

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION

ORDER NO. 92-043  
NPDES NO. CA7000002

WASTE DISCHARGE REQUIREMENTS  
AND  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT  
FOR  
RIVERSIDE COUNTY DEPARTMENT OF TRANSPORTATION  
THERMAL MAINTENANCE YARD  
DISCHARGE OF EXTRACTED AND TREATED GROUND WATER  
Thermal - Riverside County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. The County of Riverside Transportation Department (hereinafter also referred to as the discharger), 4080 Lemon Street, Riverside, CA 92501, submitted an NPDES application for a permit to discharge, dated May 28, 1992 for their maintenance yard located at 87-495 Airport Boulevard, Thermal, CA. The application is assigned NPDES Application No. CA7000002.
2. In February 1989, one diesel and three gasoline underground storage tanks were removed from the site after reported leaks. Petroleum products from the leaks migrated downward to impact ground water beneath the site. This site can be identified in the Underground Storage Tank Program as Case No. 7T2274007.
3. A ground water remediation system is planned to be installed at the site to treat contaminated ground water. Water will be pumped to the surface where it will be treated using an activated carbon system, and then discharged to the Coachella Valley Storm Water Channel (CVSWC) adjacent to the maintenance yard, located in the SE $\frac{1}{4}$ , SW $\frac{1}{4}$ , Section 15, T6S, R8E, SBB&M as shown in Attachment "A", and incorporated herein and made part of this Order. The Storm Water Channel leads to the Salton Sea, approximately 7.5 miles south of the facility. The ground water system at the maintenance yard is located about 200 feet south of CVSWC discharge location in the NE $\frac{1}{4}$ , NW $\frac{1}{4}$ , Section 22, T6S, R8E, SBB&M as shown in Attachment "A".
4. The discharger proposes to discharge 4,320 gallons per-day of treated effluent from each of three wells to the Coachella Valley Storm Water Channel. The total discharge is expected to be 12,960 gallons per-day.
5. The Regional Board, in establishing the requirements contained herein, has taken into consideration the requirements of the State and Federal antidegradation policies and has determined that:
  - a. the discharge conditions and effluent limitations established in this Order for discharges of treated ground water to surface waters in this Region ensure that the existing beneficial uses and quality of surface waters in the Region will be maintained and protected;

*Issue  
BO. terminated  
by BO. 94-104  
01/10/94*

- b. discharges regulated by this Order should not lower water quality if the terms and conditions of this Order are met; and
  - c. thermal discharges potentially impairing water quality are not authorized under the terms and conditions of this Order; thus, Section 316 of the Clean Water Act is not applicable.
6. Effluent and receiving water limitations in this Order are based on the Federal Clean Water Act, Basin Plan, California Inland Surface Waters Plan (ISWP), State Water Resources Control Board's plans and policies, U.S. Environmental Protection Agency (EPA) guidance, best professional judgement, and best available technology economically achievable.
  7. The Water Quality Control Plan for the Colorado River Basin Region of California was adopted on May 15, 1991, and designates the beneficial uses of ground and surface waters in this Region.
  8. The beneficial uses of waters in the Coachella Valley Storm Water Channel are:
    - a. Fresh Water Replenishment of Salton Sea (FRSH)
    - b. Water Contact Recreation (REC I)
    - c. Noncontact Water Recreation (REC II)
    - d. Warm Water Habitat (WARM)
    - e. Wildlife Habitat (WILD)
    - f. Preservation of Rare, Endangered or Threatened Species (RARE)
  9. The beneficial uses of waters in the Salton Sea are:
    - a. Aquaculture (AQ)
    - b. Water Contact Recreation (REC I)
    - c. Noncontact Water Recreation (REC II)
    - d. Warm Water Habitat (WARM)
    - e. Wildlife Habitat (WILD)
    - f. Preservation of Rare, Endangered or Threatened Species (RARE)
  10. The ground water treatment area will be surrounded by a 6-inch high concrete berm for containment and control of run-off waters. Run-off water will be collected in a sump and then recirculated through the treatment system prior to discharge. The berm will also serve as a barrier to run-on water to the treatment area.
  11. In accordance with Section 13389, Chapter 5.5, Division 7 of the California Water Code, and Section 15263, Chapter 3, Title 14 of the California Code of Regulations, the issuance of these waste discharge requirements is exempt from the California Environmental Quality Act requirement to prepare an Environmental Impact Report or Negative Declaration (Public Resources Code, Section 21100 et seq.).
  12. The Board has notified the discharger and all known interested agencies and persons of its intent to prescribe waste discharge requirements for said discharge and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
  13. The Board in a public meeting heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and the regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. Bypass or overflow of untreated or partially treated polluted ground water to receiving waters is prohibited.
2. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Sections 13050(1) and 13050(m) of Division 7 of the California Water Code.
3. The discharge of oil, trash, industrial waste sludge, or any other solids directly to the surface waters at this facility or in any manner which permit it to be washed into the surface waters in this Region is prohibited.

