

California Regional Water Quality Control Board
Santa Ana Region

Cleanup and Abatement Order No. R8-2008-0064
For
San Bernardino County Department of Airports
Chino Airport

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

FACTUAL BACKGROUND

1. Chino Airport is located in the City of Chino, on property bounded approximately by Merrill Avenue on the north, Euclid Avenue on the west, Kimball Avenue on the south, and private property on the east.
2. In the mid-to-late 1980s, trichloroethylene (TCE) was detected in groundwater samples obtained from several private production wells downgradient (south and southwest) of the Chino Airport (hereinafter Airport), at concentrations as high as 44 micrograms per liter ($\mu\text{g/l}$). These wells were primarily used for irrigation of agricultural lands.
3. In 1989, the San Bernardino County Department of Airports (hereinafter County) identified areas at the Airport that were potential sources of past discharges of TCE. In 1990, the County submitted to the Regional Board a prioritized list of potential source areas at the Airport and a preliminary time schedule for investigating those areas.
4. On October 31, 1990, the Regional Board's Executive Officer issued Cleanup and Abatement Order (CAO) No. 90-134 to the County. The CAO required the County to: remove from Airport property and properly dispose of all wastes that were possibly continuing sources of organic solvent discharges; conduct a field investigation, including at least soil and soil gas sampling, to define the lateral and vertical extent of any TCE that may have been present in the soil at the potential source areas on Airport property; install and perform sampling of groundwater monitoring wells to define the lateral and vertical extent of TCE in groundwater; and submit a work plan to cleanup or abate the discharges of waste in the groundwater contamination attributable to the Airport.
5. In the early 1990s, the County removed and properly disposed of all wastes that were possibly continuing sources of organic solvent

discharges and conducted soil and soil gas sampling at potential source areas at the Airport. TCE or other chlorinated volatile organic compounds (VOCs) were detected at only four locations, at very low concentrations that did not warrant any follow up soil investigation or soil cleanup actions.

6. In 1999, TCE was detected at a concentration of 570 µg/l in one of the private production wells downgradient of the Airport. In 2003, the County installed five groundwater monitoring wells at the Airport and in 2005 the County installed four additional wells at the Airport. Also in 2005, the County performed additional soil gas sampling at several of the potential source areas previously identified by the County in the early 1990s.
7. The County's soil gas sampling identified two areas where VOCs were present to a depth of at least 40 feet below ground surface. TCE was detected at both areas at very low concentrations. In one area, 1,1-dichloroethene (1,1-DCE) and 1,1,1-trichloroethane (1,1,1-TCA) were detected at much higher concentrations. 1,1,1-TCA has not been detected in groundwater at the Airport, and 1,1-DCE has been detected in groundwater at only one of the nine groundwater monitoring wells at the Airport, at very low concentrations.
8. In 2007, fifty-nine groundwater samples were obtained from 22 offsite boring locations (one to four samples per boring). TCE was detected in 26 samples from eight borings, in concentrations up to 540 µg/l. Several other VOCs were detected at much lower concentrations in several of the borings.
9. Based on data from the nine groundwater monitoring wells at the Airport, there appears to be no evidence of migration of VOCs onto the Airport property from any upgradient sources. The data from the groundwater monitoring wells at the Airport and the data from the offsite groundwater assessment indicate that the TCE and several other VOCs in the groundwater underlying the Airport, and downgradient of the Airport, are the result of past discharges of waste at the Airport.
10. VOCs have been detected in the groundwater at the Airport and downgradient of the Airport at concentrations exceeding their respective drinking water maximum contaminant levels (MCLs). The California Department of Public Health's drinking water MCL for TCE is 5 µg/l.
11. The Chino I Desalter is located adjacent to the southeast corner of the Airport. The Chino I Desalter receives raw water, high in total dissolved salts (TDS), from extraction wells in the vicinity of the Airport. The Chino I

Desalter removes salt from this high TDS groundwater and the product water is pumped into municipal water supply systems to provide drinking water for local water purveyors. Several of the desalter extraction wells are located along the eastern and southern boundary of the Airport. TCE is present in two of these wells. VOC treatment is provided at the Chino I Desalter to remove this TCE.

12. The Chino Basin Watermaster is proceeding with plans to install an additional desalter well field south of the Airport. Groundwater extracted from this well field will provide raw water to the Chino I Desalter. It is likely that the TCE currently present in the groundwater will impact water produced from this well field.
13. In December 2007, a work plan was submitted for the installation of up to nine off-site monitoring wells at three locations, along the axis of the plume. The purpose of these wells is to better define the vertical extent of VOCs in the groundwater, and to monitor the fate of the off-site plume over time. In December 2007, Regional Board staff concurred with the work plan. The tentative schedule included in the work plan included awarding a construction contract by January 2008 and initiating well installation activities in April 2008. However, a construction contract has not yet been awarded, and well installation activities have therefore not been initiated.

