

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION

ORDER NO. 91-013

WASTE DISCHARGE REQUIREMENTS  
FOR  
COUNTY OF RIVERSIDE  
COACHELLA WASTE MANAGEMENT FACILITY  
CLASS III LANDFILL  
North of Coachella - Riverside County

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

1. The County of Riverside Waste Management Department, (hereinafter also referred to as the discharger), 11728 Magnolia Avenue, Suite A, Riverside, California 92503, operates a municipal solid waste disposal site located at the end of 44th Avenue, off of Dillon Road, north of Coachella, in Section 22, T5S, R8E, SBB&M as shown in Attachments A and B incorporated herein and made a part of this Board Order. The property is owned by the United States Government, with administration by the Bureau of Land Management (hereinafter referred to as the discharger), 1695 Spruce Street, Riverside, CA 92507.
2. The discharger submitted a Report of Waste Discharge dated October 11, 1990. The Coachella Waste Management Facility (WMF) has been subject to waste discharge requirements under Board Order No. 88-120 which was adopted by the Regional Board on September 22, 1988. The waste discharge requirements are being updated to comply with Section 13263 of the California Water Code.
3. The discharger submitted a Solid Waste Assessment Testing (SWAT) report on August 23, 1989, as required by Section 13273 of the California Water Code.
4. The SWAT report contains technical information describing the site hydrogeology, topography, disposal operations and waste classification. In view of the technical information that has become available, it is appropriate that the Regional Board adopt revised waste discharge requirements for the Coachella Waste Management Facility to include more stringent requirements to protect the quality of the ground water in the vicinity of the site.
5. The SWAT data and the succeeding verification testing of ground water samples from three monitoring wells located at the WMF have indicated the presence of hazardous waste constituents in quantities exceeding the State drinking water standards. The Regional Board Executive Officer consequently issued the discharger Cleanup and Abatement Order No. 90-074 requiring the discharger to conduct additional field investigations of the site and the surrounding area to define the nature and extent of ground water contamination, and determine how disposal should continue at the existing WMF.

The discharger reports that an average of 725 tons per day of non-hazardous solid waste, as defined in Chapter 15, Division 3, Title 23 of the California Code of regulations (hereinafter also referred to as Chapter 15), are being discharged to a Class III Landfill within a 640-acre site.

*9-15-93  
adopted  
amended  
Order #43-071*

7. The non-hazardous solid waste consists of garbage, rubbish, demolition materials, dead animals, abandoned automobiles, sewage sludge residue, household trash, manures, plant residue and cleansed pesticide containers.
8. The total remaining capacity of the landfill is 12,000,000 tons. It has an estimated remaining life of 27 years.
9. Waste disposal at this site is accomplished by the cut-and-fill method of operation. This operation consists of a working face from 100 to 150 feet in width in front of which refuse is placed. This waste is compacted to an estimated density of 1,000 pounds per cubic yard. At the end of each day, six inches of cover soil is placed on the working face and the top surface is covered with one foot of soil.
10. The WMF is located on the foothills of the Little San Bernardino Mountains. Elevation of the site ranges from 125 feet above mean sea level (m.s.l.) at the southwest corner to 400 feet m.s.l. at the northeast corner.
11. Natural surface drainage at the landfill is to the southwest. A dry wash runs just north of the site and is riprapped to ensure against erosion.
12. The WMF is underlain by recent and older alluvial fan, consisting mostly of coarse, poorly sorted sands and gravels.
13. The site soils consist of the Carrizo stony sand, Chuckawalla very gravelly sandy clay loam, and Carsitas cobbly and gravelly sand.
14. Ground water depth measured in July, 1990 in monitoring wells constructed as part of the SWAT program ranged from 165 to 216 feet below ground surface. The discharger reports that ground water flow in the vicinity of the WMF is toward the southwest. Water levels southeast of the WMF have been rising due to increased percolation of imported irrigation water.
15. Surface water bodies in the vicinity of the site consist mostly of unnamed seasonal streams. The Coachella Canal, a man-made canal for the importation of irrigation water, is located approximately  $\frac{1}{2}$  mile southwest of the site.
16. Land surrounding the site is zoned for controlled development.
17. Annual average for evaporation and precipitation in the area is 105 inches and 4 inches, respectively. The 100-year, 24-hour precipitation event for the site is approximately 3 inches.
18. The discharger installed three 4-inch ground water monitoring wells as a part of the SWAT program. Analyses of ground water samples collected from monitoring wells at the site indicate the total dissolved solids content range between 834 mg/l to 1310 mg/l.

