ATTACHMENT 2

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

WASTE DISCHARGE REQUIREMENTS ORDER R3-2005-0035
NPDES PERMIT NO. CA 0048267

Waste Discharger Identification No. 3 440800001

For

CALIFORNIA DEPARTMENT OF PARKS AND RECREATION
BIG BASIN REDWOODS
WASTEWATER TREATMENT PLANT
Santa Cruz County

The California Regional Water Quality Control Board, Central Coast Region, (hereafter Board), finds that:

1. **Facility Owner.** The California Department of Parks and Recreation (hereafter Discharger) operates a wastewater collection, treatment, and disposal system providing service to the Big Basin Redwoods State Park in Santa Cruz County.

2. **Facility Location.** The treatment plant is on property owned by the Discharger in Santa Cruz County, as shown on Attachment A of this Order. The plant's location is 21600 Big Basin Way, Boulder Creek, CA, 95006.

3. **Purpose of Order.** On October 21, 2004, the Discharger submitted a complete application for authorization to discharge wastes under the National Pollutant Discharge Elimination System (NPDES). The Board last adopted the NPDES Permit No. CA0048267 (Waste Discharger Requirements Order No. 00-031) on May 19, 2000.

4. **Plant Design and Treatment Capacity.** The treatment plant provides tertiary treatment to wastewater from park users. The plant is a low-rate, intermittently-loaded wastewater reclamation plant. The plant comprises influent grinding, primary clarification, trickling filter treatment, secondary clarification, coagulation, slow sand filtration, ion-exchange ammonia removal, chlorination, dechlorination with sulfur dioxide, and pH control. Anaerobic digesters stabilize biosolids, which are then tilled into the soil or sent to a local landfill. (Among other improvements, the Discharger plans to replace the chlorination/dechlorination system with ultraviolet-light disinfection by May 1, 2006. See Provisions F.6 and F.7))

   The plant's design average dry weather daily flow is 0.03 MGD and the design peak wet weather flow is estimated to be 0.1 MGD. Both the plant's annual average and daily dry weather flows equal 0.02 MGD.

5. **Discharge Type and Disposal Method.** Treated wastewater is discharged to Waddell Creek, which runs near the plant. The discharge location is 37° 09' 81" N. Latitude, 122° 13' 42" W. Longitude, as shown on Attachment A. The U.S. Environmental Protection Agency and the Regional Board classify this discharge as a minor discharge.

6. **Changes to Order.**
   Changes to the Order include:
   - In accordance with the California Toxics Rule, new interim and final effluent limitations for chlorodibromomethane and dichlorobromomethane.
   - Provisions F.6 and F.7, which require the Discharger to report to the Executive Officer

the status of plant and collection system improvement projects.

7. **Changes to Monitoring and Reporting Program (MRP).**
   Changes to the MRP include:
   - Monthly effluent monitoring for dichlorobromomethane and dibromochloromethane until they cannot be detected in samples and after the Discharger activates the ultraviolet-light disinfection system.

8. **California Toxics Rule.** On May 18, 2000, the United States Environmental Protection Agency promulgated in the Federal Register *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; Rule* (40 CFR Part 131) (Toxics Rule). On March 2, 2000, the State Water Resources Control Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP).

   The SIP provides, based on a discharger's request and demonstration that it is infeasible for an existing discharge to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. When a compliance schedule for a final effluent limitation exceeds one year, the permit must include interim numeric limitations for that constituent.

9. **Basin Plan.** The Water Quality Control Plan, Central Coastal Basin, (Basin Plan), was revised and adopted by the Board on September 8, 1994. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State waters.

10. **Beneficial Uses** Existing and anticipated beneficial uses of the East Branch of Waddell Creek near the discharge include:
    a. Municipal and domestic supply;
    b. Groundwater recharge;
    c. Contact and non-contact water recreation;
    d. Wildlife habitat;
    e. Cold freshwater habitat;
    f. Fish Migration;
    g. Fish Spawning; and
    h. Preservation of rare, threatened, or endangered species.

11. **California Environmental Quality Act.** Issuance of waste discharge requirements for this discharge is exempt from provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code in accordance with Water Code Section 13389.

12. **Anti-degradation Policy.** The waste discharge requirements in this Order are consistent with the requirements of the U.S. Environmental Protection Agency's Anti-degradation Policy per 40CFR131.12.

13. **Clean Water Enforcement and Pollution Prevention Act (Act).** The Act became effective January 1, 2000, and requires the Regional Board to impose mandatory penalties for certain violations of effluent limitations specified in the Order.

14. **Reasonable Potential Analysis (RPA).** On May 1, 2002, the Discharger submitted analytical results of effluent sample analysis for Toxics Rule pollutants. Analysis detected no pollutant at levels exceeding water quality standards, except trihalomethanes (THMs). Therefore, this Order includes interim and final effluent limitations for THMs.

15. **Anti-backsliding.** 40CFR122.44(l) requires effluent limitations for reissued NPDES permits to be as stringent as the previous permit, with some exceptions. Adoption of this Order is consistent with anti-backsliding regulations since its effluent limitations are the same as or more stringent than those in Order No. 00-31.

16. **State Board Petition.** Any person affected by this action of the Regional Board may petition the State Water Resources Control Board (State Board) to review the action in accordance with

Section 13320 of the California Water Code and Title 23, California Code of Regulations, Section 2050. The petition must be received by the State Board within 30 days of the adoption date of this Order. Copies of the law and regulations applicable to filing petitions are available at http://www.swrcb.ca.gov/water_laws/cawtrcde/wqpetition_instr.html, or will be provided upon request.

