

North Coast Regional Water Quality Control Board

ORDER NO. R1-2012-0026
NPDES PERMIT NO. CA0025143

WDID NO. 1B06008NMEN

WASTE DISCHARGE REQUIREMENTS
FOR WILLITS ENVIRONMENTAL REMEDIATION TRUST
CITY OF WILLITS, PAGE PROPERTY
MENDOCINO COUNTY

Table 1. Discharger Information

Discharger	Willits Environmental Remediation Trust City of Willits
Name of Facility	Page Property
Facility Address	3920 Canyon Road
	Willits, California
	Mendocino County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a minor discharge	

The Dischargers are authorized to discharge from the following discharge points as set forth below:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Treated Groundwater	39°25'56"	N123°18'11"	Darby Creek

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	April 26, 2012
This Order shall become effective on:	April 26, 2012

This Order shall expire on:	April 26, 2017
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	October 26, 2016

IT IS HEREBY ORDERED, that 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 Dischargers shall comply with the requirements established herein.

I, Catherine Kuhlman, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on April 26, 2012.

Catherine Kuhlman, 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	Willits Environmental Remediation Trust (WERT) City of Willits
Name of Facility	Page Property
Facility Address Facility Contact, Title and Phone Mailing Address	3920 Canyon Road Willits, CA 95490 Mendocino County
	Anne Farr, Trustee, (916) 781-9327 Paul Cayler, City of Willits, (707) 459-4601
	Willits Environmental Remediation Trust 6016 Princeton Reach Way Granite Bay, CA 95746
	City of Willits 111 East Commercial Street Willits, CA 95490
Type of Facility	Former Burn Dump/Chromic Acid Disposal Pits
Facility Design Flow	Up to 29,000 Gallons Per Day

II. FINDINGS

The California Regional Water Quality Control Board, North Coast Region (hereinafter Regional Water Board), finds:

A. Background. On June 10, 2011, the Willits Environmental Remediation Trust submitted a Report of Waste Discharge proposing reissuance of the Waste Discharge Requirements Order No. R1-2012-0026 which also serve as an NPDES Permit No. CAG9111001. The Waste Discharge Requirements and NPDES permit authorize the Willits Environmental Remediation Trust (WERT) to collect groundwater contaminated with hexavalent chromium in an extraction trench, treat the groundwater and discharge highly treated groundwater to Darby Creek, a tributary of the Eel River, as well as to evaporate and/or spray irrigate the highly treated groundwater on the City of Willits property (“Former Landfill”).

The Willits Environmental Remediation Trust (WERT) is an independent instrumentality of the United States District Court for the Northern District of California, as established pursuant to the Amended Final Consent Decree, Final Order, and Final Judgment; And Order Establishing the Willits Environmental Remediation Trust, entered by Judge

Susan Illston (N.D. CA, Case No. C96-0283SI) on December 22, 2000 (the Consent Decree). The WERT was established in part to completely, timely and cost-effectively conduct all investigatory and remedial work at the Remco Facility located at 934 South Main Street in Willits, California (Remco Site) and surrounding areas in and around the City of Willits where hazardous substances associated with the Remco Facility operations have come to be located. The Page Property is one location where Remco wastes are located, and the WERT is investigating, and cleaning up those wastes. In the 1940s, the City of Willits acquired 2.4 acres of land for use as a municipal landfill on the Page Property. The municipal landfill was operated by Wilson Page on behalf of the City of Willits. The City of Willits is still the current landowner of the property. Therefore, the Willits Environmental Remediation Trust and City of Willits are hereinafter referred to as Dischargers.

B. Facility Description. The facility is a former municipal burn dump that operated from the 1940s to 1970. The burn dump is a 2.4 acre parcel located on the Page Ranch and operated by Wilson Page on behalf of the City of Willits. In the late 1960s, industrial wastes, including chromic acid generated from the Remco Hydraulics Facility, were collected and disposed at the former burn dump. Wastes from the Remco Facility were initially disposed onto the operating burn dump located on a hillside. In early 1970, disposal ponds were constructed and industrial wastes were disposed into ponds constructed on the property. In late 1973, Regional Water Board staff prohibited the disposal of industrial wastes to the burn dump. From 1974 to the mid 1980s, septage was disposed into the ponds.

The burn dump is located on a hillside with Darby Creek flowing at the base of the hillside. Darby Creek is a tributary to Outlet Creek and the Eel River. During winter months, rainfall flows through the permeable soils and garbage of the former burn dump and emerges as a spring at the base of the hill. In addition, a groundwater to surface water discharge to Darby Creek occurs at the site. Historic sampling of the spring found hexavalent chromium at concentrations up to 1,650 ug/l (ppb). Contaminated groundwater and the spring discharges to Darby Creek resulted in hexavalent chromium detected up to 18 ug/l in the Creek. Currently, the levels of hexavalent chromium to Darby Creek range from below the detection limit of 1 ug/l up to 2.2 ug/l.

In 2006, a groundwater extraction trench was constructed at the base of the former landfill where contaminated groundwater emerges from the side of the hill. The extraction trench collects groundwater which is pumped to the top of the hill where it is treated to nondetectable levels. The highly treated groundwater is spray irrigated onto land owned by the City of Willits. The land irrigation is the primary disposal of the highly treated groundwater. The discharge of highly treated groundwater to Darby Creek is a backup disposal plan, if irrigation to land cannot occur. To date, no discharge to Darby Creek has occurred. The treatment system consists of a filter to remove sediment, carbon vessels to remove contaminants, and a holding tank to meter the discharge.

This NPDES Permit prohibits the discharge to Darby Creek during the times of May 15 to September 30

Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

- C. Legal Authorities.** This Permit is issued pursuant to CWA Section 402 and implementing regulations adopted by the U.S. EPA and the CWC, Division 7, Chapter 5.5. It shall serve as a NPDES permit for point source discharges of highly treated groundwater to surface waters. This Permit shall also serve as Waste Discharge Requirements (WDRs) pursuant to the CWC, Division 7, Article 4, Chapter 4 for discharges that are not subject to regulation under CWA Section 402.
- D. Background and Rationale for Requirements.** The Regional Water Board developed the requirements of this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. Attachments A - F, which contain background information, rationale for Order Requirements, and Order requirements, are hereby incorporated into this Order and, thus, constitute part of this Order.
- E. California Environmental Quality Act (CEQA).** This Order serves as both an NPDES permit for discharges to waters of the U.S. and as WDRs for discharges to waters of the state (the land discharges). The Regional Water Board's responsibilities under CEQA differ for NPDES-related discharges and WDR-related discharges.

Pursuant to Water Code section 13389, an action to adopt an NPDES permit is exempt from the provisions of CEQA contained in Public Resources Code sections 21100-21177. Accordingly, this exemption from CEQA applies to the Regional Water Board's actions to adopt those portions of the Order that regulate NPDES-discharges.

Similarly, the Regional Water Board's action in approving those parts of the Order that regulate WDR-related discharges is exempt from CEQA as an existing facility with no expansion of use beyond that existing at the time of the lead agency's determination pursuant to Title 14, CCR, Section 15301.

- F. Technology-based Effluent Limitations.** Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations¹, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent

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

limitations necessary to meet applicable water quality standards. There are no applicable Effluent Limitations Guidelines (technology-based limitations established by the US EPA) for groundwater pump-and-treat systems. Technology-based requirements of the General Permit have been established using Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3.

G. Water Quality-Based Effluent Limitations. NPDES regulations at 40 CFR 122.44 (d) require permits to include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of receiving waters. Where numeric water quality objectives have not been established, in accordance with 40 CFR 122.44 (d), WQBELs may be established using calculated numeric water quality criteria; using U.S. EPA water quality criteria established under CWA Section 304 (a); or using indicator parameters for the pollutants of concern.

H. Water Quality Control Plans. The Regional Water Board adopted a *Water Quality Control Plan for the North Coast Region* (the Basin Plan) 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. Beneficial uses are designated for all waters of the North Coast Region and are designated for coastal and inland waters, wetlands, and groundwaters. Beneficial uses of any water body specifically identified in the Basin Plan generally apply to its tributary streams:

The Basin Plan identifies the following existing and potential beneficial uses for Outlet Creek, a tributary of the Eel River.

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Eel River	<p><u>Existing:</u> MUN – Municipal and Domestic Supply AGR – Agricultural Supply IND – Industrial Service Supply GWR – Groundwater Recharge FRSH – Freshwater Replenishment NAV – Navigation REC1 – Water Contact Recreation REC2 – Non-Contact Water Recreation COMM – Commercial and Sport Fishing COLD – Cold Freshwater Habitat WILD – Wildlife Habitat RARE – Preservation of Rare, Threatened, or Endangered Species MIGR – Migration of Aquatic Organisms SPWN – Spawning, Reproduction, and/or Early Development</p> <hr/> <p><u>Potential:</u></p> <ul style="list-style-type: none"> ▪ PRO – Industrial Process Supply ▪ POW – Hydropower Generation ▪ AQUA – Aquaculture
	Groundwater	<p><u>Existing</u> MUN – Municipal and Domestic Supply AGR – Agricultural Supply IND – Industrial Service Supply FRSH – Freshwater replenishment to Surface Waters CUL – Native American Culture</p> <p><u>Potential:</u> PRO – Industrial Process Supply AQUA – Aquaculture</p>

The State Water Resources Control Board (State Board) adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters 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.

Requirements of this Order protect all receiving water beneficial uses and specifically implement the applicable water quality control plans, described above.

- I. National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About 40 criteria in the NTR are applicable to discharges in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.
- J. State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this General Permit implement the SIP.
- K. Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under Section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 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 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. The Permit does not include compliance schedules or interim effluent limitations.
- L. Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 CFR § 131.21; 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect

and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

- M. Antidegradation Policy.** Section 131.12 requires that the State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. As discussed in detail in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.
- N. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. Some effluent limitations in this General Permit are less stringent than those in Order No. 2006-0067. As discussed in detail in the Fact Sheet this relaxation of effluent limitations is consistent with the antibacksliding requirements of the CWA and federal regulations.
- O. Endangered Species Act.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the State. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
- P. Monitoring and Reporting.** NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify requirements for recording and reporting monitoring results. CWC Sections 13267 and 13383 authorize the Regional Board to require technical and monitoring reports. The attached monitoring and reporting program (MRP) (Attachment E) establishes monitoring and reporting requirements to implement federal and State requirements.
- Q. Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those

additional conditions that are applicable under section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the Fact Sheet.

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 the notification are provided in the Fact Sheet 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 of this Order.

III. DISCHARGE PROHIBITIONS

- T.** The discharge of any waste, including highly treated groundwater and purge waters extracted from the site and treated, is prohibited unless the discharge is regulated by an NPDES permit or is discharged to a permitted facility.
- U.** The discharge of treated groundwater to Darby Creek containing inorganic constituents in excess of the background level in the receiving water is prohibited.
- V.** The discharge from the treatment facility of detectable levels of the organic constituents listed in the Tables 1, 2, and 3 attached to this Order is prohibited. For purposes of this Order, the Minimum Level of detection shall be those listed in the Tables 1, 2, and 3, included in Monitoring and Reporting Program No. R1-2012-0026 (Attachment E).
- W.** The discharge of treated groundwater to land containing inorganic constituents in excess of the background levels in groundwater is prohibited.
- X.** The discharge to land of highly treated water containing hexavalent chromium is prohibited.
- Y.** Creation of pollution, contamination, or nuisance, as defined by CWC Section 13050 is prohibited [Health and Safety Code, Section 5411].
- Z.** The discharge of extracted and treated groundwater/purge waters in excess of 29,000 gallons per day (gpd) is prohibited.
- AA.** Bypass or overflow of untreated or partially treated groundwater to waters of the State from the treatment system or from the collection and transport systems or from pump stations tributary to the treatment system is prohibited.