19. The WMF characteristics listed in Section 2533(b)(1) of said Chapter 15 are not sufficient to ensure protection of the quality of ground water in the vicinity of the site. It is not feasible to remove the wastes already in place and retrofit the site with clay or synthetic liner and leachate collection and removal system as specified in Article 4 of Chapter 15. New waste disposal cells, however, must have an adequate liner and a leachate collection and removal system.
20. The Water Quality Control Plan for the Colorado River Basin Region of California designates the beneficial uses of ground and surface waters in this Region.
21. The beneficial uses of ground waters in the Coachella Hydrologic Subunit are:
  - a. Municipal supply (MUN)
  - b. Industrial supply (IND)
  - c. Agricultural supply (AGR)
22. The Board has notified the discharger and all known interested agencies and persons of its intent to update waste discharge requirements for this discharge.
23. The Board in a public meeting heard and considered all comments pertaining to this discharge.
24. In accordance with Section 15301, Chapter 3, Title 14 of the California Code of Regulations, the issuance of these waste discharge requirements, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.).

IT IS HEREBY ORDERED, that the discharger shall comply with the following:

A. Discharge Specifications

1. New waste management units constructed after January 1, 1994 on top of virgin land (land which does not contain solid waste) must have an adequate liner, and leachate collection and removal system as specified in Chapter 15.
2. New waste management units and expansion of existing units shall not be located on a known Holocene fault. The discharger shall conduct a geological survey mapping all Holocene faults within the vicinity of the landfill. The results of said survey shall be submitted by January 1, 1993. The geological survey shall be conducted under the direct supervision of a California registered geologist.
3. 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.
4. Waste materials shall be confined to the waste management facility as described on the attached site maps.

5. Waste material shall not be discharged on any ground surface which is less than five feet above the highest anticipated ground water level.
6. This discharge shall not cause degradation of any water supply.
7. The waste management units shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods having a predicted frequency of once in 100 years.
8. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, shall not contact or percolate through the wastes discharged at this site.
9. The exterior surfaces of the disposal area, including the intermediate and final landfill covers, shall be graded and maintained to promote lateral runoff of precipitation and to prevent ponding.
10. The discharger shall provide a final cover for closure of the landfill units in conformance with the requirements of Chapter 15.
11. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.
12. Water used for site maintenance shall be limited to amounts necessary for dust control.
13. The discharger shall maintain a hazardous waste load checking program at the WMF. The discharger shall report the findings of said program in the quarterly monitoring reports submitted in accordance with Provision C.6 of this Order.

B. Discharge Prohibitions

1. The discharge or deposit of hazardous waste (as defined in Chapter 15) at this site is prohibited.
2. The discharge or deposit of designated waste (as defined in Chapter 15) at this site is prohibited.
3. The discharge of liquid or semi-solid waste (i.e., waste containing less than 50 percent solids) to the landfill units is prohibited unless approved by the Regional Board's Executive Officer.
4. The discharge of wastes to surface waters, surface water drainage courses, or to ground waters is prohibited.
5. The discharge or deposit of waste to land not owned or controlled by the discharger is prohibited.
6. The co-disposal of incompatible wastes is prohibited.