17. **Privilege to Discharge.** A permit and the privilege to discharge waste into waters of the State are conditional upon the discharge complying with provisions of Division 7 of the California Water Code and of the Clean Water Act (as amended or supplemented by implementing guidelines and regulations) and with any more stringent effluent limitations necessary to implement water quality control plans, to protect beneficial uses, and to prevent nuisance. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act. Compliance with this Order should mitigate any potential changes in water quality resulting from the discharge of waste.

18. On January 20, 2005, the Board notified the Discharger and interested agencies and persons of its intent to revise portions of waste discharge requirements for the discharge, provided them with an opportunity to submit their written views and recommendations, and scheduled a public hearing.

19. In a public hearing on **May 13, 2005**, the Board heard and considered all comments pertaining to the proposed revisions and found this Order consistent with the above findings.

IT IS HEREBY ORDERED, pursuant to authority in Sections 13263, 13377, and 13383 of the California Water Code, that the Department of Parks and Recreation and Big Basin State Park, its agents, successors, and assigns, may discharge waste from the Wastewater Treatment Plant providing they comply with the following:

[Permit conditions, definitions and methods of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for National Pollutant Discharge Elimination System Permits," dated January 1985. Applicable paragraphs are referenced in paragraph F.3. of this Order].

Requirements in this Order are provided with the following superscripts to indicate their origin:

A - Basin Plan
B - 40 CFR Parts 122, 123, and 124
C - California Toxics Rule
D - California Code of Regulations, Title 22, Division 4, Chapter 3, Article 5

Staff based requirements without superscripts on professional judgment.

All technical and monitoring reports submitted according to this Order are required pursuant to Sections 13267 and 13383 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order or attachments to this Order, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer, may subject the Discharger to enforcement action pursuant to Sections 13268 and 13385 of the California Water Code.

A. DISCHARGE PROHIBITIONS

1. Discharge of treated wastewater at locations other than those listed below is prohibited:
   a. East Branch of Waddell Creek at 37°09'81" N. Latitude, 122° 13' 42" W. Longitude; and,
   b. Approved reclaimed water use sites authorized under valid water reclamation requirements issued or waived by the Board.

2. Discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste is prohibited

3. By-passing untreated wastes around the treatment plant, and spills and overflows from the collection system, are prohibited.

B. INTERIM EFFLUENT LIMITATIONS

Effluent shall not exceed the following concentrations:

Constituent	Units	Instantaneous Maximum, µg/L
Chlorodibromomethane	µg/L	20
Dichlorobromomethane	µg/L	20

Interim limitations shall remain in effect until **May 1, 2006,** when the Discharger activates the ultraviolet-light (UV) disinfection system and permanently deactivates the chlorination/dechorination system, except as backup if the UV system fails.

C. CALIFORNIA TOXICS RULE EFFLUENT LIMITATIONS[C]

Constituent	Average (30-day) Monthly (µg/L)[1]	Maximum instantaneous (µg/L)
Chlorodibromomethane	0.56	1.12
Dichlorobromomethane	0.41	0.82

[1] "30-day average" is the arithmetic mean of daily concentrations over the specified 30-day period. If monitoring data violate 30-day average effluent limitations, but compliance cannot be determined because sampling is too infrequent, sampling frequency shall be increased to validate compliance. To evaluate compliance with a 30-day average, at least four samples must be collected within a 30-day period.

D. EFFLUENT LIMITATIONS

1. "Removal Efficiencies" for Total Non-Filterable Residue (Total Suspended Solids) and Biochemical Oxygen Demand (BOD) shall not be less than 85%.[B] In addition, effluent shall not exceed the following limitations:

TABLE A - EFFLUENT LIMITATIONS[B]

Constituents	Unit s	Monthly (30-Day) Average	Weekly (7-Day) Average	Daily Maximum
BOD, 5-day[B, b]	mg/L lbs/day	10 2.5[a]	15 3.76[a]	25 6.26[a]
Total Suspended Solids[B, b]	mg/L lbs/day	10 2.5[a]	15 3.76[a]	25 6.26[a]
Oil & Grease[A]	mg/L	25	40	75

Constituents	Unit s	Monthly (30-Day) Average	Weekly (7-Day) Average	Daily Maximum
	lbs/day	6.26[a]	10.0[a]	18.78[a]
Settleable Solids[A]	mL/L	-	-	0.1
MBAS[A]	mg/L lbs/day			0.2 0.05
pH[A, c]	pH Units	-	-	Between 6.0 and 8.3 at all times
Unionized ammonia[A] (as N)	mg/L lbs/day			0.025 0.006
Acute Toxicity[A]	TUa			Pass
Chronic Toxicity[A]	TUc			1.0

a. For flows less than 0.03MGD, mass emission rates shall not exceed the "Maximum Allowable Mass Emission Rate."
b. 30-day average percent removal shall not be less than 85%
c. Excursions from the range are permitted subject to the following limitations (40 CFR Section 401.17):
   1. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and
   2. No individual excursion from the range of pH values shall exceed 60 minutes.

2. Effluent daily dry weather flow shall not exceed a monthly average of 0.03 MGD.

3. The discharge's dissolved oxygen shall equal or exceed 5.0 mg/L and shall not cause impairment of the beneficial uses of the receiving water.[A]

4. The discharge shall not contain toxic substances in toxic amounts.[A]

5. The discharge shall not contain floating matter that causes nuisance or impairs beneficial uses.[A]

6. The discharge shall not cause nuisance or impair beneficial uses by causing a change of color, temperature, turbidity, or taste or odor.

7. The discharge shall not contain biostimulatory substances that cause nuisance aquatic plant growth or impair beneficial uses due to excessive aquatic plant growth.

