

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 91-84

APPROVAL OF AN AMENDMENT TO
THE WATER QUALITY CONTROL PLAN FOR THE
LOS ANGELES RIVER BASIN CONCERNING THE EXTRACTION OF
GROUND WATER WITHIN THE SAN GABRIEL VALLEY GROUND WATER BASIN

WHEREAS:

1. The Water Quality Control Plan for the Los Angeles River Basin (Basin Plan) was adopted by the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Regional Board) on March 3, 1975 and was revised on November 27, 1978.
2. Section 13240 of the California Water Code specifies that Basin Plans be periodically reviewed and, if appropriate, revised.
3. On June 3, 1991, following a public hearing, the Los Angeles Regional Board adopted Resolution No. 91-006 (Resolution--Attachment 1) amending the Basin Plan and Implementation Plan to provide for Los Angeles Regional Board oversight of a comprehensive ground water quantity and quality management program in the San Gabriel Ground Water Basin (Attachment 2).
4. The management structure, including designation of a local lead agency, for the San Gabriel Basin management program may change in the future.
5. The Los Angeles Regional Board staff prepared documents and followed procedures to satisfy environmental documentation requirements pursuant to the California Environmental Quality Act.
6. Section 13245 of the California Water Code specifies that a revision of a water quality control plan adopted by a Regional Water Quality Control Board does not become effective until approved by the State Board.
7. The Los Angeles Regional Board Resolution No. 91-006 was adopted in accordance with State laws and regulations.

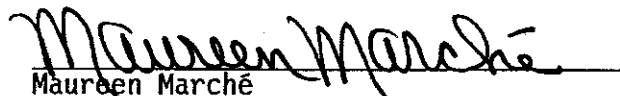
THEREFORE BE IT RESOLVED:

1. That the State Board approves Los Angeles Regional Board Resolution No. 91-006 amending the Water Quality Control Plan for the Los Angeles River Basin to provide for Los Angeles Regional Board oversight of a comprehensive ground water quantity and quality management program in the San Gabriel Ground Water Basin.

2. That if the local management structure changes, oversight of the management program shall proceed pending any revisions to the Basin Plan necessitated by such changes.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on September 26, 1991.


Maureen Marché
Administrative Assistant to the Board

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

RESOLUTION NO. 91-006

BASIN PLAN AMENDMENT
AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE LOS ANGELES
RIVER BASIN AND IMPLEMENTATION PLAN CONCERNING THE EXTRACTION OF
GROUND WATER WITHIN THE SAN GABRIEL VALLEY BASIN

WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds that:

1. The Board adopted a revised Water Quality Control Plan for Los Angeles River Basin on November 27, 1978.
2. Section 13240 of the California Water Code requires that the Regional Board's Water Quality Control Plans (Basin Plans) conform to State Policies for water quality protection, and be periodically reviewed and revised.
3. The ground water in San Gabriel Valley Basin is the primary source of drinking water for the one million residents of the Valley.
4. The Environmental Protection Agency (EPA) included the San Gabriel Valley Basin on its National Priority List in 1984, following detection of volatile organic contaminants in the ground water at levels exceeding State and Federal drinking water standards.
5. Despite the contamination, the water purveyors in the San Gabriel Valley have successfully continued to provide an adequate and safe supply of potable water to the Valley's commercial, industrial and domestic users.
6. Construction of new wells, or modification of existing wells and ground water pumping patterns in the basin may spread the contaminants to clean areas and deep zones of the ground water aquifers.
7. The intent of the proposed Basin Plan Amendment and the Implementation Plan is to ensure that extraction of the ground water is conducted in a manner that will meet all water supply needs and improve and protect water quality in the Basin.
8. The Regional Board recognizes the volatile nature of the existing basin management structure and is prepared to revise this amendment and/or propose new amendments as the need arises.

