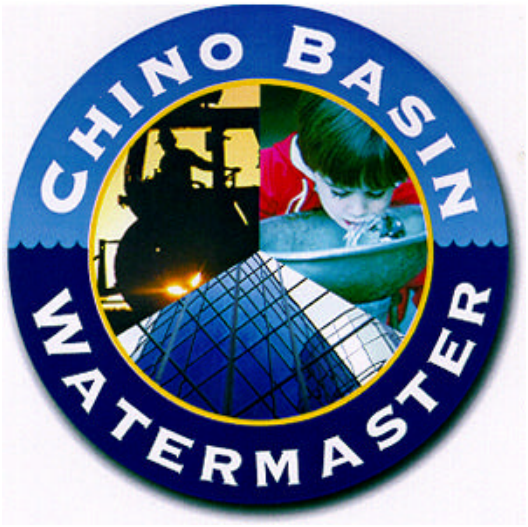
Exhibit A
Chino Basin Watermaster
Status Report No. 4



October 2002

BACKGROUND

On July 13, 2000, the Court approved the Peace Agreement and directed Watermaster to proceed in accordance with the terms of that agreement in order to implement the Optimum Basin Management Program (OBMP). In order to better exercise its supervisory function, the Court also ordered Watermaster to provide periodic status reports concerning the progress of OBMP implementation. This document is the fourth status report. The discussion of Watermaster's progress is organized according to the Program Elements in the OBMP Implementation Plan (Exhibit "B" to the Peace Agreement). Where implementation efforts satisfy the goals of more than one Program Element, the discussion of those Program Elements are appropriately combined.

PROGRAM ELEMENT 1 – DEVELOP AND IMPLEMENT COMPREHENSIVE MONITORING PROGRAM

Groundwater Level Monitoring

Watermaster has three active groundwater level monitoring programs operating in the Chino Basin – a semi-annual basin-wide program, and two semi-monthly programs associated with the Chino-I and Chino-II desalter well fields. A fourth water-level monitoring program associated with land-surface monitoring (see Land Surface Monitoring below) is currently being designed and implemented in Management Zone 1.

Semi-Annual Water Level Monitoring Program. Watermaster initiated the semi-annual basin-wide groundwater level monitoring program in 1999. After completion of the fall 2001 round, Watermaster elected to continue taking semi-annual groundwater level measurements at all measurable wells rather than adopt a key well program involving a lesser number of wells. Watermaster has completed semi-annual groundwater level surveys in 1999, 2000, 2001 and the spring of 2002. The Fall 2002 round began this October and expected completion is December 2002.

Chino I and Chino II Desalter Well Field Monitoring Programs. This monitoring program was added to Program Element 1 after completion of the Peace Agreement. The purpose of this program is to characterize groundwater levels near the desalter wells and the groundwater level impact from the desalters on local private well owners. Watermaster staff collects groundwater level data at about 250 wells twice per month in the immediate areas of the Chino-I and Chino-II Desalter well fields. Watermaster will review these two programs in the next few months to determine if the number of wells, frequency of observation and methods can be changed to reduce the amount of field work to collect the samples.

Watermaster staff continues to collect water-level data from cooperating entities in the other pools as well as from other entities. For example, during the current reporting period Watermaster staff received a relational database from the California Department of Toxic Substances and Control (environmental data collected at the Stringfellow Superfund Site), and has created look-up tables that allow for efficient upload of this

database to the Watermaster database. All data continues to be loaded to Watermaster's relational database.

Groundwater-Quality Monitoring

Per the OBMP Implementation Plan, Watermaster completed a comprehensive sampling and analysis program that involved all private wells that could be sampled, all active appropriative pool wells, some of the wells in the overlying non-agricultural pool; and water quality data at regulated sites in the Basin. This first comprehensive round was completed in the spring of 2001. These data were entered into Watermaster's relational database and were reviewed in the fall of 2001

During Fall 2001 and Spring 2002 Watermaster completed a reduced-scale groundwater quality monitoring survey for wells in the capture zone of the existing and proposed desalter wells. Watermaster staff completed the sample collection on June 6, 2002. Partial funding for this monitoring program was provided through the California State Water Resources Control Board under Section 205(j) of the Federal Clean Water Act, Agreement Number 00-199-250-0. A total of 210 wells were sampled. The water quality samples were analyzed for general minerals, with a focus on TDS and nitrogen species. The collected water quality and water level data is being used to create detailed water quality and water level contour maps. The maps will be used to define groundwater level and quality conditions in the desalter well field area prior to the start up the Chino I expansion and Chino II desalter. The draft report to the SWRCB is due October 15, 2002.

