effluent toxicity.

The Discharger shall implement an accelerated monitoring frequency consisting of performing three (3) toxicity tests in a nine (9)-week period beginning from the date the Discharger receives an initial exceedance of the chronic or acute toxicity triggers described below:

Any chronic toxicity test that exceeds 2 chronic toxicity units (TU_c) or a three (3)-sample median[10] (consecutive samples) that exceeds 1 TU_c shall trigger an accelerated monitoring frequency. In addition, any acute toxicity test results showing high toxicity shall trigger an accelerated monitoring frequency. High acute toxicity is defined as follows:

a. Less than 80% survival when acute toxicity is calculated from results of the chronic toxicity test (only for *Pimephales promelas*), or

b. Less than 90% survival when acute toxicity is calculated from the results of the acute toxicity test, or

c. Results of acute toxicity t-test for 100 percent effluent concentration that is reported as failed.

The scope of accelerated monitoring shall be limited to the species and analytical method that failed the test.

The numeric toxicity triggers are not an effluent limitation, they are the toxicity threshold at which the Discharger is required to perform accelerated monitoring to confirm effluent toxicity, as well as, the threshold to initiate a TRE if toxicity is confirmed.

If implementation of the generic TRE workplan indicates the source of the exceedance of the toxicity trigger (for instance, a temporary plant upset), then only one additional test is necessary. If exceedance of the toxicity trigger is detected in this test, the Discharger will continue with accelerated monitoring requirements or implement the Toxicity Identification and Toxicity Reduction Evaluations.

If none of the three tests indicated exceedance of the toxicity trigger, then the permittee may return to the normal bioassay testing frequency.

D. Conducting Toxicity Identification Evaluations and Toxicity Reduction Evaluations

1. A Toxicity Identification Evaluation (TIE) shall be triggered if testing from the accelerated monitoring frequency indicates any of the following:

10 3-Sample median is defined as follows: The Middle value of three (3) consecutive samples arranged from the low value to the high value.

a. Two of the three accelerated chronic toxicity tests are reported as failed tests meeting any of the conditions specified in Attachment E, Section V.C; or

b. Two of the three acute toxicity tests are reported as failed tests meeting any of the conditions specified in Attachment E, Section V.C.

c. The TIE shall be initiated within 15 days following failure of the second accelerated monitoring test.

d. If a TIE is triggered prior to the completion of the accelerated testing, the accelerated testing schedule may be terminated, or used as necessary in performing the TIE.

2. The TIE shall be conducted to identify and evaluate toxicity in accordance with procedures recommended by the United States Environmental Protection Agency (USEPA) which include the following:

a. Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I, (USEPA, 1992a);

b. Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures, Second Edition (USEPA, 1991a);

c. Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Sampling Exhibiting Acute and Chronic Toxicity (USEPA, 1993a);

d. Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (USEPA, 1993b);

3. As part of the TIE investigation, the Discharger shall be required to implement its Toxicity Reduction Evaluation (TRE) workplan. The Discharger shall take all reasonable steps to control toxicity once the source of the toxicity is identified. A failure to conduct required toxicity tests or a TRE within a designated period shall result in the establishment of numerical effluent limitations for chronic toxicity in a permit or appropriate enforcement action. Recommended guidance in conducting a TRE include the following:

a. Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, August 1999, EPA/833B-99/002;

b. Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program dated March 27, 2001, USEPA Office of Wastewater Management, Office of Regulatory Enforcement.

E. Definition of Toxicity

1. Chronic toxicity measures sublethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or ambient waters compared to that of the control organisms.

2. Chronic toxicity shall be measured in TU_c, where TU_c = 100/NOEC. The no observed effect concentration (NOEC) is the highest concentration of toxicant to which organisms are exposed in a chronic test that causes no observable adverse effect on the test organisms (e.g., the highest concentration of toxicant to which the values for the observed responses are not statistically significantly different from the controls).

3. Acute toxicity is a measure of primarily lethal effects that occur over a ninety-six (96) hour period. Acute toxicity for *Pimephales promelas* can be calculated from the results of the chronic toxicity test for *Pimephales promelas* and reported along with the results of each chronic test. Acute toxicity for *Ceriodaphnia dubia* cannot be calculated from the results of the chronic toxicity test for *Ceriodaphnia dubia* because the test design is not amenable to calculation of a lethal concentration (LC50) value as needed for the acute requirement.

4. Acute toxicity shall be measured in Tu_a , where Tu_a = 100/LC50 or as pass/fail using a t-test. LC50 is the toxicant concentration that would cause death in 50 percent of the test organisms.

F. Reporting

1. The Discharger shall submit the analysis and results of the toxicity test, including any accelerated testing in toxicity units with the discharge monitoring reports for the month in which the last test is conducted.

2. If a Toxicity Identification Evaluation (TIE) is conducted the Discharger shall submit the results of the TIE with the discharge monitoring reports for the month in which the final report is completed.

3. If the Toxicity Reduction Evaluation (TRE) Workplan has been initiated, the Discharger shall report on the progress of the actions being taken and include this information with each monthly monitoring report.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECLAMATION MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

A. Monitoring Location Surface Water REC-001

1. The Discharger shall monitor the Pear Drain at REC-001 as follows. In the event that no receiving water is present at REC-001, no receiving water monitoring data is required for station REC-001.

Table E-6 Receiving Water Monitoring Requirements for Monitoring Location REC-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Reporting Level, units), respectively
Dissolved Oxygen	mg/L	Grab	1x/Month	See Footnote [11]
Hardness	mg/L	Grab	1x/Month	See Footnote [11]
pH	pH Units	Grab	1x/Month	See Footnote [11]
Temperature	°F	Grab	1x/Month	See Footnote [11]
Total Dissolved Solids	mg/L	Grab	1x/Month	See Footnote [11]
Priority Pollutants[12]	µg/L	Grab	1x/Year	See Footnote [11]

11 Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

B. Monitoring Location Surface Water REC-002

1. The Discharger shall monitor the Pear Drain at REC-002 as follows. In the event that no receiving water is present at REC-002, no receiving water monitoring data is required for station REC-002.

Table E-7 Receiving Water Monitoring Requirements for Monitoring Location REC-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Reporting Level, units), respectively
Dissolved Oxygen	mg/L	Grab	1x/Month	See Footnote [13]
Hardness	mg/L	Grab	1x/Month	See Footnote [13]
pH	pH Units	Grab	1x/Month	See Footnote [13]
Temperature	°F	Grab	1x/Month	See Footnote [13]
Total Dissolved Solids	mg/L	Grab	1x/Month	See Footnote [13]

C. Monitoring Location Groundwater - Not Applicable

IX. OTHER MONITORING REQUIREMENTS

A. Water Supply Monitoring

The Discharger is required to obtain or acquire quarterly total dissolved solids concentrations of the source water, either through monitoring or obtaining the data from the drinking water purveyor. This information will be compiled and summarized in an annual report, in accordance with Provision VI.C.2.e of the Order.

B. Monitoring Location SLD-001 Sludge Monitoring

1. Sludge that is generated at the treatment facility shall be sampled and analyzed for the following prior to disposal:

12 Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment G.

13 Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

Table E-8 Sludge Monitoring for Monitoring Location SLD-001

Constituent	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Reporting Level, units), respectively
Arsenic	mg/kg	Grab[14]	1x/Year	See Footnote [15]
Cadmium	mg/kg	Grab[14]	1x/Year	See Footnote [15]
Copper	mg/kg	Grab[14]	1x/Year	See Footnote [15]
Lead	mg/kg	Grab[14]	1x/Year	See Footnote [15]
Mercury	mg/kg	Grab[14]	1x/Year	See Footnote [15]
Molybdenum	mg/kg	Grab[14]	1x/Year	See Footnote [15]
Nickel	mg/kg	Grab[14]	1x/Year	See Footnote [15]
Selenium	mg/kg	Grab[14]	1x/Year	See Footnote [15]
Zinc	mg/kg	Grab[14]	1x/Year	See Footnote [15]
Fecal Coliform	mpn/g	Grab[14]	1x/Year	See Footnote [15]

2. The Discharger shall report annually on the quantity, location and method of disposal of all sludge and similar solid materials being produced at the wastewater treatment plant facility.

C. Pretreatment Monitoring – Not Applicable

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

2. The Discharger shall report the results of acute and chronic toxicity testing, TRE and TIE as required in the previous section entitled, “Effluent Toxicity Testing”.

3. The results of any analysis taken, more frequently than required using analytical methods, monitoring procedures and performed at the locations specified in this Monitoring and Reporting Program shall be reported to the Regional Water Board.

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 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 in accordance with the requirements described in subsection X.B.5 below. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

14 A composite sample of sludge shall be collected when sludge is removed from the ponds for disposal in accordance with USEPA's POTW Sludge Sampling and Analysis Guidance Document, August 1989.

15 Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 503.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under Sections III through IX and X.D. 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 – VI.C.2.a, VI.C.2.b, VI.C.2.e, and VI.C.3.a of this Order. The Discharger shall submit monthly, quarterly, 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 E-9 Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	June 21, 2006	All	Submit with SMR
1x/Day	June 21, 2006	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with SMR
1x/Week	June 25, 2006	Sunday through Saturday	Submit with SMR
1x/Month	July 1, 2006	1st day of calendar month through last day of calendar month	31 days from the end of the monitoring period
5x/Month	July 1, 2006	1st day of calendar month through last day of calendar month	31 days from the end of the monitoring period
1x/Quarter	July 1, 2006	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	31 days from the end of the monitoring period
1x/Year	January 1, 2006	January 1 through December 31	31 days from the end of the monitoring period

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 hard copy SMRs (with an original signature) when required by Section X.B.1 above 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.