AUTHORITY – LEGAL REQUIREMENTS

14. Section 13304(a) of the California Water Code provides that:

“Any person who has discharged or discharges waste into waters of the state in violation of any waste discharge requirements or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit 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 clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including but not limited to, overseeing cleanup and abatement efforts. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the regional board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have

jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.”

15. Section 13267(b)(1) of the California Water Code provides that:

“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

16. Section 13304(c)(1) of the California Water Code provides that:

“. . . the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that government agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial actions. . . .”

17. The State Water Resources Control Board (hereafter State Water Board) has adopted Resolution No. 92-49, the *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*. This Policy sets forth the policies and procedures to be used during an investigation or cleanup of a polluted site and requires that cleanup levels be consistent with State Water Board Resolution 68-16, the *Statement of Policy With Respect to Maintaining High Quality of Waters in California*. Resolution 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up to background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible in accordance with Title 23, California Code of Regulations (CCR) Section 2550.4. Any alternative cleanup level to

background must: (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Water Board. Resolution 92-49 directs that investigation proceed in a progressive sequence. To the extent practical, it directs the Regional Water Board to require and review for adequacy written work plans for each element and phase, and the written reports that describe the results of each phase of the investigation and cleanup.

18. The Water Quality Control Plan for the Santa Ana Region (hereafter Basin Plan) designates beneficial uses of the waters of the State and establishes water quality objectives to protect those areas. Pursuant to Chapter 3 of the Basin Plan, groundwater underlying and immediately downgradient of the Airport is within the Chino North Groundwater Management Zone. Present and potential future beneficial uses of this groundwater management zone include municipal and domestic supply, agricultural supply, industrial service supply and industrial process supply. The Basin Plan contains numerical water quality objectives (WQOs) that apply to surface water and groundwater, including, for example, drinking water maximum contaminant levels (MCLs) promulgated in Title 22, CCR, Division 4, Chapter 15 (hereafter Title 22) that the Basin Plan applies directly to waters designated as municipal supply.
19. The County has caused or permitted, is causing or permitting, or threatens to cause or permit waste, specifically TCE and other VOCs, to be discharged or deposited where it is, or probably will be, discharged into waters of the state and has created, or threatens to create, a condition of pollution or nuisance. Therefore, in accordance with Section 13304 of the California Water Code, it is appropriate to order the County to cleanup up the waste, abate the effects of the waste, or take other necessary remedial action.
20. There is a need for additional groundwater investigation and continued groundwater monitoring, in order to delineate the lateral and vertical extent of the VOCs and to prepare a remedial action plan. Therefore, in accordance with Section 13267 of the California Water Code, it is appropriate to order the County to furnish technical reports that delineate the extent of VOCs in groundwater that resulted from waste that has been discharged, or is being discharged, by the County and propose and implement a remedial action plan as directed by the Executive Officer.

21. 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.
22. 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.

IT IS HEREBY ORDERED THAT, pursuant to Section 13267 and Section 13304, Article 1, Chapter 5, Division 7, of the California Water Code, the County shall submit technical and monitoring reports, and cleanup the waste or abate the effects of the waste that has, or probably will be, discharged into waters of the state, in accordance with the following tasks:

1. Implement the work plan submitted in December 2007. Submit a technical report by December 30, 2008 that includes the results of the completed well installation activities and sampling, as described in the work plan.
2. Submit a remedial action plan within 60 days after the Executive Officer determines that the technical report submitted in accordance with Item 1, above, defines the lateral and vertical extent of VOCs in groundwater sufficiently to allow preparation of a remedial action plan. The remedial action plan shall be implemented in accordance with a time schedule approved by the Executive Officer.
3. Prepare, implement and submit technical reports for any additional work plans that the Executive Officer deems necessary to sufficiently characterize the lateral and vertical extent of VOCs in soil and groundwater that are discharging, have been discharged, or threaten to be discharged as a result of waste discharges that have occurred at the Airport. The work plans shall be submitted and implemented in accordance with time schedules approved by the Executive Officer.
4. Submit any remedial action plans that the Executive Officer deems necessary as a result of the technical reports submitted in accordance with Item 3, above. The remedial action plans shall be submitted and implemented in accordance with time schedules approved by the Executive Officer.

5. The County shall reimburse the Regional Board for reasonable costs incurred in supervising cleanup or abatement activities, or taking other remedial action, in accordance with Section 13304(c)(1) of the California Water Code.
6. This Order supersedes Cleanup and Abatement Order No. 90-134, issued on October 31, 1990.

Failure to comply with the terms and conditions of this order may result in the imposition of civil liability in accordance with Section 13350 of the California Water Code.

6-27-08
Date


Gerard J. Thibeault
Executive Officer