8. Effluent shall be essentially free of materials and substances that[B]:
   a. float or become floatable upon discharge.
   b. may form sediments, which degrade benthic communities or other aquatic life.
   c. accumulate to toxic levels in marine waters, sediments or biota.
   d. decrease the natural light to benthic communities and other marine life.
   e. result in aesthetically undesirable discoloration of the receiving water surface.

10. Compliance determinations for total chlorine residual shall be based on 99% compliance. To determine 99% compliance with effluent limitations for total chlorine residual, the following conditions shall be met:

    a) The total time during which the total chlorine residual values are above 0.02 mg/L (instantaneous maximum value) shall not exceed 7 hours and 26 minutes in any calendar month,
    b) No individual excursion from 0.02 mg/L shall exceed 30 minutes, and
    c) No individual excursion shall exceed 0.1 mg/L.

    When continuous monitoring is not being used, the discharge shall remain below 0.02 mg/L at all times, measured daily.

11. Production and use of reclaimed water shall conform to the reclamation criteria in the California Code of Regulations Title 22, Division 4, Chapter 3, Article 5.

12. Reclaimed water discharged to the East Branch of Waddell Creek shall be at all times adequately disinfected, oxidized, coagulated, clarified and filtered. The wastewater shall be

considered adequately disinfected if at some point in the treatment process, the median number of total coliform organisms does not exceed 2.2 per 100 mL and the number of total coliform organisms does not exceed 23 per 100 mL in more than one sample in any 30-day period. The median value shall be determined from the bacteriological results of the last seven days for which analyses have been completed.

Filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through filter media so the turbidity does not exceed a monthly average of two turbidity units and does not exceed five turbidity units more than five percent of the time during any 24-hour period.[D]

13. Effluent shall not exceed the following limits:

TABLE B EFFLUENT LIMITATIONS[A]

Constituent	Units	Maximum Daily Concentration	
		> 100 mg/L $CaCO_3$	< 100 mg/L $CaCO_3$
Aluminum	mg/L	1.0	1.0
Arsenic	mg/L	0.05	0.05
Barium	mg/L	1.0	1.0
Cadmium	mg/L	0.03	0.0011
Total Chromium	mg/L	0.05	0.05
Copper	mg/L	0.03	0.01
Lead	mg/L	0.03	0.03
Mercury	mg/L	0.0002	0.0002
Nickel	mg/L	0.4	0.1
Selenium	mg/L	0.01	0.01
Silver	mg/L	0.0041	0.0041
Zinc	mg/L	0.2	0.004

E. RECEIVING WATER LIMITATIONS

(Receiving water quality is a result of many factors, most unrelated to the discharge. This Order considers these factors and is designed to minimize the influence of the discharge to the receiving water.).

1. The discharge shall not cause the following to occur in the East Branch of Waddell Creek[A]:
   a. The dissolved oxygen concentration to fall below 7.0 mg/L,
   b. The temperature to change more than 5°F,
   c. The concentration of unionized ammonia to exceed 0.025 mg/L (as N),
   d. Floating materials to cause nuisance conditions or to impair beneficial uses,
   e. The coloration to change by more than 15 units or 10 percent,
   f. Solids deposition to cause nuisance conditions or to impair beneficial uses,
   g. Excessive aquatic growth to cause nuisance conditions or to impair beneficial uses,

h. Undesirable odors or taste to fish or other edible aquatic life,
i. The pH fall below 7.0, exceed 8.3, or change by more than 0.5 pH units, or
j. The turbidity to exceed the following increase:
   - Where the natural turbidity is less than 25 NTU, more than 5 NTU;
   - Where the natural turbidity is between 25 and 50 NTU, 20 percent;
   - Where the natural turbidity is between 50 and 100 NTU, 10 NTU;
   - Where the natural turbidity exceeds 100 NTU, 10 percent.

2. Median fecal coliform concentration, based on a minimum of no fewer than five samples for any 30-day period, shall not exceed a log mean of 200/100mL, nor shall more than 10 percent of the samples collected during any 30-day period exceed 400/100 mL.[A]

F. PROVISIONS

1. Order No. 00-31, *Water Reclamation Order for the California Department of Parks and Recreation, Big Basin Redwoods State Park* adopted by the Board on March 19, 2000, is hereby rescinded. Order No. R3-2005-0035 is effective on the date of adoption by the Regional Board.

2. The Discharger shall comply with Monitoring and Reporting Program No. R3-2005-0035, and any amendments thereto, as ordered by the Executive Officer.

3. The Discharger shall comply with all items of the January 1985 *"Standard Provisions and Reporting Requirements for National Pollutant Discharge Elimination System Permits"*. Paragraph (a) of item E.1. shall apply only if the bypass is for essential maintenance to assure efficient operation.

4. This Order expires May 13, 2010, and the Discharger must file a Report of Waste Discharge in accordance with Title 23, Division 3, Chapter 9, of the California Code of Regulations, no later than November 3, 2009, if the discharge will continue.

5. The Discharger shall conduct a Toxicity Reduction Evaluation (TRE) if the discharge consistently exceeds effluent toxicity limits. The TRE shall include all reasonable steps to identify the toxicity's source(s). Once the source(s) is/are identified, the Discharger shall take all reasonable steps to eliminate effluent toxicity.

   The basis of the TRE shall be USEPA's
   - *Methods for Aquatic Toxicity Identification Evaluations: Phase I, Toxicity Characterization Procedures, 2nd Edition*, 1991b (EPA 600-6-91-003),
   - *Methods for Aquatic Toxicity Identification Evaluations: Phase II, Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity*, 1993a (EPA 600-R-92-080),
   - *Methods for Aquatic Toxicity Identification Evaluations: Phase III, Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity*, 1993b (EPA 600-R-92-081), and
   - *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA 833-B-99-002, August 1999, or revised editions.