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:

Submit monitoring reports to:
California Regional Water Quality Control Board Colorado River Basin Region 73-720 Fred Waring, Suite 100 Palm Desert, CA 92260

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:

Submit monitoring reports to:
State Water Resources Control Board Discharge Monitoring Report Processing Center Post Office Box 671 Sacramento, CA 95812

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 or modified cannot be accepted.

D. Other Reports

1. Operations and Maintenance Report

The Discharger shall report the following:

Table E-10 Operations and Maintenance Report

Activity	Reporting Frequency
To inspect and document any operation/maintenance problems by inspecting each unit process. In addition, calibration of flow meters and mechanical equipment shall be performed in a timely manner and documented.	1x/Year

2. Waste Disposal Truck Discharge Manifest

The Discharger shall maintain records of sources of disposal waste brought to the Facility by haulers (i.e., wastes from septic tank and portable toilet facilities). The Discharger currently maintains a "Waste Disposal Truck Discharge Manifest" and shall continue maintaining such records. The Discharger shall obtain information including the date, time, volume of waste discharged, vehicle license number, and source of waste. The Discharger is not required to report this information to the Regional Water Board; however, is required to maintain the Manifest on-site and available for inspection.

Attachment F – Fact Sheet – Table of Contents

F

LIST OF TABLES

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.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1 Facility Information

WDID	**7A130105011**
Discharger	**City of Holtville**
Name of Facility	**Municipal Wastewater Treatment Plant, Holtville**
Facility Address	**1250 Kamm Road**
	Holtville, CA 92250
	Imperial County
Facility Contact, Title and Phone	**Gerry Peacher, Public Works Manager, (760) 356-2632**
Authorized Person to Sign and Submit Reports	**Gerry Peacher**
Mailing Address	**121 West Fifth Street, Holtville, CA 92250**
Billing Address	**SAME**
Type of Facility	**Publicly-owned treatment works**
Major or Minor Facility	**Minor**
Threat to Water Quality	**2**
Complexity	**B**
Pretreatment Program	**N**
Reclamation Requirements	**None**
Facility Permitted Flow	**0.85 MGD**
Facility Design Flow	**0.85 MGD**
Watershed	**Imperial Hydrologic Unit (Brawley HA) – 723.10**
Receiving Water	**Pear Drain**
Receiving Water Type	**Drain**

A. The City of Holtville (hereinafter Discharger) owns and operates the municipal wastewater treatment plant (hereinafter Facility) a publicly-owned treatment works facility.

B. The Facility discharges wastewater to the Pear Drain (Imperial Valley Drains), a water of the United States and is currently regulated by Order No. 01-002 which was adopted on March 14, 2001 and expired on March 14, 2006. The terms of the existing Order automatically continued in effect after the permit expiration date.

C. The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on March 15, 2006. A site visit was conducted on December 9, 2005 to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment or Controls

1. The City of Holtville owns the wastewater collection, treatment and disposal system (hereinafter referred to as facility) and provides sewerage service to the City of Holtville and a nearby county club, serving a permanent population of 6,000 and 1,200 additional winter residents. The wastewater treatment plant has a treatment capacity of 0.85 million gallons-per-day (MGD).

2. The treatment system consists of an influent bar screen, grit chamber, three circular primary clarifiers operated in parallel, a trickling filter, three secondary clarifiers operated in parallel, effluent flow meter, three sand filters, an ultraviolet (UV) disinfection system, an aerobic digester, and three sludge drying beds. Wastewater is discharged from Discharge Point No. 001 (see Table 2 on cover page) to the Pear Drain, a tributary to the Alamo River, a water of the United States.

3. The Discharger accepts septic tank and portable toilet waste and introduces the waste prior to primary treatment. Further, the City of Holtville operates a recreational vehicle (RV) dump station that services the winter residents and the resultant wastewater is brought to the Facility. This wastewater is also added to the collection system prior to primary treatment. The Discharger maintains a Waste Disposal Truck Discharge Manifest (Manifest) that records the source of septic wastes, date of delivery, and volume. The Manifest also contains a clause that allows the Discharger to sample the waste at any time. The Discharger plans to continue using the Manifest to document wastes brought to the Facility.

4. There are several produce packing sheds in the service area that discharge produce wash water to the City of Holtville sanitary sewer system.

5. The Discharger owns and operates the wastewater collection system, which provides conveyance of raw wastewater to the treatment facility.

6. Sludge collected from the primary and secondary clarifiers is treated at in an aerobic digester. From the aerobic digester, thickened sludge is pumped to three drying beds for drying. Sludge drying beds are equipped with sand filters and perforated underdrains. Leachate collected from the drying beds is pumped back to the headworks for reprocessing. The Discharger reports that 180 dry metric tons of sewage sludge is generated on-site per year. Sludge from the Facility is pumped to drying beds, dried, and is hauled away annually to Arizona for disposal.

B. Discharge Points and Receiving Waters

1. The final effluent is discharged to the Pear Drain. The permitted maximum daily flow limitation is equal to the design capacity of the wastewater treatment plant as 0.85 MGD.

2. The discharge consists of secondary treated domestic wastewater and produce wash water.

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

1. Effluent limitations contained in the existing Order for discharges from the Facility (Monitoring Location EFF-001) and representative monitoring data from the term of the previous Order are as follows:

Table F-2 Historic Effluent Limitations and Monitoring Data

Parameter (units)	Effluent Limitation			Monitoring Data (From March 2001 – To October 2005)		
	Average Monthly	Average Weekly	Maximum Daily	Maximum Average Monthly Discharge	Maximum Average Weekly Discharge	Maximum Daily Discharge
Discharge Flow (MGD)	--	--	--	0.7931	--	1.006
BOD (mg/L)	30	45	--	32.6	39	--
TSS (mg/L)	30	45	--	17.3	35	--
Percent Removal, BOD (%)	85	--	--	82 [1,2]	--	--
Percent Removal, TSS (%)	85	--	--	87	--	--
pH (pH units)	--	--	6.0 – 9.0	--	--	6.9 – 8.4 [3]
Total Dissolved Solids (mg/L)	4,000	4,500	--	1,290	1,290	--
Total Chlorine Residual (mg/L)	0.01	--	0.02 (inst.)	N/A [4]	--	N/A
Escherichia Coli (E. Coli) (MPN/100 mL)	[5]	--	--	160,000 [6]	--	160,000 [6]

1 This value represents the minimum reported value of percent removal of the effluent.
2 This value represents the lowest reported value of the minimum percent removal of the pollutant. For BOD, the Discharger violated the minimum percent removal requirement once (82 percent); reported values in compliance with the minimum percent removal effluent limitation ranged from 86 to 98 percent.
3 This represents the range of reported pH values.
4 N/A = Not Available. The Discharger did not report effluent monitoring results for total chlorine residual. The Monitoring and Reporting Program No. 01-002 states "Monitoring for chlorine residual shall begin on the day chlorination of the effluent is initiated".
5 Order No. 01-002 required effluent shall not have a E. Coli concentration in excess of a log mean of 126 MPN/100 mL (based on a minimum of not less than five samples for any 30-day period) nor shall more than 10 percent of total samples during any 30-day period exceed 400 MPN/100 mL.
6 As discussed in Section II.D below, Time Schedule Order No. R7-2002-0175 required the Discharger to take actions to achieve compliance with the E. coli effluent limitations in Order No. 01-002. Following upgrade to the disinfection system the Discharger reported concentrations in violation of the E. coli average monthly effluent limitations four times; the reported concentrations ranged from 1,600 to 9,000 MPN/100 mL. The Discharger reported concentrations in violation of the E. coli maximum daily effluent limitations twice; the reported concentrations are 173 and 1,170 MPN/100 mL.

2. The Report of Waste Discharge described the existing discharge as follows:

Annual Average Daily Effluent Flow – 0.476 MGD
Maximum Daily Effluent Flow – 0.636 MGD

3. The Report of Waste Discharge described the effluent characteristics as follows:

Table F-3 ROWD Effluent Characteristics

Constituent (units)	Maximum Daily	Average Daily
pH Lowest Maximum Daily (pH Units)	7.53	--
pH Highest Maximum Daily (pH Units)	7.71	--
Temperature (Winter) Maximum Daily (°F)	65	68.5
Temperature (Summer) Maximum Daily (°F)	83.6	79.2
BOD_5 Maximum Daily (mg/L)	19.07	12.43
Total Suspended Solids Maximum Daily (mg/L)	10.22	7.48
Fecal Coliform Maximum Daily (MPN/100 mL)	130	20.8
Ammonia as Nitrogen (mg/L)	26.9	10.9
Nitrate plus Nitrite as Nitrogen (mg/L)	8.9	4.3
Phosphorus (mg/L)	4.0	3.1
Total Dissolved Solids (mg/L)	1,038	879
Total Kjeldahl Nitrogen (mg/L)	33.5	16.5

D. Compliance Summary

Time Schedule Order (TSO) No. R7-2002-0175 was adopted on October 2, 2002. The TSO required the Discharger to take specific actions in order to achieve compliance with effluent limitation for E. Coli contained in Order No. 01-002. The Discharger expanded the disinfection system and implemented an ultraviolet (UV) disinfection system. The UV system was operational by September 30, 2003 as required by the TSO. Since implementation of the UV disinfection system, the Facility has violated E. Coli limitations four times. The Discharger stated the age of the lamps used in the UV disinfection system contributed to exceedances of the E. Coli effluent limitations. The Discharger currently replaces the UV lamps every 8,700 hours, as recommended by the manufacturer.

