

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

CLEANUP AND ABATEMENT ORDER NO. 91-062

COUNTY OF SAN BERNARDINO
UNITED STATES DEPARTMENT OF INTERIOR - BUREAU OF LAND MANAGEMENT
LANDERS WASTE MANAGEMENT FACILITY
CLASS III LANDFILL - CLASS II SURFACE IMPOUNDMENTS
Northwest of Joshua Tree - San Bernardino County

The Executive Officer of the California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. The County of San Bernardino (hereinafter referred to as the discharger), 621 East Carnegie Drive, Suite 270, San Bernardino, CA 92415, operates the Landers Waste Management Facility (WMF) located in the SE $\frac{1}{4}$ of Section 20, SW $\frac{1}{4}$ of Section 21, NW $\frac{1}{4}$ of Section 28 and NE $\frac{1}{4}$ of Section 29, T2N, R6E, SBB&M.
2. The WMF is located on property owned by the United States Department of the Interior, Bureau of Land Management (hereinafter also referred to as the discharger), 1695 Spruce Street, Riverside CA 92507.
3. The Landers WMF is currently regulated by Waste Discharge Requirements prescribed in Board Order No. 91-028 which was adopted on June 26, 1991. The WMF consists of active and inactive landfills, and a septage disposal area.
4. The discharger reports that the WMF area is 638 acres. Within the 638-acre area is a 31-acre area currently being used for land filling operations. The total capacity of the active portion of the site is 850,000 tons, with a remaining capacity of 600,000 tons. The estimated life expectancy of the active portion of the landfill is 18 years.
5. The discharger reports that the site receives approximately 90 tons of non-hazardous solid waste (as defined in Chapter 15, Division 3, Title 23 of the California Code of Regulations) per day. The waste consists of residential, commercial, demolitions and agricultural wastes. In addition, septage sludges, chemical toilets and grease trap pumpage are disposed of at separate unlined surface impoundments.
6. The discharger reports that the geologic material immediately underlying the landfill consists of fine grained silty sand to coarse-grained gravelly sand and fractured bedrock. Sediments beneath the site are often cemented and have low to medium permeability.
7. Ground water depth beneath the site ranges from 463 to 573 feet below ground surface. Ground water flow is generally restricted to fractures within bedrock. These fractures appear to be hydraulically connected.
8. The discharger reports that a ground water divide occurs beneath the site and trends approximately east-west between the active and inactive landfills. Ground water beneath the inactive landfill appears to flow in a south to southwesterly direction. Ground water beneath the active landfill and the septage pond areas appear to flow in a northeasterly direction.

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Superseded
by CRO # 98-056

9. On July 5, 1990 the discharger submitted a Solid Waste Assessment Test (SWAT) report for the WMF in compliance with Section 13273, Article 4, Chapter 4, Division 7 of the California Water Code.
10. As part of the SWAT investigation, the discharger constructed five ground water monitoring wells at the WMF. Ground water monitoring wells L-1 and L-6 are upgradient wells and L-3, L-7, and L-8 are downgradient wells. The SWAT investigation and the ground water monitoring data, submitted quarterly in compliance with Monitoring and Reporting Program No. 91-028, indicates that purgeable halocarbons and volatile aromatic compounds are leaking from the WMF site into the ground water.
11. The hazardous constituents detected in the downgradient monitoring wells at the Landers WMF include the following: benzene, dichlorodifluoromethane, 1,1-dichloroethane, tetrachloroethene, 1,1,1-trichloroethane, trichloroethene and trichlorofluoromethane.
12. The State Primary Maximum Contaminant Level (MCL) for 1,1-dichloroethane (1,1-DCA) is 5 micrograms per liter ($\mu\text{g}/\text{l}$). The MCLs are part of the Drinking Water Standards adopted by the California Department of Health Services (DOHS) in Chapter 15, Division 4, Title 22 of the California Code of Regulations. The MCL for 1,1,-DCA was exceeded in ground water samples collected on June 13, 1991.
13. The concentration of 1,1-DCA in the downgradient monitoring well L-3 ranged from 0.6-7.1 $\mu\text{g}/\text{l}$.
14. Ground water samples collected on September 11, 1991 indicate that the concentration of benzene in the downgradient monitoring well L-8 is 1 $\mu\text{g}/\text{l}$. The State MCL for benzene is 1 $\mu\text{g}/\text{l}$.
15. The hazardous constituents stated in Findings No. 11, 12, 13, and 14 indicate landfill and septage pond leakage.
16. The Water Quality Control Plan for the Colorado River Basin Region of California was adopted May 15, 1991 and designates the beneficial uses of ground and surface waters in this Region.
17. The beneficial uses of ground waters in the Emerson Hydrologic Unit are:
 - a. Municipal supply (MUN)
 - b. Agricultural supply (AGR)
18. The discharge of the hazardous constituents described in Finding No. 11 from the WMF has caused pollution of the ground water underlying the site.
19. Contamination of ground water at this site will adversely impact the above listed beneficial uses.
20. Section 13304 of the California Water Code states, in part, that:

"Any person...who has caused or permitted...any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the State and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board

cleanup such waste or abate the effects thereof, or, in the case of threatened pollution or nuisance, take other necessary remedial action."

21. This enforcement action is exempt from the California Environmental Quality Act pursuant to Section 15321, Chapter 3, Title 14 of the California Code of Regulations.

IT IS HEREBY ORDERED, that pursuant to Section 13304 of Division 7 of the California Water Code, the discharger shall comply with the following:

1. Cleanup and abate the effects of the discharge of purgeable halocarbons and volatile aromatic compounds.
2. By May 1, 1992, submit to the Regional Board a workplan and time schedule for investigation of the impact of Landers WMF on the quality of the ground water beneath the site. The investigation shall be designed to:
 - a. determine the presence, concentration, and vertical and areal extent of the contaminant plume in the ground water in the vicinity of the site.
 - b. determine the mechanism by which the ground water is being contaminated and the control measures needed to prevent further contamination.
 - c. describe alternative cleanup plans to remediate the contaminated ground water.
3. By July 1, 1992, following the review and approval of the Regional Board's Executive Officer, implement the proposed investigation plan.
4. Beginning on September 1, 1992, submit to the Regional Board monthly progress reports describing the progress of the cleanup investigation.

If, in the opinion of the Executive Officer, this Order is not complied with in a reasonable and timely manner, the Executive Officer will recommend additional enforcement action by the Regional Board which may include the imposition of administrative civil liabilities, or referral to the State Attorney General for such legal action as may be deemed appropriate.

Ordered by: Philip A. Gumbert
Executive Officer

Date: 12-6-91