Watermaster staff has updated its relational database with water quality data from the Department of Health Services, DTSC, Regional Board and several site investigations. Maps have been prepared that show the areal extent of contaminant plumes throughout the basin as of summer 2002 and include basin-wide mapping of total dissolved solids (TDS) nitrate, TCE, PCE, perchlorate and other constituents. Some of these maps are included in the October 2002 Initial State of the Basin Report.

A key well program was not developed for groundwater quality because of the complexity of the water quality conditions encountered in the basin during the initial round; and the constantly evolving water quality regulations. Instead, Watermaster will sample all accessible private wells in the southern portion of Chino Basin over the next three years (approximately 150 wells per year), and will continue the cooperative monitoring program described in the Implementation Plan. Watermaster staff used a comprehensive geographical information system and relational database to develop the groundwater quality-monitoring program for 2002/2003. Watermaster is analyzing all groundwater samples for general mineral and general physical parameters. Wells that were not previously sampled and analyzed for constituents that were added to the evolving groundwater quality monitoring program (e.g., hexavalent chromium, silica, barium, et cetera) in 1999/2001, will be sampled for those constituents. Wells within or near the two VOC plumes will be analyzed for VOC's, in addition to the other parameters. All wells will be analyzed for perchlorate due to its widespread presence in the 1999/2001 sampling program. Analysis for 1,2,3-trichloropropane has been added to

the monitoring program for all wells. This chemical was detected in several wells above 50 parts per trillion (old detection limit). In the 2002/2003 monitoring program, a new analytical methodology will be used to achieve a detection limit of 5 ppt for 1,2,3-TCP, which is its California Action Level. The wells chosen for the 2002/03 monitoring program are located between the Chino I desalter well field and the Santa Ana River. These wells were prioritized for 2002/2003 to aid in the development of a monitoring program to demonstrate hydraulic control in the southern portion of Chino Basin. (see the hydraulic control discussion in Program Elements 6 and 7 below).

Groundwater Production Monitoring

The primary activity with regard to production monitoring continues to be the installation of meters of wells operated by members of the Agricultural Pool. Currently, Watermaster counts approximately 570 active agricultural wells. Watermaster's intention is that 400 of these will eventually have operating meters. The other 170 wells are forecast to be inactive or destroyed within two years (this assumption is currently being reviewed and the number of wells that will be metered may change).

On 325 of the 400 active wells that will have meters, Watermaster has or will install a meter. Meters already existed on the other 75 wells, and Watermaster anticipates only needing to repair these meters.

As of August 2002, 165 meters had been installed, and 20 meters had been repaired – a total of 185 meters. The rate of installation is now approximately 15 to 20 meters per month. Watermaster anticipates that the remaining 215 meters will be installed or repaired by June 30, 2003.For the meters installed in FY 2001/02, the average cost per well was $1,600, and that amount is provided for in the FY 2002/03 budget.

All producers in the basin with wells that have working meters provide Watermaster with readings from their meters on a quarterly basis. Watermaster uses a water duty method to estimate production at privately owned wells that produce over 10 acre-ft per year and do not have meters. The basic data that is used to estimate production with the water duty method (type of crop and area in cultivation, number of dairy cows, etc) are provided to the Watermaster quarterly by the private well owners. Watermaster enters metering and water duty data into their production database for subsequent use in estimating groundwater production. Watermaster anticipates that the use of the water duty method to estimate production in the absence of metered production will all but be eliminated when the remaining meters are installed.

The Peace Agreement Implementation Plan included a provision that requires the producers to submit a water use and disposal form that describes the sources of water used by each producer and how that water is disposed of after each use. The water use and disposal form and reporting has not been implemented. Watermaster anticipates discussions and potential implementation during fiscal 2003/2004.

Surface Water Monitoring

Watermaster conducts a surface water monitoring program to measure the water quality of water in recharge basins and the water levels in some of these basins. The purpose of this program is to estimate the volume and quality of recharge. This information will be used in subsequent years to estimate the safe yield of the basin and for other management purposes. Watermaster collects water quality samples at all recharge basins every two weeks during the period October through April when if and storm water is stored in these basins. Very little surface water quality monitoring was done during 2001/02 as there was very little runoff to monitor. Water level data from sensors in the Montclair, Brooks and Turner 1 Basins was downloaded from water level recorders and is currently being processed to estimate recharge during 2001/02. Initial assessments suggest, as expected, that stormwater recharge was substantially below normal due to below normal precipitation. A report that documents this recharge and associated water quality is being prepared by Wildermuth Environmental for Watermaster and will be submitted this month.