- BB.** The discharge of waste to land that is not owned by or subject to an agreement for use by the Discharger is prohibited.
- CC.** The discharge of treated groundwater/purge waters from the treatment system to the Eel River or its tributaries is prohibited during the period May 15 through September 30 of each year.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Pollutants with Effluent Limitations Established by the Order

1. The specific minimum detection requirements for laboratory analysis and reporting for all organic and inorganic pollutants are presented in Table 1, 2, and 3 attached to Monitoring and Reporting Program No. R1-2012-0026 (Attachment E)
2. Organic pollutants listed in Tables 1, 2, and 3 shall not be discharged at detectable concentrations.
3. Inorganics that are naturally occurring shall not be discharged at levels that exceed background in the receiving water.
4. **Acute toxicity.** There shall be no acute toxicity in treated effluent. Dischargers shall be in compliance with this limitation when the survival of aquatic organisms in a 96-hour bioassay of undiluted waste complies with the following.

Minimum for any one bioassay: 90 percent survival

Compliance with this effluent limitation shall be determined in accordance with Section V. A of the Monitoring and Reporting Program (MRP – Attachment E to the Permit).

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. Discharges shall not cause the following conditions in Darby Creek:

1. Unless more stringent water quality objective for dissolved oxygen are established, the waste discharge shall not cause the dissolved oxygen concentration of the receiving waters to be depressed below 7.0 mg/l at any time nor below 9.0 mg/L during critical spawning and egg incubation periods. In the event that the receiving

waters have background dissolved oxygen concentrations of less than these levels, discharges shall not depress dissolved oxygen concentrations below existing levels.

2. Unless more stringent water quality objectives for pH are established, the discharge shall not cause the pH of the receiving waters to be depressed below 6.5 nor raised above 8.5. If the pH of the receiving water is less than 6.5, the discharge shall not cause a further depression of the pH of the receiving water. If the pH of the receiving water is greater than 8.5, the discharge shall not cause a further increase in the pH of the receiving water. The discharge shall not cause receiving water pH to change more than 0.5 units at any time.
3. The discharge shall not cause the turbidity of the receiving waters to be increased more than 20 percent above naturally occurring background levels.
4. The discharge shall not cause the receiving waters to contain floating materials, including, but not limited to, solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
5. The discharge shall not cause the receiving waters to contain taste or odor producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.
6. The discharge shall not cause coloration of the receiving waters that causes nuisance or adversely affects beneficial uses.
7. The discharge shall not cause bottom deposits in the receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.
8. The discharge shall not cause or contribute to receiving water concentrations of biostimulants that promote objectionable aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses of the receiving waters.
9. The discharge shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses of receiving waters.
10. The discharge shall not cause the receiving waters to contain toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.
11. Discharges shall not cause alteration of natural temperature of receiving waters unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. At no time

or place shall discharges cause temperature to increase more than 5° F above natural receiving water temperature.

12. The discharge shall not cause an individual pesticide or combination of pesticides to be present in concentrations that adversely affect beneficial uses. There shall be no bioaccumulation of pesticide concentrations found in bottom sediments or aquatic life as a result of the discharge.
13. The discharge shall not cause the receiving waters to contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water that cause nuisance or that otherwise adversely affect beneficial uses.
14. 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 CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA, or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with the more stringent standards.
15. The discharge shall not substantially contribute to exceedances of water quality objectives for specific waters of the North Coast Region that are established in Table 3-1 of the Basin Plan for specific conductance, total dissolved solids, hardness, and boron. In the event that receiving waters have background conditions for these parameters at levels that already exceed water quality objectives, dischargers shall not cause or contribute to a further exceedance of existing conditions.
16. The discharge shall not cause a violation of any applicable water quality objective for receiving waters adopted by the Regional Water Board or the State Board as required by the CWA and regulations adopted hereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to CWA Section 3030 or amendments thereto, the Regional Water Board will revise and modify this Order with the more stringent standards.

B. Groundwater Limitations

1. The collection, storage, and use of wastewater or recycled water shall not cause or contribute to degradation that violates groundwater quality objectives or impacts beneficial uses of groundwater.
2. The collection, storage, use, and disposal of wastewater shall not cause alterations of groundwater that result in contaminant concentrations that cause nuisance or adversely affect beneficial uses.

3. The discharge shall not cause concentrations of chemical constituents to occur in excess of limiting concentrations specified in the Basin Plan or in excess of more stringent Maximum Contaminant Levels (MCLs) established for these pollutants in Title 22, Division 4, Chapter 15, Articles 4 and 5.5 of the California Code of Regulations..

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.
 - a. Authorization to discharge under this Order may be terminated for reasons which include, but are not limited to, the following.
 - i. Violation of any term or condition contained in this Order;
 - ii. Obtaining authorization to discharge under the Order by misrepresentation or failure to fully disclose relevant information;
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge;
 - iv. A change in the groundwater treatment system to a configuration that is not eligible for coverage under this Order;
 - v. The discharge is endangering human health or the environment.
 - b. The Regional Water Board may review and revise this Permit at any time upon application by any person, or on the Regional Water Board's own motion.
 - c. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under the federal CWA at Section 307 (a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation for the pollutant in this Permit, this Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the Permittee so notified.
 - d. The Executive Officer may modify or revoke authorization to discharge under this Permit if it is determined that the Permittee is causing or significantly contributing

to adverse impacts to the water quality and/or beneficial uses of receiving waters. In the event that the Regional Water Board's interpretation of the narrative toxicity objective is modified or invalidated by the Regional Water Board, a court decision, or a State statute or regulation, this Permit may be revised to be consistent with the decision, statute, or regulation.

- e. In addition, the Regional Water Board may consider revising this Permit to make it consistent with any Regional Water Board decisions arising from various petitions for rehearing, and litigation concerning the State Implementation Plan, 303 (d) list, and TMDL Program.
- f. Availability. A copy of this Permit shall be maintained at the discharging facility and be available at all times to operating personnel.
- g. Change in Discharge. At least 180 days prior to an expected material change in the character, location, or volume of a discharge, the Permittee shall file with the Regional Water Board a revised report of waste discharge. A material change includes, but is not limited to, moving the discharge to another drainage area, to a different water body, or to a disposal area, significantly removed from the original area, potentially causing different water quality or nuisance problems.
- h. Monitoring and Reporting. The Regional Water Board or State Water Board may require the Permittee to establish and maintain records, make reports, install, use, and maintain monitoring equipment or methods (including, where appropriate, biological monitoring methods), sample effluent as prescribed, and provide other information as may be reasonably required.

The Permittee shall file with the Regional Water Board technical reports on self monitoring work performed according to the detailed specifications contained in any monitoring and reporting program as directed by the Regional Water Board.

Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer. In the event a certified laboratory is not available to the Permittee, analyses performed by a non-certified laboratory will be accepted, provided:

- i. A quality assurance/ quality control program is instituted by the laboratory, and a manual containing the steps followed in this program is kept in the laboratory and made available for inspection by representatives of the Regional Water Board. The quality assurance/quality control program must conform to U.S. EPA or State Department of Health Services guidelines.

- ii. The laboratory will become certified within the shortest practicable time if the State certification program is resumed.

All Discharge Monitoring Reports shall be sent to:

California Regional Water Quality Control Board
North Coast Region
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403

- i. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.
- j. The Discharger shall immediately cease any discharge authorized by this Order in the event there is a violation or threatened violation of this General Permit, or if the Executive Officer so orders. The Discharger must notify Regional Water Board staff orally, as soon as reasonably possible, with a written confirmation within a week, when a violation of this Order is known to exist. The Discharge may not be resumed until authorized in writing by the Executive Officer.
- k. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board orally² within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.
- l. 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

² Oral reporting means direct contact with a Regional Water Board staff person. The oral report may be given in person or by telephone. After business hours, oral contact must be made by calling the State Office of Emergency Services at (800)852-7550 or Regional Water Board spill officer at (707) 696-7179.

revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.).

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

1. Reopener Provisions

- a. **Standard Revisions.** If applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Regional Water Board may reopen this Order and make modifications in accordance with such revised standards.
- b. **Reasonable Potential.** This Order may be reopened for modification to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above an applicable water quality objective.
- c. **Whole Effluent Toxicity (WET).** As a result of a Toxicity Reduction Evaluation (TRE), this Order may be reopened to include a chronic toxicity limitation and/or a limitation for a specific toxic pollutant identified by a TRE or if there is a change in the WET compliance method pursuant to changes in State wide policy. In addition, if a numeric water quality objective for chronic toxicity is adopted by the State Water Board, this Order may be reopened to include an effluent limitation for chronic toxicity based on that objective.
- d. **303 (d)-Listed Pollutants.** If a new TMDL is adopted and is applicable to receiving waters for this discharge, this Order may be reopened to incorporate requirements of the TMDL.
- e. **Biostimulatory Substances.** This Order contains effluent limitations for nitrate. If new water quality objectives for nutrients are established, or if monitoring data indicate the need for more stringent effluent limitations for these or other nutrient parameters, this Order may be reopened and modified to include new or modified effluent limitations, as necessary.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

- i. **Whole Effluent Toxicity (WET).** In addition to a limitation for whole effluent acute toxicity, the Monitoring and Reporting Program (MRP) of this Order requires routine monitoring for whole effluent chronic toxicity to determine compliance with the Basin Plan's narrative water quality objective for toxicity. As established by the MRP, if either of the effluent limitations for acute toxicity is exceeded (a single sample with less than 70% survival or a three sample median of less than 90% survival) or if the chronic toxicity monitoring trigger of 1.0 TUc (where TUc = 100/NOEC)³ is exceeded, the Discharger shall conduct accelerated monitoring as specified in section V. of the MRP.

Results of accelerated toxicity monitoring will indicate a need to conduct a Toxicity Reduction Evaluation (TRE), if toxicity persists; or it will indicate that a return to routine toxicity monitoring is justified because persistent toxicity has not been identified by accelerated monitoring. A TRE shall be conducted in accordance with the TRE Workplan prepared by the Discharger pursuant to Section VI.C.2.a.(2) of this Order, below.

- ii. **Toxicity Reduction Evaluations (TRE) Workplan.** The Discharger shall prepare and submit to the Regional Water Board Executive Officer a TRE Workplan **within 180 days of the effective date of this Order**. This requirement may be met using an existing TRE Workplan which meets the criteria contained in this section. This plan shall be reviewed and updated as necessary in order to remain current and applicable to the discharge and discharge facilities. The workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include at least the following items:
 - (a) A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
 - (b) A description of the facility's methods of maximizing in house treatment efficiency and good housekeeping practices.

³ This Order does not allow any credit for dilution for the chronic condition. Therefore, a TRE is triggered when the effluent exhibits a pattern of toxicity at 100% effluent.

- (c) If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in house expert or an outside contractor).
- iii. **Toxicity Reduction Evaluation (TRE).** The TRE shall be conducted in accordance with the following:
- (a) The TRE shall be initiated within 30 days of the date of completion of the accelerated monitoring test, required by section V of the MRP, observed to exceed either the acute or chronic toxicity parameter.
 - (b) The TRE shall be conducted in accordance with the Discharger's workplan.
 - (c) The TRE shall be in accordance with current technical guidance and reference material including, at a minimum, the USEPA manual EPA/833B 99/002.
 - (d) The TRE may end at any stage if, through monitoring results, it is determined that there is no longer consistent toxicity.
 - (e) The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. As guidance, the Discharger shall use the USEPA acute and chronic manuals, EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III).
 - (f) As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the source(s) and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with chronic toxicity parameters.
 - (g) Many recommended TRE elements accompany required efforts of source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. To prevent duplication of efforts, evidence of complying with requirements of recommendations of such programs may be acceptable to comply with requirements of the TRE.
 - (h) The Regional Water Board recognizes that chronic toxicity may be episodic and identification of a reduction of sources of chronic toxicity may not be successful in all cases. Consideration of enforcement action by the

Regional Water Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

3. Best Management Practices and Pollution Prevention

- a. **Pollution Minimization Plan.** The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as "Detected, but Not Quantified" (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 WET, 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 reporting level (RL); or
 - ii. A sample result is reported as not detected (ND) and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.B.4.
 - iii. The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:
 - (a) 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;
 - (b) Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;
 - (c) 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;
 - (d) Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and
 - (e) 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.