B. Effluent Limitations

1. The discharge shall be limited to extracted and treated ground water and shall not adversely affect the beneficial uses of waters in this Region.
2. The effluent shall not exceed the constituent limits as set forth in the Inland Surface Waters Plan (Chapter 2, Tables 1 and 2), and the following instantaneous maximum limits:

<u>Constituent</u>	<u>Limits</u>	<u>Units</u>
Benzene	1.0	$\mu\text{g/L}^1$
Toluene	100.0	$\mu\text{g/L}$
Ethylbenzene	680.0	$\mu\text{g/L}$
Total Xylenes	1750.0	$\mu\text{g/L}$
Lead	50.0	$\mu\text{g/L}$
Other Volatile Organic Compounds (per constituent as identified by EPA Methods 601)	5.0	$\mu\text{g/L}$

<u>Constituent</u>	<u>Limits</u>	<u>Units</u>
Total Petroleum Hydrocarbons (TPH) (As gasoline and diesel by DHS approved Method)	50.0	$\text{mg/L}^2$

3. The pH of the effluent shall be maintained within the limits of 6.0 to 9.0.
4. There shall be no acute toxicity in the treated effluent being discharged to the Coachella Valley Storm Water Channel. Acute toxicity is defined as less than ninety percent survival, fifty percent of the time, and less than seventy

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<sup>1</sup>:  $\mu\text{g/l}$  = microgram per Liter

<sup>2</sup>:  $\text{mg/L}$  = milligram per Liter

percent survival, ten percent of the time, of standard test organisms in undiluted effluent in a 96-hour static or continuous-flow test.

C. Receiving Water Limitations

1. The discharge shall not cause the following conditions to exist in the receiving waters:
  - a. An increase in turbidity, unless it can be demonstrated to the satisfaction of the Regional Board's Executive Officer that such alteration in turbidity does not adversely affect beneficial uses.
  - b. An increase in the total dissolved solids (TDS) content, unless it can be demonstrated to the satisfaction of the Regional Board's Executive Officer that such an increase does not adversely affect beneficial uses.
  - c. An increase in aquatic growth to the extent that such growths cause a nuisance or adversely affect beneficial uses.
  - d. Objectionable color and/or odor.
2. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Regional Board will revise and modify this Board Order in accordance with such more stringent standards.

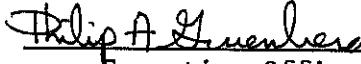
D. Provisions

1. The discharger shall, at all times, properly operate and maintain all systems and components of treatment and control which are installed or used by the discharger to achieve compliance with the conditions of this Board Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of this Board Order. All systems, both in service and reserve, shall be inspected and maintained on a regular basis. Records shall be kept of the inspection results and maintenance performed and made available to the Regional Board upon demand.
2. Prior to discharging effluent to the Coachella Valley Storm Water Channel, the discharger shall demonstrate that the effluent complies with the limitations of this Order. This shall be done by sampling and testing the effluent for the constituents listed in Effluent Limitation B.2, of this Order. Discharge to the Coachella Valley Storm Water Channel may occur only after the results of the sample analyses show that the effluent is in compliance with the effluent limitations of this Order.
3. Storm waters in the ground water treatment area will be contained, collected in a sump, and then recirculated through the treatment system prior to discharge. Measures will be taken to prevent storm water adjacent to the