Orange County Water District, San Bernardino County and the United States Geological Survey monitor water quality at several stations in the Basin. These data are obtained annually and in the past fiscal year were obtained in June of 2002.

One of the goals of the OBMP is to maximize Chino Basin yield. One of the key components to maximizing yield is to minimize groundwater discharge to the Santa Ana River and, in some reaches of the River, to maximize recharge of the Santa Ana River into the Chino Basin. Watermaster developed a surface water monitoring program for the Santa Ana River that, in conjunction with Watermaster groundwater monitoring programs, will be used to: characterize what reaches of the River are gaining water from or losing water to the Basin; and determine if significant groundwater discharge of Chino Basin groundwater to the Santa Ana River is occurring. Surface water monitoring for the Santa Ana River planned to start in May 2002 was postponed until January 2003 pending the development of a larger comprehensive program involving Inland Empire Utilities Agency, Orange County Water District the Regional Board, San Bernardino County, and the United States Geological Survey (see Program Elements 6 and 7 below).

Land Surface Monitoring

Watermaster staff is developing a multifaceted land-surface monitoring program that consists of three main elements: (1) an aquifer-system monitoring facility located in the southern portion of Management Zone 1 – an area that has experienced concentrated and differential land subsidence and ground fissuring, (2) synthetic aperture radar interferometry (InSAR) across the entire Chino Basin, and (3) benchmark surveys along selected profiles of Chino Basin. The MZ1 Technical Committee was presented with this proposal on September 11 and 25, 2002 and is currently evaluating it.

A major component of the aquifer-system monitoring facility will consist of multiple-depth piezometers and a dual borehole extensometer to monitor the hydraulic and mechanical responses of the aquifer system to different aquifer-system stresses (e.g., pumping at wells). The multiple-depth piezometers are currently under construction, and are

expected to be completed on or around October 15, 2002. Under the proposed monitoring program, for approximately three months following piezometer completion, Watermaster will conduct a reconnaissance aquifer-system testing program by pumping various nearby production wells and monitoring the production at these wells and water levels at the piezometers and other nearby wells. The objective of the reconnaissance testing program is to develop data that will assist in the design of the dual borehole extensometer and the design of a comprehensive aquifer-system testing program that will follow completion of the extensometer. The objective of the comprehensive testing program is to develop data that will assist in the development of a long-term management plan for Management Zone 1. The extensometer is anticipated to be completed in April 2003.

Analysis of InSAR data allows for rigorous delineation of zones of concentrated differential subsidence and potential fissuring on a basin-wide scale. In fiscal 2002/03, Watermaster is proposing to acquire and analyze basin-wide InSAR data every three months on a go forward basis. Watermaster staff also is working with InSAR experts/consultants to develop analytical techniques to improve the resolution of the subsidence images produced in the Chino Basin for the period 1992 through 2002. The goal of this latter effort is to develop a time history of land subsidence in the Chino basin that will reveal the seasonal and long-term ground surface response to historical pumping and recharge.

Watermaster completed an assessment of historical survey information and determined that this information did not have the geographical coverage and was not in a format that could be used to assess historical subsidence or to design a system of benchmarks that could be used to monitor subsidence.

Watermaster has developed a survey plan based on recent InSAR (1992 to 2000) and local surveys (1987 to 2001) and other investigations. Closed-loop differential leveling surveys and electronic distance measurement surveys are proposed to precisely measure vertical land-surface deformation and, in some locations, horizontal displacement along selected profiles of Chino Basin. The leveling surveys would also be used to compare against historical benchmark survey data, where and when available, to estimate historical subsidence. Watermaster is proposing to install Class-A benchmarks along three major survey lines to measure vertical land-surface deformation: a north-south line (Line A-A') running through the known subsidence area along Central Avenue from Foothill Boulevard on the north to the intersection of Soquel Canyon Parkway and Butterfield Ranch Road on the south; a west-east line (B-B') running through the known subsidence area along Philadelphia Street from the Chino Hills on the west to Euclid Avenue on the east; a second west-east line (Line C-C') running through the known subsidence area along Schaeffer Avenue from about Highway 71 on the west to Euclid Avenue on the east; and a third west-east line (Line D-D') running approximately through the Chino I Desalter well field along Kimball Avenue between Highway 71 on the west to Grove Avenue on the east. Line D-D' will be extended eastward through the Chino-II Desalter well field to a location in the Jurupa Mountains when the location of this well field is determined. For lines A-A', B-B', C-C',

and D-D', Class-A benchmarks would be set every ¼ to ¾-miles, and then would be surveyed every two years during the spring.