4. Construction, Operation and Maintenance Specifications

- a. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with this Order. Proper operation and maintenance includes adequate laboratory quality control and appropriate quality assurance procedures. This provision requires the operation or backup or auxiliary facilities or similar systems that are installed by the Discharger only when necessary to achieve compliance with the conditions of this Order. (section 122.41 (e))
- b. The Discharger shall maintain an updated Operation and Maintenance (O&M) Manual for the facility. The Discharger shall update the O&M Manual, as necessary, to conform to changes in operation and maintenance of the Facility. The O&M Manual shall be readily available to operating personnel onsite. The O&M Manual shall include the following:
 - i. Description of the treatment plant table of organization showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc.). The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment facility so as to achieve the required level of treatment at all times.
 - ii. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.
 - iii. Description of laboratory and quality assurance procedures.
 - iv. Process and equipment inspection and maintenance schedules.
 - v. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Discharger will be able to comply with requirements of this Order.
 - vi. Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading

and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.

5. Septage Handling Requirements

This section is not applicable.

6. Special Provisions for Municipal Facilities (POTWs only)

This section is not applicable

VII. COMPLIANCE DETERMINATION

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

A. General

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

B. Multiple Sample Data

When determining compliance with an Average Monthly Effluent Limitation (AMEL) for priority pollutants and more than one sample result is available, 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. Average Monthly Effluent Limitation (AMEL)

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

D. Average Weekly Effluent Limitation (AWEL)

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. 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. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

E. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge (or when applicable, the median determined by subsection B, above, for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be

considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G. Instantaneous Maximum Effluent Limitation

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

H. Six-month Median Effluent Limitation.

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

I. Compliance with Single-Constituent Effluent Limitations.

The discharge is out of compliance with the effluent limitation if the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported 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-specific sample weights, volumes and processing steps have been followed.

J. Compliance with Effluent Limitations Expressed as a Sum of Several Constituents.

The discharge is out of compliance with an effluent limitation that applies to the sum of a group of chemicals (e.g., PCBs) if the sum of the individual pollutant concentrations is

greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as non-detect (ND) or Detected, but Not Quantified (DNQ).

K. Multiple Sample Data Reduction.

When determining compliance with an 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.

ATTACHMENT A – DEFINITIONS

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.

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.

Effective Concentration (EC): The EC is a point estimate of the toxicant concentration that would cause an adverse effect on a quantal (all-or-nothing) response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-Kärber. EC25 is the concentration of toxicant (in percent effluent) that cause a response in 25 percent of the test organisms.

Inhibition Concentration (IC): The IC is a point estimate of the toxicant concentration that would cause a given percent reduction in a non-lethal, non-quantal biological measurement, such as growth. For example, an IC25 is the estimated concentration of toxicant that would cause a 25 percent reduction in average young per female or growth. IC values may be calculated using a linear interpolation method such as EPA's Bootstrap procedure.

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).

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

Minimum Level (ML): The Minimum Level 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.

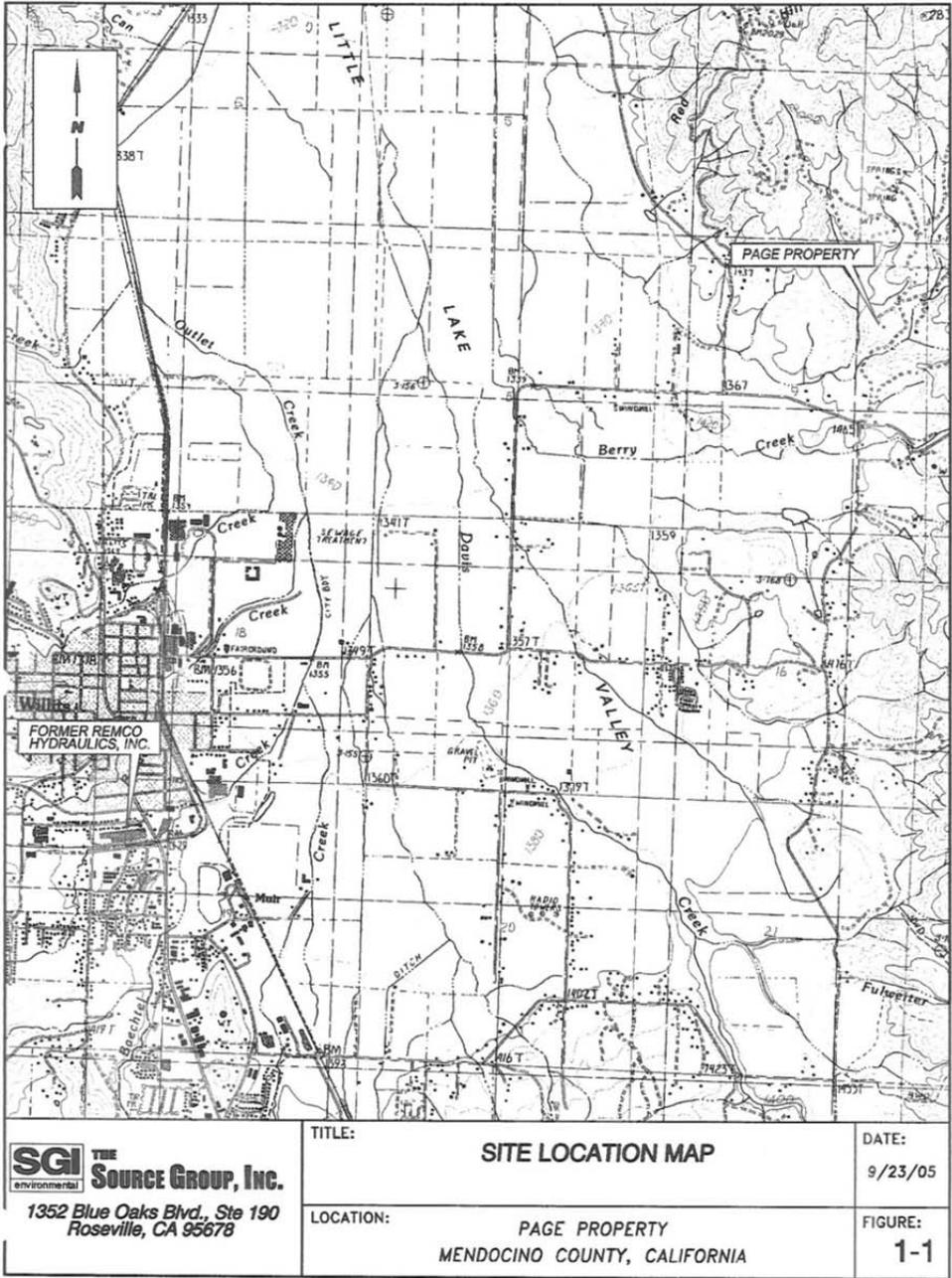
No Observed Effect Concentration (NOEC): The NOEC is the highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specific time of observation.

No Observed Effect Level (NOEL): For compliance determination the NOEL equals IC25 or EC25. If the IC25 and EC25 cannot be statistically determined, the NOEL shall be equal to the NOEC derived using a statistical analysis (hypothesis testing).

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

TUc (chronic toxicity unit): TUc equals $100 / \text{NOEL}$ (e.g., if NOEL = 100, then chronic toxicity = 1 TUc)

ATTACHMENT B – MAP



ATTACHMENT B

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (section 122.41(a).)
2. The Discharger shall comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (section 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. (section 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. (section 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. (section 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (section 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. (section 122.5(c).)

F. Inspection and Entry

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

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (section 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 (section 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 (section 122.41(i)(3)); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (section 122.41(i)(4).)

G. Bypass

1. Definitions

- a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (section 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.
(section 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (section 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 (section 122.41(m)(4)(i)):
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (section 122.41(m)(4)(i)(A));
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (section 122.41(m)(4)(i)(B)); and
 - c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below.
(section 122.41(m)(4)(i)(C).)
4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above.
(section 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. (section 122.41(m)(3)(i).)
 - b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (section 122.41(m)(3)(ii).)

H. Upset

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

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (section 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 (section 122.41(n)(3)):
 - c. An upset occurred and that the Discharger can identify the cause(s) of the upset (section 122.41(n)(3)(i));
 - d. The permitted facility was, at the time, being properly operated (section 122.41(n)(3)(ii));
 - e. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (section 122.41(n)(3)(iii)); and
 - f. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (section 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. (section 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. (section 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. (section 122.41(b).)

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

- A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (section 122.41(j)(1).)
- B.** Monitoring results must be conducted according to test procedures under section Part 136 or, in the case of sludge use or disposal, approved under section Part 136 unless otherwise specified in section Part 503 unless other test procedures have been specified in this Order. (section 122.41(j)(4) and 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 section 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. (section 122.41(j)(2).)
- B.** Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements (section 122.41(j)(3)(i));
 - 2. The individual(s) who performed the sampling or measurements (section 122.41(j)(3)(ii));

3. The date(s) analyses were performed (section 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (section 122.41(j)(3)(iv));
5. The analytical techniques or methods used (section 122.41(j)(3)(v)); and
6. The results of such analyses. (section 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (section 122.7(b)):

1. The name and address of any permit applicant or Discharger (section 122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (section 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. (section 122.41(h); Wat. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (section 122.41(k).)
2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (section 122.22(a)(3).)

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (section 122.22(b)(1));
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (section 122.22(b)(2)); and
 - c. The written authorization is submitted to the Regional Water Board and State Water Board. (section 122.22(b)(3).)
4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (section 122.22(c).)
5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

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

C. Monitoring Reports

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

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (section 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under section Part 136 or, in the case of sludge use or disposal, approved under section Part 136 unless otherwise specified in section 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. (section 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. (section 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. (section 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. (section 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (section 122.41(l)(6)(ii)):
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (section 122.41(l)(6)(ii)(A).)
 - b. Any upset that exceeds any effluent limitation in this Order. (section 122.41(l)(6)(ii)(B).)

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (section 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 (section 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (section 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (section 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. (section 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. (section 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (section 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. (section 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

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

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (section 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 (section 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. (section 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. (section 122.42(b)(3).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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

The Regional Water Board Executive Officer may modify the monitoring and reporting program for a specific discharger to reduce or increase monitoring frequency and/or eliminate a monitoring parameter if it can be demonstrated that any reduction in monitoring requirements will not compromise water quality.

The MRP is separated into two sections, Surface Water requirements, and Land Disposal Requirements.

I. GENERAL MONITORING PROVISIONS

- A.** Laboratories analyzing monitoring samples shall be certified by the Department of Health Services, in accordance with the provision of Water Code § 13176, and must include quality assurance/quality control data with their reports.
- B.** If the Discharger monitors any pollutant more frequently than required by this MRP, using test procedures approved by 40 CFR Part 136 or as specified in this MRP, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the Discharger's self-monitoring report.
- C.** Samples and measurements taken as required by this MRP shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at 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 the Regional Water Board Executive Officer.
- D.** Monitoring results, including noncompliance, shall be reported at intervals and in the manner specified in this MRP.
- E.** 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. All monitoring instruments and devices used by the Discharger to fulfill 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.

- F. Composite samples may be taken by a proportional sampling devise approved by the Executive Officer or by grab samples composited in proportion to the flow. In compositing grab samples, the sampling interval shall not exceed one hour.

II. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Sample Stream or Discharge Point	Monitoring Location Name	Monitoring Location Description
Treatment System Influent	M-INF	Untreated groundwater at a point in the groundwater collection system immediately prior to treatment.
Discharge Point 001	M-001	Treated groundwater before contact with receiving water and/or dilution by any other water or waste. The sampling point is at the end of the treatment system.
Receiving Water	R-001	Receiving water immediately upstream of the point of discharge so that samples are representative of upstream, background conditions within the receiving stream.
Receiving Water	R-002	Receiving water at an appropriate monitoring location, 25 feet downstream of the point of discharge, that adequately represents downstream water quality.

III. INFLUENT MONITORING REQUIREMENTS

- The Discharger shall monitor untreated groundwater/influent to the treatment facility at monitoring location M-INF in accordance with the following schedule:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Analytical Method
Hexavalent Chromium	µg/L	Grab	Quarterly	EPA Method 7199
VOCs	µg/L	Grab	Annual	EPA Method 8260

IV. EFFLUENT MONITORING REQUIREMENTS

1. The Discharger shall monitor treated effluent at Monitoring Locations M-001, if a discharge to receiving waters is implemented, in accordance with the following schedule:

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Analytical Method
Flow	gpd	Continuous meter	Daily	Standard Methods
Temperature	° C	Field monitor	1x / month	
pH	standard units	Field monitor	1x / month	
Turbidity	NTU	Field monitor	1x / month	
Dissolved Oxygen	mg/L	Field monitor	1x / month	
Hexavalent Chromium	µg/L	Grab	Quarterly	EPA Method 7199
VOCs	µg/L	Grab	Annual	EPA Method 8260
Acute Toxicity ^a	pass/fail	Grab or Composite	1x / year ^e	
Chronic Toxicity ^b	TUc	Grab or Composite	1x / 5 years ^e	
CTR Pollutants ^c	µg/L	Grab	1x / 5 years ^e	
Title 22 Pollutants ^d	µg/L	Grab	1x / 5 years ^e	

^a. Whole effluent acute toxicity testing shall be conducted in accordance with Section V of this MRP.

^b. Whole effluent chronic toxicity testing shall be conducted in accordance with Section V of this MRP.

^c. CTR Pollutants are those identified as Compound Nos. 1 – 126 by the California Toxics Rule (CTR) at 40 CFR 131.38.

^d. Title 22 Pollutants are those pollutants with drinking water primary maximum contaminant levels (MCLs) established by the State Department of Health Services at Title 22 of the California Code of Regulations, Division 4, Chapter 15, Article 4 (Primary Standards – Inorganic Chemicals) and Article 5.5 (Primary Standards – Organic Chemicals).

- e. Monitoring for this parameter shall occur during the first sixty days of operation and thereafter in accordance with the schedules established by Section IV of this MRP.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

The Discharger shall conduct acute toxicity monitoring, in accordance with the following requirements, to determine compliance with the acute toxicity effluent limitation established by this Order:

1. **Test Frequency.** The Discharger shall conduct whole effluent acute toxicity testing one time per year.
2. **Sample Type.** For static renewal testing, grab samples representative of effluent quality shall be collected at Monitoring Location M-001.
3. **Test Species.** Test species for acute toxicity monitoring shall be an invertebrate, (the water flea - *Ceriodaphnia dubia*) and a vertebrate (the rainbow trout - *Oncorhynchus mykiss* or the fathead minnow – *Pimephales promelas*), for the first two suites of tests conducted in accordance with the provisions of the Permit. After this screening period, acute toxicity testing shall be conducted using the most sensitive species.
4. **Test Methods.** The presence of acute toxicity shall be determined as specified in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (U.S. EPA Office of Water, EPA/821-R-02-012, 5th edition or subsequent editions), or other methods approved by the Executive Officer.
5. **Test Failure.** If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger shall re-sample and re-test as soon as possible, but not later than 7 days following notification of test failure.
6. **Accelerated Monitoring.** If acute toxicity test results indicate acute toxicity in effluent exceeding the effluent limitation established by the Permit, (90 percent survival), and the test procedures meet all acceptability criteria, the Discharger shall take two more samples - one within 14 days and one within 21 days of receiving the initial sample result. If any of these accelerated monitoring samples exceed the effluent limitation, within thirty days of notification by the laboratory of test results exceeding the effluent limitation during accelerated monitoring, the Permittee shall submit a TRE Action Plan to the Regional Water Board, including, at minimum:

- a. Specific actions the Permittee will take to investigate and identify the cause(s) of toxicity, including a TRE WET monitoring schedule;
 - b. Specific actions the Permittee will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and
 - c. A schedule for these actions.
 - d. If the two accelerated monitoring samples are in compliance with the acute toxicity limitation, and testing procedures meet acceptability criteria, then a TRE will not be required. If the discharge has been discontinued before the accelerated monitoring samples can be collected, the Discharger shall contact the Executive Officer within 21 days with a plan to demonstrate compliance with the acute toxicity effluent limitation.
7. **Notification.** The Discharger shall notify the Regional Water Board in writing within 14 days of the receipt of test results that exceed the acute toxicity effluent limitation. The notification will describe actions the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It shall also include a status report on any actions required by this Order, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.
8. Following initiation of a TRE, if the cause of toxicity cannot be identified and eliminated within a reasonable period of time, as determined by the Executive Officer, the Permittee shall discontinue the discharge. The Permittee shall correct the toxicity in effluent to the satisfaction of the Executive officer prior to resuming a discharge to surface waters.
9. The Executive Officer may require a discharger to initiate a TRE, notwithstanding the results of accelerated monitoring.

B. Chronic Toxicity

The Discharger shall conduct chronic WET testing to demonstrate compliance with the Basin Plan's narrative water quality objective for toxicity. The Discharger shall meet the following chronic toxicity testing requirements:

1. **Test Frequency.** The Discharger shall conduct routine chronic toxicity testing at least one time every five years.
2. **Sample Type.** For static renewal testing, grab samples representative of effluent quality shall be collected at Monitoring Location M-001.

3. **Test Species.** The following three test species shall be used for chronic toxicity monitoring conducted pursuant to the Permit.

Table E-4. Short-Term Methods for Estimating Chronic Toxicity – Fresh Waters

Species	Scientific Name	Effect	Test Duration
fathead minnow	<i>Pimephales promelas</i>	larval survival; growth	7 days
water flea	<i>Ceriodaphnia dubia</i>	survival; number of young	6 to 8 days
alga	<i>Selenastrum capricornutum</i>	growth rate	4 days

4. **Test Methods.** The presence of chronic toxicity shall be determined as specified in EPA's *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms* (U.S. EPA Report No. EPA-821-R-02-013, 4th or subsequent editions).
5. **Test Dilutions.** Chronic toxicity testing shall be conducted using a control and a series of five effluent dilutions (100, 85, 70, 50, and 25 percent). Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the EPA guidance manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.
6. **Reference Toxicant.** If organisms are not cultured in-house, concurrent testing with a reference 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).
7. **Test Failure.** If either the reference toxicant test or the chronic toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger shall re-sample and re-test as soon as possible, but not later than 7 days following notification of test failure.
8. **Accelerated Monitoring Numeric Trigger.** The chronic toxicity monitoring trigger is 1.0 chronic toxicity units (TUc, where TUc = 100 / NOEC). The monitoring trigger is not an effluent limitation; it is the toxicity threshold at which the Discharger is required to begin accelerated monitoring.
9. **Notification.** The Discharger shall notify the Regional Water Board in writing within 14 days of the receipt of test results exceeding the chronic toxicity monitoring trigger.
10. **Accelerated Monitoring Requirements.** If the result of any chronic toxicity test exceeds the monitoring trigger, and the testing meets all test acceptability criteria, the Permittee shall initiate accelerated monitoring. Accelerated monitoring shall consist of

four additional effluent samples, one test conducted approximately every week, over a four-week period. Testing shall commence within 14 days of receipt of the sample results indicating an exceedance of the toxicity monitoring trigger. If the discharge is discontinued before the additional samples can be collected, the Permittee shall contact the Executive Officer within 21 days with a plan to reduce chronic toxicity in effluent. The following protocol shall be used for accelerated monitoring and TRE implementation.

- a. If the results of of four consecutive accelerated monitoring tests do not exceed the monitoring trigger, the Permittee may discontinue accelerated monitoring and resume regular chronic toxicity monitoring. If there is evidence of persistent effluent toxicity, as defined below, a TRE shall be initiated.
- b. If the source(s) of the toxicity is easily identified, the Discharger shall make necessary corrections to the facility and shall continue accelerated monitoring until four (4) consecutive accelerated tests do not exceed the monitoring trigger. Upon confirmation that effluent toxicity has been eliminated, the Permittee may discontinue accelerated monitoring and resume regular chronic toxicity monitoring.
- c. If the result of any accelerated toxicity test exceeds the chronic toxicity trigger, the Discharger shall cease accelerated monitoring and initiate a TRE to investigate the cause(s) of, and identify corrective actions to reduce or eliminate effluent toxicity. Within thirty (30) days of notification by the laboratory of the test results exceeding the chronic toxicity trigger during accelerated monitoring, the Discharger shall submit a TRE Action Plan to the Regional Water Board including, at minimum:
 - i. Specific actions the Permittee will take to investigate and identify the cause(s) of toxicity, including a TRE WET monitoring schedule;
 - ii. Specific actions the Permittee will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and;
 - iii. A schedule for these actions
- d. Following initiation of a TRE, if the cause of toxicity cannot be identified and eliminated within a reasonable period of time, as determined by the Executive Officer, the Permittee shall discontinue the discharge. The Permittee shall correct the toxicity in effluent to the satisfaction of the Executive officer prior to resuming a discharge to surface waters.
- e. The Executive Officer may require a Discharger to initiate a TRE, notwithstanding the results of accelerated monitoring.

11. Ammonia Toxicity. The chronic toxicity test shall be conducted without modifications to eliminate ammonia toxicity.

C. Additional Testing

D. Toxicity Reporting Requirements

1. Chronic toxicity monitoring results shall be reported in chronic toxicity units (TUc), where $TUc = [100 / NOEC]$ or $[100 / ICp]$ or $[100 / ECp]$, where IC and EC are expressed in percent effluent. Acute toxicity monitoring results shall be reported as the percent survival in undiluted effluent.
2. Routine Reporting: Toxicity monitoring results shall be reported in accordance with the appropriate EPA guidance manuals and this MRP and shall be attached to the self monitoring reports. Reporting of acute and chronic toxicity test results shall, at a minimum, include the following information for each test. (See Attachment A for definitions.)
 - a. Sample date(s),
 - b. Test initiation date,
 - c. Test species,
 - d. End point values for each dilution (e.g. number of young, growth rate, percent survival),
 - e. NOEC value(s), in percent effluent,
 - f. IC_{15} , IC_{25} , IC_{40} , and IC_{50} values (or EC_{15} , EC_{25} ...etc.) in percent effluent
 - g. TUc values ($100 / NOEC$, $100 / IC_{25}$, and $100 / EC_{25}$),
 - h. Mean percent mortality (\pm standard deviation) after 96 hours in 100% effluent, if applicable,
 - i. NOEC and LOEC values for reference toxicant test(s),
 - j. IC_{50} or EC_{50} value(s) for reference toxicant test(s), and
 - k. Available water quality measurements for each test (e.g. pH, dissolved oxygen, temperature, conductivity, hardness (as $CaCO_3$), salinity, ammonia).
3. Compliance Summary: Results of acute and chronic toxicity monitoring shall be provided in the next quarterly self monitoring report and shall be tabulated to

include the results all toxicity monitoring (screening, routine, and accelerated) that has been performed during the previous three years. The Compliance Summary shall clearly highlight that the Permittee is or is not in compliance with effluent limitations and other requirements of the General Permit regarding whole effluent toxicity..