Based on a review of effluent monitoring data submitted by the Discharger for the period from March 2001 through October 2005, the Discharger has exceeded effluent limitations established in Order No. 00-002 for BOD_5, percent removal BOD_5, E. Coli, and toxicity. In July 2002 the Discharger initiated a Toxicity Identification Evaluation (TIE) in response to detection of acute toxicity in the fourth quarter 2001 analysis. The TIE phase I test results confirmed the presence of high levels of ammonia. The Discharger inspected the collection system and nearby produce packing sheds; no abnormal activities were observed.

E. Planned Changes

The Discharger stated the plant is operating close to 80 percent capacity; the Discharger stated there are plans to expand the treatment facility during the permit term. However, the report of waste discharge and application for renewal of the permit dated March 15, 2006 did not provide a discussion of planned changes at the facility.

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 (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 for discharges that are not subject to regulation under CWA Section 402.

B. California Environmental Quality Act (CEQA)

This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with 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 Colorado River Basin (hereinafter Basin Plan) on August 3, 1995 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.

   The Basin Plan does not specifically identify beneficial uses for the Pear Drain; however, identifies beneficial uses for the Imperial Valley Drains. These beneficial uses are listed below and are applicable to the Pear Drain:

Table F-4 Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pear Drain (Imperial Valley Drains)	Existing: Freshwater replenishment (FRESH), contact (REC-1)[1, 2] and non-contact (REC-2) water recreation[1], warm freshwater habitat (WARM); wildlife habitat (WILD), preservation or rare, threatened or endangered species (RARE)[3].

2. **Thermal Plan.** The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal* and *Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters. The Thermal Plan does not apply to the Pear Drain.

3. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999,

1 Unauthorized use.

2 The only REC-1 usage that is known to occur is from infrequent fishing activity.

3 Rare, endangered, or threatened wildlife exists in or utilizes some of these waterway(s). If the RARE beneficial use may be affected by a water quality control decision, responsibility for substantiation of the existence of rare, endangered, or threatened species on a case-by-case basis is upon the California Department of Fish and Game on its own initiative and/or at the request of the Regional Water Board; and such substantiation must be provided within a reasonable time frame as approved by the Regional Water Board.

and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.

4. **State Implementation Policy.** On March 2, 2000, 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 Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP includes procedures for determining the need for and calculating water quality-based effluent limitations (WQBELs), and requires Dischargers to submit data sufficient to do so.

5. **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 CFR 131.21, 65 FR 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.

6. **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 BOD, TSS, pH, percent removal of BOD and TSS. Restrictions on BOD, TSS, pH, percent removal of BOD and TSS are specified in federal regulations as discussed in 40 CFR § 125.3(a)(1), and the permit's technology-based pollutant restrictions are no more stringent than required by the CWA. WQBELs 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. All 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). Collectively, 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.

7. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that 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 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. As discussed in detail in this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR §131.12 and State Water Board Resolution 68-16.

8. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR §122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require 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. All effluent limitations in the Order are at least as stringent as the effluent limitations in the previous Order, except that the effluent limitation for total residual chlorine has been removed. As stated in Section II.A.2, the Discharger implements an ultraviolet (UV) disinfection system; therefore, since chlorine is not used in the treatment system, it is not practical to include an effluent limitation for total residual chlorine for this discharge.

9. **Monitoring and Reporting Requirements.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.

10. **Storm Water Requirements.**

    a. Federal regulations for storm water discharges require specific categories of facilities which discharge storm water associated with industrial activity (storm water) to obtain NPDES permits and to implement Best Conventional Pollutant Technology (BCT) and Best Available Technology Economically Achievable (BAT) to reduce or eliminate industrial storm water pollution.

    b. The State Water Resources Control Board (State Water Board) adopted Order No. 97-03-DWQ (General Permit No. CAS000001), specifying waste discharge requirements for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries to be covered under the Permit. Coverage under the General Permit is not required because treatment work facilities with a capacity less than 1 MGD are not required to seek coverage under a storm water permit.

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

The immediate receiving water is the Pear Drain, which is a part of the Imperial Valley Drains. The 2002 USEPA 303(d) List classifies the Imperial Valley Drains as impaired by sediment/silt, pesticides, and selenium. Further, the Alamo River, to which the Pear Drain is tributary, is listed as impaired by pesticides and selenium. There is an EPA-approved TMDL for sedimentation/siltation for the Alamo River. The sediment TMDL has established a WLA for the Discharger for sediment of twice the current TSS loading rate (77.7 tons per year). The TSS effluent limitations contained in this Order are less than the WLA in the TMDL for the Discharger. In addition, the 2002 USEPA 303(d) List classifies the Salton Sea as impaired by nutrients. Tributaries to the Salton Sea, including the Alamo River, may be affected by the

TMDL developed. No TMDL has been developed to date, although a nutrient TMDL is under development for the Salton Sea that will have impacts on discharges to tributaries to the Salton Sea (Alamo River and Pear Drain). This TMDL is tentatively scheduled for completion in 2009.

E. Other Plans, Polices and Regulations – Not Applicable

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges 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: 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR §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. Where numeric water quality objectives have not been established. Three options exist to protect water quality: 1) 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a); 2) proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information may be used; or 3) an indicator parameter may be established.

Effluent and receiving water limitations in this Board Order are based on the Federal Clean Water Act, Basin Plan, State Water Resources Control Board's plans and policies, U. S. Environmental Protection Agency guidance and regulations, and best practicable waste treatment technology. While developing effluent limitations and receiving water limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

1. EPA NPDES Application Forms 1, 2A, and 2S dated March 15, 2006.

2. Code of Federal Regulations – Title 40

3. Water Quality Control Plan (Colorado River Basin – Region 7) as amended to date.

4. Regional Water Board files related to City of Holtville Municipal Wastewater Treatment Plant NPDES permit CA0104361.

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, U. S. Environmental Protection Agency guidance and regulations, and best practicable waste treatment technology.

B. Technology-Based Effluent Limitations

1. Scope and Authority

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.

- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and nonconventional pollutants.

- Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

- New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR Section 125.3 of the NPDES regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in 40 CFR Section 125.3.

a. Secondary Treatment Standards. Regulations promulgated in 40 CFR §125.3(a)(1) require technology-based effluent limitations for municipal dischargers to be placed in NPDES permits based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

   The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in Section 304(d)(1)]. Section 301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the USEPA Administrator.

   Based on this statutory requirement, USEPA developed secondary treatment regulations, which are specified in 40 CFR Part 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH.

2. Applicable Technology-Based Effluent Limitations

a. 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, TSS, and pH as summarized in Table F-5. Previous Order No. 00-002 established technology-based effluent limits to meet applicable secondary treatment standards. These effluent limitations have been carried over from the previous Order. Further, mass-based effluent limitations are based on a design flow rate of 0.85 MGD.

Summary of Technology-based Effluent Limitations
Discharge Point 001

Table F-5 Summary of Technology-based Regulations (Fact Sheet)

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	MGD	0.85	--	--	--	--
5-day BOD	mg/L	30	45	--	--	--
	lbs/day[4]	213	319	--	--	--
Total Suspended Solids	mg/L	30	45	--	--	--
	lbs/day	213	319	--	--	--
pH	standard units	--	--	--	6.0	9.0
Removal Efficiency for BOD and TSS	%	85	--	--	--	--

c. Basis for Limitations

Table F-6 Basis of Limitations (Fact Sheet)

Constituents	Basis for Limitations
Biochemical Oxygen Demand (BOD)	Discharges to waters that support aquatic life, that is dependent on oxygen. Organic matter in the discharge may consume oxygen as it breaks down.
Total Suspended Solids (TSS)	High levels of suspended solids can adversely impact aquatic habitat. Untreated or improperly treated wastewater can contain high amounts of suspended solids.
Hydrogen Ion (pH)	Hydrogen Ion (pH) is a measure of Hydrogen Ion concentration in the water. A range specified between 6 to 9 ensures suitability of biological life. This limitation has been adopted in the Basin Plan of the Region.
Flow	The design capacity of the treatment plant is currently 0.85 MGD.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

As specified in 40 CFR §122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. 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

4 The mass-based effluent limitations are based on a design capacity of 0.85 MGD.

that are contained in other state plans and policies, or water quality criteria contained in the CTR and NTR.

a. Effluent discharged from this facility could contain pollutants in sufficient quantities to affect receiving water quality. Pursuant to Section 13263, Article 4, Chapter 4 of the Porter Cologne Water Quality Control Act, the Regional Water Boards are required to issue Waste Discharge Requirements for discharges that could affect the quality of the State's waters. Furthermore, Federal Regulation 40 CFR §122.1 requires the issuance of NPDES permits for pollutants discharged from a point source to the waters of the United States.

b. The U.S. Environmental Protection Agency published the adopted California Toxics Rule (CTR) (40 CFR §131.38). The CTR promulgates new criteria for both human health protection and protection of aquatic life. New numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants are listed. In addition, the CTR contains a compliance schedule provision, which authorizes the State to issue schedules of compliance for new or revised NPDES permit limits based on the federal criteria when certain conditions are met.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

Table F-7 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.