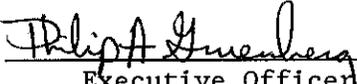
### C. Discharge Provisions

1. The discharger shall immediately notify the Regional Board of any flooding, slope failure or other change in site conditions which could impair the integrity of waste containment facilities or of precipitation and drainage control structures.
2. The discharger shall maintain legible records on the volume and type of each waste discharged at the site. These records shall be available for review by representatives of the Regional Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Regional Board.
3. The discharger shall maintain visible monuments identifying the boundary limits of the entire waste management facility.
4. One year prior to the anticipated closure of the facility or any unit (portion) thereof, the discharger shall submit to the Regional Board, for review and approval by the Executive Officer, a closure and post-closure maintenance plan in accordance with Section 2597 of Chapter 15.
5. The discharger shall comply with all applicable provisions of Chapter 15 that are not specifically referred to in this Board Order.
6. The discharger shall comply with "Monitoring and Reporting Program No. 91-013", and future revisions thereto, as specified by the Regional Board's Executive Officer.
7. 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.
8. The discharger shall ensure that all site operating personnel are familiar with the content of this Board Order.
9. The discharger shall obtain prior written approval from the Regional Board's Executive Officer specifying location and method of disposal, before disposing of treated or untreated sludge, or similar solid waste materials. In addition, the discharger shall provide the results of any sludge analyses as specified by the Executive Officer.
10. All containment structures and erosion and drainage control systems shall be designed and constructed under direct supervision of a California registered civil engineer and shall be certified by the individual as meeting the prescriptive standards and performance goals of Chapter 15.
11. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of wastes over the operating life, closure and post-closure maintenance period of the landfill.

12. In-place permeabilities of liners shall be determined in the field using techniques approved by the Executive Officer. Construction methods and quality assurance procedures shall be sufficient to ensure that all parts of the liners are adequate to contain landfill leachate.
13. Each disposal cell shall have a leachate collection and removal system. Leachate collection sumps shall be designed and operated to keep leachate levels at the minimum needed to ensure efficient pump operation. Leachate collected shall be disposed of in accordance with local, state, and federal regulations.
14. Materials used to construct leachate collection and removal systems shall have appropriate physical and chemical properties to ensure the required transmission of leachate through the system over the operating life, closure and post-closure maintenance period of the landfill. Materials shall have sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials and equipment used on the landfill.
15. The discharger shall maintain in good working order, and operate as efficiently as possible, any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.
16. This Board Order is subject to Regional Board review and updating, as necessary, to comply with changing State or Federal laws, regulations, policies, or guidelines, or changes in the discharge characteristics, in three year increments from the effective date of this Board Order.
17. The Regional Board considers the property owner to have a continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge.

IT IS FURTHER ORDERED that Board Order No. 88-120 be superseded by this Board Order.

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 March 13, 1991.

  
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Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION

REVISED MONITORING AND REPORTING PROGRAM NO. 91-013  
FOR  
COUNTY OF RIVERSIDE  
COACHELLA WASTE MANAGEMENT FACILITY  
CLASS III LANDFILL  
North of Coachella-Riverside County

Location of Discharge: Section 22, T5S, R8E SBB&M

The discharger shall monitor all wastes discharged to the waste management facility and report to the Regional Board as follows:

A. WASTE MONITORING

|   | <u>Landfill</u>           | <u>Reporting Frequency</u>  |
|---|---------------------------|---|
| 1. Solid wastes discharge   | Cubic yards               | Semi-Annually   |
| 2. Type of Materials discharged   | ----                      | Semi-Annually   |
| 3. Remaining capacity of Waste Management Facility                      | Cubic yards               | Semi-Annually   |
| 4. Any discharge of wastes other than those allowed by this Board Order | Type, volume and location | Immediately upon becoming aware that the waste has been discharged together with action for immediate correction and prevention of recurrence |
| 5. Hazardous waste load checking and storage (not more than 90 days)    | Cubic yards               | Semi-Annually   |

B. GROUND WATER MONITORING

The ground water monitoring wells shall be sampled Quarterly during March, June, September and December. The samples shall be analyzed for the following:

1. Inorganics

| <u>Parameters</u>                  | <u>Unit</u> | <u>Samples</u> | <u>Reporting Frequency</u> |
|------------------------------------|-------------|----------------|----------------------------|
| Alkalinity (as CaCO <sub>3</sub> ) | mg/L        | Grab           | Semi-Annually              |
| Ammonia-Nitrogen                   | mg/L        | Grab           | Semi-Annually              |
| Antimony                           | mg/L        | Grab           | Semi-Annually              |
| Arsenic                            | mg/L        | Grab           | Semi-Annually              |
| Barium                             | mg/L        | Grab           | Semi-Annually              |
| Beryllium                          | mg/L        | Grab           | Semi-Annually              |
| Bicarbonate (HCO <sub>3</sub> )    | mg/L        | Grab           | Semi-Annually              |
| Bicarbonate ((CaCO <sub>3</sub> )  | mg/L        | Grab           | Semi-Annually              |
| Cadmium                            | mg/L        | Grab           | Semi-Annually              |
| Calcium                            | mg/L        | Grab           | Semi-Annually              |
| Carbonate (CO <sub>3</sub> )       | mg/L        | Grab           | Semi-Annually              |
| Chromium                           | mg/L        | Grab           | Semi-Annually              |
| Cobalt                             | mg/L        | Grab           | Semi-Annually              |
| COD                                | mg/L        | Grab           | Semi-Annually              |
| Copper                             | mg/L        | Grab           | Semi-Annually              |
| Cyanide                            | mg/L        | Grab           | Semi-Annually              |
| Electrical Conductivity            | mg/L        | Grab           | Semi-Annually              |
| Iron                               | mg/L        | Grab           | Semi-Annually              |
| Lead                               | mg/L        | Grab           | Semi-Annually              |
| Magnesium                          | mg/L        | Grab           | Semi-Annually              |
| Manganese                          | mg/L        | Grab           | Semi-Annually              |
| Mercury                            | mg/L        | Grab           | Semi-Annually              |

|                    |                         |              |               |               |
|--------------------|-------------------------|--------------|---------------|---------------|
| Nickel             | mg/L                    | Grab         | Semi-Annually |               |
| Nitrate – Nitrogen | mg/L                    | Grab         | Semi-Annually |               |
| Nitrite – Nitrogen | mg/L                    | Grab         | Semi-Annually |               |
| Potassium          | mg/L                    | Grab         | Semi-Annually |               |
| pH                 | Number                  | Grab         | Semi-Annually |               |
| Selenium           | mg/L                    | Grab         | Semi-Annually |               |
| Silver             | mg/L                    | Grab         | Semi-Annually |               |
| Sodium             | mg/L                    | Grab         | Semi-Annually |               |
| Sulfide            | mg/L                    | Grab         | Semi-Annually |               |
| Sulfate            | mg/L                    | Grab         | Semi-Annually |               |
| Thallium           | mg/L                    | Grab         | Semi-Annually |               |
| TDS                | mg/L                    | Grab         | Semi-Annually |               |
| Vanadium           | mg/L                    | Grab         | Semi-Annually |               |
| Zinc               | mg/L                    | Grab         | Semi-Annually |               |
| 2.                 | Specific conductance    | Micromhos/cm | Grab          | Semi-Annually |
| 3.                 | Temperature             | °F           | Grab          | Semi-Annually |
| 4.                 | Volatile Organics       | mg/L         | Grab          | Semi-Annually |
| 5.                 | Semi- volatile Organics | mg/L         | Grab          | Semi-Annually |
| 6.                 | Ground Water            | feet         | Measurement   | Semi-Annually |
|                    | Elevation               | (USGS Datum) |               |               |

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

#### REPORTING

1. The discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements.
2. Records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurement(s);
  - b. The individual(s) who performed the sampling or measurement(s);
  - c. The date(s) analyses were performed;
  - d. The individual(s) who performed the analyses;
  - e. The analytical techniques or method used; and
  - f. The results of such analyses.
3. Each report shall contain the following statement:

"I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations."

