California Regional Water Quality Control Board
Santa Ana Region

Cleanup and Abatement Order No. R8-2003-0013
for
County of San Bernardino, Solid Waste Management Division
City of Rialto, San Bernardino County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. The County of San Bernardino (hereinafter County) currently owns property in Sections 28 and 29, Township 1 North, Range 5 West, San Bernardino Base and Meridian, in the County of San Bernardino, State of California.

2. The County operates the Mid-Valley Sanitary Landfill (MVSL) on the property noted above. This property overlies the Rialto Groundwater Subbasin. The MVSL property consists of about 497 acres, of which about 222 acres are currently used for waste disposal activities. A sand and gravel operation utilizes a portion of the property in accordance with a formal agreement between the County and the sand and gravel operator. Soil is stockpiled on another portion of the property for processing by the sand and gravel operation prior to use of that portion of the property for landfilling. Ultimately, waste disposal activities will be expanded to include about 408 acres of the property, all within Section 29.

3. The MVSL is a municipal solid waste disposal facility that has been operated by the County since 1958. Landfilling of waste has been conducted in phases, with each phase consisting of waste being applied on a different portion of the property. Early phases of the landfill (Units 1 and 2) were constructed on native soil without a clay or synthetic liner, or a leachate collection system. The most recent phase of the landfill (Unit 3) began operation in 2002. This phase has, and all future phases (Units 4 and 5) will have, a double composite liner and a leachate collection and removal system.

4. Perchlorate, in the form of perchlorate salts, such as ammonium perchlorate, was used historically, and is still used, by several tenants of properties in close proximity to the landfill. Therefore, it is possible that the landfill may have accepted perchlorate waste from these neighboring tenants. However, there is currently no evidence that perchlorate waste was disposed in the landfill or that there has been a discharge of perchlorate from Units 1, 2 or 3 of the landfill.

5. The County purchased the northeast area of its current property in 1994. This property contained storage bunkers that were known to have housed explosives, chemicals, propellant, oxidizers, and fireworks. These bunkers were constructed, and were initially used, by the military in the mid-1940s. The bunkers were used subsequently by aerospace, hazardous waste and fireworks companies. Perchlorate salts were handled and stored in these bunkers. The County's operations contractor demolished the bunkers in 1998. A portion of this area is currently utilized by a sand and gravel operation.

6. Perchlorate salts are highly soluble and dissociate in water to form perchlorate ions. There are currently no state or federal drinking water standards for perchlorate. However, in 1997, the California Department of Health Services (DHS) established a drinking water Action Level (AL) for perchlorate of 18 parts per billion (ppb), and in 2002, DHS lowered the AL to four ppb. An AL is a temporary safe drinking water level that is based on limited studies that have been performed. Perchlorate is currently present in the Rialto, Colton, Chino I and Chino II Groundwater Subbasins. The West San Bernardino County Water District, the Fontana Water Company, and the Cities of Rialto and Colton have limited or ceased use of 20 municipal water supply wells that exceed the AL for perchlorate.

7. Municipal water supply wells in the Rialto, Colton, Chino I and Chino II Groundwater Subbasins have been, or are likely to be, affected by the perchlorate pollution in these basins. Regional Board staff is currently attempting to identify all parties that may have discharged perchlorate in these basins.

8. Perchlorate was initially detected in low concentrations (less than 5 ppb) in two of the MVSL monitoring wells in 1997. In 2001, the concentration of perchlorate in one of these wells increased significantly, to 250 ppb. As a result, the County increased its monitoring for perchlorate in existing monitoring wells and assessed possible perchlorate sources on its property, which included collecting and analyzing soil samples and process water samples from the sand and gravel operation on the northeast area of the County's property. The County found that the source of the perchlorate currently found in groundwater immediately adjacent to, and downgradient of, the County's property may be from the northeast area of its property that the County purchased in 1994.

9. Beginning in August 2002, the County installed six monitoring wells on, and in the vicinity of, the northeast area of their property. The analytical results of groundwater samples obtained from these monitoring wells showed that perchlorate was not present in the monitoring wells located

upgradient of the northeast area of the County's property, but was present in concentrations as high as 1,000 ppb in a monitoring well downgradient of the northeast area.

10. On September 26, 2002, the Executive Officer issued an Investigation Order to the County. This Order directed the County to further define the lateral and vertical extent of perchlorate in soil and groundwater in the vicinity of the MVSL.

11. On November 15, 2002, the County submitted a work plan to further define the lateral and vertical extent of perchlorate. Board staff has completed its review of the work plan, and is coordinating and evaluating comments on the work plan that are being submitted by other interested parties.