Table F-7 Applicable Beneficial Uses and Water Quality Criteria and Objectives

CTR No.	Parameter	Selected Criteria	CTR/NTR Water Quality Criteria				
			Freshwater		Saltwater		Human Health for Consumption of:
			Acute	Chronic	Acute	Chronic	Organisms Only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
2	Arsenic	36	340	150	69	36	
6	Copper	3.73	39.17	23.72	5.78	3.73	
7	Lead	8.52	327.8	12.77	220.82	8.52	
9	Nickel	8.28	1,181.74	131.39	74.75	8.28	4,600
10	Selenium	5.0		5.0	290.58	71.14	
13	Zinc	85.62	302.22	302.22	95.14	85.62	
60	Benzo(a)anthracene	0.049					0.049
61	Benzo(a)pyrene	0.049					0.049
62	Benzo(b)fluoranthene	0.049					0.049
64	Benzo(k)fluoranthene	0.049					0.049
68	Bis(2-ethylhexyl)phthalate	5.9					5.9
73	Chrysene	0.049					0.049
77	1,4-Dichlorobenzene	2,600					2,600
86	Fluoranthene	370					370
99	Phenanthrene	No Criteria					
100	Pyrene	11,000					11,000

3. Determining the Need for WQBELs

In accordance with Section 1.3 of the SIP, the Regional Water Board conducted a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the Order. The Regional Water Board analyzed effluent and receiving water data to determine if a pollutant in a discharge has the reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have the reasonable potential to cause or contribute to an excursion above a water quality standard, numeric WQBELs are required. The RPA considers 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 identified the maximum observed effluent concentration (MEC) 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:

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

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

3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

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.

The Discharger submitted laboratory results from two rounds of effluent monitoring conducted on October 17, 2001 and March 9, 2006. These data were used to conduct the RPA, the results of which are summarized below in Table F-8.

Table F-8 Summary of Reasonable Potential Analysis

CTR No.	Parameter	Applicable Water Quality Criteria	Maximum Effluent Conc.	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		(C)	(MEC)	(B)		
		µg/L	µg/L	µg/L		
2	Arsenic	36	4.2	7.6	No	MEC and B < C
6	Copper	3.73	12	28	Yes	Trigger 1
7	Lead	8.52	0.7	2.9	No	MEC and B < C
9	Nickel	8.28	4.2	13	Yes	Trigger 2
10	Selenium	5.0	1.5	6	Yes	B > C and

CTR No.	Parameter	Applicable Water Quality Criteria	Maximum Effluent Conc.	Maximum Detected Receiving Water Conc. (B)	RPA Result - Need Limit?	Reason
		(C)	(MEC)	(B)		
						detected in effluent
13	Zinc	85.62	79	18	No	MEC and B < C
60	Benzo(a)anthracene	0.049	0.14	<0.05	Yes	Trigger 1
61	Benzo(a)pyrene	0.049	0.1	<0.05	Yes	Trigger 1
62	Benzo(b)fluoranthene	0.049	0.1	<0.05	Yes	Trigger 1
64	Benzo(k)fluoranthene	0.049	0.09	<0.05	Yes	Trigger 1
68	Bis(2-ethylhexyl)phthalate	5.9	6.4	<5	Yes	Trigger 1
73	Chrysene	0.049	0.13	<0.05	Yes	Trigger 1
77	1,4-Dichlorobenzene	2,600	0.89	0.5	No	MEC < C and B is ND
86	Fluoranthene	370	0.27	<0.05	No	MEC < C and B is ND
99	Phenanthrene	No Criteria	0.17	<0.05	No	MEC < C and B is ND
100	Pyrene	11,000	0.28	<0.05	No	MEC < C and B is ND

4. WQBEL Calculations

a. Water quality-based effluent limits (final) are based on monitoring results and following the calculation process outlined in Section 1.4 of the California Toxic Rule and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California. A table providing the calculation for all applicable WQBELs for this Order is provided in Attachment I of this Order.

b. WQBELs Calculation Example

Using nickel as an example, the following demonstrates how WQBELs based on a human health criterion were established for this Order. The process for developing these limits is in accordance with Section 1.4 of the SIP. Attachment I summarizes the development and calculation of all WQBELs for this Order using the process described below.

Step 1: For each constituent requiring an effluent limit, identify the applicable water quality criteria or objective. For each criteria determine the effluent concentration allowance (ECA) using the following steady state equation:

ECA = C + D(C-B) when C>B, and
ECA = C When C<= B,

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. In this Order a hardness value of 298 mg/L (as $CaCO_3$) was used for development of hardness-dependant criteria, and a pH of 7.8 was used for pH-dependant criteria.
D = The dilution credit, and
B = The ambient background concentration

For this Order, dilution was not allowed due to the nature of the receiving water and quantity of the effluent; therefore:

ECA = C

For nickel, the applicable water quality criteria are:

ECA_{acute}= 74.75 mg/L
$ECA_{chronic}$= 8.28 mg/L
$ECA_{human\ health}$= 4,600 mg/L

Step 2: For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

$LTA_{acute} = ECA_{acute} \times Multiplier_{acute}$

$LTA_{chronic} = ECA_{chronic} \times Multiplier_{chronic}$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6.

For nickel, the following data was used to develop the acute and chronic LTA using Table 1 of the SIP:

No. of Samples	CV	$Multiplier_{acute}$	$Multiplier_{chronic}$
1	0.6	0.32	0.53

LTA_{acute} = 74.75 mg/L x 0.32 = 24 mg/L

$LTA_{chronic}$ = 8.28 mg/L x 0.53 = 4.37 mg/L

Step 3: Select the most limiting (lowest) of the LTA.

LTA = most limiting of LTA_{acute} or $LTA_{chronic}$

For nickel, the most limiting LTA was the $LTA_{chronic}$

LTA = 4.37 mg/L

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as Average Monthly Effluent Limitations (AMEL) and Maximum Daily Effluent Limitation (MDEL). The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the coefficient of variation (CV) of the data set, the number of samples (for AMEL) and whether it is monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

$AMEL_{aquatic\ life} = LTA \times AMEL_{multiplier}$

$MDEL_{aquatic\ life} = LTA \times MDEL_{multiplier}$

AMEL multipliers are based on a 95th percentile occurrence probability, and the MDEL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For nickel, the following data was used to develop the AMEL and MDEL for aquatic life using Table 2 of the SIP:

No. of Samples	CV	$Multiplier_{MDEL}$	$Multiplier_{AMEL}$
1	0.6	3.11	1.55

$AMEL_{aquatic\ life} = 4.37 \times 1.55 = 6.78$ mg/L

$MDEL_{aquatic\ life} = 4.37 \times 3.11 = 13.6$ mg/L

Step 5: For the ECA based on human health, set the AMEL equal to the $ECA_{human\ health}$

$AMEL_{human\ health} = ECA_{human\ health}$

For nickel:

$AMEL_{human\ health}$ = 4,600 mg/L

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of the $Multiplier_{MDEL}$ to the $Multiplier_{AMEL}$. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

$MDEL_{human\ health} = AMEL_{human\ health} \times (Multiplier_{MDEL} / Multiplier_{AMEL})$

For nickel, the following data was used to develop the $MDEL_{human\ health}$:

No. of Samples	CV	$Multiplier_{MDEL}$	$Multiplier_{AMEL}$	Ratio
1	0.6	3.11	1.55	2.01

$MDEL_{human\ health}$ = 4,600 mg/L x 2.01 = 9,228 mg/L

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health as the water-quality based effluent limit for the Order.

For nickel:

$AMEL_{aquatic\ life}$	$MDEL_{aquatic\ life}$	$AMEL_{human\ health}$	$MDEL_{human\ health}$
6.8 mg/L	13.6 mg/L	4,600 mg/L	9,228 mg/L

The lowest (most restrictive) effluent limits, those based on aquatic life criteria, were incorporated into this Order.

A. Final WQBELs

Summaries of the WQBELs required by this Order are described in Table F-9 below. Mass-based effluent limitations are based on a design capacity of 0.85 MGD.

Table F-9 Summary of WQBELs

Constituent	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Copper	µg/L	2.9	5.8
	lbs/day	0.021	0.041
Nickel	µg/L	6.8	14
	lbs/day	0.048	0.099
Selenium	µg/L	4.1	8.2
	lbs/day	0.029	0.058
Benzo(a)anthracene	µg/L	0.049	0.098
	lbs/day	0.00035	0.00069
Benzo(a)pyrene	µg/L	0.049	0.098
	lbs/day	0.00035	0.00069
Benzo(b)fluoranthene	µg/L	0.049	0.098
	lbs/day	0.00035	0.00069
Benzo(k)fluoranthene	µg/L	0.049	0.098
	lbs/day	0.00035	0.00069
Bis(2-ethylhexyl)phthalate	µg/L	5.9	12
	lbs/day	0.042	0.085
Chrysene	µg/L	0.049	0.098
	lbs/day	0.00035	0.00069
Ammonia	mg/L	1.9	3.6
	lbs/day	13	26

B. WQBELs based on Basin Plan Objectives

The Basin Plan states that any discharge to the Imperial Valley Drains shall not cause concentration of TDS in the surface water to exceed a maximum of 4,500 mg/L and an annual average of 4,000 mg/L. Therefore, receiving water limitations for TDS are included in the Order and are based on the maximum effluent limitation provided in the Basin Plan.

The Basin Plan states that any discharge to a waterbody with a REC-1 designated use shall not have an Escherichia coli (E. coli) concentration in excess of a log mean of Most Probable Number (MPN) of 126 MPN per 100 milliliters (based on a minimum of not less than five samples for any 30-day period) nor shall any sample exceed 400 MPN per 100 milliliters. Effluent limitations for E.coli are incorporated in this Order. The effluent limitations for E.coli are unchanged from the previous Order. In addition, the Basin Plan contains receiving water limitations for enterococci and fecal coliform. E.coli is an indicator parameter for enterococci and fecal coliform. Therefore, effluent limitations for enterococci and fecal coliform are not included in the Order.

