



Development of the Optimum Basin Management Program, Chino Basin Watermaster

Background

The Chino Basin is a large, adjudicated groundwater basin in Southern California. The Chino Basin Watermaster (CBWM) is a consensus based organization that facilitates the development and utilization of the Chino Basin. The CBWM's mission is to manage the Chino Basin in the most beneficial manner and equitably administer and enforce the provisions of the Chino Basin Adjudication. In 1998, a court order called for the CBWM to develop an Optimum Basin Management Program (OBMP).

Wildermuth Environmental (WEI), operating as the CBWM's engineer, led the process that was successful in the development of the OBMP. The OBMP is currently being implemented at an ultimate cost of over \$800 million dollars.

One of the principal goals of the OBMP is to develop the maximum yield of the Chino Basin for the benefit of the basin's producers. This is being accomplished by increasing the recharge of local and supplemental water

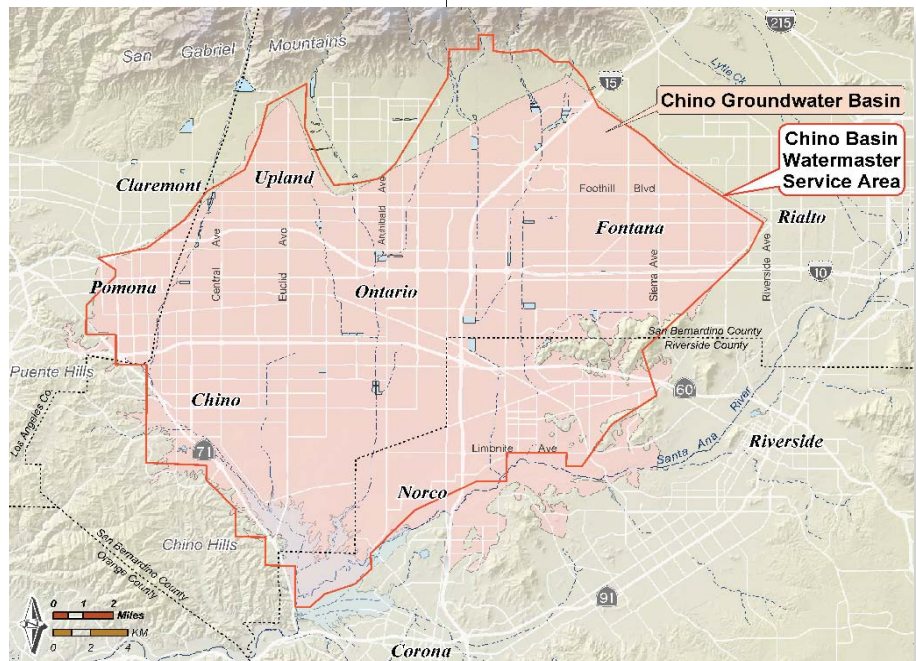
in the forebay areas and modifying pumping patterns in areas of historic discharge to minimize discharge, induce more recharge, and preserve sensitive ecological habitat and downstream water rights.

Developing the Workplan

WEI developed and implemented a robust stakeholder process for the creation of the OBMP. WEI conducted technical investigations for the siting of new well fields for groundwater desalter systems and recharge

facilities for stormwater, recycled water and imported water. WEI developed and implemented complex monitoring programs for water quality, surface water discharge, stormwater recharge, groundwater levels, and subsidence. WEI provided consulting services to evaluate the groundwater and surface water impacts of the OBMP for the OBMP CEQA process.

WEI provided consulting services to the CBWM and the parties to the Judgment in the development of the Peace Agreement, which specifies the roles of all the parties in the implementation of the OBMP. WEI is currently working with the CBWM, Inland



Chino Basin Watermaster service area



Development of the Optimum Basin Management Program, cont'd

Empire Utilities Agency (IEUA), and other parties to the Judgment to implement the OBMP.

Program Elements of the OBMP

The OBMP includes nine program elements that, when implemented, will enhance basin water supplies, protect and enhance water quality, enhance the management of the basin, and equitably finance the OBMP. The program elements include:

1. *Developing and implementing a comprehensive monitoring program.*
2. *Developing and implementing a comprehensive recharge program.*
3. *Developing and implementing a water supply plan for the impaired areas of the basin.*
4. *Developing and implementing a land subsidence management plan for the western portion of Chino Basin.*
5. *Developing and implementing a regional supplemental water program.*
6. *Developing and implementing cooperative programs with the Regional Water Quality Control*

Board, Santa Ana Region and other agencies to improve basin management.