- facility from running onto the ground water treatment area. No contaminated soil will be stored inside the treatment area or anywhere on site.
4. This Board Order may be modified by the Regional Board prior to the expiration date to include effluent or receiving water limitations for toxic constituents determined to be present in significant amounts in discharges regulated by this Board Order.
  5. Upon adoption of this Board Order, the discharger shall comply with all conditions and limitations of this Order. Any permit noncompliance constitutes a violation of the Clean Water Act and the California Water Code and is grounds for enforcement action, permit termination, or denial of a renewal application.
  6. The discharger shall comply with the attached "Monitoring and Reporting Program No. 92-043", and future revisions thereto, as specified by the Regional Board's Executive Officer.
  7. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
  8. Prior to any modifications in this facility which would result in material change in the quality or quantity of wastewater treated or discharged, or any material change in the location of discharge, the discharger shall report all pertinent information in writing to the Regional Board, and obtain revised requirements before any modifications are implemented.
  9. Prior to any change in ownership or management of this operation, the discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.
  10. The Board shall be notified immediately of any system failure which could adversely impact the quality of the effluent discharged at this site. Such failure shall be promptly corrected.
  11. The discharger shall ensure that all site operating personnel are familiar with the content of this Board Order. A copy of this Order shall be kept at the site with operating personnel.
  12. The discharger shall comply with the attached "Standard Provisions for National Pollution Discharge Elimination System, October 1990".
  13. This Board Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Federal Clean Water Act, as amended, and shall become effective at the end of ten (10) days from the date of the hearing at which this Board Order was adopted by the Regional Board, provided the Regional Administrator, U. S. Environmental Protection Agency, has no objections.
  14. Unless otherwise revoked, this Board Order expires five years from the date of adoption, or immediately after completion of the remediation project, whichever comes first. The discharger must file an application for proposed discharge not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

15. The collection, preservation and holding times of all samples shall be in accordance with EPA-approved procedures. All analyses shall be conducted by a laboratory certified by the State Department of Health Services to perform the required analyses.

I, Philip A. Gruenberg, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on November 18, 1992.

  
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Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 92-043  
FOR  
RIVERSIDE COUNTY DEPARTMENT OF TRANSPORTATION  
THERMAL AIRPORT MAINTENANCE YARD  
DISCHARGE OF EXTRACTED AND TREATED GROUND WATER  
Thermal - Riverside County

Location of Discharge: Storm Drain Location: SE $\frac{1}{4}$ , SW $\frac{1}{4}$ , Section 15, T6S, R8E,  
SBB&M

Ground Water Treatment System Location: NE $\frac{1}{4}$ , NW $\frac{1}{4}$ ,  
Section 22, T6S, R8E, SBB&M

A. EFFLUENT MONITORING

Treated effluent shall be monitored for the constituents indicated below.  
Representative grab samples of the effluent shall be collected for  
analysis.

<u>Constituents</u>	<u>Unit</u>	<u>Sample Frequency</u>
Flow	GPD <sup>1</sup>	Daily
Temperature	C° <sup>2</sup>	Monthly
Total Dissolved Solids	mg/L <sup>3</sup>	Once before discharge Daily for the 1st 5 days Weekly for the 1st 10 weeks Monthly thereafter
Total Petroleum Hydrocarbons	mg/L	Once before discharge Daily for the 1st 5 days Weekly for the 1st 10 weeks Monthly thereafter

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<sup>1</sup> GPD = Gallons-per-day

<sup>2</sup> C° = Degrees Centigrade

<sup>3</sup> mg/L = milligrams-per-Liter

<u>Constituents</u>	<u>Unit</u>	<u>Sample Frequency</u>
Benzene	$\mu\text{g/L}^4$	Once before discharge Daily for the 1st 5 days Weekly for the 1st 10 weeks Monthly thereafter
Toluene	$\mu\text{g/L}$	Once before discharge Daily for the 1st 5 days Weekly for the 1st 10 weeks Monthly thereafter
Ethylbenzene	$\mu\text{g/L}$	Once before discharge Daily for the 1st 5 days Weekly for the 1st 10 weeks Monthly thereafter
Xylene	$\mu\text{g/L}$	Once before discharge Daily for the 1st 5 days Weekly for the 1st 10 weeks Monthly thereafter
Volatile Organic Carbons (EPA Method 601)	$\mu\text{g/L}$	Once before discharge Daily for the 1st 5 days Weekly for the 1st 10 weeks Monthly thereafter

B. INFLUENT MONITORING

Influent shall be monitored for the following constituents. Representative grab samples of the influent shall be collected at a point before the influent enters the treatment system.