   The Discharger shall initiate the TRE according to the following schedule:

   a. Take all reasonable measures necessary to immediately reduce toxicity, where source is known [Within 24 hours of identification of noncompliance].
   b. Submit to the Executive Officer a TRE study plan describing the toxicity reduction procedures to be employed [Within 60 days of identification of noncompliance].
   c. Initiate the TRE [Time schedule to be determined by the Executive Officer].
   d. Conduct the TRE following the procedures in the TRE study plan [Time schedule to be determined by the Executive Officer].
   e. Submit the results of the TRE, including summary of findings, required corrective actions, and all results and data [Within 60 days of completing the TRE].

f. Implement corrective actions to meet permit limits and conditions [Within 7 days of notification by the Executive Officer].

g. Return to regular monitoring after implementing corrective measures and approval by the Executive Officer [One-year period or as specified in the TRE study plan].

6. **By May 1, 2006**, the Discharger shall complete the following projects:
   - Slip-line collection system and seal manholes,
   - Install new ultraviolet light disinfection system,
   - Replace coagulation system,
   - Improve pH control system,
   - Replace laboratory building, and
   - Replace emergency generator and transfer switch.

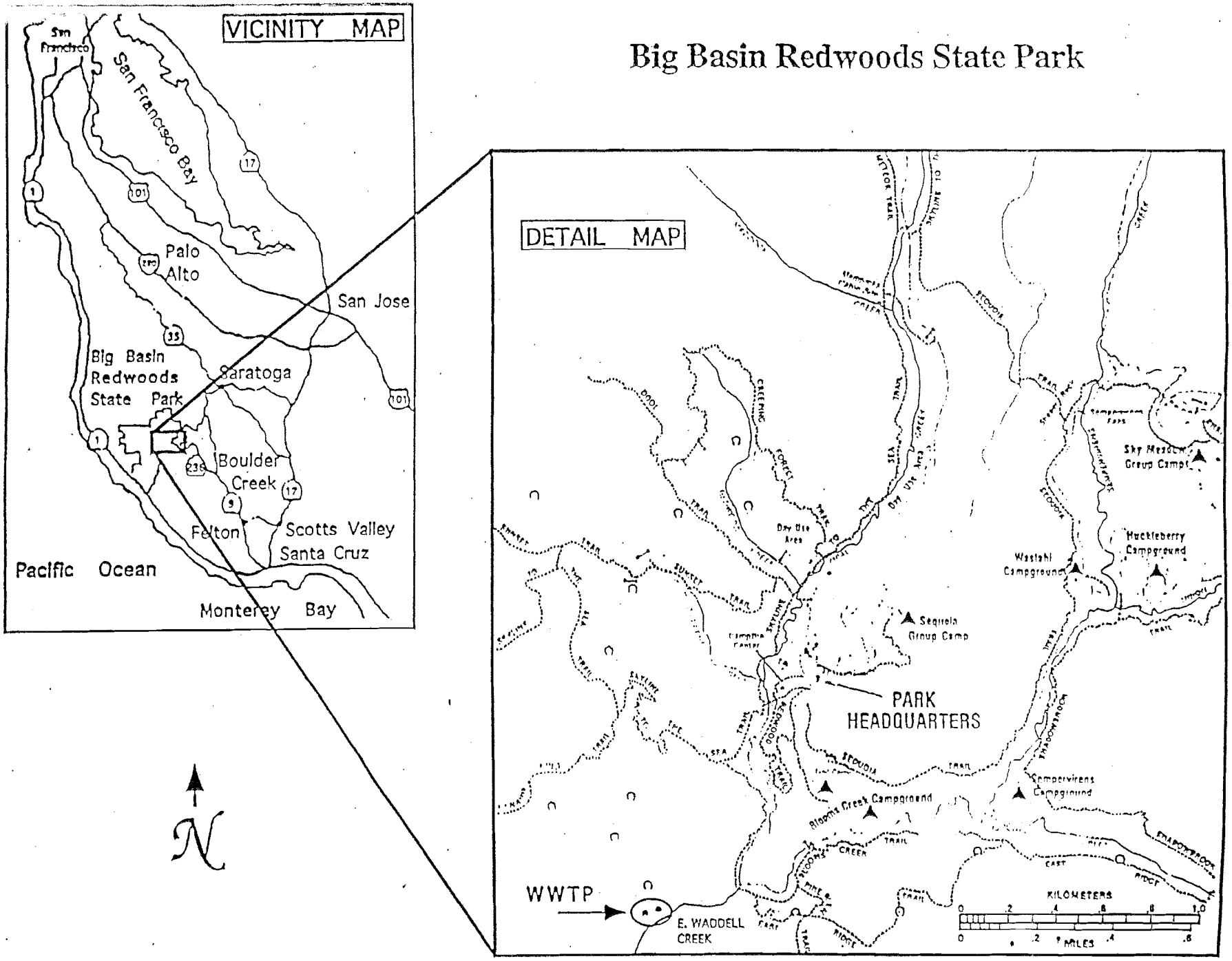
7. **By November 1, 2005**, the Discharger shall submit, for the approval of the Executive Officer, a report of the status of all projects listed in Provision F.6 and other projects to improve the collection system or treatment plant.

8. Park brochures, Waddell Creek Trail Heads and Access Points shall be posted to warn the public of the hazards of drinking from Waddell Creek. When the receiving water limit for fecal coliform is exceeded, the Discharger shall post Waddell Creek and shall notify downstream residents and/or the residential committee of bacterial contamination to warn the public to not drink nor swim in the creek.

I, Roger W. Briggs, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Coast Region, on May 13, 2005.