4. A duly authorized representative of the discharger may sign the documents if:
  - a. The authorization is made in writing by the person described above;
  - b. The authorization specified an individual or person having responsibility for the overall operation of the regulated disposal system; and
  - c. The written authorization is submitted to the Regional Board's Executive Officer.
5. Report immediately any failure in the waste disposal system to the Regional Board's Executive Officer and the Director of the County Environmental Health Department by telephone with follow-up letter.
6. Monitoring reports shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this monitoring report.
7. Semi-Annual monitoring reports shall be submitted to the Regional Board in accordance with the following schedule:

First Semi-Annual (April 1 through September 30) – due by October 30  
Second Semi-Annual (October 1 through March 31) – due by April 30
8. Annual monitoring reports shall be submitted to the Regional Board by April 30 of each year.
9. Five-year monitoring reports shall be submitted to the Regional Board by April 30 of the 6th year.
10. Submit monitoring reports to:

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

Ordered by:

Philip A. Gruenberg  
Executive Officer

12-10-98

Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 91-013  
FOR  
COUNTY OF RIVERSIDE  
COACHELLA WASTE MANAGEMENT FACILITY  
CLASS III LANDFILL  
North of Coachella - Riverside County

Location of Discharge: Section 22, T5S, R8E, SBB&M

The discharger shall monitor all wastes discharged to the waste management facility and report to the Regional Board as follows:

WASTE MONITORING

| <u>ITEM</u>   | <u>UNIT</u>               | <u>REPORTING<br/>FREQUENCY</u>                                 |
|---|---------------------------|--|
| a. Solid waste discharged   | Cubic Yards               | Quarterly  |
| b. Type of materials discharged                                       | -                         | Quarterly  |
| c. Remaining capacity of the waste management facility                | Cubic Yards               | Quarterly  |
| d. Any wastes discharged other than those allowed in the requirements | Type, Volume and Location | Immediately upon becoming aware that waste has been discharged |

GROUND WATER MONITORING

The ground water monitoring wells shall be sampled quarterly during March, June, September and December except as noted. The samples shall be analyzed for the following:

| <u>PARAMETERS &amp;<br/>CONSTITUENTS</u> | <u>UNITS</u> | <u>TYPE OF<br/>SAMPLE</u> | <u>FREQUENCY</u> |
|--|--------------|---------------------------|------------------|
| 1. pH                                    | Number       | Grab                      | Quarterly        |
| 2. TDS                                   | mg/l         | Grab                      | Quarterly        |
| 3. Specific Conductance                  | micromhos/cm | Grab                      | Quarterly        |
| 4. Temperature                           | °C           | Grab                      | Quarterly        |
| 5. COD                                   | mg/l         | Grab                      | Quarterly        |
| 6. Ground Water Elevations               | Feet         | Measurement               | Quarterly        |
| 7. Calcium                               | mg/l         | Grab                      | Quarterly        |
| 8. Magnesium                             | mg/l         | Grab                      | Quarterly        |
| 9. Sulphate                              | mg/l         | Grab                      | Quarterly        |
| 10. Sodium                               | mg/l         | Grab                      | Quarterly        |
| 11. Nitrate                              | mg/l         | Grab                      | Quarterly        |

| <u>PARAMETERS &amp; CONSTITUENTS</u>        | <u>UNITS</u> | <u>TYPE OF SAMPLE</u> | <u>FREQUENCY</u> |
|---|--------------|-----------------------|------------------|
| 12. Organic Nitrogen                        | mg/l         | Grab                  | Quarterly        |
| 13. Volatile Organics (EPA 524.2)           | mg/l         | Grab                  | Quarterly        |
| 14. Semi-Volatile Organics (EPA Method 525) | mg/l         | Grab                  | Quarterly        |

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

REPORTING

1. Quarterly monitoring reports shall be submitted to the Regional Board 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 discernible. The data shall be summarized in such a manner as to clearly illustrate whether the waste management unit is operating in compliance with waste discharge requirements.
3. Submit monitoring reports to:

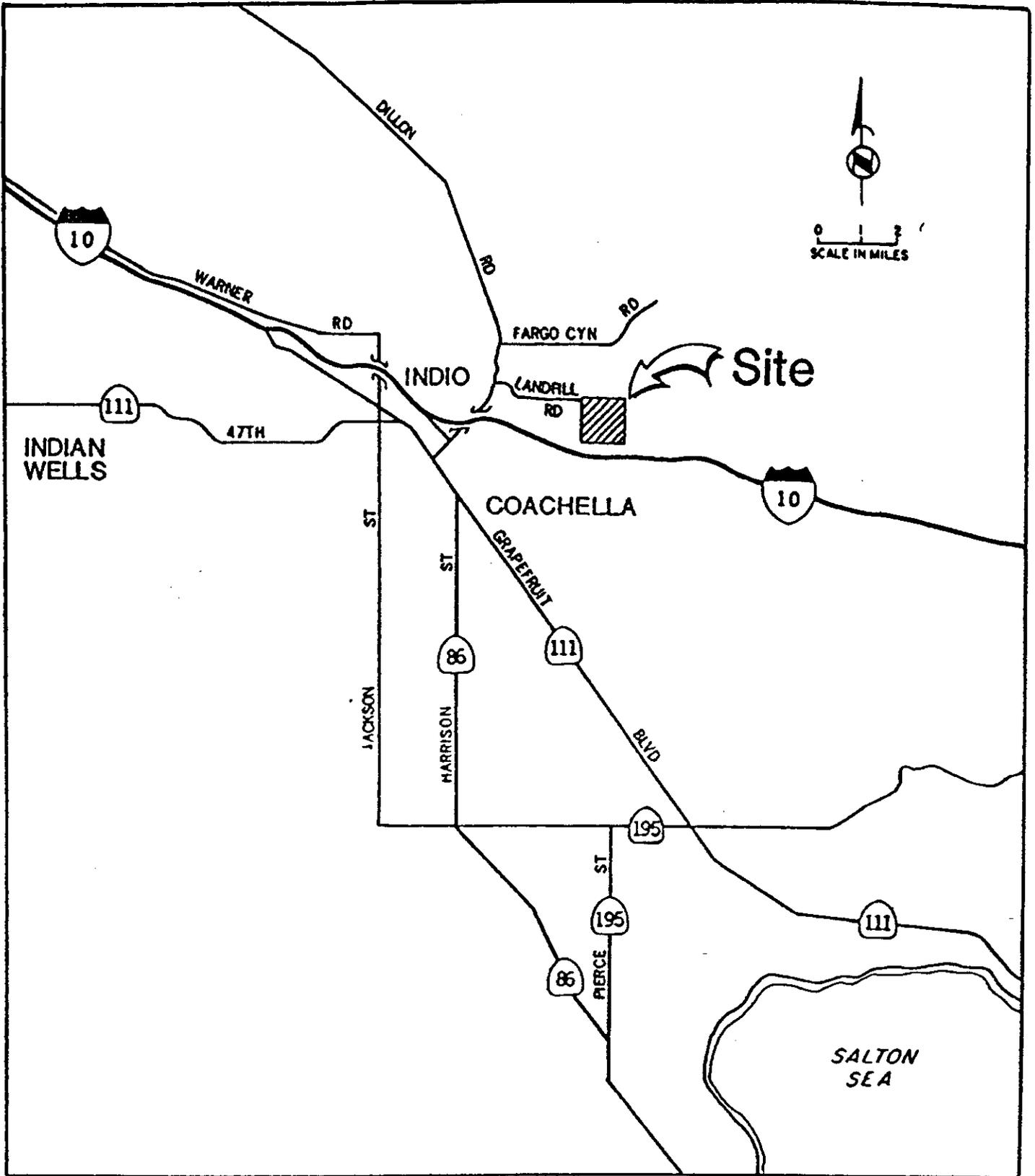
California Regional Water Quality Control Board  
Colorado River Basin Region  
73-271 Highway 111, Suite 21  
Palm Desert, CA 92260

ORDERED BY:

Philip A. Gruenberg  
Executive Officer

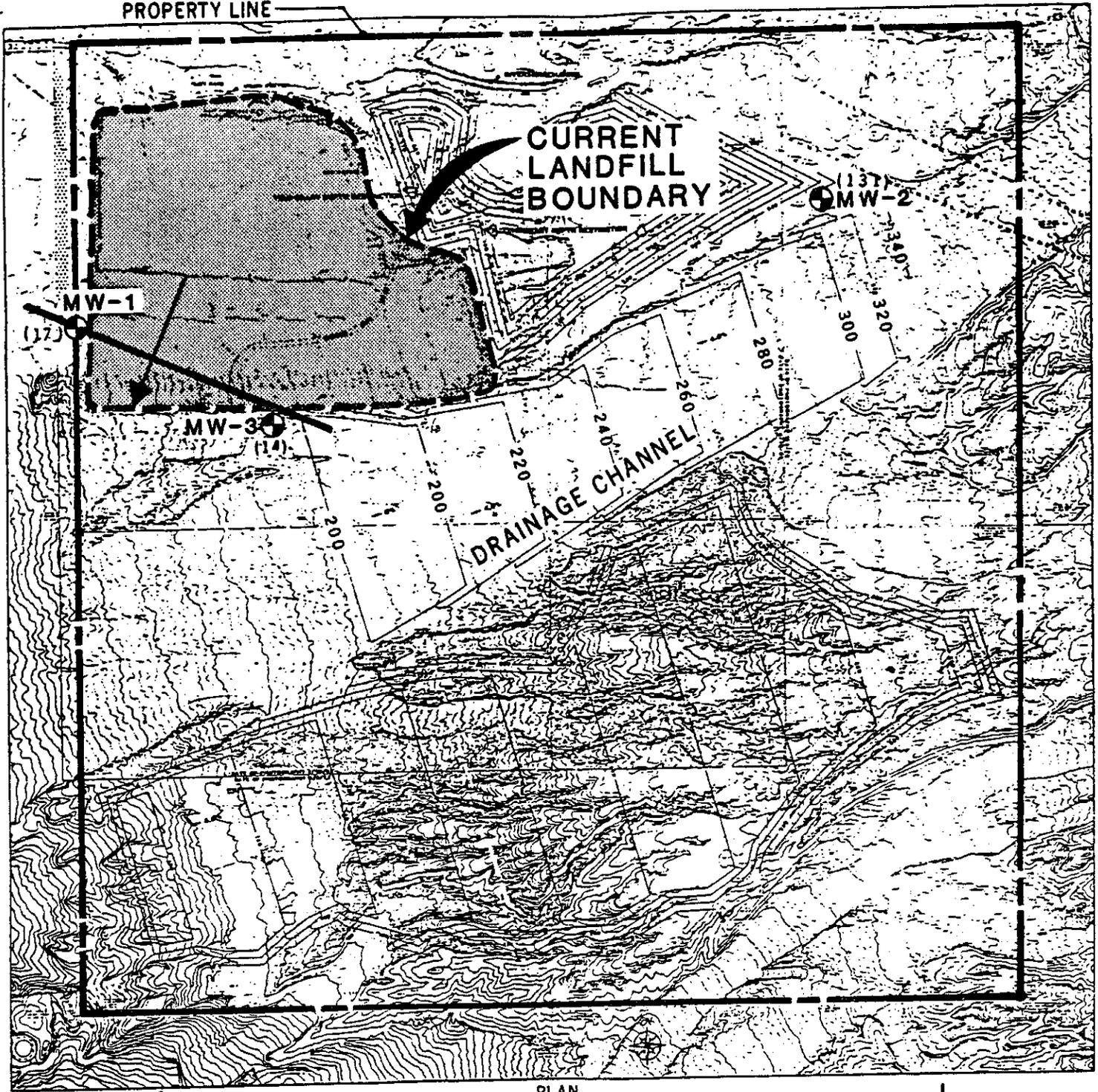
March 13, 1991

Date



ATTACHMENT A  
COUNTY OF RIVERSIDE  
COACHELLA WASTE MANAGEMENT FACILITY  
CLASS III LANDFILL  
North of Coachella - Riverside County  
Section 22, T5S, R8E, SBB&M

PROPERTY LINE



PLAN

**LEGEND**

- (17)  MONITORING WELL LOCATION AND ELEVATION
-  GROUNDWATER FLOW DIRECTION



0 100 200  
SCALE IN FEET

ATTACHMENT B  
COUNTY OF RIVERSIDE  
COACHELLA WASTE MANAGEMENT FACILITY  
CLASS III LANDFILL  
North of Coachella - Riverside County  
Section 22, T5S, R8E, SBB&M

Board Order No. 90-013