<u>Constituents</u>	<u>Unit</u>	<u>Sample Frequency</u>
Flow	GPD	Daily
Total Dissolved Solids	mg/L	Daily for the 1st 5 days Weekly for the 1st 10 weeks
Total Petroleum Hydrocarbons	mg/L	Daily for the 1st 5 days Weekly for the 1st 10 weeks

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<sup>4</sup>  $\mu\text{g/L}$  = micrograms-per-Liter



<u>Constituents</u>	<u>Unit</u>	<u>Sample Frequency</u>
Benzene	µ g/L	Daily for the 1st 5 days Weekly for the 1st 10 weeks
Toluene	µ g/L	Daily for the 1st 5 days Weekly for the 1st 10 weeks
Ethylbenzene	µ g/L	Daily for the 1st 5 days Weekly for the 1st 10 weeks
Xylene	µ g/L	Daily for the 1st 5 days Weekly for the 1st 10 weeks
Volatile Organic Carbons (EPA Method 601)	µ g/L	Daily for the 1st 5 days Weekly for the 1st 10 weeks

C. EFFLUENT CHRONIC TOXICITY TESTING

The discharger shall conduct chronic toxicity testing on the treated effluent as follows:

<u>Test</u>	<u>Units</u>	<u>Type of Samples</u>	<u>Minimum Frequency of Test</u>
Chronic Toxicity	tu <sub>c</sub>	Grab	Quarterly <sup>5</sup>

Both test species given below shall be used to measure chronic toxicity:

Critical Life Stage Toxicity Tests

<u>Species</u>	<u>Effect</u>	<u>Test Duration (Days)</u>	<u>Reference</u>
fathead minnow (Pimephales promelas)	larval survival and growth rate	7	Horning & Weber, 1989
water flea (Ceriodaphnia dubia)	survival; number of young	7	Horning & Weber, 1989

Toxicity Test Reference: Horning W.B. and C.I. Weber (eds). 1989. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organism. Second Edition. U.S. EPA Environmental Monitoring Systems Laboratory, Cincinnati, Ohio. EPA/600/4-89/001.

<sup>5</sup> Sampling shall begin on first day of discharge

Dilution and control waters should be obtained from an unaffected area of the receiving waters. Standard dilution water should be used if the above source exhibits toxicity greater than 1.0  $tu_c$ . The sensitivity of the test organism to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results.

Chronic toxicity shall be expressed and reported as toxic units ( $tu_c$ ) where:

$$tu_c = 100/NOEL$$

and the No Observed Effect Level (NOEL) is expressed as the maximum percent effluent of test water that causes no observed effect on a test organism, as determined in a critical life stage toxicity test (indicated above).

Acute toxicity shall be calculated from the results of the chronic tests described above and shall be reported along with the results of each chronic test. Acute toxicity shall be expressed as the percent of survival of test organism over a 96 hour period.

#### REPORTING

1. All monitoring data collected as required above will be reported to the Regional Board monthly. Monthly monitoring reports shall be submitted to the Regional Board by the 15th day of the following month. Quarterly reports shall be submitted by January 15, April 15, July 15, and October 15 of each year.
2. The discharger shall arrange the data in tabular form so that the specified information is readily discernable. The data should be summarized in such a manner as to clearly illustrate whether the treatment system is operating in compliance with the discharge limitations.
3. Each report shall contain the following statement:  
  
"I declare under the penalty of law that this document and all the attachments are 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".
4. The collection, preservation and holding times of all samples shall be in accordance with EPA-approved procedures. All analyses shall be conducted by a laboratory certified by the State Department of Health Services to perform the required analyses.