VI. LAND DISCHARGE MONITORING REQUIREMENTS

A. Influent Monitoring Requirements

1. The Discharger shall monitor untreated groundwater/influent to the treatment facility at monitoring location M-INF in accordance with the following schedule.

Table E-5. Influent Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Analytical Method
Hexavalent Chromium	µg/L	Grab	Quarterly	EPA Method 7199
Hexavalent Chromium		Grab	Monthly	(Hach® Kit)
VOCs	µg/L	Grab	Annual	EPA Method 8260

VII. LAND EFFLUENT MONITORING REQUIREMENTS

The Discharger shall monitor treated effluent at Monitoring Locations M-001 in accordance with the following schedule.

Table E-6. Effluent Monitoring – Discharge to Land - Monitoring Location M-001

Parameter	Units	Sample Type	Sampling Frequency	Analytical Method
Flow	gpd	Continuous meter	daily	Standard Methods
Temperature	° C	Field monitor	1x / month	
pH	standard units	Field monitor	1x / month	
Turbidity	NTU	Field monitor	1x / month	
Dissolved Oxygen	mg/L	Field monitor	1x / month	
Hexavalent Chromium	µg/L	Grab	Quarterly	EPA Method 7199

Table E-6. Effluent Monitoring – Discharge to Land - Monitoring Location M-001

Parameter	Units	Sample Type	Sampling Frequency	Analytical Method
Hexavalent Chromium		Grab	Monthly	(Hach® Kit)

VIII. RECLAMATION MONITORING REQUIREMENTS

There are no additional monitoring requirements for the proposed spray irrigation / evaporation of treated groundwater.

IX. RECEIVING WATER MONITORING REQUIREMENTS

1. The Discharger shall monitor the receiving water, if a discharge to receiving water is implemented, at Monitoring Locations R-001 and at R-002 according to the following schedule:

Table E-7. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Analytical Method
Total Dissolved Solids	mg/l	Grab or Composite	1x / month	Standard Methods
Temperature	° C	Field monitor	1x / month	
pH	standard units	Field monitor	1x / month	
Turbidity	NTU	Field monitor	1x / month	
Dissolved Oxygen	mg/L	Field monitor	1x / month	
Specific Conductance	µmhos/cm	Field Monitor	1x / month	
Boron	mg/l	Grab or Composite	Quarterly	
Hexavalent Chromium	µg/L	Grab	Quarterly	EPA Method 7199
VOCs	µg/L	Grab	Annual	EPA Method

Table E-7. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Analytical Method
				8260
CTR Pollutants ¹	µg/L	Grab	1x / 5 years	
Title 22 Pollutants ²	µg/L	Grab	1x / 5 years	

X. OTHER MONITORING REQUIREMENTS

This section is not applicable as there are no additional monitoring requirements to add.

XI. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board’s California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.
2. The Discharger shall submit semiannual and annual SMRs including the results of all required monitoring using US EPA approved test methods or other test methods specified in this General Permit. Semiannual reports shall be due on August 1, and February 1. Annual reports shall be due on February 1 following each calendar year.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

¹ CTR Pollutants are listed in Table 1, attached to this MRP

² Title 22 Pollutants are listed in Table 2, attached to this MRP

Sampling Frequency	Monitoring Period	SMR Due Date
Semiannual	January – June	August 1
Annual	July – December	February 1

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 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 reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
 - d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve
5. The Discharger shall submit SMRs in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance

- with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
- b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
 - c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

North Coast Regional Water Quality Control Board
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403
6. Monitoring data and reports shall also be submitted electronically to the State Water Resources Control Board's Geographical Environmental Information Management System database (Geotracker) as required by Title 23, Division 3, Chapter 30, Article 2, Sections 3890-3895 of the California Code of Regulation).

Table E-7.-MLs for CTR Pollutants (ug/l)

CTR Pollutant	CAS No.	ML
Antimony	7440360	0.5
Arsenic	7440382	1.0
Beryllium	7440417	0.5
Cadmium	7440439	0.25
Chromium ⁺³	7440473	-
Chromium ⁺⁶	18540299	1.0
Copper	7440508	0.5
Lead	7439921	0.5
Mercury	7439976	0.2
Nickel	7440020	1.0
Selenium	7782492	1.0
Silver	7440224	0.25
Thallium	7440280	1.0
Zinc	7440666	1.0
Cyanide	57125	5.0
Asbestos	1332214	-
2,3,7,8 TCDD	1746016	
Acrolein	107028	2.0
Acrylonitrile	107131	2.0
Benzene	71432	0.5
Bromoform	75252	0.5
Carbon Tetrachloride	56235	0.5

Table E-7.-MLs for CTR Pollutants (ug/l)

CTR Pollutant	CAS No.	ML
Chlorobenzene	108907	0.5
Chlorodibromomethane	124481	0.5
Chloroethane	75003	0.5
2-Chlorethylvinyl Ether	110758	1.0
Chloroform	67663	0.5
Dichlorobromomethane	75274	0.5
1,1 Dichloroethane	75343	0.5
1,2 Dichloroethane	107062	0.5
1,1 Dichloroethene	75354	0.5
1,2 Dichloropropane	78875	0.5
1,3 Dichloropropylene	542756	0.5
Ethylbenzene	100414	0.5
Methyl Bromide	74839	1.0
Methyl Chloride	74873	0.5
Methylene Chloride	75092	0.5
1,1,2,2 Tetrachloroethane	79345	0.5
Tetrachloroethylene	127184	0.5
Toluene	108883	0.5
Trans-1,2 Dichloroethylene	156605	0.5
1,1,1 Trichloroethane	71556	0.5
1,1,2 Trichloroethane	79005	0.5

Table E-7.-MLs for CTR Pollutants (ug/l)

CTR Pollutant	CAS No.	ML
Trichloroethylene	79016	0.5
Vinyl Chloride	75014	0.5
2 Chlorophenol	95578	2.0
2,4 Dichlorophenol	120832	1.0
2,4 Dimethylphenol	105679	1.0
4,6 Dinitro-2-methylphenol	534521	5.0
2,4 Dinitrophenol	51285	5.0
2 Nitrophenol	88755	10
4-Nitrophenol	100027	5.0
4-Chloro-3-Methylphenol	59507	1.0
Pentachlorophenol	87865	1.0
Phenol	108952	1.0
2,4,6 Trichlorophenol	88062	10
Acenaphthene	83329	0.5
Acenaphthylene	208968	0.2
Anthracene	120127	2.0
Benzdine	92875	5.0
Benzo(a)Anthracene	56553	5.0
Benzo(a)Pyrene	50328	2.0
Benzo(b)Fluoranthene	205992	10
Benzo(g,h,i)Perylene	191242	0.1
Benzo(k)Fluoranthene	207089	2.0

Table E-7.-MLs for CTR Pollutants (ug/l)

CTR Pollutant	CAS No.	ML
Bis(2-Chloroethoxy)Methane	111911	5.0
Bis(2-Chloroethyl)Ether	111444	1.0
Bis (2-Chloroisopropyl) Ether	39638329	2.0
Bis (2-ethylhexyl) Phthalate	117817	5.0
4-Bromophenyl Phenyl Ether	101553	5.0
Butyl Benzyl Phthalate	85687	10
4-Chlorophenyl Phenyl Ether	7005723	10
Chrysene	218019	5.0
Dibenzo(a,h)Anthracene	53703	5.0
1,2 Dichlorobenzene	95501	0.1
1,3 Dichlorobenzene	541731	2.0
1,4 Dichlorobenzene	106467	1.0
3,3 Dichlorobenzidine	91941	1.0
Diethyl Phthalate	84662	5.0
Dimethyl Phthalate	131113	2.0
Di-n-Butyl Phthalate	84742	2.0
2,4 Dinitrotoluene	121142	10
2,6 Dinitrotoluene	606202	5.0

Table E-7.-MLs for CTR Pollutants (ug/l)

CTR Pollutant	CAS No.	ML
Di-n-Octyl Phthalate	117840	5.0
1,2 Diphenylhydrazine	122667	10
Fluoranthene	206440	1.0
Fluorene	86737	0.05
Hexachlorobenzene	118741	0.1
Hexachlorobutadiene	87683	1.0
Hexachlorocyclopentadiene	77474	1.0
Hexachloroethane	67721	5.0
Indeno (1,2,3-cd) Pyrene	193395	1.0
Isophorone	78591	0.05
Napthalene	91203	1.0
Nitrobenzene	98953	0.2
N-Nitrosodimethylamine	62759	1.0
N-Nitrosodi-n-propylamine	621647	5.0
N-Nitrosodiphenylamine	86306	5.0
Phenanthrene	85018	1.0
Pyrene	129000	0.05
1,2,4 Trichlorobenzene	120821	0.05
Aldrin	309002	1.0

Table E-7.-MLs for CTR Pollutants (ug/l)

CTR Pollutant	CAS No.	ML
alpha-BHC	319846	0.005
beta-BHC	319857	0.01
Lindane (gamma-BHC)	58899	0.005
delta-BHC	319868	0.02
Chlordane	57749	0.005
4,4-DDD	72548	0.1
4,4-DDE	72559	0.05
4,4-DDT	50293	0.05
Dieldrin	60571	0.01
alpha-Endosulfan	959988	0.01
beta-Endosulfan	33213659	0.02
Endosulfan Sulfate	1031078	0.01
Endrin	72208	0.05
Endrin Aldehyde	7421934	0.01
Heptachlor	76448	0.01
Heptachlor Epoxide	1024573	0.01
PCBs	1336363	0.01
Toxaphene	8001352	0.5

Table E-8. - - DLRs for the Title 22 Pollutants (ug/l)

Title 22 Pollutant	CAS No.	DLR (µg/L)
Aluminum	7429905	50
Antimony	7440360	6.0
Arsenic	7440382	2.0
Asbestos	1332214	0.2 MFL > 10 µm
Barium	7440393	100
Beryllium	7440417	1.0
Cadmium	7440439	1.0
Chromium		10
Cyanide	57125	100
Fluoride	7782414	100
Mercury	7439976	1.0
Nickel	7440020	10
Nitrate (as N)	-	2,000
Nitrate + Nitrite (sum as N)	-	-
Nitrite (as N)	-	400
Selenium	7782492	5.0
Thallium	7440280	1.0
Benzene	71432	0.5
Carbon Tetrachloride	56235	0.5
1,2 Dichlorbenzene	95501	0.5

Table E-8. - - DLRs for the Title 22 Pollutants (ug/l)

Title 22 Pollutant	CAS No.	DLR (µg/L)
1,4 Dichlorobenzene	106467	0.5
1,1 Dichloroethane	75343	0.5
1,2 Dichloroethane	107062	0.5
1,1 Dichloroethene	75354	0.5
Cis-1,2 Dichloroethylene	156592	0.5
Trans-1,2 Dichloroethylene	156605	0.5
Methylene Chloride	75092	0.5
1,2 Dichloropropane	78875	0.5
1,3 Dichloropropylene	542756	0.5
Ethylbenzene	100414	0.5
Methyl-tert-butyl-ether	1634044	3.0
Monochlorobenzene	108907	0.5
Styrene	100425	0.5
1,1,2,2 Tetrachloroethane	79345	0.5
Tetrachloroethylene	127184	0.5
Toluene	108883	0.5
1,2,4 Trichlorobenzene	120821	0.5
1,1,1 Trichloroethane	71556	0.5
1,1,2 Trichloroethane	79005	0.5
Trichloroethylene	79016	0.5
Trichlorofluoromethane	75694	5.0

Table E-8. - - DLRs for the Title 22 Pollutants (ug/l)