Watermaster also proposes to install a short survey line (Line E-E') of closely-spaced Class-A benchmarks (200 ft apart) running west to east across the fissure zone along Edison Avenue to measure vertical and horizontal displacement over time. Line E-E' would be surveyed four times over one year to determine any seasonal horizontal and vertical displacements that occur across the known fissure zone. The information obtained from the Line E-E' surveys and other monitoring data may be used to develop and recommend a more refined horizontal monitoring program for the fissure area. The future program may involve installation of tape extensometers or horizontal extensometers across the fissure zone.

The level surveys discussed above would also be used to "ground-truth" the InSAR subsidence estimates, and in the future, evaluate the effectiveness of the long-term management plan. Installation of a portion of the benchmarks was budgeted for the current fiscal year and could commence as early as Spring 2003.

Well Construction, Abandonment and Destruction Monitoring

Watermaster staff reviewed its database and identified 107 wells with an inactive status. Watermaster staff inspected these wells and found that 72 of the wells had been properly abandoned as per DWR standards and that 35 wells were not properly abandoned. This information was submitted to San Bernardino and Riverside Counties for action. As of this date this submittal, the Counties have not followed up with the well owners and required them to be properly abandon their wells. Watermaster staff will follow with Counties and develop a process to have these wells properly abandoned. Watermaster staff will revise its list of inactive wells and will conduct another round of inspection this winter.

Watermaster has not verified with the Counties if former agricultural wells located in areas that have been recently developed were properly destroyed. Watermaster staff will investigate as to whether these wells were properly destroyed and report back to the Watermaster.

PROGRAM ELEMENT 2 – DEVELOP AND IMPLEMENT COMPREHENSIVE RECHARGE PROGRAM

The recharge element of the OBMP is one of the centerpieces of the OBMP since it is through the enhancement of the recharge capacity of the Basin that water in the Basin and available for use can be maximized. Watermaster has made great strides in the implementation of the Recharge elements of the OBMP.

Recharge of 6,500 Acre-ft of Supplemental Water in Management Zone 1

Under the Peace Agreement, the Appropriators agreed to purchase 6,500 acre-feet of supplemental water to recharge in MZ1 each year for five years. In fulfillment of this Agreement, Watermaster began spreading supplemental water in the Montclair Basins for the third year on September 12, 2002. If there is no precipitation between now and December, and if the Basins recharge at their historic rates, Watermaster will complete spreading the entire 6,500 acre-feet by the end of December, 2002. Depending on the year type, Metropolitan may not have replenishment water available after January 1, 2003. Therefore, a coordinated effort is being made to recharge the full amount before January 1.

Recharge Master Plan Complete

Proposition 13 Funding. In August of 2001, Watermaster completed its Recharge Master Plan Phase II Report (Recharge Master Plan), which describes in detail the facilities that will be used to recharge stormwater, supplemental water, and recycled water. Through the Santa Ana Watershed Project Authority (SAWPA), an application was submitted for Proposition 13 funding to implement the Recharge Master Plan. Funding was approved in the amount of $19,000,000.

Bonds Issued for Local Share of Recharge Funding. On October 10, 2001, the Inland Empire Utilities Agency (IEUA), acting as lead agency for the project, filed a Notice of Determination with the San Bernardino County Clerk finding that the projects described in the Recharge Master Plan fall within the scope of the PEIR. In July 2002, IEUA, through the Chino Basin Regional Financing Authority (Authority), issued bonds in the amount of approximately $20,000,000 to pay the local share of implementation of the Recharge Master Plan. Since these bonds were issued to facilitate implementation of the Recharge Master Plan, Watermaster signed an agreement with the Authority whereby Watermaster committed to set assessments at a certain level in order to provide reimbursement to the Authority as it pays the debt service on the bonds. The Court approved Watermaster entering into the Recharge Facilities Financing Agreement on July 8, 2002

Implementation of the Recharge Master Plan

Chino Recharge Basin Facilities Improvement Project. IEUA retained a design consultant in November 2001 to design the recharge facilities improvements described in the Phase 2 Recharge Master Plan. A draft ten-percent design report was submitted

to IEUA and Watermaster in April 2002. Plate 1 illustrates the recharge facilities considered in the ten-percent design report. IEUA, CBWCD, and Watermaster developed a priority list that expedites the construction of the less complicated facilities. Currently, bid documents are being prepared for work including hogging, excavation, pipelines & pump stations, and structures. Separate bid documents are being prepared for contracts for the SCADA System and the rubber dams or drop inlet structures if approval for the rubber dams is not received from the U.S. Corps of Engineers. Rubber dams would be a sole source contract. The design consultant is preparing justification for the sole source purchase and installation of the rubber dams.