BASIN PLAN AMENDMENT --RESOLUTION NO. 91
PAGE 2

9. The Regional Board circulated the proposed Amendment with appropriate notice for public hearings held on March 4, 1991 and June 3, 1991.
10. The Basin Plan Amendment must be approved by the State Water Resources Control Board (State Board) as provided in Sections 13245 and 13246 of the California Water Code before becoming effective.
11. The Regional Board prepared an environmental assessment evaluating the environmental impacts and alternatives in compliance with Public Resources Code Section 21000 et. seq. (CEQA) and found that no significant adverse environmental impacts would result for implementation of the proposed Basin Plan Amendment.
12. The proposed Basin Plan Amendment is consistent with State and Federal policies for water quality protection.

THEREFORE, BE IT RESOLVED THAT:

1. The Regional Board hereby adopts the proposed Basin Plan Amendment, dated June 3, 1991, as modified at the public hearing held on June 3, 1991.
2. The Regional Board requests that the State Board approve the proposed Basin Plan Amendment in accordance with Sections 13245 and 13246 of the California Water Code.
3. Upon approval the Regional Board requests that the State Board transmit the Basin Plan Amendment to the U.S. Environmental Protection Agency for their approval.

CERTIFICATION

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region, on June 3, 1991.

Robert P. Ghirelli

ROBERT P. GHIRELLI, D.Env.
Executive Officer

DRAFT

STAFF REPORT

BASIN PLAN AMENDMENT REGULATING THE EXTRACTION
OF GROUND WATER IN THE SAN GABRIEL BASININTRODUCTION

The proposed amendment to the Water Quality Control Plan, Los Angeles River Basin (4B), is designed to provide Regional Board oversight of a comprehensive ground water quantity and quality management program in the San Gabriel basin. The amendment is intended to ensure that extraction of ground water is conducted in a manner that will meet all water supply needs and improve and protect water quality in the basin.

BACKGROUND

Volatile organic compounds (VOC) were first detected in the San Gabriel Basin in 1979. In 1984 the basin was listed on the U.S. Environmental Protection Agency (EPA) National Priorities List (Superfund). Since then water quality sampling has shown that VOC contamination is pervasive throughout much of the basin and groundwater contamination is widespread, covering at least thirty (30) square miles of the basin. About twenty-five percent (25%) of the basin's 250 water supply wells are contaminated by VOC at levels above EPA and State drinking water standards.

Groundwater is extracted from the basin for domestic, municipal and industrial uses. Approximately 240,000 acre feet of groundwater is extracted annually by forty five (45) private and municipal water purveyors. This groundwater provides the primary source of drinking water for the one million residents of the basin.

Water purveyors in the San Gabriel Basin have successfully continued to provide an adequate safe supply of potable water despite the VOC contamination in the basin. The purveyors have done this with a variety of methods including blending contaminated water with water from other clean wells such that the blended water remains within drinking water standards, shutting down contaminated wells, developing new wells in clean areas of the basin, developing existing wells into deeper parts of the aquifer, buying supplemental water supplies from outside the basin, and installing some form of treatment. The purveyors have made their decisions independently, choosing the most cost effective method for meeting their individual water supply needs and safe drinking water standards.

January 14, 1991

In April 1990 the EPA released a Basinwide Technical Plan (BTP). The BTP provides a blueprint for the long-term cleanup of the basin. In conjunction with the BTP, the EPA, State Water Resources Control Board and Los Angeles Regional Water Quality Control Board jointly prepared a "White Paper" which describes the institutional and financial issues involved in implementing long-term cleanup of the basin.

In August 1990 the Main San Gabriel Basin Watermaster (Watermaster) released a "Technical Plan for Basin Groundwater Clean-up". The Plan focuses on the Baldwin Park/Azusa area and includes short-term and long-term action plans. The focus of the short-term plan is on small scale treatment plants at individual wells. The long-term plan proposes large scale treatment of contaminated ground water through the conjunctive use of the basin as a storage reservoir for imported water.

The Watermaster's plan is generally consistent with the EPA's BTP, but it does not directly address the important issue of controlling the spread of contaminants which is one of the objectives of EPA's BTP. As these two plans are finalized, any significant differences in approach or operating principles between them should be resolved to achieve the common goals of protecting and cleaning up the basin as soon as possible.