Title 22 Pollutant	CAS No.	DLR (µg/L)
1,1,2 Trichloro-1,2,2 Trifluoroethane	76131	10
Vinyl Chloride	75014	0.5
Xylenes	1330207	0.5
Alachlor	15972608	1.0
Atrazine	1912249	0.5
Bentazon	25057890	2.0
Benzo(a)pyrene	50328	0.1
Carbofuran	1563662	5.0
Chlordane	57749	0.1
2,4 D	94757	10
Dalapon	75990	10
Dibromochloropropane	96128	0.01
Di(2-ethylhexyl)adipate	103231	5.0
Di(2-ethylhexyl)phthalate	117817	3.0
Dinoseb	88857	2.0
Diquat	85007	4.0
Endothall	145733	45
Endrin	72208	0.1
Ethylene Dibromide	8003074	0.02
Glyphosate	1071836	25

Table E-8. - - DLRs for the Title 22 Pollutants (ug/l)

Title 22 Pollutant	CAS No.	DLR (µg/L)
Heptachlor	76448	0.01
Heptachlor Epoxide	1024573	0.01
Hexachlorobenzene	118741	0.5
Hexachlorocyclopentadiene	77474	1.0
Lindane	58899	0.2
Methoxychlor	72435	10
Molinate	2212671	2.0
Oxamyl	23135220	20
Pentachlorophenol	87865	0.2
Picloram	1918021	1.0
PCBs	1336363	0.5
Simazine	122349	1.0
Thiobencarb	28249776	1.0
Toxaphene	8001352	1.0
2,3,7,8 TCDD (Dioxin)	1746016	5 x 10 ⁻⁶
2,4,5 TP (Silvex)	93721	1.0

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	1B6008NMEN
Discharger	Willits Environmental Remediation Trust City of Willits
Name of Facility	Page Property, Willits
Facility Address	3920 Canyon Road
	Willits, CA 95490
	Mendocino County
Facility Contact, Title and Phone	Anne Farr, Trustee, Willits Environmental Remediation Trust (916) 781-9327
	Paul Cayler, City of Willits, (707) 459-4605
Authorized Person to Sign and Submit Reports	Anne Farr
Mailing Address	Willits Environmental Remediation Trust, 6016 Princeton Reach Way, Granite Bay, CA 95746 City of Willits, 111 East Commercial Street, Willits, CA 95490
Billing Address	SAME
Type of Facility	Former Burn Dump/Chromic Acid Disposal Pits
Major or Minor Facility	Minor
Threat to Water Quality	A
Complexity	3
Pretreatment Program	No
Reclamation Requirements	User
Facility Permitted Flow	29,000 gpd
Facility Design Flow	29,000 gpd
Watershed	Outlet Creek

Receiving Water	Darby Creek
Receiving Water Type	Surface Water

- A.** The City of Willits is the owner of the property where a former municipal burn dump operated from the 1940s to the early 1970s. Chromic acid wastes from the Remco Hydraulics Facility were disposed at the location of the burn dump. Initially, chromic acid was discharged to the operating burn dump, and subsequently in ponds dug at the site.

The Willits Environmental Remediation Trust (WERT) is an independent instrumentality of the United States District Court for the Northern District of California, as established pursuant to the Amended Final Consent Decree, Final Order, and Final Judgment; And Order Establishing the Willits Environmental Remediation Trust, entered by Judge Susan Illston (N.D. Ca, Case No. C96-0283SI) on December 22, 2000 (the Consent Decree). The WERT was established in part to completely, timely and cost-effectively conduct all investigatory and remedial work at the Remco Facility located at 934 South Main Street in Willits, California (Remco Site), and surrounding areas in and around the City of Willits where hazardous substances associated with the Remco Facility operations have come to be located. The Page Property is one location where Remco wastes are located, and the WERT is investigating and cleaning up those wastes. The City of Willits and the WERT are referred to as the Dischargers.

- B.** The facility is permitted to discharge highly treated groundwater to a spray irrigation field and Darby Creek, waters of the United States, and is currently regulated by Order No. R1-2006-0067, which was adopted on August 9, 2006.
- C.** The Willits Environmental Remediation Trust (hereinafter referred to as Discharger) filed a Report of Waste Discharge and submitted an application for renewal of WDRs and National Pollutant Discharge Elimination System (NPDES) permit on June 10, 2011.

II. FACILITY DESCRIPTION

A. Description of Collection System, Wastewater and Biosolids Treatment or Controls

The treatment system consists of an extraction trench, piping to the treatment system at the top of the hill, carbon vessels to remove contaminants, and a holding tank prior to the discharge to a spray irrigation field.

B. Discharge Points and Receiving Waters

The primary disposal of highly treated groundwater is to a spray irrigation field. A discharge to Darby Creek is a backup to the spray field. If needed, the one discharge point to Darby Creek is located on the west end of the former burn dump site.

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

There is an existing Monitoring and Reporting Program Order on the Page Property site that specifies the current groundwater monitoring and surface water monitoring program. In addition, Monitoring and Reporting Program No. R1-2012-0026 is included as Attachment E and specifies the required monitoring for the groundwater extraction and treatment system. The monitoring program is separated to require monitoring for land disposal, and require monitoring for a discharge to Darby Creek. The Darby Creek monitoring is required only if highly treated groundwater is discharged to Darby Creek.

D. Compliance Summary

The discharge of groundwater contaminated with hexavalent chromium to Darby Creek is a violation of the discharge prohibitions contained in the Basin Plan. The groundwater extraction and treatment system mitigates the discharge.

E. Planned Changes

There are no planned changes to the existing extraction, treatment, and disposal of highly treated groundwater.

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 Permit is issued pursuant to CWA Section 402 and implementing regulations adopted by the U.S. EPA and the CWC, Division 7, Chapter 5.5. It shall serve as a NPDES permit for point source discharges of highly treated groundwater to surface waters. This Permit shall also serve as Waste Discharge Requirements (WDRs) pursuant to the CWC, Division 7, Article 4, Chapter 4 for discharges that are not subject to regulation under CWA Section 402.

B. California Environmental Quality Act (CEQA)

This Order serves as both an NPDES permit for discharges to waters of the U.S. and as WDRs for discharges to waters of the state (the land discharges). The Regional Water Board’s responsibilities under CEQA differ for NPDES-related discharges and WDR-related discharges.

Pursuant to Water Code section 13389, an action to adopt an NPDES permit is exempt from the provisions of CEQA contained in Public Resources Code sections 21100-21177. Accordingly, this exemption from CEQA applies to the Regional Water Board’s actions to adopt those portions of the Order that regulate NPDES-discharges.

Similarly, the Regional Water Board’s action in approving those parts of the Order that regulate WDR-related discharges is exempt from CEQA as an existing facility with no expansion of use beyond that existing at the time of the lead agency’s determination pursuant to Title 14, CCR, Section 15301.

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 North Coast Region (the Basin Plan) 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. Beneficial uses are designated for all waters of the North Coast Region and are designated for coastal and inland waters, wetlands, and groundwaters. Beneficial uses of any water body specifically identified in the Basin Plan generally apply to its tributary streams.
2. The Basin Plan identifies the following existing and potential beneficial uses for Outlet Creek, a tributary of the Eel River.

Discharge Point	Receiving Water	Beneficial Uses
001	Eel River	<u>Existing:</u> MUN – Municipal and Domestic Supply AGR – Agricultural Supply IND – Industrial Service Supply GWR – Groundwater Recharge FRSH – Freshwater Replenishment NAV – Navigation REC1 – Water Contact Recreation

Discharge Point	Receiving Water	Beneficial Uses
		REC2 – Non-Contact Water Recreation COMM – Commercial and Sport Fishing COLD – Cold Freshwater Habitat WILD – Wildlife Habitat RARE – Preservation of Rare, Threatened, or Endangered Species MIGR – Migration of Aquatic Organisms SPWN – Spawning, Reproduction, and/or Early Development <u>Potential:</u> PRO – Industrial Process Supply POW – Hydropower Generation AQUA – Aquaculture
	Groundwater	<u>Existing:</u> MUN – Municipal and Domestic Supply AGR – Agricultural Supply IND – Industrial Service Supply FRSH – Freshwater replenishment to Surface Waters CUL – Native American Culture <u>Potential:</u> PRO – Industrial Process Supply AQUA – Aquaculture

The State Water Resources Control Board (State Board) adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters 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.

Requirements of this Order protect all receiving water beneficial uses and specifically implement the applicable water quality control plans, described above.

- 3. 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 coastal and interstate waters and enclosed bays and estuaries of

the State. Requirements of this Order implement the Thermal Plan to the extent that it is applicable to receiving waters for this Discharger.

4. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the State. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.
5. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
6. **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 (section 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
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 the existing water quality be maintained unless any change is consistent with maximum benefit to the people of the State, will not unreasonably affect

present and anticipated beneficial use, and will not result in water quality less than that prescribed in adopted policies. In addition, discharger must utilize the best practicable treatment or control to prevent a nuisance and assure the highest water quality consistent with the maximum benefit to the people of the State will be maintained. Groundwater extraction and treatment is an available strategy for cleaning up contaminated groundwater that has the advantage of controlling contaminant migration while completing the cleanup. The Regional Water Board finds that compliance with this Permit results in the maximum benefit to the people of the State and is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16.

8. **Anti-Backsliding Requirements.** CWA Sections 402 (o) (2) and 303 (d) (4) and NPDES regulations at 40 CFR 122.44 (l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. If the quality of waters equals or exceeds levels necessary to protect designated beneficial uses and water quality standards, an effluent limitation may be revised if consistent with the antidegradation policy (33 USC § 1313(d)(4)(B)). Discharges of any constituent for which the receiving water is listed as impaired is prohibited in this Permit. Order No. R1-2012-0026 satisfies all anti-backsliding requirements of the Clean Water Act and implementing regulations.

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

On June 5 and July 25, 2003, the USEPA approved the list of impaired water bodies, prepared by the State Water Board pursuant to Section 303 (d) of the CWA – water bodies which are not expected to meet applicable water quality standards after implementation of technology-based effluent limitations for point sources.

The Eel River is listed as an impaired water body for sediment and temperature pursuant to Section 303(d) of the CWA. The South Fork Eel River Total Maximum Daily Load was promulgated by U.S. EPA on December 16, 1999. An analysis of the discharge determined that it does not contain temperature or sediment at levels which will cause, have the reasonable potential to cause, or contribute to increases in temperature or sediment levels in the Eel River. This finding is based in part that the treatment system will remove any sediment or suspended materials, and the summer seasonal discharge prohibition.

E. Other Plans, Polices and Regulations

The "Water Quality Control Plan for the North Coast Region" (Basin Plan) includes water quality objectives, implementation plans for point source and nonpoint source discharges, prohibitions, and statewide plans and policies. The Basin Plan contains a narrative objective (standard) for toxicity that requires:

All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassay of appropriate duration or other appropriate methods as specified by the Regional Water Board.

The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary for other control water that is consistent with the requirements for "experimental water" as described in Standard Methods for the Examination of Water and Wastewater 18th Edition (1992), or current edition. At a minimum, compliance with this objective as stated in the previous sentence shall be evaluated with a 96-hour bioassay.

In addition, effluent limits based upon acute bioassays of effluent will be prescribed. Where appropriate, additional numerical receiving water objectives for specific toxicants will be established as sufficient data become available, and source control of toxic substances will be encouraged.

1. This Discharger has determined that this facility does not have storm water discharges to surface waters because the facility consists of a building to house the treatment unit. This facility is not required to file a storm water permit.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations; and other requirements in NPDES permits. There are two principal bases for effluent limitations: 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 WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

1. **Discharge Prohibition III.A.** The discharge of waste, including highly treated groundwater and purge waters extracted from the site and treated, is prohibited unless the discharge is regulated by an NPDES permit or is discharged to a permitted facility.

The prohibition is consistent with the previous NPDES permit regulating groundwater treatment systems. Technology exists to remove contaminants to below the detection limit. Prohibiting detectable levels of contaminants to surface waters ensures protection of the beneficial uses of waters of the State.