As of September 4, 2002, the Project design status is:

- 90% plans completed for Lower Day Creek Basin, College Heights, RP-3, Declez Basin, 8th Street Basins 1&2, and Turner No. 1.
- 60% design plans are completed for Turner Basins No's 2, 3, & 4, Etiwanda Conservation Ponds, and Brooks Street Basin.
- The following basins are at 30% design or less: Banana Basin, Hickory Basin, Ely Basins, Jurupa Basin, San Sevaine Basins No's 1-3, Upland Basin, and Victoria Basin. These basins require limited design since each basin is in good condition to begin with.

Agreement Nears on Allocation of Costs and Operations. Nearly all of the improvements described in the Recharge Master Plan will occur at facilities owned by either the San Bernardino County Flood Control District (SBCFCD) or the Chino Basin Water Conservation District (CBWCD). Because of this, it is important that an understanding be reached among the entities involved in the implementation of the Recharge Master Plan regarding costs and ongoing operations of the facilities. Watermaster, IEUA, CBWCD, and SBCFCD have been engaged in discussions and are close to finalizing an agreement that will govern allocation of costs and the operations of these facilities.

Completion of Chino Recharge Basin Facilities Improvement Project. Watermaster anticipates that construction of the Chino Recharge Basin Facilities Improvement Project will be complete by December 31, 2003.

Recycled Water Recharge. Recycled water is source of supplemental water available to the Chino Basin. The OBMP Phase I report and the Recharge Master Plan anticipated that some of the supplemental water used for recharge would be recycled water. IEUA, in coordination with Watermaster, has been developing a large-scale recycled water reuse program that includes the use of recycled water for recharge in the Chino Basin. On May 6, 2002, IEUA submitted a recharge application to Watermaster for recycled water recharge. IEUA's May 6th recharge application proposes to recharge up to 30,000 acre-ft/yr by surface spreading in recharge facilities that are being developed pursuant to Watermaster's Recharge Master Plan (August 2001). These recharge facilities are currently in design and some of these recharge basins will be

improved/constructed by December 2003. Some of the recycled water recharged will be used as a source of replenishment water, and some will be a source of supplemental water, potentially available as part of a storage and recovery program by the Regional Contractors that are also parties to the Judgment. The IEUA proposal is consistent with the goals of the OBMP and the Recharge Master Plan. In May 2002, Watermaster conditionally approved IEUA's application subject to:

- Certification of *Program Environmental Impact Report for the Wastewater Facilities Master Plan, Recycled Water Master Plan, Organics Management Master Plan SCH No. 2002011116*; and

- The preparation of the detailed engineering reports as described in the proposed DHS Title 22 regulations for planned recharge projects, acceptance of those reports by the DHS and Regional Board, and Watermaster's independent review and acceptance of the reports.

IEUA completed a preliminary limited Title 22 recycled water recharge investigation for the above recharge sites in the Chino Basin. The analysis was limited to estimating the location of monitoring wells and set backs to ensure six-month or longer travel times to the nearest production wells. The results of this work were reported in the *Program Environmental Impact Report (PEIR) for the Wastewater Facilities Master Plan, Recycled Water Master Plan, and Organics Management Master Plan SCH No. 2002011116* that was certified in June 2002. Watermaster staff reviewed and prepared comments on the draft PEIR. IEUA has retained a consultant to conduct a detailed engineering investigation as described in the proposed DHS Title 22 regulations for planned recharge projects.

Currently IEUA produces about 67,000 acre-ft/yr of recycled water and reuses about 5,300 acre-ft/yr for direct uses and 500 acre-ft/yr for groundwater recharge at the Ely Basins. By 2020, IEUA projects that it will produce about 127,000 acre-ft/yr of recycled water and will reuse 42,000 acre-ft/yr in direct uses and could recharge up to 30,000 acre-ft/yr in various recharge basins. The construction of facilities to allow this reuse will be phased and cost as follows:

• Phase 1	2001-03	$21,000,000
• Phase 2	2003-04	$19,000,000
• Phase 3	2004-06	$15,000,000
• Phase 4	2006-10	$21,000,000
• Phase 5	2008-10	$22,000,000

The CEQA work enabling Phase 1 was completed in June 2002 and the Phase 1 facilities are currently being designed. These facilities include backbone transmission pipelines, pump stations and reservoirs. Phase 1 construction will begin later this year. Construction of facilities for new recycled water recharge will start in Phase 2 and new recycled water recharge could occur in late 2004.

Santa Ana River Fully Appropriated Stream Petition and Application

Ten years ago, in November 1992, the Orange County Water District (OCWD) filed an Application with the State Water Resources Control Board (SWRCB) to appropriate stormflows and baseflow from the Santa Ana River below Prado Dam.