The BTP proposes, and the "White Paper" supports, a multiple-objective approach to clean-up of the basin:

1. Prevent public exposure to contamination
2. Maintain adequate water supply
3. Protect natural resources
4. Control contaminate migration
5. Remove contamination

BASIN PLAN AMENDMENT

The proposed amendment incorporates all of the pumping and operational proposals specified in the White Paper into the Regional Board Basin Plan. A mandatory schedule of compliance is included to ensure that information sharing, planning and clean-up of the ground water basin occurs in a timely manner.

The implementation plan for the proposed Basin Plan amendment includes recommendations for restrictions on the construction of the new wells and modification of existing wells. All proposed construction or modification of water supply wells should be subject to approval by the local authorities. By July 1, 1991, local authorities must adopt operating principles including rules and regulations for controlling ground water extraction to protect water quality. The implementation plan also requires the local authorities, among other things, to develop and submit annually to

the Regional Board a five-year water supply/water quality control plan to be updated annually. The plan must assure that pumpers will neither, individually nor collectively, extract water in a manner that causes pollutants to migrate to less degraded or undegraded areas of the basin.

If local authorities fail to meet the July 1, 1991 deadline to adopt operating principles for controlling ground water extraction, the Regional Board shall then urge the passage of legislation to empower a local or regional agency to regulate ground water extraction for the purpose of protecting ground water quality.

In conclusion, the proposed amendment will provide a framework to ensure that water quality management decisions are consistent with the objectives stated in the BTP and White Paper.

PROPOSED AMENDMENT TO THE WATER QUALITY CONTROL PLAN
FOR THE
LOS ANGELES RIVER BASIN
AND
IMPLEMENTATION PLAN CONCERNING THE EXTRACTION OF
GROUND WATER WITHIN THE SAN GABRIEL VALLEY BASIN

BACKGROUND SUMMARY

The Environmental Protection Agency included the San Gabriel Basin on its National Priorities List in 1984, following detection of Volatile Organic Compounds in the Basin. These substances have since been shown to be pervasive throughout much of the Basin, with approximately 25% of the water supply wells being contaminated at levels above EPA and State drinking water standards. Despite the contamination, the Basin serves as the most important source (85% of supply) of water for domestic, municipal, and industrial use. In order to preserve this source of water, it is imperative to prevent to the greatest extent possible the spread of contamination. Pumping patterns may adversely affect the migration of contaminants in the basin and cause contaminants to move to clean areas of the basin.

The Regional Board recognizes the volatile nature of the existing basin management structure. The Regional Board is prepared to revise this amendment and/or propose new amendments as the need arises.

POLICY STATEMENT

The extraction of ground water in the San Gabriel Basin should be conducted in a manner that meets all water supply needs while protecting and improving water quality in the Basin. The Board believes that the control of contaminant migration in the Basin can only be achieved by large scale extraction in the areas of elevated contaminant concentration. The Board encourages the investigation and implementation of large scale recharge and extraction projects, such as conjunctive use to control contaminant migration. It is the policy of the Regional Board that extraction of ground water from the Basin shall not cause contaminants to migrate to clean areas of the Basin. To implement this policy the following measures are recommended by the California Regional Water Quality Control Board, Los Angeles Region (Regional Board).

IMPLEMENTATION PLAN

I. Watermaster Control of Pumping

The Regional Board will actively monitor local activity regarding ground water extraction in the Basin. Main San Gabriel Basin Watermaster should exercise its authority to control the location, construction/installation, deepening, and increase in capacity of any new or existing ground water extraction wells in the basin in order to avoid contributing to the migration of contaminated ground water. Watermaster should exercise its authority to control the modification of well extraction depth and any increase in existing well extraction capacity in order to avoid contributing to the migration of contaminated ground water.

II. Alternative Solutions

Watermaster is currently vested with the authority to regulate ground water extraction for the purpose of protecting ground water quality as outlined in the Operating Principles in Section III below. If the Watermaster does not implement the operating principles to prevent migration of contaminants to clean areas of the basin, the Regional Board shall seek other means to protect the water quality of the Basin. Possible measures include, but are not limited to:

1. The Regional Board may urge the passage of legislation to empower another agency to regulate ground water extraction for the purposes of protecting ground water quality.
2. The Regional Board may intervene in the court judgement in Upper San Gabriel Valley Municipal Water Judgement District vs. Alhambra, Los Angeles Superior Court.
3. The Regional Board may petition the State Water Resources Control Board to invoke Section 2100 proceedings.