2. **Discharge Prohibition III.B.** The discharge of groundwater to Darby Creek containing inorganic constituents in excess of background levels in the receiving water is prohibited.

This prohibition is consistent with previous NPDES Permit regulating groundwater treatment systems. The purpose of this prohibition is to prevent water quality impairment and degradation of surface waters from a groundwater discharge. For example, naturally occurring metals in groundwater such as iron and manganese can cause impairment to fisheries. Prohibiting the discharge above background concentrations in the receiving water will ensure protection of all beneficial uses of *waters of the State*.

3. **Discharge Prohibition III.C.** The discharge from the treatment facility of detectable levels of organic constituents listed in the Table 1, 2, and 3 attached to this Order is prohibited.

This prohibition is designed to provide minimum levels of detection for the constituents listed in Tables 1, 2, and 3 included in Attachment E. In many instances, minimum levels of detection can vary from laboratories. The tables provide the required minimum detection levels for the analytes listed in each table.

4. **Discharge Prohibition III.D and E.** The discharge of treated groundwater to land containing inorganic constituents in excess of the background levels in groundwater is prohibited. The discharge to land of highly treated water containing hexavalent chromium is prohibited.

The purpose of these prohibitions is to prevent groundwater quality degradation from a discharge to the spray irrigation area which is located outside the area of contamination.

5. **Discharge Prohibition III.F.** Creation of a pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code (CWC) is prohibited.

This prohibition is based on CWC Section 13050.

6. **Discharge Prohibition III.G.** The discharge of extracted and treated groundwater/purge waters in excess of 29,000 gpd is prohibited.

The prohibition is based on the groundwater treatment system designed to treat 29,000 gpd. Any increased flow to the treatment system may result in inadequate treatment. Therefore, the prohibition is in place to prohibit flows in excess of the design capacity.

7. **Discharge Prohibition III.H.** Bypass or overflow of untreated groundwater to waters of the State from the treatment system or from the collection and transport systems or from pump stations tributary to the treatment system is prohibited.

This prohibition is based on the Basin Plan to protect beneficial uses of the receiving water from unpermitted discharges, and the intent of CWC sections 13260 through 13264 relating to the discharge of waste to waters of the State without filing for and being issued a permit. This prohibition applies to, but is not limited to, sanitary sewer overflows, spills, and other unauthorized discharges of wastewater within the collection, treatment, reclamation, and disposal facilities.

8. **Discharge Prohibition III.I.** The discharge of waste to land that is not owned by or under agreement to use by the permittee is prohibited.

This is a standard prohibition contained in previous NPDES Permits for groundwater treatment systems. The prohibition is included in this Permit to ensure the discharge of highly treated water is not discharged to land without the authorization of the property owner and in accordance with this Permit.

9. **Discharge Prohibition III.J.** The discharge of treated groundwater and purge waters from the treatment system to the Eel River or its tributaries is prohibited during the period May 15 through September 30 of each year.

The Basin Plan prohibits discharges to the Eel River and its tributaries during the period May 15 through September 30 (Chapter 4, North Coastal Basin Discharge Prohibition No. 4). The original intent of this prohibition was to prevent the contribution of wastewater to the baseline flow of the Eel River during the period of the year when the Eel River and its tributaries experience the heaviest water-contact recreation use.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. There are no applicable Effluent Limitations Guidelines (technology-based limitations established by the US EPA) for groundwater pump-and-treat systems. Technology-based requirements of the General Permit have been established using Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3.

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

- a. 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 non-conventional pollutants.
- b. 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 non-conventional pollutants.
- c. 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 BCP 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.
- d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of the NSPS

guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires the US EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS for specific industrial categories. Where the US EPA has not yet developed ELGs for a particular industry or a particular pollutant, Section 402(a)(1) of the CWA and US EPA regulations at 40 CFR 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis. When BPJ is used, the permit writer must consider specific factors outlined at 40 CFR 125.3.

2. Applicable Technology-Based Effluent Limitations

The pollutants of concern and the MLs established for these pollutants are listed in Tables 1, 2, and 3 of Attachment E. Organic pollutants must be treated to the MLs established in the tables. Inorganic pollutants, if naturally found in groundwater, can be discharged to Darby Creek at or below the background concentrations in Darby Creek, and can be discharged to land via spray irrigation at or below the background concentrations found in groundwater. The Regional Water Board has therefore established an effluent limitation for organic pollutants requiring their removal to nondetectable concentrations using BPJ based on the observation that treatment technology, properly operated, is available to effectively reduce pollutants of concern to the nondetectable concentrations, which are defined by the Order.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by

other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

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

2. **Applicable Beneficial Uses and Water Quality Criteria and Objectives**

- a. **Beneficial Uses.** Applicable beneficial uses are discussed in III.C of this Fact Sheet.
- b. **Basin Plan Water Quality Objectives.** In addition to the specific water quality objectives indicated above, the Basin Plan contains narrative water quality objectives for color, tastes and odors, floating material, suspended material, settleable material, oil and grease, biostimulatory substances, sediment, turbidity, pH, dissolved oxygen, bacteria, temperature, toxicity, pesticides, chemical constituents, and radioactivity that apply to inland surface waters, enclosed bays, and estuaries, including Darby Creek. These narrative water quality objectives are reflected in Section V., Receiving Water Limitations, of the Order.
- c. **State Implementation Policy (SIP), CTR, and NTR.** Water quality criteria and objectives applicable to North Coast Region receiving waters are established by the California Toxics Rule (CTR), established by the USEPA at 40 CFR 131.38; and the National Toxics Rule (NTR), established by the USEPA at 40 CFR 131.36. Criteria for most of the 126 priority pollutants are contained within the CTR and the NTR

3. **Determining the Need for WQBELs**

CWA section 301 (b)(1) requires NPDES permit to include effluent limitations that achieve technology-based standards and any more stringent limitations necessary to meet water quality standards. Water quality standards include Regional Water Board Basin Plan beneficial uses and narrative and numeric water quality objectives, State Water Board adopted standards, and federal standards, including CTR and NTR. Basin Plans include numeric site

specific water quality objectives and narrative objectives for toxicity, chemical constituents, and tastes and odors.

Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality standard.

The chemical constituents of concern regulated by this General Permit include pollutants associated with cleanup activities including petroleum related organic compounds and other volatile organic compounds and naturally occurring inorganic compounds. As described in section V.B. above, technology-based effluent limitations have been established for all volatile organic compounds regulated under this General Permit.

Inorganic pollutants, however, are naturally occurring and not treated as part of the groundwater pump and treat system. Therefore, inorganic pollutants in the effluent have the potential to cause or contribute to exceedances of applicable water quality criteria for receiving waters. Therefore effluent limitations are established as WQBELs in this General Permit.

4. WQBEL

Order No. R1-2012-0026 establishes a whole effluent, acute toxicity effluent limitation as well as monitoring requirements for acute and chronic toxicity. These requirements pertaining to whole effluent toxicity are based on the CWA and the Basin Plan. The Basin Plan includes a water quality objective for the North Coast Region that requires all waters to be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. To assure compliance with the Basin Plan's narrative toxicity objective, this Order establishes an acute toxicity effluent limitation and requires the Discharger to conduct whole effluent toxicity testing for acute and chronic toxicity, as specified in the Monitoring and Reporting Program (Attachment E, Section V.).

The Order implements federal guidelines (U.S. EPA Regions 9 & 10 Guidelines for Implementing Whole Effluent Toxicity Testing Programs) by requiring dischargers to conduct acute toxicity tests on a fish and an invertebrate species to determine the most sensitive species. According to the U.S. EPA manual, Methods for Estimating the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (EPA/821-R-02-012), the acceptable vertebrate species for the acute toxicity test are the

fathead minnow, *Pimephales promelas* and the rainbow trout, *Oncorhynchus mykiss*. The acceptable invertebrate species for the acute toxicity test are the water flea, *Ceriodaphnia dubia*, *Daphnia magna*, and *D. pulex*.

The Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California requires the use of short-term chronic toxicity tests to determine compliance with the narrative toxicity objective for aquatic life in the Basin Plan. Although a chronic toxicity effluent limitation is not established by the Permit, infrequent monitoring for chronic toxicity is required to assess compliance with the Basin Plan's narrative water quality objective for toxicity. The Permit includes the monitoring trigger for chronic toxicity of 1.0 TUC and requires accelerated monitoring if this trigger is exceeded.

In addition to WET monitoring, Special Provisions VI.C.2.ii requires the Permittee to submit to the Regional Water Board a TRE Work Plan for approval by the Executive Officer, to ensure the Permittee has a plan to immediately move forward with a TRE, if persistent effluent toxicity is encountered.

5. Whole Effluent Toxicity (WET)

Effluent limitations for acute WET protect the receiving water from the aggregate effect of a mixture of pollutants that may be present in the effluent. There are two types of WET tests-acute and chronic. An acute toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and/or growth. The Basin Plan establishes a narrative water quality objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are toxic to, or produce other detrimental responses in aquatic organisms.

This General Permit includes an effluent limitation for acute toxicity in accordance with the Basin Plan, which requires an absence of toxicity in the treated effluent. Discharges shall be in compliance with this limitation when the survival of aquatic organisms in a 96-hour bioassay of undiluted waste complies with a 90 percent survival. This effluent limitation is retained from Order No. R1-2006-0048.

In addition to the Basin Plan requirements, section 4 of the SIP states that chronic toxicity limitations are required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. This General Permit does not establish an effluent

limitation for chronic toxicity; however, accelerated chronic WET monitoring is required when a trigger of 1.0 TUc has been exceeded.

In addition to WET monitoring, Special Provisions described in section VI.C.2.a.require the Discharger to submit to the Regional Water Board a TRE Work Plan for approval by the Executive Officer, to ensure the Discharger has a plan to immediately move forward with a TRE, if persistent effluent toxicity is encountered.

D. Final Effluent Limitations

Effluent limitations established by the Order are based on the understanding that hexavalent chromium and other forms of chromium attributable with the discharge of chromic acid to the former burn dump can be treated to nondetectable concentrations using available treatment technologies. Organic pollutants that may be detected in groundwater can also be treated to nondetectable concentrations. However, inorganic pollutants that may be present naturally in groundwater may be discharged to Darby Creek only at or below, background concentrations in the receiving water. The Monitoring and Reporting Program requires sampling for inorganic pollutants in Darby Creek to establish background concentrations.

Final effluent limitations are established by Section IV of the Permit.

E. Interim Effluent Limitations

This Permit does not include interim effluent limitations.

F. Land Discharge Specifications

This Permit allows the discharge of highly treated groundwater to land under the control of the WERT and City of Willits. No runoff to surface water of highly treated groundwater from the irrigation area is allowed.

G. Reclamation Specifications

This Permit allows the discharge of highly treated groundwater to land. The reclamation requirements for wastewater from sewage treatment facilities do not apply to this Permit.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the North Coast Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (40 CFR 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in this Permit have been updated to reflect Basin Plan objectives for inland surface waters, enclosed bays, and estuaries contained in Chapter 3 of the Basin Plan.

Additionally, the Basin Plan contains water quality objectives applicable to specific water bodies in the North Coast Region. Water body specific objectives have been published as Table 3-1 in the Basin plan and include objectives for specific conductivity, total dissolved solids, dissolved oxygen, pH, hardness, and boron for applicable water bodies. This Permit establishes receiving water limitations based on these specific water quality objectives which are applicable to any discharge occurring in a listed water body. Receiving water limitations for specific water bodies include:

Unless more stringent water quality objective for dissolved oxygen are established, the waste discharge shall not cause the dissolved oxygen concentration of the receiving waters to be depressed below 7.0 mg/l at any time nor below 9.0 mg/L during critical spawning and egg incubation periods. In the event that the receiving waters have background dissolved oxygen concentrations of less than these levels, discharges shall not depress dissolved oxygen concentrations below existing levels.