The Basin Plan requires all waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, 96-hour bioassay or bioassays of appropriate duration or other appropriate methods as specified by the Regional Water Board. This Order establishes narrative toxicity limitations to comply with this requirement.

As reported in Section II.D – Compliance Summary, the effluent discharged from the Facility has been in chronic violation of the effluent limitations for toxicity. The Discharger has determined that high concentrations of ammonia in the effluent discharged from the Facility have contributed to observed effluent toxicity. Therefore, a WQBEL has been established for ammonia. The WQBEL for ammonia was calculated based on the USEPA's "1999 Update of Ambient Water Quality Criteria for Ammonia", EPA-822-R-99-014, December 1999. The 1999 guidance document specifies that freshwater aquatic life shall be protected if both of the following conditions are satisfied for the temperature and pH of the waterbody:

1. The criteria maximum concentration (CMC) for total ammonia nitrogen (in mg/L) for receiving water bodies where salmonid fish are not present shall be calculated as follows:

$$CMC = \left[0.411/\left(1+10\text{^}7.204-pH\right)\right]+\left[58.4/\left(1+10\text{^}\ pH-7.204\right)\right]$$

2. The criteria continuous concentration (CCC) for total ammonia nitrogen (in mg/L) for receiving water bodies where early life stages of fish are present shall be calculated as follows:

$$CCC = \left[0.0577/\left(1+10\text{^}7.688-pH\right)+2.487/\left(1+10\text{^}\ pH-7.688\right)\right]*MIN\left(2.85,1.45*10\text{^}0.028*\left(25-T\right)\right)$$

The total ammonia nitrogen criteria were calculated based on a weighted average calculation considering receiving water pH and temperature from receiving water monitoring data submitted by the Discharger for the period from May 2001 through October 2005. The final total ammonia nitrogen effluent limitations (AMEL and MDEL)

were calculated based on the equations contained in USEPA's *Technical Support Document For Water Quality-based Toxics Control (TSD)* (EPA-505-2-90-001, 1991).

The effluent limitation for total residual chlorine is discontinued since the Discharger implements a UV disinfection system and chlorine is not used in the treatment system. Therefore, total residual chlorine is not expected to be present in the discharge from the Facility.

5. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a shorter time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental response on aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. Therefore, in accordance with the SIP, this Order requires the Discharger to conduct chronic toxicity testing for discharges to the Pear Drain. In addition, the Order establishes thresholds that when exceeded requires the Discharger to conduct accelerated toxicity testing and/or conduct toxicity identification evaluation (TIE) studies.

D. Final Effluent Limitations

Table F-10, below, summarizes the proposed effluent limitations for the discharge, EFF-001. Proposed effluent limitations are based on secondary treatment standards, CTR, and Colorado River Basin Plan Water Quality Standards.

1. Mass-based Effluent Limitations

Mass-based effluent limitations are established using the following formula:

Mass (lbs/day) = flow rate (MGD) x 8.34 x effluent limitation (mg/L)
where: Mass = mass limitation for a pollutant (lbs/day)
Effluent limitation = concentration limit for a pollutant (mg/L)
Flow rate = discharge flow rate (MGD)

Table F-10 Final Effluent Limitations

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Flow	MGD	0.85	--	--	--	--	
5-day BOD	mg/L	30	45	--	--	--	40 CFR 133
	lbs/day[5]	210	320	--	--	--	
Total Suspended Solids	mg/L	30	45	--	--	--	40 CFR 133
	lbs/day[5]	210	320	--	--	--	
pH	pH units	--	--	--	6.0	9.0	40 CFR 133
Removal Efficiency for BOD and TSS	%	85	--	--	--	--	40 CFR 133
Copper, Total Recoverable	µg/L	2.9	--	5.8	--	--	CTR, SIP
	lbs/day[5]	0.021	--	0.041	--	--	
Nickel, Total Recoverable	µg/L	6.8	--	14	--	--	CTR, SIP
	lbs/day[5]	0.048	--	0.099	--	--	
Selenium, Total Recoverable	µg/L	4.1	--	8.1	--	--	CTR, SIP
	lbs/day[5]	0.029	--	0.058	--	--	
Benzo(a)anthracene	µg/L	0.049	--	0.098	--	--	CTR, SIP
	lbs/day[5]	0.00035	--	0.00069	--	--	
Benzo(a)pyrene	µg/L	0.049	--	0.098	--	--	CTR, SIP
	lbs/day[5]	0.00035	--	0.00069	--	--	
Benzo(b)fluoranthene	µg/L	0.049	--	0.098	--	--	CTR, SIP
	lbs/day[5]	0.00035	--	0.00069	--	--	
Benzo(k)fluoranthene	µg/L	0.049	--	0.098	--	--	CTR, SIP
	lbs/day[5]	0.00035	--	0.00069	--	--	
Bis(2-ethylhexyl)phthalate	µg/L	5.9	--	12	--	--	CTR, SIP
	lbs/day[5]	0.042	--	0.085	--	--	
Chrysene	µg/L	0.049	--	0.098	--	--	CTR, SIP
	lbs/day[5]	0.00035	--	0.00069	--	--	

5 The mass-based effluent limitations are based on a design capacity of 0.85 MGD.

Parameter	Units	Effluent Limitations					
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Basis
Ammonia, Total (as N)	mg/L	1.9	--	3.6	--	--	Basin Plan
	lbs/day[5]	13	--	26	--	--	

a. Discharges of wastes or wastewater shall not increase the total dissolved solids content of receiving waters, unless it can be demonstrated to the satisfaction of the Regional Water Board that such an increase in total dissolved solids does not adversely affect beneficial uses of receiving waters.

b. There shall be no acute or chronic toxicity in the treatment plant effluent nor shall the treatment plant effluent cause any acute or chronic toxicity in the receiving water. All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, or bioassays of appropriate duration or other appropriate methods specified by the Regional Water Board.

c. Wastewater effluent discharged to the Pear Drain shall not have an Escherichia coli (E. coli) concentration in excess of a log mean of Most Probable Number (MPN) of 126 MPN per 100 milliliters (based on a minimum of not less than five samples for any 30-day period) nor shall any sample exceed 400 MPN per 100 milliliters.

E. Interim Effluent Limitations

Interim limits have been set as follows:

1. The CMC and CCC for ammonia are 18 and 2.2 mg/L, respectively, the freshwater aquatic life criteria contained in the 1999 Update of Ambient Water Quality Criteria for Ammonia (EPA-822-R-99-014). As previously stated, the Discharger has determined that high concentrations of ammonia in the effluent discharged from the Facility have contributed to observed effluent toxicity. Therefore, a WQBEL has been established for ammonia. The WQBELs calculated pursuant to procedures contained in the TSD are 1.9 mg/L average monthly and 3.6 mg/L maximum daily. The Discharger indicated in its April 11, 2006 Feasibility Study that it is infeasible to comply immediately with the WQBELs. Therefore, an interim effluent limit for ammonia is required. Interim effluent limitations may be based on the 99th percentile of the effluent concentrations. Further, the equations used for calculating effluent limitations, outlined in Section IV.C.4 were used to develop the interim effluent limitation, setting the maximum observed effluent concentration (MEC) as the ECA (ECA=19.7). The Regional Water Board evaluated effluent monitoring data for the period from August 2001 through October 2005 to determine a 99th percentile value. The MEC value for ammonia is 19.7 mg/L and was used to calculate the maximum daily interim effluent limit, based on the calculations in Section IV.C.4. The LTAchronic (10.88) was multiplied by the MDELmultiplier99 (3.11) to result in a maximum daily interim effluent limitation of 34 mg/L. The LTAchronic (10.88) was multiplied by the AMELmultiplier95 (2.11) to result in a average monthly interim effluent limitation of 23 mg/L.

2. The governing WQC for copper is 3.73 µg/L, the saltwater aquatic life criteria contained in the CTR. Copper has reasonable potential to exceed water quality criteria, and final WQBELs are required. The WQBELs calculated pursuant to SIP procedures are 2.9 µg/L AMEL and 5.8 µg/L MDEL. The Discharger documented in its April 11, 2006 Feasibility Study that it is infeasible to comply immediately with the WQBELs. The Regional Water Board verified this assertion of infeasibility by comparing the MEC to the AMEL and MDEL. Therefore, pursuant to the provisions of the SIP, an interim effluent limit for copper is required. Section 2.2 of the SIP states numeric interim limitations must be based on current treatment Facility performance or on existing permit limitations, whichever is more stringent. The previous permit did not contain an effluent limit for copper. The Regional Water Board evaluated effluent monitoring data submitted for the March 9, 2006 priority pollutant monitoring event to determine the interim limit. Insufficient data were available to statistically evaluate performance. The Regional Water Board set the interim limitation equal to the MEC value for copper, 12 µg/L, for both the average monthly and maximum daily interim limit. These interim effluent limits are based on the best professional judgment of Regional Board staff.