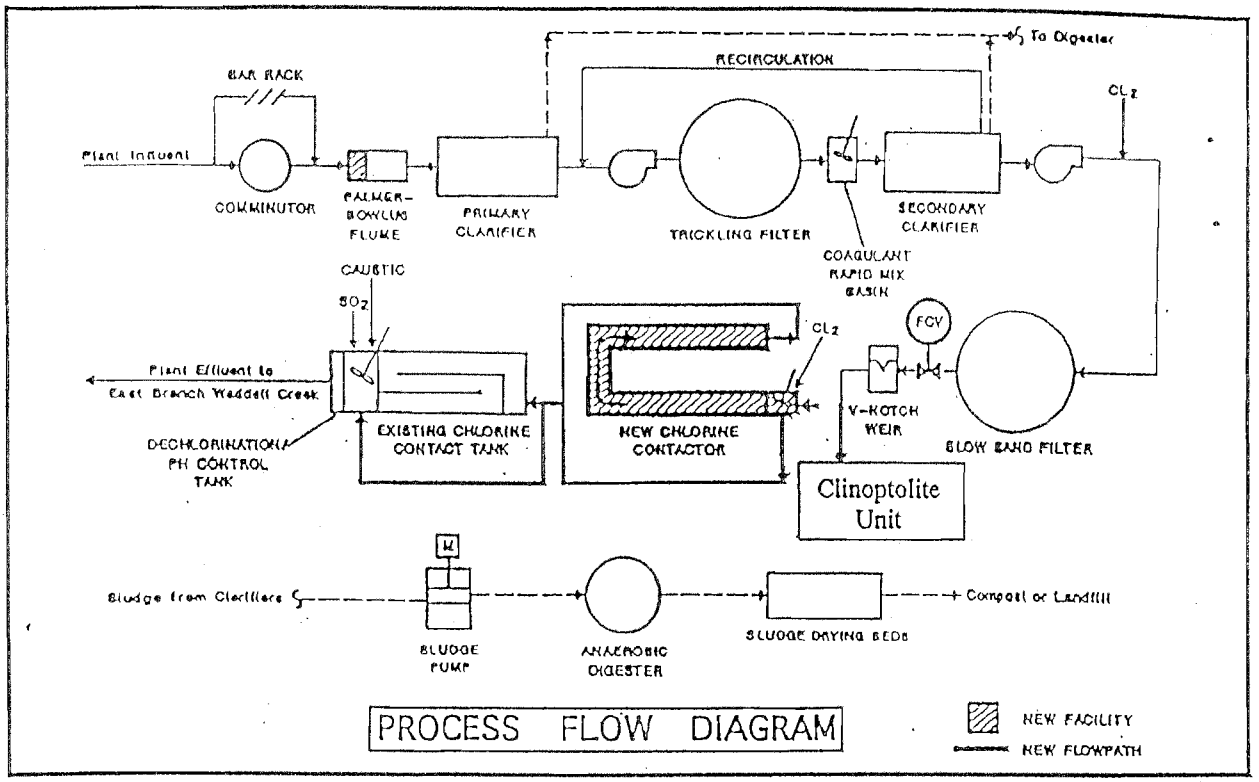
Roger W. Briggs
Executive Officer

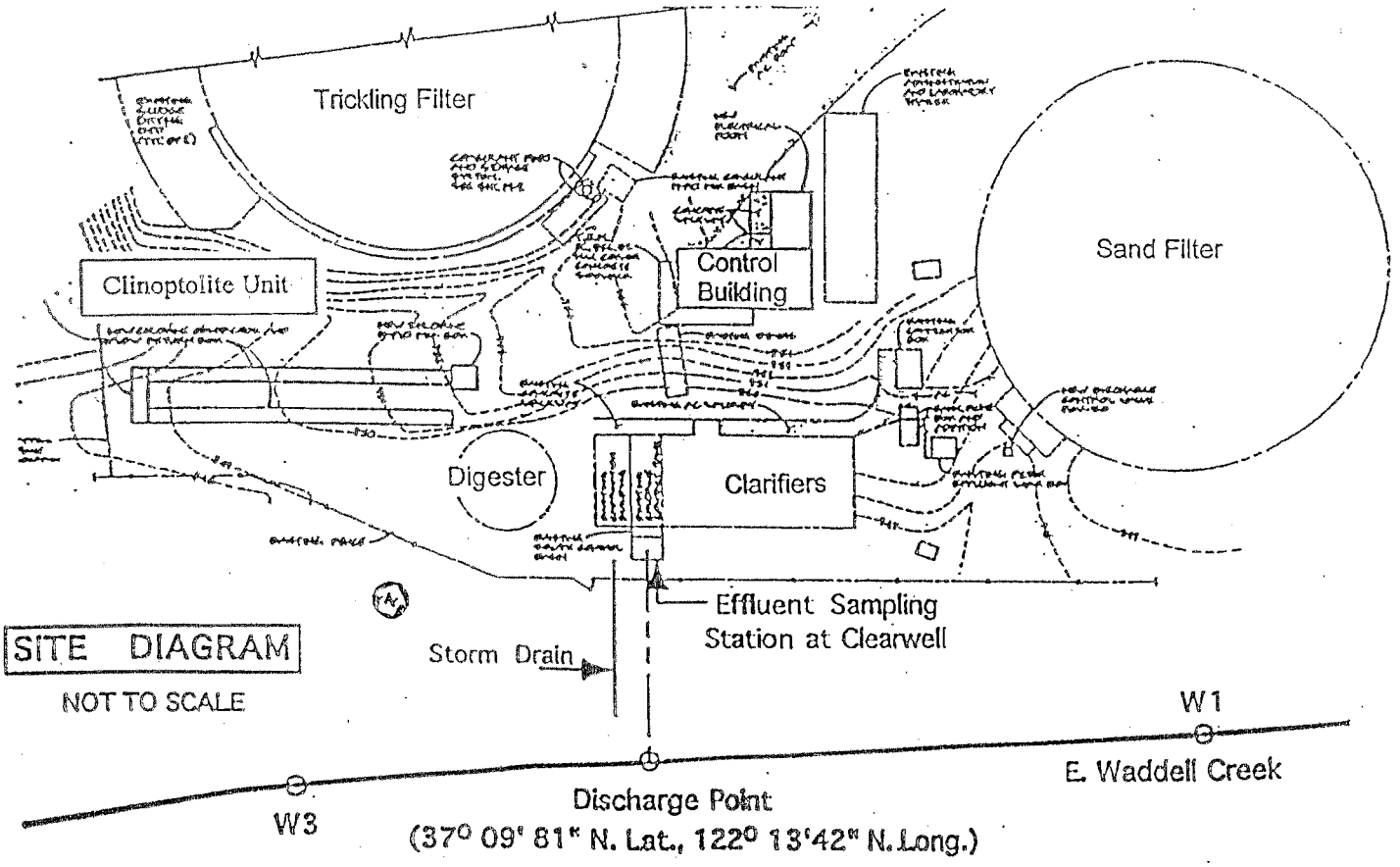
Big Basin Redwoods State Park



ATTACHMENT A

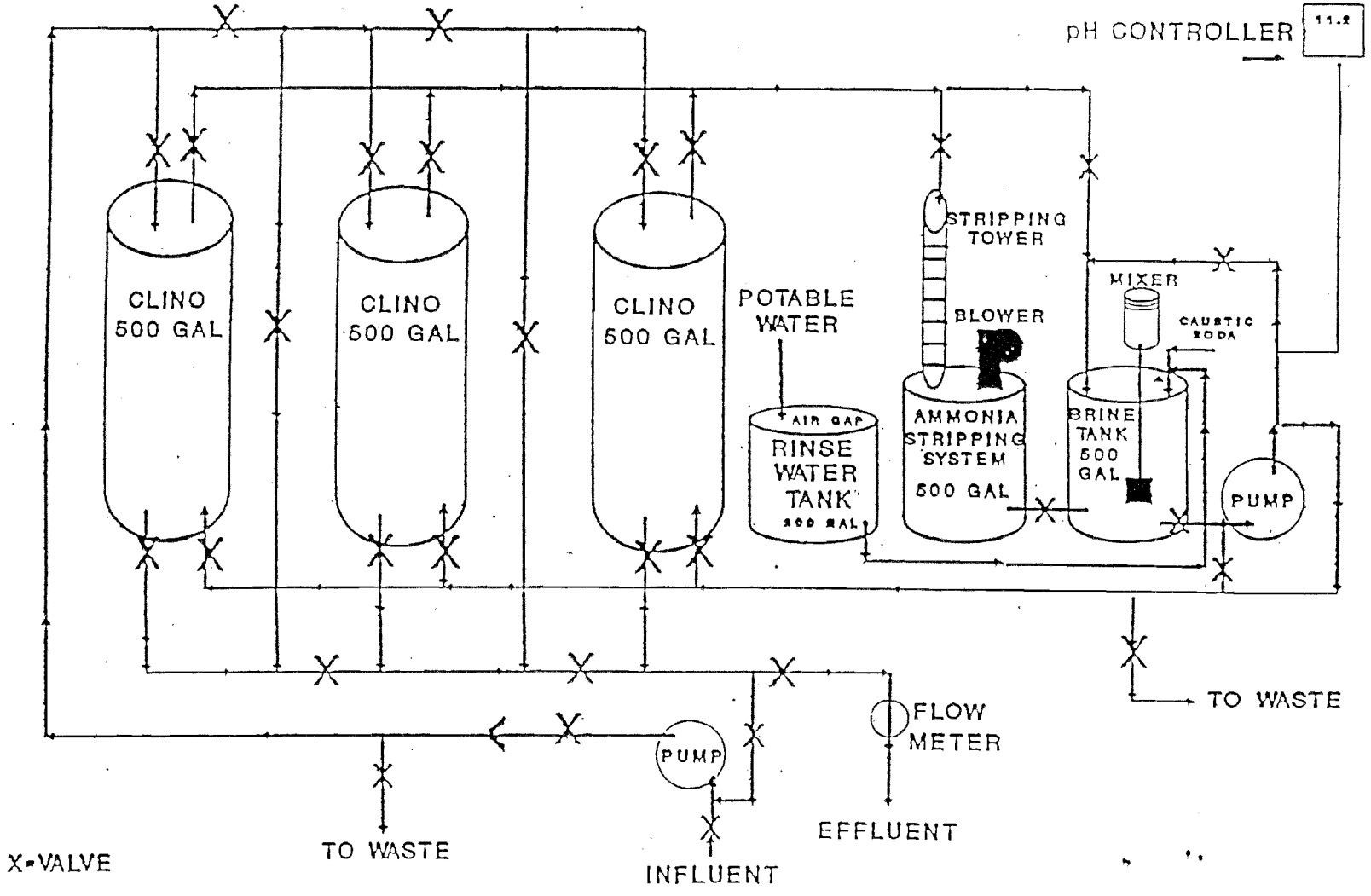
Big Basin Redwoods State Park





ATTACHMENT B

BIG BASIN WASTEWATER TREATMENT PLANT
CLINO FILTER AND REGENERATION FLOW CHART



ATTACHMENT C

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401-7906

MONITORING AND REPORTING PROGRAM ORDER NO. R3-2005-0035
NPDES NO. CA0048267
Waste Discharger Identification No. 3 440800001
Prepared on March 22, 2005

For

CALIFORNIA DEPARTMENT OF PARKS AND RECREATION,
BIG BASIN REDWOODS STATE PARK,
Santa Cruz County

I. COLLECTION SYSTEM MONITORING

The Discharger shall:

1. Annually inspect the ground surface overlying the collection system, except inspect the ground surface monthly above collection system sections that have not been renovated during the last 15 years.
2. Videotape and smoke test, at least once every five years, the entire collection system to identify damaged pipelines, intruding roots, stagnant areas and areas of inflow/infiltration.
3. Conduct a collection system inflow/infiltration assessment during the 2007/2008 wet season.