Unless more stringent water quality objectives for pH are established, the discharge shall not cause the pH of the receiving waters to be depressed below 6.5 nor raised above 8.5. If the pH of the receiving water is less than 6.5, the discharge shall not cause a further depression of the pH of the receiving water. If the pH of the receiving water is greater than 8.5, the discharge shall not cause a further increase in the pH of the receiving water. The discharge shall not cause receiving water pH to change more than 0.5 units at any time.

Additionally, this Permit establishes the following receiving water limitation:

The discharge shall not substantially contribute to exceedances of water quality objectives for specific waters of the North Coast Region that are established in Table 3-1 of the Basin Plan for specific conductance, total

dissolved solids, hardness, and boron. In the event that receiving waters have background conditions for these parameters at levels that already exceed water quality objectives, dischargers shall not cause or contribute to a further exceedance of existing conditions.

B. Groundwater

Groundwater limitations included in the proposed draft Permit were derived from Water Quality Objectives for Groundwater contained in Chapter 3 of the Basin Plan.

The Permit establishes the following groundwater limits:

The collection, storage, and use of wastewater or recycled water shall not cause or contribute to degradation that violates groundwater quality objectives or impacts beneficial uses of groundwater.

The collection, storage, use, and disposal of wastewater shall not cause alterations of groundwater that result in contaminant concentrations that cause nuisance or adversely affect beneficial uses.

The discharge shall not cause concentrations of chemical constituents to occur in excess of limiting concentrations specified in the Basin Plan or in excess of more stringent Maximum Contaminant Levels (MCLs) established for these pollutants in Title 22, Division 4, Chapter 15, Articles 4 and 5.5 of the California Code of Regulations.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

The MRP has different effluent monitoring requirements for discharges to surface water (Darby Creek) and discharges to land via a spray irrigation system. While the Discharger has acquired an NPDES permit, no discharge to Darby Creek has occurred.

A. Influent Monitoring

Influent monitoring (M-INF) for the groundwater treatment system shall include the following constituents for surface water discharge and land disposal discharge:

Parameter	Units	Sample Type	Sampling Frequency	Analytical Method
Hexavalent Chromium	µg/L	Grab	Quarterly	EPA Method 7199
Hexavalent Chromium		Grab	Monthly	(Hach® Kit)
VOCs	µg/L	Grab	Annual	EPA Method 8260

B. Effluent Monitoring for Land Disposal Discharge

The Discharger shall monitor treated effluent at Monitoring Location M-001 in accordance with the following schedule.

Parameter	Units	Sample Type	Sampling Frequency	Analytical Method
Flow	gpd	Continuous meter	Daily	Standard Methods
Temperature	° C	Field monitor	1x / month	
pH	standard units	Field monitor	1x / month	
Turbidity	NTU	Field monitor	1x / month	
Dissolved Oxygen	mg/L	Field monitor	1x / month	
Hexavalent Chromium	µg/L	Grab	Quarterly	EPA Method 7199
Hexavalent Chromium		Grab	Monthly	(Hach® Kit)

C. Effluent Monitoring for a Surface Water Discharge

The Discharger shall monitor treated effluent and receiving water at Monitoring Locations M-001, R-001 and R-002 in accordance with the following schedule.

Parameter	Units	Sample Type	Sampling Frequency	Analytical Method
Flow	gpd	Continuous meter	daily	Standard Methods
Temperature	° C	Field monitor	1x / month	
pH	standard units	Field monitor	1x / month	
Turbidity	NTU	Field monitor	1x / month	
Dissolved Oxygen	mg/L	Field monitor	1x / month	
Hexavalent Chromium	µg/L	Grab	Quarterly	EPA Method 7199
VOCs	µg/L	Grab	Annual	EPA Method 8260
Acute Toxicity ^a	pass/fail	Grab or Composite	1x / year ^e	
Chronic Toxicity ^b	TUc	Grab or Composite	1x / 5 years ^e	
CTR Pollutants ^c	µg/L	Grab	1x / 5 years _e	
Title 22 Pollutants ^d	µg/L	Grab	1x / 5 years _e	

- ^a Whole effluent acute toxicity testing shall be conducted in accordance with Section V of this MRP.
- ^b Whole effluent chronic toxicity testing shall be conducted in accordance with Section V of this MRP.
- ^c CTR Pollutants are those identified as Compound Nos. 1 – 126 by the California Toxics Rule (CTR) at 40 CFR 131.38.
- ^d Title 22 Pollutants are those pollutants with drinking water primary maximum contaminant levels (MCLs) established by the State Department of Health Services at Title 22 of the California Code of Regulations, Division 4, Chapter 15, Article 4 (Primary Standards – Inorganic Chemicals) and Article 5.5 (Primary Standards – Organic Chemicals).
- ^e Monitoring for this parameter shall occur during the first sixty days of operation and thereafter in accordance with the schedules established by Section IV of this MRP.

Acute toxicity monitoring of effluent is required annually to determine compliance with the whole effluent acute toxicity limitation established in this Permit.

Chronic toxicity monitoring of effluent is required one time every five years to determine compliance with the narrative water quality objective for toxicity expressed by the Basin Plan.

Monitoring of constituents contained in Tables 1, 2, and 3 of Attachment E (CTR and Title 22 pollutants) in the effluent and in the receiving water is required once every five years to assess compliance with effluent limitations and receiving water prohibitions.

D. Whole Effluent Toxicity Testing Requirements

1. Acute Toxicity

To determine compliance with the acute toxicity limitation, the Permit establishes an annual monitoring requirement for acute toxicity. Because ground water quality typically changes very slowly over time, the Regional Water Board has determined that wastewater influent and effluent quality from authorized sites will be relatively stable, and annual monitoring will provide a sufficient determination of compliance.

2. Chronic Toxicity

To determine compliance with the Basin Plan's narrative water quality objective for toxicity, the Permit establishes a monitoring requirement for chronic toxicity of one time every five years, which satisfies the requirement of The Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California to use short-term chronic toxicity tests to determine compliance with the Basin Plan's water quality objective for toxicity. Because discharges from authorized sites are temporary, until remediation is completed, the Regional Board has determined that acute (instead of chronic) toxicity monitoring will be more meaningful in assessing compliance with the Basin Plan's narrative objective for toxicity. Although the monitoring frequency for chronic toxicity is infrequent, chronic toxicity monitoring is required within the first three days of operation of a newly authorized pump-and-treat operation. If chronic toxicity is present in effluent from a newly authorized facility, the conditions will be discovered immediately after operation is initiated and corrective steps will be taken.

A numeric chronic toxicity monitoring trigger of 1 TUc is established by the Permit. The presence of chronic toxicity above this trigger requires accelerated monitoring and a Toxicity Reduction Evaluation if toxicity persists. Guidance regarding accelerated monitoring and TRE initiation is provided in the Technical Support Document for Water Quality-Based Toxics Control (TSD), EPA/505/2-90-001, March 1991. The TSD (page 118) recommends a

TRE if toxicity is present repeatedly or at levels above effluent limits more than 20 percent of the time. The Permit, therefore, requires four accelerated chronic monitoring tests. If no toxicity is demonstrated in the four accelerated tests, then it demonstrates that toxicity is not present at levels above the monitoring trigger more than 20 percent of the time (only 1 of 5 tests are toxic, including the initial test). If there is adequate evidence of a pattern of effluent toxicity, i.e., chronic toxicity is present above the monitoring trigger more than 20 percent of the time, the Executive Officer may require the Permittee to initiate a TRE.

E. Receiving Water Monitoring

1. The draft Monitoring and Reporting Program includes monitoring of Darby Creek for toxic pollutants and acute and chronic toxicity in order to monitor effluent impacts on receiving water quality, if a discharge to Darby Creek is implemented.
2. Compliance with receiving water limitations will be demonstrated by monthly and quarterly grab samples taken upstream and downstream of the Discharge Point at points R-001 and R-002 when discharging to Darby Creek.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in section 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Regional Water Board Standard Provisions

1. Regional Water Board Standard Provisions are based on the Clean Water Act, U.S. EPA regulations, and the California Water Code.

C. Special Provisions

1. Reopener Provisions

Standard Revisions (Provision VI. C.1.a). This provision contains a reopener provision that allows the Regional Water Board to reopen this Permit to modify its conditions and requirements in accordance with 40 CFR section 122.62.

2. Special Studies and Additional Monitoring Requirements

Toxicity Reduction Requirements.

Dischargers are required to prepare, maintain, and update, as necessary, a Toxicity Reduction Evaluation (TRE) Workplan, which must be implemented when acute or chronic toxicity is persistent in effluent as determined by accelerated monitoring. The TRE Workplan shall outline the procedures for identifying the source(s) of, and reducing or eliminating effluent toxicity. The TRE Workplan must be developed in accordance with guidance from the USEPA's Office of Research and Development. Resources can be found at: <http://water.epa.gov/scitech/swguidance/methods/wet/index.cfm>

Following initiation of a TRE, if the cause of toxicity cannot be identified and eliminated within a reasonable period of time, as determined by the Executive Officer, the Discharger shall discontinue the discharge to receiving water and submit an evaluation to the Regional Water Board regarding alternate disposal methods or treatment system modifications that are proposed to correct the toxicity in the effluent. The Discharger shall correct the toxicity to the satisfaction of the Executive Officer prior to resuming a surface water discharge.

3. Best Management Practices and Pollution Prevention

This section of the standardized permit template is not applicable to discharges under this Permit.

4. **Construction, Operation, and Maintenance Specifications**

- a. **Operation and Maintenance Manual.** 40 CFR 122.41(e) requires proper operation and maintenance of permitted wastewater systems and related facilities to achieve compliance with permit conditions. An up-to-date operation and maintenance manual, as required by Provision VI.C.2.d of the Order, is an integral part of a well-operated and maintained facility.
- b. **Granular Activated Carbon Quality Control/Quality Assurance.** The Discharger must implement a Quality Control/Quality Assurance (QA/QC) Program to ensure that newly replenished granular activated carbon in the treatment system is providing high quality effluent with respect to pH, ammonia, and inorganic constituents. Activities conducted as part of the GAC/QC program shall be documented in routine Discharge Monitoring Reports submitted for the facility.

5. **Special Provisions for Municipal Facilities (POTWs Only)**

This Permit is not applicable to discharges from POTWs.

6. **Other Special Provisions**

- a. **Stormwater.** This provision requires the Discharger, if applicable, to comply with the State's regulations relating to industrial storm water activities. Currently, the Discharge is exempted from these requirements because storm water is captured, treated, and disposed of within the Facility's NPDES permitted process wastewater.

7. **Compliance Schedules**

This Permit does not include compliance schedules.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, North Coast 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 Page Property groundwater extraction and treatment system. 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 Dischargers enrolled in Order No. R1-2012-0026 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 specific mailings to interested parties, Press Democrat for Ukiah, Willits News, and posting on the Regional Water Board's Internet site at: http://www.waterboards.ca.gov/northcoast/public_notices/notice_of_consideration/ on January 19, 2012

B. Written Comments

Staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person, by e-mail, US Postal mail, Federal Express or UPS to the Executive Office at the Regional Water Board at the address on the cover page of this Permit.

To be fully responded to by staff and considered by the Regional Water Board, written comments must be received at the Regional Water Board offices by 5:00 p.m. on **February 21, 2012**.

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: April 26, 2012
Time: 8:30 a.m. or as soon thereafter as noticed in the final agenda
Location: Regional Water Board Hearing Room
5550 Skylane Blvd., Suite A
Santa Rosa, California

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is www.waterboards.ca.gov/northcoast 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 (RWD), 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 707-576-2220.

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, phone number and e-mail address.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Janice Goebel at 707-576-2676 or at jgoebel@waterboards.ca.gov.