12. Based on the results of the soil and groundwater investigations conducted by the County, it is evident that perchlorate is being discharged to groundwater from property that is currently owned by the County.

13. The beneficial uses of the Rialto Groundwater Subbasin include:

    A. Municipal and domestic supply,
    B. Agricultural supply,
    C. Industrial service supply, and
    D. Industrial process supply.

14. The County has caused or permitted, or is causing or permitting, waste, i.e., perchlorate, to be discharged to waters of the state, specifically the Rialto Groundwater Subbasin, and has created, or threatens to create, a condition of pollution or nuisance. (The term "waste" as used here is defined at Water Code §13050(d).)

15. California Water Code Section 13304 allows the Regional Board to recover reasonable expenses from responsible parties for overseeing cleanup and abatement activities. It is the Regional Board's intent to recover such costs for regulatory oversight work conducted in accordance with this order.

16. This enforcement action is being taken by a regulatory agency to enforce a water quality law. Such action is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) in accordance with Section 15321, Article 19, Division 3, Title 14, California Code of Regulations.

17. Additional investigation is necessary to define the vertical and lateral extent of the perchlorate that is discharging, has been discharged, or threatens to be discharged, from the County's property.

18. It is appropriate to order the County to clean up and abate the effects of the discharge of perchlorate from property that the County currently owns and controls.

19. A similar order may be issued at a later date to former tenants or former owners of the County's property if Regional Board staff obtains additional information indicating that other specific tenants or owners have also discharged perchlorate that is present in the groundwater.

IT IS HEREBY ORDERED THAT, pursuant to Section 13304, Article 1, Chapter 5, Division 7, of the California Water Code, the County of San Bernardino shall cleanup and abate the effects of the discharge at the site as follows:

1. Implement the work plan submitted on November 15, 2002, as approved by the Executive Officer, in order to further define the lateral and vertical extent of the perchlorate that is discharging, has been discharged, or threatens to be discharged, from the County's property noted in Finding 1, above.

2. Prepare and implement additional work plans that the Executive Officer deems necessary to sufficiently characterize the lateral and vertical extent of perchlorate that is discharging, has been discharged, or threatens to be discharged, from the County's property. The work plans shall be implemented in accordance with time schedules approved by the Executive Officer.

3. After the Executive Officer determines that the lateral and vertical extent of perchlorate that is discharging, has been discharged, or threatens to be discharged from the County's property has been sufficiently defined, submit a detailed remedial action plan, including an implementation schedule, to cleanup or abate the effects of the perchlorate that is discharging, has been discharged, or threatens to be discharged, from the County's property. The remedial action plan and implementation schedule shall be submitted within 60 days of the Executive Officer's notification to the County that the definition of the extent of perchlorate is sufficiently complete. The remedial action plan and schedule shall be subject to approval by the Executive Officer.

4. Implement the remedial action plan in 3., above, as approved by the Executive Officer.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on January 17, 2003.

Gerard J. Thibeault
Executive Officer

California Regional Water Quality Control Board
Santa Ana Region

inston H. Hickox
Secretary for Environmental Protection

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The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at www.swrcb.ca.gov/rwqcb8.

January 24, 2003

Mr. Peter H. Wulfman
Division Manager
Solid Waste Management Division
County of San Bernardino
Department of Public Works
222 West Hospitality Lane, Second Floor
San Bernardino, CA 92415-0017

TRANSMITTAL OF ADOPTED CLEANUP AND ABATEMENT ORDER NO. R8-2003-0013 FOR THE COUNTY OF SAN BERNARDINO, SOLID WASTE MANAGEMENT DIVISION

Dear Mr. Wulfman:

At the regular Board Meeting held on January 17, 2003, the Regional Board adopted Cleanup and Abatement Order No. R8-2003-0013. A certified original copy is enclosed for your records. The adopted order includes two changes to the draft Order that were made at the Board Meeting (see Finding 14 and the statement immediately following Finding 19).

If you have any questions, please contact me at (909) 782-3284, Ann Sturdivant, Chief of the Board's SLIC/DoD Section, at (909) 782-4904, or Kamron Saremi, staff engineer, at (909) 782-4303.

Sincerely,

For Gerard J. Thibeault
Executive Officer

Enclosure: Cleanup and Abatement Order No. R8-2003-0013

cc w/enclosure (see attached mailing list)

ks:data/slic/perchlorate rialto-colton/SB Co.CAO tranmttal ltr

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