Submit monitoring reports to:

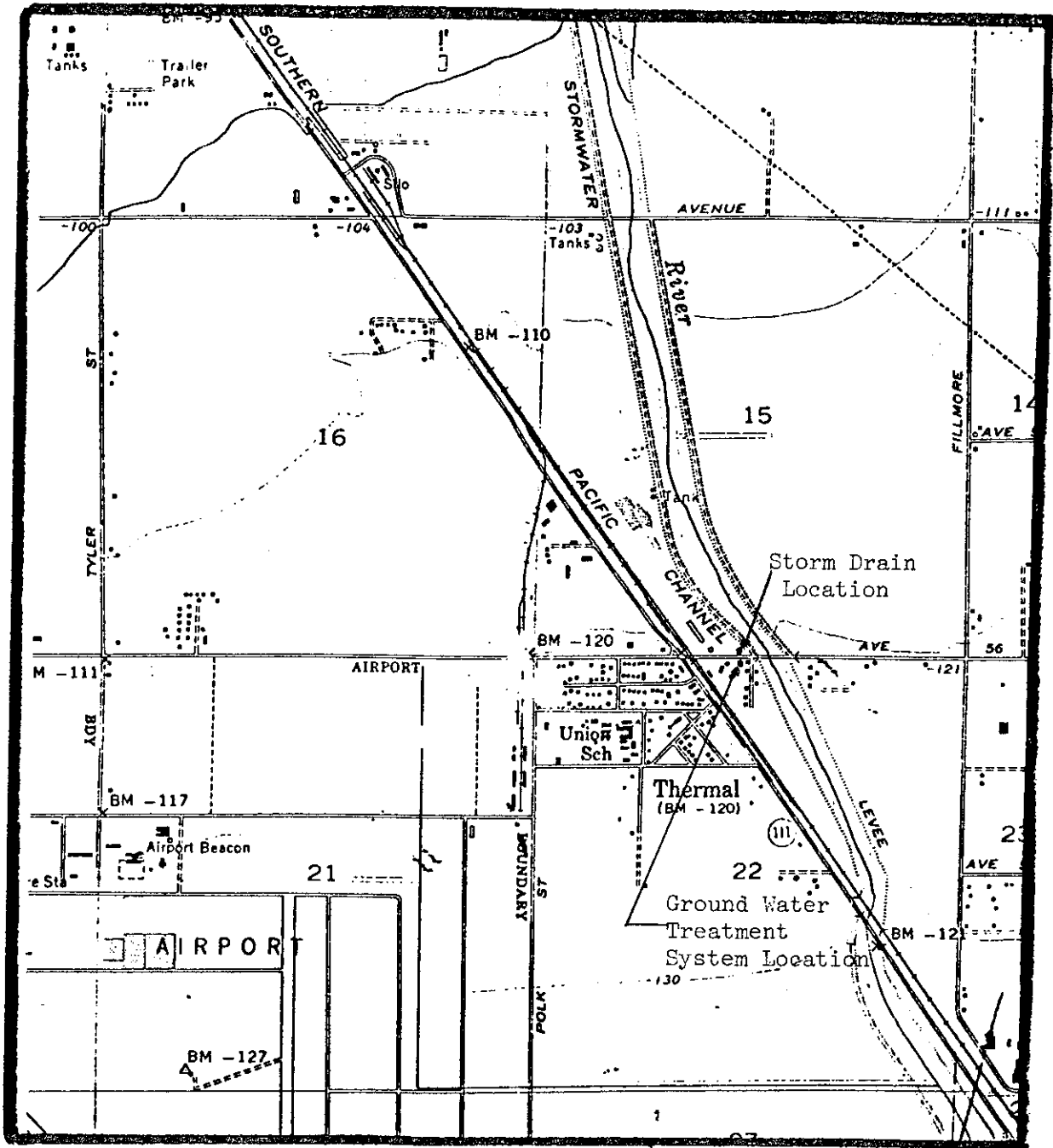
California Regional Water Quality Control Board  
Colorado River Basin Region  
73-720 Fred Waring Dr., Suite 100  
Palm Desert, CA 92260

ORDERED BY:

Philip A. Guenher  
Executive Officer

November 18, 1992

Date



ATTACHMENT "A"

SITE MAP

Riverside County Department of Transportation  
 Thermal Maintenance Yard  
 Discharge of Extracted and Treated Ground Water  
 Thermal - Riverside County

Storm Drain Location : SE $\frac{1}{4}$ , SW $\frac{1}{4}$ , Section 15, T6S, R8E, SBB&M  
 Ground Water System Location: NE $\frac{1}{4}$ , NW $\frac{1}{4}$ , Section 22, T6S, R8E, SBB&M