7. *Developing and implementing a salt management program.*
8. *Developing and implementing a groundwater storage management program.*
9. *Developing and implementing conjunctive-use programs.*

The scope of the program elements was developed by WEI to achieve the goals of the OBMP. Each program element contains a series of comprehensive actions

and plans to implement those actions. The OBMP was developed in less than two years.

The OBMP has provided the certainty necessary for the CBWM, IEUA, the parties to the Judgment, and the regulator community to implement the major initiatives of the OBMP rapidly and attract significant outside funding. For example, having a recharge master plan (Program Element 2) with clearly defined financial and reliability benefits integrated with the OBMP, enabled IEUA to obtain \$20 million in grant funding from Proposition 13 and secure an additional \$20 million in conventional municipal funding to construct recharge improvements.



Artificial Recharge in the Chino Basin



Development of the Optimum Basin Management Program, cont'd

The CBWM and IEUA were successful in obtaining about \$60 million in grants from Proposition 13 for the Chino Basin Desalters (Program Element 3). The IEUA was successful in obtaining grants from the Federal government for the recycled water distribution system (Program Elements 2, 5, 6, 7, 8, and 9).

Integrated Regional Water Management Program

The OBMP concept has been extended beyond the Chino Basin in California under the name of *Integrated Regional Water Management Program (IRWMP)*. The State of California has made it mandatory that entities requesting grant funds have an IRWMP.

Value of the OBMP

The OBMP is an example of the development of a successful groundwater management program. The key to the success of the OBMP development was the structured process to define the management actions and the construction of “business deals” to equitably implement these actions.

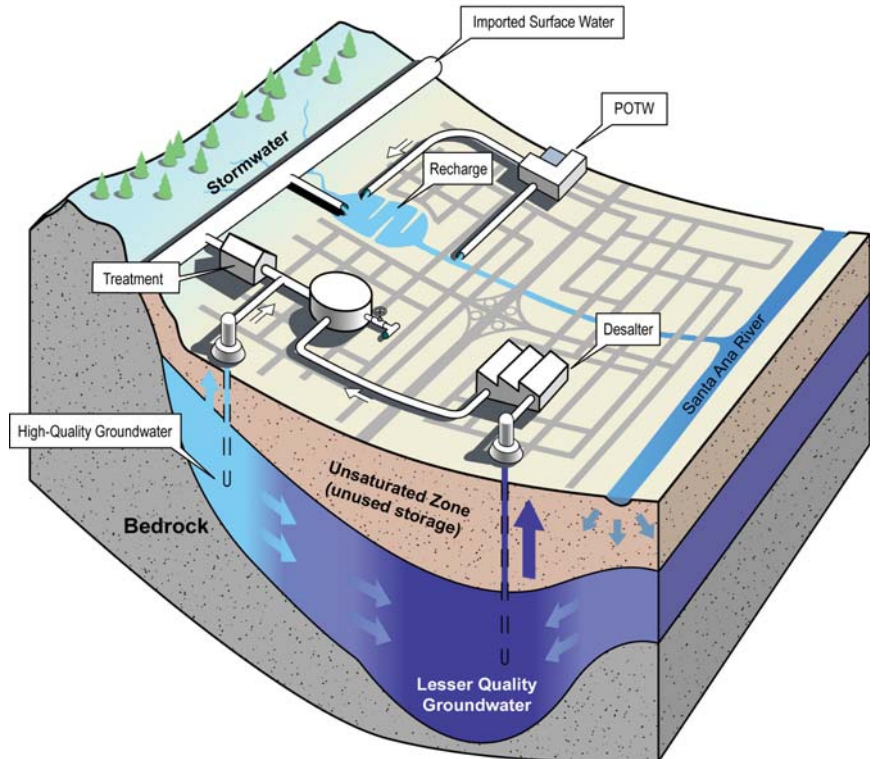
OBMP Stakeholders

The OBMP stakeholders include municipal water retail agencies (Cucamonga Valley Water District, Fontana Water Company, Jurupa Community Services District, Monte Vista Water District, San Antonio Water Company, Santa Ana River Water Company), the cities of Chino, Chino Hills, Ontario, Pomona, and Upland; industrial producers (Reliant Energy, California Steel Industries, and others); the Metropolitan Water

District of Southern California and its subagencies (Inland Empire Utilities Agency, Three Valleys Municipal Water District, Western Municipal Water Agency); the Regional Water Quality Control Board; and approximately 300 agricultural producers.

The OBMP is available for review at:

http://www.cbwm.org/docs/engdocs/obmpphas1rep/Text/OBMP_Ph1_Report.pdf



Storage & Recovery in Chino Basin