3. The governing WQC for nickel is 8.28 µg/L, the saltwater aquatic life criteria contained in the CTR. Nickel has reasonable potential to exceed water quality criteria, and final WQBELs are required. The WQBELs calculated pursuant to SIP procedures are 6.8 µg/L AMEL and 14 µg/L MDEL. The Discharger documented in its April 11, 2006 Feasibility Study that it is infeasible to comply immediately with the WQBELs. However, the Regional Water Board determined that interim effluent limits are not required, since it was the concentration in the background receiving water that triggered reasonable potential. The MEC is 4.2 µg/L, which is less than both the final AMEL and MDEL. Therefore, interim effluent limits for nickel are not required for the Facility.

4. The governing WQC for selenium is 5.0 µg/L, the freshwater aquatic life criteria contained in the CTR. Selenium has reasonable potential to exceed water quality criteria, and final WQBELs are required. The WQBELs calculated pursuant to SIP procedures are 4.1 µg/L AMEL and 8.2 µg/L MDEL. The Regional Water Board determined that interim effluent limits are not required, since it was the concentration in the background receiving water that triggered reasonable potential. The MEC is 1.5 µg/L, which is less than both the final AMEL and MDEL. Therefore, interim effluent limits for selenium are not required for the Facility.

5. The governing WQC for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene is 0.049 µg/L, the human health criteria for consumption of organisms only contained in the CTR. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene have reasonable potential to exceed water quality criteria, and final WQBELs are required. The WQBELs calculated pursuant to SIP procedures are 0.049 µg/L AMEL and 0.098 µg/L MDEL. The Discharger documented in its April 11, 2006 Feasibility Study that it is infeasible to comply immediately with the WQBELs. The Regional Water Board verified this assertion of infeasibility by comparing the MEC to the AMEL and MDEL. Therefore, pursuant to the provisions of the SIP, interim effluent limits for benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene are required. Section 2.2 of the SIP states numeric interim limitations must be based on current treatment Facility performance or on existing permit limitations, whichever is more stringent. The previous permit did not contain an effluent limit for these pollutants. The Regional Water Board evaluated effluent monitoring data submitted for the March 9, 2006 priority pollutant monitoring event to determine the interim limit. Insufficient data were available to statistically evaluate performance. The Regional Water Board set the interim

limitation equal to the MEC value for benzo(a)anthracene, 0.14 µg/L, benzo(a)pyrene and benzo(b)fluoranthene, 0.1 µg/L, benzo(k)fluoranthene, 0.09 µg/L, and chrysene, 0.13 µg/L for both the average monthly and maximum daily interim limits. These interim effluent limits are based on the best professional judgment of Regional Board staff.

6. The governing WQC for bis(2ethylhexyl)phthalate is 5.9 µg/L, the human health criteria for consumption of organisms only contained in the CTR. Bis(2ethylhexyl)phthalate has reasonable potential to exceed water quality criteria, and final WQBELs are required. The WQBELs calculated pursuant to SIP procedures are 5.9 µg/L AMEL and 12 µg/L MDEL. The Discharger documented in its April 11, 2006 Feasibility Study that it is infeasible to comply immediately with the WQBELs. The Regional Water Board verified this assertion of infeasibility by comparing the MEC to the AMEL and MDEL. Therefore, pursuant to the provisions of the SIP, an interim effluent limit for bis(2ethylhexyl)phthalate is required. Section 2.2 of the SIP states numeric interim limitations must be based on current treatment Facility performance or on existing permit limitations, whichever is more stringent. The previous permit did not contain an effluent limit for bis(2ethylhexyl)phthalate. The Regional Water Board evaluated effluent monitoring data submitted for the March 9, 2006 priority pollutant monitoring event to determine the interim limit. Insufficient data were available to statistically evaluate performance. The Regional Water Board set the interim limitation equal to the MEC value for bis(2ethylhexyl)phthalate, 6.4 µg/L for both the average monthly and maximum daily interim limits. These interim effluent limits are based on the best professional judgment of Regional Board staff.

Table F-11 Interim Effluent Limitations

Parameter	Unit	Date Effluent Limit Becomes Effective	Maximum Daily Effluent Limit	Average Monthly Effluent Limit
Copper (interim)	µg/L	June 21, 2006	12	12
Copper (interim)	lbs/day[6]	June 21, 2006	0.085	0.085
Copper (final)	µg/L	May 18, 2010	5.8	2.9
Copper (final)	lbs/day[6]	May 18, 2010	0.041	0.021
Benzo(a)anthracene (interim)	µg/L	June 21, 2006	0.14	0.14
Benzo(a)anthracene (interim)	lbs/day[6]	June 21, 2006	0.00099	0.00099
Benzo(a)anthracene (final)	µg/L	May 18, 2010	0.098	0.049
Benzo(a)anthracene (final)	lbs/day[6]	May 18, 2010	0.00069	0.00035
Benzo(a)pyrene (interim)	µg/L	June 21, 2006	0.1	0.1
Benzo(a)pyrene (interim)	lbs/day[6]	June 21, 2006	0.00071	0.00071
Benzo(a)pyrene (final)	µg/L	May 18, 2010	0.098	0.049
Benzo(a)pyrene (final)	lbs/day[6]	May 18, 2010	0.00069	0.00035
Benzo(b)fluoranthene (interim)	µg/L	June 21, 2006	0.1	0.1
Benzo(b)fluoranthene (interim)	lbs/day[6]	June 21, 2006	0.00071	0.00071

6 The mass-based effluent limitations are based on a design capacity of 0.85 MGD.

Parameter	Unit	Date Effluent Limit Becomes Effective	Maximum Daily Effluent Limit	Average Monthly Effluent Limit
Benzo(b)fluoranthene (final)	µg/L	May 18, 2010	0.098	0.049
Benzo(b)fluoranthene (final)	lbs/day[6]	May 18, 2010	0.00069	0.00035
Benzo(k)fluoranthene (interim)	µg/L	June 21, 2006	0.09	0.09
Benzo(k)fluoranthene (interim)	lbs/day[6]	June 21, 2006	0.00064	0.00064
Benzo(k)fluoranthene (final)	µg/L	May 18, 2010	0.098	0.049
Benzo(k)fluoranthene (final)	lbs/day[6]	May 18, 2010	0.00069	0.00035
Bis(2-ethylhexyl)phthalate (interim)	µg/L	June 21, 2006	6.4	6.4
Bis(2-ethylhexyl)phthalate (interim)	lbs/day[6]	June 21, 2006	0.045	0.045
Bis(2-ethylhexyl)phthalate (final)	µg/L	May 18, 2010	12	5.9
Bis(2-ethylhexyl)phthalate (final)	lbs/day[6]	May 18, 2010	0.085	0.042
Chrysene (interim)	µg/L	June 21, 2006	0.13	0.13
Chrysene (interim)	lbs/day[6]	June 21, 2006	0.00092	0.00092
Chrysene (final)	µg/L	May 18, 2010	0.098	0.049
Chrysene (final)	lbs/day[6]	May 18, 2010	0.00069	0.00035
Ammonia (interim)	mg/L	June 21, 2006	34	23
Ammonia (interim)	lbs/day[6]	June 21, 2006	240	160
Ammonia (final)	mg/L	May 18, 2010	3.6	1.9
Ammonia (final)	lbs/day[6]	May 18, 2010	26	13

F. Land Discharge Specifications (NOT APPLICABLE)

G. Reclamation Specifications (NOT APPLICABLE)

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The surface water receiving water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan. As such, they are a required part of the proposed Order.

Also, a new receiving water limitation was added for TDS based on the Regional Water Board's Basin Plan as follows:

The concentration of total dissolved solids in the Pear Drain to exceed an annual average concentration of 4,000 mg/L or an instantaneous maximum concentration of 4,500 mg/L.

B. Groundwater

The groundwater receiving water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan. As such, they are a required part of the proposed Order.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the California Water Code authorize the Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program, 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 Monitoring and Reporting Program for this facility.

A. Influent Monitoring

This Order carries forward the treatment plant influent monitoring requirements without change.

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 definitions of terms, it specifies general sampling/analytical protocols and the requirements of reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and Regional Water Board's 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, 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, EFF-001, will be required as shown on the proposed Monitoring and Reporting Program (Attachment E) and as required in the SIP.

Monitoring requirements are largely unchanged from the previous Order, except that the monitoring frequency for TSS has been revised to once per week, to be consistent with the influent monitoring frequency. Further, annual monitoring for priority pollutants in the effluent is required in accordance with the SIP.

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).

The Whole Effluent Toxicity (WET) Testing Requirements contained in the Attachment E, Monitoring and Reporting Program, Section V were developed based on the Draft National Whole Effluent Toxicity Implementation Guidance Under the NPDES Program developed by USEPA (Docket ID. No. OW-2004-0037). This is the most current guidance available to the Regional Board. This Order includes a reopener to allow the requirements of this section to be revised pending the issuance of final guidance or policies developed by either the USEPA or State Water Board.

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. Requirements are based on the Basin Plan. Requirements are unchanged from the previous Order.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements

1. Water Supply Monitoring

The Discharger is required to obtain or acquire quarterly total dissolved solids concentrations of the source water, either through monitoring or obtaining the data from the drinking water purveyor. This information will be compiled and summarized in a quarterly report, in accordance with Provision VI.C.2.e of the Order.

2. Biosolids/Sludge Monitoring

This section establishes monitoring and reporting requirements for the storage, handling and disposal practices of sludge generated from the operation of this Facility.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which in accordance with 40 CFR §§122.41and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D to the Order.