Watermaster and the individual Chino Basin parties have observed and participated in this process out of a great concern to preserve Watermaster's right to utilize stormflows and recycled water in the Chino Basin for recharge purposes.

Pursuant to direction from the SWRCB, Watermaster filed its own FAS Petition so that it could continue to participate in the process as an applicant. On July 2, 2002, a hearing was held on the Petition filed by Watermaster. This Petition was granted by the SWRCB and Watermaster's Application was accepted for filing.

The protest period on OCWD's Application expired, and pursuant to the Orange County Accord, Watermaster did not file a protest to this Application. In turn, OCWD has remained consistent in their representations that they do not seek to upset the 1969 Judgment.

On August 15, 2002, a public meeting was held at OCWD regarding the scoping for the CEQA process for OCWD's Application. Watermaster, through counsel, participated in this meeting and reiterated that Watermaster does not object to OCWD's Application, so long as the rights of the Chino Basin under the 1969 Judgment are not altered. That is, the Chino Basin is committed to contribute a minimum of 17,000 acre-ft of water yearly to the Santa Ana River. Any additional water in the Chino Basin can be utilized for recharge purposes.

PROGRAM ELEMENT 3 – DEVELOP AND IMPLEMENT WATER SUPPLY PLAN FOR THE IMPAIRED AREAS OF THE BASIN; AND

PROGRAM ELEMENT 5 – DEVELOP AND IMPLEMENT REGIONAL SUPPLEMENTAL WATER PROGRAM

These program elements focus on the shift of production in the Southern end of the Basin away from agricultural production and toward urban production. This land use conversion will result in a decrease in production in the Southern end of the Basin, which may ultimately lead to rising water issues and loss of hydraulic control. If groundwater levels in the Southern end of the Basin rise too high, then water may "spill" out of the Basin and into the Santa Ana River. Such uncontrolled spillage could reduce the overall Safe Yield of the Basin. Thus, optimization of the use of the Basin requires that the pattern of production in the Southern end of the Basin be properly managed.

Directly tied to this is the impaired ability of producers in the Southern end of the Basin to pump water due to water quality concerns. The ability to compensate for the loss of agricultural production with increased appropriative production is inhibited because of water quality concerns about the water in this part of the Basin. Production in this area thus requires significant water treatment capabilities. This issue is addressed through the construction of desalter facilities.

Status Report on Desalters

In May 2001, the first Chino Basin desalter was completed by the Santa Ana Watershed Project Authority (SAWPA). This desalter was built to have a capacity of up to eight million gallons per day.

In 2000, the California voters passed Proposition 13 (the Water Bond) that included significant funding opportunities to construct additional desalters in the Chino Basin. In order to best take advantage of this funding opportunity, a joint powers agency now known as the Chino Basin Desalter Authority (CDA) was formed to purchase the Chino I Desalter from SAWPA and to construct and operate the Chino I Expansion and Chino II Desalters. The formation of this entity has been described in great detail to the Court in previous progress reports. It has also been the subject of numerous Court Orders.

The Chino I Desalter Expansion Project includes construction of 4.9 million gallons per day (mgd) of expanded treatment capacity in parallel with the existing treatment facilities, as well as associated raw water and product water delivery facilities. The Chino I Desalter was originally constructed by SAWPA to provide a total of 9,200 acre-ft/yr of product water deliveries. The expansion project aims to provide an additional 5,000 acre-ft/yr of water deliveries. The product water will have a TDS and nitrate concentrations of 350 mg/L and 25 mg/L, respectively.

The Chino II Desalter Project includes 10 mgd of new treatment capacity, as well as raw water and product water delivery facilities, in order to provide 10,400 acre-ft/yr of water deliveries at the 350 mg/L TDS and 25 mg/L nitrate quality requirements.

Proposed Reverse Osmosis and Ion Exchange Treatment Adds Benefits

In order to meet the water quality and production requirements described above, treatment process design will utilize reverse osmosis (RO) and ion exchange (IX) treatment technologies. The current design concept includes 4.9 mgd of new IX treatment capacity at Chino I, in parallel with the existing RO treatment capacity, and 6.0 mgd of new RO and 4.0 mgd of new IX treatment capacity at Chino II.

It is important to note that, while IX does not remove as much salt as RO, incorporation of the IX process into the design of Chino I and Chino II benefits the project in several ways:

- IX technology is ideal for removal of target constituents, such as nitrate. Nitrate levels are a major concern in the Chino Basin, and targeted removal of this ion is a benefit to the basin.

- As indicated in the SEIR, the proposed project with RO and IX will remove significant amounts of salt from the basin, consistent with the goals of the OBMP for salt removal and improvement of basin water quality.