II. INFLUENT MONITORING

The Discharger shall establish a sampling station upstream of influent return flows where representative influent samples can be obtained. The following shall constitute the influent monitoring program:

TABLE A

Constituent	Units	Type of Sample	Minimum Frequency of Analysis
Flow	MGD	Metered Continuously	Daily
B.O.D., 5-Day	mg/L	24-hr. Composite	Weekly
Suspended Solids	mg/L	24-hr. Composite	Weekly

III. EFFLUENT MONITORING

The Discharger shall establish an effluent sampling station at the clearwell shown on Attachment "B". The following shall constitute the effluent monitoring program:

TABLE B				
Constituent	Units	Type of Sample	Minimum Frequency of Analysis	
			Apr-Oct	Nov-Mar
Flow	MGD	Metered Da 5yG OS S U	Daily Ov i	Daily
Daily Maximum Instantaneous Rate	MGD	Metered Daily	Daily	Daily
Daily Volume	MGD	Calculated	Monthly	Monthly
Maximum Daily Volume	MGD	Calculated	Monthly	Monthly
Average Daily Volume	MGD	Metered	Continuous	Continuous
Turbidity	NTU	Grab	Daily	Weekly
Total & Fecal Coliform	MPN/100 mL	Grab	Weekly	Monthly
Enterococci Organisms	MPN/100 mL	Metered	Continuous	Continuous
Total Chlorine Residual[4]	mg/L	Grab	Weekly	Monthly
Settleable Solids	mL/L	Metered	Continuous	Continuous
pH[1]	pH units	Grab	Daily	Weekly
Temperature[1]	°F	24-hr. Composite	Daily	Weekly
Suspended Solids	mg/L	24-hr. Composite	Weekly	Monthly
BOD	mg/L	Grab	August	February
Grease and Oil[2]	mg/L	Grab	Weekly	Weekly
Acute and Chronic Toxicity[3]	TU	Grab	Weekly	Monthly
Dissolved Oxygen	mg/L	Grab	Weekly	Monthly
Total Ammonia (as N)	mg/L	Calculated	Weekly	Monthly
Un-ionized Ammonia (as N)[1]	mg/L	Grab	Weekly	Monthly
Kjeldahl Nitrogen (as N)	mg/L	Grab	Weekly	Monthly
Nitrate Nitrogen (as N)	mg/L	Grab	Weekly	Monthly
Nitrite Nitrogen (as N)	mg/L	Grab	Monthly	Monthly
MBAS	mg/L	Grab	Monthly	Monthly
Hardness as CaCO,	mg/L	Grab	August	February
Dichlorobromomethane[4]	µg/L	Grab	August	February
Dibromochloromethane[4]	µg/L	Grab	August	February
Aluminum	mg/L	Grab	August	February
Arsenic Barium	mg/L	Grab	August	February
Cadmium	mg/L	Grab	August	February
Chromium (total)	mg/L	Grab	August	February
Copper	mg/L	Grab	August	February
Lead	mg/L	Grab	August	February
Mercury	mg/L	Grab	August	February
Nickel	mg/L	Grab	August	February
Selenium	mg/L	Grab	August	February
Silver	mg/L	Grab	August	February
Zinc	mg/L	Grab	August	February
Toxics Rule Pollutants[5]	µg/L	Grab	August 2007	

1 The Discharger shall measure temperature and pH concurrently with Total Ammonia sampling, and shall use the data to calculate and report the un-ionized ammonia concentration.

2\. After collecting the Grease and Oil sample, the Discharger shall immediately inspect the downstream receiving water station (W3) for a floating oil sheen. If a sheen is observed, the Discharger shall immediately inspect the upstream receiving water station (W I). The Discharger shall maintain a log of the observations and report them with the grease and oil data.

3 The Discharger shall determine compliance with the **acute toxicity** limit in accordance with *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition (EPA–821-R-02-012), or subsequent editions. Oncorhynchusmykiss (rainbow trout) is the recommended acute toxicity test species.

The Discharger shall conduct semi-annual effluent monitoring for **chronic toxicity** with Cerodaphnia dubia. Up to five (5) concentrations of effluent (one effluent test must utilize 100% effluent), plus a control shall be tested. The effluent tests shall be conducted with concurrent reference toxicant tests and both shall meet all test acceptability criteria as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA-821-R-02-013)*, or subsequent editions. If the test acceptability criteria are not achieved, then the Discharger shall resample and re-test within 14 days.

4 The Discharger may cease sampling after analysis detects no pollutants in three successive samples and after the ultraviolet-light disinfection system is fully operational.

5 The Discharger shall analyze a representaive sample of plant effluent for Toxics Rule pollutants, listed in the Water Quality Standards at 40CFR131.38 and in the May 18, 2000 Federal Register (Volume 65, Number 97). Analytical methods shall be as described in 40CFR136. The Discharger shall use the Minimum Levels listed in Appendix 4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, which is at www.waterboards.ca.gov/iswp/index.html. The Discharger shall employ the lowest Minimum Level avaliable for each pollutant.