Title 40 CFR §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. 40 CFR §123.25(a)(12) allows the State to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR §123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR §§122.41(j)(5) and (k)(2) because the enforcement authority under the CWC is more stringent. In lieu of these conditions, this Order incorporates by reference CWC 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. **Toxicity Identification Evaluations or Toxicity Reduction Evaluations.** This provision is based on the SIP, Section 4, Toxicity Control Provisions.

b. **Translator Study.** This provision is based on the SIP. This provision allows the Discharger to conduct an optional translator study, based on the SIP at the Discharger's discretion. This provision is based on the need to gather site-specific information in order to apply a different translator from the default translator specified in the CTR and SIP. Without site-specific data, the default translators are used with the CTR criteria.

c. **Antidegradation Analysis and Engineering Report for Proposed Plant Expansion.** This provision is based on 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 increased 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 planned projects. This provision requires the Discharger to submit the report to the Regional Water Board for approval.

d. **Operations Plan for Proposed Plant 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.

e. **Total Dissolved Solids (TDS) Study.** The purpose of this study is to provide more detailed information on the Regional Board's development of salinity standards pursuant to Section 303 and through the NPDES permitting authority in the regulation of municipal and industrial sources (See Section 402 of the Federal Water Pollution

Control Act.). As part of the Regional Board's development of salinity standards, the Regional Board is requiring a study to determine what is a reasonable increase in salinity for municipal discharges to surface waters and its impact on the beneficial uses of waters of the United States. As part of the 1996 Review of the Water Quality Standards for Salinity of the Colorado River System dated June 1996, the study proposed that an incremental increase in salinity shall be 400 mg/L or less, which is considered to be a reasonable incremental increase above the flow weighted average salinity of the source water supply. As part of this permit, the Discharger is required to perform a study to evaluate whether a 400 mg/L incremental increase in salinity above the source water is practical and if not, what incremental increase is practical for their discharge. This report shall be submitted to the Regional Board's Executive Officer prior to the filing date for re-application.

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 the previous Order.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. **Sludge Disposal Requirements.** Requirements are based on the previous Order and 40 CFR Part 503.

b. **Pretreatment Program Requirements.** Requirements are based on the previous Order and 40 CFR Part 403.

6. Other Special Provisions – Not Applicable

Special Provisions VI.C.6.a and VI.C.6.b, included to ensure the compliance with requirements established in the Order, are based on the previous Order, the Clean Water Act, U.S. EPA regulations, California Water Code, and Regional Board plans and policies.

7. Compliance Schedules

a. This Order establishes final effluent limitations for copper, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, and chrysene that are new limits for the Facility. This Order also contains interim effluent limitations and a compliance schedule that provides the Discharger time to bring their facility into compliance with the newly established final limits. In accordance with Section 2.1 of the SIP, interim limits and compliance schedules can only be provided by the Board after the Discharger has submitted a report that demonstrates and justifies that it is infeasible for the Discharger to achieve immediate compliance with newly established final effluent limitations. 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. The Discharger submitted an Infeasibility Report on April 11, 2006 and provided a compliance plan that identified the measures that will be taken to reduce the concentrations of copper, benzo(a)anthracene, benzo(a)pyrene,

benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, and chrysene in their discharge.

The provision for compliance schedule is based on Section 2.1 (Compliance Schedules) of the SIP. The proposed permit allows the Discharger until May 18, 2010 to be in compliance with the final effluent limitations for copper, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis(2-ethylhexyl)phthalate, and chrysene. Based on Regional Water Board's BPJ, this schedule is sufficient for the Discharger to achieve the final effluent limitations for the pollutants. The Discharger is required to implement its compliance plan submitted with the Infeasibility Report (April 11, 2006) and develop a compliance and a pollution minimization plan to ensure that the Discharger achieves compliance with the final limitations within a time specified in Section IV.A.2.b of this Order. Annual reporting is required to inform the Regional Water Board about the progress made by the Discharger to achieve compliance with the final limitations within the specified time. During the interim period, the Discharger is required to meet the interim limitations.

b. This Order establishes final effluent limitations for ammonia that are new limits for the Facility. This Order also contains interim effluent limitations and a compliance schedule that provides the Discharger time to bring their facility into compliance with the newly established final limits. In accordance with the Porter-Cologne Act, interim limitations and compliance schedules may be established in a permit if the effluent limitation is a new limit, and new or modified control measures are necessary in order to comply with the new effluent limitation. The Discharger submitted an Infeasibility Report on April 11, 2006 and provided a compliance plan that identified the measures that will be taken to reduce the concentrations of ammonia in their discharge.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Colorado River Basin 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 City of Holtville Wastewater Treatment 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 newspapers: Desert Sun and Imperial Valley Press.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should 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 should be received at the Regional Water Board offices by 5:00 p.m. on May 22, 2006.

C. Public Hearing

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: June 21, 2006
Time: 10:00 a.m.
Location: City of Council Chambers
City of La Quinta
78-495 Calle Tampico
La Quinta, CA 92253

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/coloradoriver/ where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements 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

E. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (760) 346-7491.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Kirk Larkin at (760) 776-8964.

ATTACHMENT G – LIST OF PRIORITY POLLUTANTS

G Table G-1 List of

Table G-1 List of Priority Pollutants

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
1	Antimony	7440360	EPA 6020/200.8
2	Arsenic	7440382	EPA 1632
3	Beryllium	7440417	EPA 6020/200.8
4	Cadmium	7440439	EPA 1638/200.8
5a	Chromium (III)	16065831	EPA 6020/200.8
5a	Chromium (VI)	18540299	EPA 7199/1636
6	Copper	7440508	EPA 6020/200.8
7	Lead	7439921	EPA 1638
8	Mercury	7439976	EPA 1669/1631
9	Nickel	7440020	EPA 6020/200.8
10	Selenium	7782492	EPA 6020/200.8
11	Silver	7440224	EPA 6020/200.8
12	Thallium	7440280	EPA 6020/200.8
13	Zinc	7440666	EPA 6020/200.8
14	Cyanide	57125	EPA 9012A
15	Asbestos	1332214	EPA/600/R-93/116(PCM)
16	2,3,7,8-TCDD	1746016	EPA 8290 (HRGC) MS
17	Acrolein	107028	EPA 8260B
18	Acrylonitrile	107131	EPA 8260B
19	Benzene	71432	EPA 8260B
20	Bromoform	75252	EPA 8260B
21	Carbon Tetrachloride	56235	EPA 8260B
22	Chlorobenzene	108907	EPA 8260B
23	Chlorodibromomethane	124481	EPA 8260B
24	Chloroethane	75003	EPA 8260B
25	2-Chloroethylvinyl Ether	110758	EPA 8260B
26	Chloroform	67663	EPA 8260B
27	Dichlorobromomethane	75274	EPA 8260B
28	1,1-Dichloroethane	75343	EPA 8260B
29	1,2-Dichloroethane	107062	EPA 8260B
30	1,1-Dichloroethylene	75354	EPA 8260B
31	1,2-Dichloropropane	78875	EPA 8260B
32	1,3-Dichloropropylene	542756	EPA 8260B
33	Ethylbenzene	100414	EPA 8260B
34	Methyl Bromide	74839	EPA 8260B
35	Methyl Chloride	74873	EPA 8260B
36	Methylene Chloride	75092	EPA 8260B
37	1,1,2,2-Tetrachloroethane	79345	EPA 8260B
38	Tetrachloroethylene	127184	EPA 8260B
39	Toluene	108883	EPA 8260B
40	1,2-Trans-Dichloroethylene	156605	EPA 8260B
41	1,1,1-Trichloroethane	71556	EPA 8260B
42	1,12-Trichloroethane	79005	EPA 8260B

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
43	Trichloroethylene	79016	EPA 8260B
44	Vinyl Chloride	75014	EPA 8260B
45	2-Chlorophenol	95578	EPA 8270C
46	2,4-Dichlorophenol	120832	EPA 8270C
47	2,4-Dimethylphenol	105679	EPA 8270C
48	2-Methyl-4,6-Dinitrophenol	534521	EPA 8270C
49	2,4-Dinitrophenol	51285	EPA 8270C
50	2-Nitrophenol	88755	EPA 8270C
51	4-Nitrophenol	100027	EPA 8270C
52	3-Methyl-4-Chlorophenol	59507	EPA 8270C
53	Pentachlorophenol	87865	EPA 8270C
54	Phenol	108952	EPA 8270C
55	2,4,6-Trichlorophenol	88062	EPA 8270C
56	Acenaphthene	83329	EPA 8270C
57	Acenaphthylene	208968	EPA 8270C
58	Anthracene	120127	EPA 8270C
59	Benzidine	92875	EPA 8270C
60	Benzo(a)Anthracene	56553	EPA 8270C
61	Benzo(a)Pyrene	50328	EPA 8270C
62	Benzo(b)Fluoranthene	205992	EPA 8270C
63	Benzo(ghi)Perylene	191242	EPA 8270C
64	Benzo(k)Fluoranthene	207089	EPA 8270C
65	Bis(2-Chloroethoxy)Methane	111911	EPA 8270C
66	Bis(2-Chloroethyl)Ether	111444	EPA 8270C
67	Bis(2-Chloroisopropyl)Ether	108601	EPA 8270C
68	Bis(2-Ethylhexyl)Phthalate	117817	EPA 8270C
69	4-Bromophenyl Phenyl Ether	101553	EPA 8270C
70	Butylbenzyl Phthalate	85687	EPA 8270C
71	2-Chloronaphthalene	91587	EPA 8270C
72	4-Chlorophenyl Phenyl Ether	7005723	EPA 8270C
73	Chrysene	218019	EPA 8270C
74	Dibenzo(a,h)Anthracene	53703	EPA 8270C
75	1,2-Dichlorobenzene	95501	EPA 8260B
76	1,3-Dichlorobenzene	541731	EPA 8260B
77	1,4-Dichlorobenzene	106467	EPA 8260B
78	3,3'-Dichlorobenzidine	91941	EPA 8270C
79	Diethyl Phthalate	84662	EPA 8270C
80	Dimethyl Phthalate	131113	EPA 8270C
81	Di-n-Butyl Phthalate	84742	EPA 8270C
82	2,4-Dinitrotoluene	121142	EPA 8270C
83	2,6-Dinitrotoluene	606202	EPA 8270C
84	Di-n-Octyl Phthalate	117840	EPA 8270C
85	1,2-Diphenylhydrazine	122667	EPA 8270C
86	Fluoranthene	206440	EPA 8270C
87	Fluorene	86737	EPA 8270C
88	Hexachlorobenzene	118741	EPA 8260B