- Utilization of IX technology in conjunction with RO provides significant life cycle cost savings (capital and O&M) that allows the project to produce potable water at a competitive price, while still removing significant amounts of salt from the basin.

- Water produced with RO only tends to be corrosive, an issue which is currently being faced at the Chino I Desalter. Utilization of IX in parallel with RO allows blending of the two product streams. This improves the overall blend of minerals (particularly alkalinity) in the product stream, such that it will be less corrosive to the receiving distribution systems, while still meeting TDS and nitrate target concentrations of 350 and 25 mg/L, respectively. Tables in the Draft Final Feasibility Report completed in November 2000, show that, while both scenarios meet the 350/25 quality limits, the addition of the IX blend stream increases the alkalinity and mineral levels to more desirable levels. This greatly reduces the potential for corrosion in the distribution system and impacts to residential/commercial/industrial customers. Note that blending the RO permeate with untreated groundwater violates DHS standards, as the proposed wells have impaired status, and therefore must past through treatment. IX has been approved as an acceptable treatment process for the impaired wells.

Status of Treatment Plant and Raw/Product Water Delivery Facilities Design

Final Design Underway. Watermaster staff has been involved in preliminary review of the above documents and is anticipating more thorough review now that the final reports are complete. Watermaster staff remains active in review and coordination of projects within the Chino Basin. For instance, Watermaster staff recently developed a

comprehensive independent review of the Chino I Desalter to confirm the treatment process design criteria.

The "Revised Draft Water Supply Plan Phase 1 Desalting Project Facilities Report" was completed in June 2000. Since completion of this facilities report, the following documents have also been completed: the November 2000 "Integrated Chino Arlington Desalter System (ICADS) Draft Feasibility Report," December 2001 Chino I Desalter Expansion Preliminary Design Report, and the September 2002 Chino II Desalter Preliminary Design Report. Plate 2 shows the locations of the Desalters, wells, raw water and product water pipelines.

Preliminary design of the Chino I Desalter Expansion is complete and final design is underway. Current final design activities include:

- Site approval and plans/specs preparation for well drilling (further described below)
- Aerial topography for raw water and product water pipelines
- Development of documents to obtain ion exchange equipment
- Final design of well equipping
- Final design of raw and product water pipelines
- Final design of on-site facilities
- Final design of product water pump stations
- Preliminary permitting activities (DHS coordination, TMF Assessment preparation)

The projected schedule is completion of design in December 2002 and project startup and operation in December 2003.

Project Startup Forecast for Mid-2004. The preliminary design of the Chino II Desalter facilities is nearly complete. Comments to the Draft Preliminary Design Report (PDR) have been received from the CDA and it is anticipated that the PDR will be finalized and approved in September/October. The proposal for final design services will be submitted concurrent with completion of the PDR. The projected schedule for design and construction is completion of design in February 2003 and project startup and operation in May 2004.

Well Sites Finalized for Chino I and Chino II Wells

13 New Wells. The project involves construction of approximately 13 new wells to supply groundwater to the treatment plants, including 4 new wells for the Chino I Desalter Expansion and 9 new wells for the Chino II Desalter. The approximate locations for the wells are shown on Plate 2.

Chino I Desalter Sites Chosen. The sites have been finalized for the Chino I Desalter Expansion wells, and negotiations with the property owners is in process. Watermaster staff reviewed these sites for consistency with the OBMP, recommended to the Watermaster that these sites be approved, and Watermaster subsequently approved the sites in June 2002. Note that the final site locations are different than those shown in the SEIR, and as such, an addendum and initial study was prepared and filed, for the new sites. In addition, all necessary documentation has been submitted to the Department of Health Services for review and approval of the proposed sites. Bidding and contract award for the four wells is complete.

Preferred Sites for Chino II Desalter Identified. Identification of preferred sites for the Chino II Desalter wells is underway. Negotiation with property owners has been initiated for some sites. It is anticipated that bidding for the Chino II wells is approximately 1 to 2 months behind the Chino I wells.

Mitigation and Monitoring Plan Requirements Identified

The requirement for a comprehensive mitigation and monitoring plan for water quality and water resource impacts from the proposed well fields was identified by the project SEIR. The framework for this plan was included in the SEIR, and the specifics of the plan are currently being formulated and will be finalized during the construction phase. Watermaster staff will begin a review of the comprehensive mitigation and monitoring plan for water quality and water resource impacts on October 10, 2002.