III. Operating Principles

By July 1, 1991, Watermaster is encouraged to adopt operating principles including rules and regulations for controlling extraction to protect the quality of ground water.

A. Operating Principles

The operating principles must be consistent with the following:

1. Any new or increased extraction to meet water supply needs, in or adjacent to areas of high level degradation or contamination, should include extraction and treatment in existing areas of high level degradation or contamination.
2. New well installation, modification of existing well construction, and/or increase in extraction capacity may be allowed if such actions are shown not to degrade ground water quality. When approving new or modified extraction facilities, consideration must be given to the potential cumulative effects of existing and proposed extractions.
3. Watermaster may consider exemptions of the approved rules and regulations for the purposes of maintaining adequate, safe water supplies to consumers during emergency situations. An emergency situation is one where a producers water supply or water quality problem is so urgent that the only viable option for maintaining an adequate short term supply that meets drinking water standards involves an action in conflict with the aforementioned operating principles.

B. Measures to Implement Operating Principles.

The Watermaster is encouraged to develop an annual five-year water supply plan to assure that producers will neither, individually or cumulatively, extract water in a manner that causes pollutants to migrate to less degraded or undegraded areas, while maximizing the amount of pollutants removed from the Basin. This plan should be submitted for Regional Board review and comment on November 1, 1991. The plan needs to be updated annually in five-year increments on November 1, of succeeding years. The plan should be in sufficient detail to allow for an independent evaluation whether the plan will effectively implement the operating principles.

At a minimum the plan should include the following information:

- a. The existing and projected supply needs for each public and private system;

- b. Identification of the existing production wells projected to be affected by contaminants in the next five years;
- c. A system wide monitoring plan to provide early warning of potential increases in contaminant levels above drinking water standards;
- d. Proposed methods for meeting water supply needs of affected systems;
- e. A corrective action plan, if any;
- f. Expected pumping rates for each well in the basin.

IV. Ground Water Treatment

The Regional Board requests that the Watermaster submit all plans for the installation of ground water treatment facilities for review and comment prior to construction. Quarterly reports on all treatment plant operations should be submitted to the Regional Board for review. The reports should contain at a minimum the following information:

- a. The rate of treatment per day (mgd);
- b. The method and cost of treatment;
- c. The quality of the intake water;
- d. The quality of the treated water;
- e. The transport and use of the treated water.

V. Information Submittal and Reporting

In order to allow the Regional Board, EPA, and other interested parties to make knowledgeable, prudent, and timely decisions, complete and accurate information is needed. The information will be used by the EPA in developing and evaluating remedial actions in the Basin. The Regional Board will use the information to evaluate the effectiveness of the Watermaster implementation of the principles of this amendment. The Watermaster should provide the following information to the Regional Board:

- A. A one-time submittal of existing conditions of all ground water wells in the basin. The format and timing of the information will be determined by the staff of the Watermaster and the Regional Board within 30 days of the effective date of this amendment as follows:
 - a. Ownership, location and construction details for all wells, active and inactive.

- b. Present well status;
- c. Results from all past water quality analysis;
- d. Capacity of each well (design vs. actual);
- e. Pumping period and duration of each well;
- f. Existing major distribution systems.

B. Ongoing information submittal. The Watermaster is requested to report to the Regional Board the following information as indicated:

ANNUALLY

1. The name and location of wells operated during the year;
2. The depths or zones from which water is pumped from each well;
3. The quantity of water pumped from each well and period(s) of pumping (quarterly average).

QUARTERLY

1. The results of all VOC and nitrate analyses conducted during the quarter;
2. The status of all wells (active or inactive);
3. Significant changes in pumping during the quarter;

AS NEEDED

1. Modifications to existing well construction and pump systems;
2. All major modifications to existing distribution systems;
3. Well construction details for any new wells;
4. Proposed ground water treatment plants to remove VOC and/or nitrates, if any.