V. RECEIVING WATER MONITORING

Receiving water sampling stations shall be established at Waddell Creek upstream and downstream of the point of discharge as shown on this Order's Attachment "B" and described as follows:

Station Number	Description
W 1	East Branch of Waddell Creek 145 feet upstream of outfall.
W3	East Branch of Waddell Creek 100 feet downstream from outfall.

The following constituents shall be measured at both receiving water stations.

TABLE C

Constituent	Units	Sample Type	Minimum Frequency	
			Apr-Oct	Nov-Mar
[5]Total Ammonia (as N)	mg/L	Grab	Monthly[1]	Monthly[1]
Un-ionized Ammonia (as N)	mg/L	Calculated	Monthly[1]	Monthly[1]
[5]pH	pH units	Grab	Weekly[1]	Monthly[1]
[5]Temperature	°F	Grab	Weekly[1]	Monthly[1]
Dissolved Oxygen	mg/L	Grab	Weekly	Monthly
[3]Turbidity	NTU	Grab	Weekly	Monthly
Kjeldahl Nitrogen (as N)	mg/L	Grab	Monthly	Quarterly
Nitrate Nitrogen (as N)	mg/L	Grab	Monthly	Quarterly
Nitrite Nitrogen (as N)	mg/L	Grab	Monthly	Monthly
[2]Total & Fecal Coliform	MPN/100 mL	Grab	Quarterly[4]	Quarterly
Enterococcus	MPN/100 mL	Grab	Quarterly[4]	Quarterly
Rapid Bio-Assessment				Annually

1. To be sampled if effluent Un-ionized Ammonia (as N) limitation is exceeded. Sampling shall continue until two (2) effluent samples collected at the specified frequency show compliance.
2. If Total & Fecal Coliform exceed effluent limitations, receiving water shall be sampled within 24 hours of knowing the result.
3. If effluent turbidity limits are complied with, then receiving water sampling for turbidity is not required.

[4] If the disinfection system is malfunctioning or if the plant's effluent violates effluent standards for Total Coliform, then the monitoring shall be increased to daily until the plant's effluent returns to compliance.

[5] Temperature and pH are to be measured concurrently with the Total Ammonia sample, and the results shall be used to calculate and report Un-ionized Ammonia Concentrations.

At the time of receiving water sampling, a log should be kept of receiving water conditions. Attention should be given to the presence or absence of:

1. Floating or suspended matter
2. Discoloration
3. Foaming
4. Aquatic Life
5. Bottom deposits
6. Oil sheen
7. Algal growth

Notes on receiving water conditions shall be summarized in the monitoring report.

IV. BIOSOLIDS MONITORING

Annually, the Discharger shall obtain a representative sample of biosolids from the treatment process before disposal (annual basis). Each drying bed shall be partitioned into quadrants. The sample shall consist of a composite of 4 sub-samples taken from a randomly selcted site in each quadrant.

Biosolids shall be disposed of in accordance with Section A.12. of the "Standard Provisions". The biosolids monitoring program follows:

TABLE D

Constituent	Units	Type of Sample	Minimum Frequency
Quantity & Disposal Location	Tons (or yd^3)	Measured	During removal, min. annually
Moisture	Percent	Composite	During removal, min. annually
Paint Filter Test	Per SW-846. Method 8095	Composite	During removal, min. annually
Antimony	mg/kg	Composite	During removal, min. annually
Arsenic	mg/kg	Composite	During removal, min. annually
Beryllium	mg/kg	Composite	During removal, min. annually
Cadmium	mg/kg	Composite	During removal, min. annually
Chromium	mg/kg	Composite	During removal, min. annually
Copper	mg/kg	Composite	During removal, min. annually
Lead	mg/kg	Composite	During removal, min. annually
Mercury	mg/kg	Composite	During removal, min. annually
Nickel	mg/kg	Composite	During removal, min. annually
Selenium	mg/kg	Composite	During removal, min. annually
Silver	mg/kg	Composite	During removal, min. annually
Thallium	mg/kg	Composite	During removal, min. annually
Zinc	mg/kg	Composite	During removal, min. annually

VI. REPORTING

Data collected in accordance with Tables A, B, C and D shall be submitted in accordance with Table E below and shall include the following.

1 <u>Results of toxicity testing shall include the following:</u>

a. Physical, chemical, and raw toxicity data in tabular form as shown on:

Pages 72 and 73 or its equivalent of *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition* (EPA-821-R-02-012)

Pages 31 and 32 or its equivalent of *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA-821-R-02-013).

b. Pass/fail endpoint and indicate statistical method used to calculate endpoint.
c. Quality Assurance data.

II. **Fecal Coliform Contamination:** When the receiving water limit of 200 MPN/100mL for fecal coliform is exceeded in the effluent or receiving water, Provision No. F.8 requires the discharger to post public warnings. The Discharger shall state in the monthly report if there is receiving water contamination and if so, include the location and number of warning signs posted, and the posting duration.

III. **Annual Report**: In addition to the items in Standard Provisions C.16., the Discharger shall tabulate all sewage spills from January 1 to December 31 of the reporting year. The report shall summarize the spill location, the number of times sewage spills occurred there in the prior five years, spill volume, the affected surface water, and cleanup or corrective steps taken.

TABLE E

Monitoring Period	Report Due
Daily, Weekly, Monthly	Monthly on the 30th day of the following month.
Annual	February 15th of each year.
Annual (Biosolids)	Attached to the next available monthly report

ORDERED BY _____
Roger W. Briggs
Executive Officer

5-19-05
Date