CTR Number	Parameter	CAS Number	Suggested Analytical Methods
89	Hexachlorobutadiene	87863	EPA 8260B
90	Hexachlorocyclopentadiene	77474	EPA 8270C
91	Hexachloroethane	67721	EPA 8260B
92	Indeno(1,2,3-cd)Pyrene	193395	EPA 8270C
93	Isophorone	78591	EPA 8270C
94	Naphthalene	91203	EPA 8260B
95	Nitrobenzene	98953	EPA 8270C
96	N-Nitrosodimethylamine	62759	EPA 8270C
97	N-Nitrosodi-n-Propylamine	621647	EPA 8270C
98	N-Nitrosodiphenylamine	86306	EPA 8270C
99	Phenanthrene	85018	EPA 8270C
100	Pyrene	129000	EPA 8270C
101	1,2,4-Trichlorobenzene	120821	EPA 8260B
102	Aldrin	309002	EPA 8081A
103	alpha-BHC	319846	EPA 8081A
104	beta-BHC	319857	EPA 8081A
105	gamma-BHC	58899	EPA 8081A
106	delta-BHC	319868	EPA 8081A
107	Chlordane	57749	EPA 8081A
108	4,4'-DDT	50293	EPA 8081A
109	4,4'-DDE	72559	EPA 8081A
110	4,4'-DDD	72548	EPA 8081A
111	Dieldrin	60571	EPA 8081A
112	alpha-Endosulfan	959988	EPA 8081A
113	beta-Endosulfan	33213659	EPA 8081A
114	Endosulfan Sulfate	1031078	EPA 8081A
115	Endrin	72208	EPA 8081A
116	Endrin Aldehyde	7421934	EPA 8081A
117	Heptachlor	76448	EPA 8081A
118	Heptachlor Epoxide	1024573	EPA 8081A
119	PCB-1016	12674112	EPA 8082
120	PCB-1221	11104282	EPA 8082
121	PCB-1232	11141165	EPA 8082
122	PCB-1242	53469219	EPA 8082
123	PCB-1248	12672296	EPA 8082
124	PCB-1254	11097691	EPA 8082
125	PCB-1260	11096825	EPA 8082
126	Toxaphene	8001352	EPA 8081A

ATTACHMENT H – STATE WATER BOARD MINIMUM LEVELS

H

The Minimum Levels (MLs) in this appendix are for use in reporting and compliance determination purposes in accordance with section 2.4 of the State Implementation Policy. These MLs were derived from data for priority pollutants provided by State certified analytical laboratories in 1997 and 1998. These MLs shall be used until new values are adopted by the SWRCB and become effective. The following tables (Tables 2a - 2d) present MLs for four major chemical groupings: volatile substances, semi-volatile substances, inorganics, and pesticides and PCBs.

Table H-1 Volatile Substances

Table 2a - VOLATILE SUBSTANCES*	GC	GCMS
1,1 Dichloroethane	0.5	1
1,1 Dichloroethylene	0.5	2
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
1,2 Dichlorobenzene (volatile)	0.5	2
1,2 Dichloroethane	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichlorobenzene (volatile)	0.5	2
1,3 Dichloropropene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Methyl Bromide	1.0	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromo-methane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Chloromethane	0.5	2
Dichlorobromo-methane	0.5	2
Dichloromethane	0.5	2
Ethylbenzene	0.5	2
Tetrachloroethylene	0.5	2
Toluene	0.5	2
Trans-1,2 Dichloroethylene	0.5	1
Trichloroethene	0.5	2
Vinyl Chloride	0.5	2

* The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table H-2 Semi-Volatile Substances

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Benzo (a) Anthracene	10	5		
1,2 Dichlorobenzene (semivolatile)	2	2		
1,2 Diphenylhydrazine		1		
1,2,4 Trichlorobenzene	1	5		
1,3 Dichlorobenzene (semivolatile)	2	1		
1,4 Dichlorobenzene (semivolatile)	2	1		
2 Chlorophenol	2	5		
2,4 Dichlorophenol	1	5		
2,4 Dimethylphenol	1	2		
2,4 Dinitrophenol	5	5		
2,4 Dinitrotoluene	10	5		
2,4,6 Trichlorophenol	10	10		
2,6 Dinitrotoluene		5		
2- Nitrophenol		10		
2-Chloroethyl vinyl ether	1	1		
2-Chloronaphthalene		10		
3,3' Dichlorobenzidine		5		
Benzo (b) Fluoranthene		10	10	
3-Methyl-Chlorophenol	5	1		
4,6 Dinitro-2-methylphenol	10	5		
4- Nitrophenol	5	10		
4-Bromophenyl phenyl ether	10	5		
4-Chlorophenyl phenyl ether		5		
Acenaphthene	1	1	0.5	
Acenaphthylene		10	0.2	
Anthracene		10	2	
Benzidine		5		
Benzo(a) pyrene		10	2	
Benzo(g,h,i)perylene		5	0.1	
Benzo(k)fluoranthene		10	2	
bis 2-(1-Chloroethoxyl) methane		5		
bis(2-chloroethyl) ether	10	1		
bis(2-Chloroisopropyl) ether	10	2		
bis(2-Ethylhexyl) phthalate	10	5		
Butyl benzyl phthalate	10	10		
Chrysene		10	5	
di-n-Butyl phthalate		10		
di-n-Octyl phthalate		10		
Dibenzo(a,h)-anthracene		10	0.1	
Diethyl phthalate	10	2		
Dimethyl phthalate	10	2		
Fluoranthene	10	1	0.05	
Fluorene		10	0.1	
Hexachloro-cyclopentadiene	5	5		
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

* With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1,000; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1,000.

** Phenol by colorimetric technique has a factor of 1.

Table H-3 Inorganics

Table 2c – INORGANICS*	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1,000
Arsenic		2	10	2	2	1		20	1,000
Beryllium	20	0.5	2	0.5	1				1,000
Cadmium	10	0.5	10	0.25	0.5				1,000
Chromium (total)	50	2	10	0.5	1				1,000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1,000
Cyanide								5	
Lead	20	5	5	0.5	2				10,000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1,000
Selenium		5	10	2	5	1			1,000
Silver	10	1	10	0.25	2				1,000
Thallium	10	2	10	1	5				1,000
Zinc	20		20	1	10				1,000

* The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table H-4 Pesticides and PCBs

Table 2d – PESTICIDES – PCBs*	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

* The normal method-specific factor for these substances is 100; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.

Techniques:

GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR - Colorimetric

ATTACHMENT I – SUMMARY OF WQBELS CALCULATIONS

I

The WQBELs developed for this Order are summarized below and were calculated as described in the methodology summarized in Attachment F, Fact Sheet and are contained in Section IV.A.1.a of this Order.

Table I-1 Summary of WQBELs Calculations

Priority Pollutant	Human Health Calculations			Aquatic Life Calculations											Selected Limits	
	Human Health			Saltwater / Freshwater												
	AMEL = ECA = C hh	MDEL/AMEL multiplier	MDEL hh	ECA acute = C acute	ECA acute multiplier	LTA acute	ECA chronic = C chronic	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL aquatic life	MDEL multiplier 99	MDEL aquatic life	AMEL	MDEL
	µg/L		µg/L	µg/L		µg/L	µg/L		µg/L	µg/L		µg/L		µg/L	µg/L	µg/L
Copper	--	--	--	5.78	0.32	1.86	3.73	0.53	1.97	1.86	1.55	2.88	3.11	5.78	2.9	5.8
Nickel	4,600	2.01	9,228	74.75	0.32	24	8.28	0.53	4.37	4.37	1.55	6.78	3.11	13.6	6.8	14
Selenium							5.0	0.53		0.53	1.55	4.09	3.11	8.21	4.1	8.2
Benzo(a)anthracene	0.049	2.01	0.098	--	--	--	--	--	--	--	--	--	--	--	0.049	0.098
Benzo(a)pyrene	0.049	2.01	0.098	--	--	--	--	--	--	--	--	--	--	--	0.049	0.098
Benzo(b)fluoranthene	0.049	2.01	0.098	--	--	--	--	--	--	--	--	--	--	--	0.049	0.098
Benzo(k)fluoranthene	0.049	2.01	0.098	--	--	--	--	--	--	--	--	--	--	--	0.049	0.098
Bis(2-ethylhexyl)phthalate	5.9	2.01	11.84	--	--	--	--	--	--	--	--	--	--	--	5.9	12
Chrysene	0.049	2.01	0.098	--	--	--	--	--	--	--	--	--	--	--	0.049	0.098
Ammonia	--	--	--	18	0.34	6.2	2.2	0.55	1.2	1.2	1.5	1.9	2.9	3.6	1.9	3.6