PROGRAM ELEMENT 4 – DEVELOP AND IMPLEMENT COMPREHENSIVE GROUNDWATER MANAGEMENT PLAN FOR MANAGEMENT ZONE 1

Background to Management Zone 1

Program Element 4 of the OBMP expressly states that "[t]he occurrence of subsidence and fissuring in Management Zone 1 is not acceptable and should be reduced to tolerable levels or abated." Moreover, Program Element 4 describes, with some specificity, the steps to be taken by Watermaster in fulfillment of its management objectives.

Specifically, Program Element 4 of the OBMP (Develop and Implement Comprehensive Groundwater Management Plan for Management Zone 1) calls for a management plan to be developed in order to reduce or abate the subsidence and fissuring problems to the extent that such problems may be caused by production in Management Zone 1 (MZ1). (OBMP Phase I Report 4-25 – 4-27; Implementation Plan p.26.)

The ultimate goal of Program Element 4 is to develop a long-term management plan to meet the goal of reducing and perhaps abating subsidence in MZ1 due to future activities. In relevant part, Program Element 4 states:

> "The occurrence of subsidence and fissuring in Management Zone 1 is not acceptable and should be reduced to tolerable levels or abated. The OBMP calls for a management plan to reduce or abate the subsidence and fissuring problems to the extent that it may be caused by production in MZ1." (OBMP Implementation Plan, p. 26.)

Because of the insufficient technical data and the current level of uncertainty regarding causes and potential solutions, Program Element 4 also specifies that an interim management plan may prudently respond to available information to minimize subsidence from future activities while additional and more complete information is collected and while a long-term plan is evaluated and agreed upon. The interim management plan calls for the following activities:

(1) voluntary modifications to groundwater production patterns;

(2) monitor long-term water balance in MZ1;

(3) determine gaps in existing knowledge;

(4) collect more information (*see* below); and

(5) formulate the long term management plan.

The long-term management plan will be formulated while the interim management plan is in-place based on investigations, monitoring programs and data assessment. It may include modifications to groundwater pumping rates and the locations of pumping, recharge, and monitoring. (Implementation Plan, p.27.)

In order to provide the factual basis for the development of the measures of the long-term management plan, Program Element 1, Part E (Implementation Plan, p.7) specifies that Watermaster will conduct an analysis of historical ground level surveys and remote sensing data with the goal of determining if and how much subsidence has occurred in the Basin.

June 2002 Interim Plan Submitted to the Court

On June 17, 2002, the Watermaster Advisory Committee and Board met and adopted an Interim Plan for the Management of Subsidence (Interim Plan), and Watermaster submitted the Interim Plan to the Court.

August Workshop with Special Referee On Interim Plan

At a hearing on June 19, 2002, Watermaster asked the Court to schedule a workshop with the Special Referee, Technical Expert and Research Attorney in order to give the parties an opportunity to explain the Interim Plan and answer any questions. The Court granted this request and the workshop was held on August 29, 2002 at the Watermaster offices.

The Special Referee, Technical Expert and Research Attorney were fully briefed on the Interim Plan and the progress to date under the Interim Plan at this workshop. A transcript of the workshop is available from Watermaster. The Special Referee issued a Report on this workshop on September 18, 2002, and the parties were given until September 30, 2002 to respond to this Report. A hearing regarding the Interim Plan is scheduled for October 17, 2002.

MZ1 Technical Committee is Established and Begins Work

The MZ-1 Technical Committee convened on September 11 and September 25 to discuss, review, and revise the Draft MZ-1 Interim Plan Monitoring Program (Attachment A). In sum, this monitoring program consists of three main elements: benchmark survey, InSAR, and aquifer-system monitoring. The benchmark surveys and the InSAR analyses will monitor deformation of the land surface. Aquifer-system monitoring will measure the hydraulic and mechanical changes within the aquifer-system that cause land surface deformation. Watermaster staff is revising the draft MZ1 Interim Plan Monitoring Program to incorporate the comments and suggestions of Technical Committee members. The next meeting of the Technical Committee is October 11, 2002.

PROGRAM ELEMENT 6 – DEVELOP AND IMPLEMENT COOPERATIVE PROGRAMS WITH THE REGIONAL WATER QUALITY CONTROL BOARD, SANTA ANA REGION (REGIONAL BOARD) AND OTHER AGENCIES TO IMPROVE BASIN MANAGEMENT; AND

PROGRAM ELEMENT 7 – DEVELOP AND IMPLEMENT SALT MANAGEMENT PROGRAM

Cooperative Programs with Regional Board and other Entities

The "water quality committee" as envisioned in the OBMP Implementation Plan has not been formally constituted. Since the development of the OBMP, Watermaster has worked closely with the Regional Water Quality Control Board, the Department of Toxic Substances and Control, and others to define water quality challenges and to refine the water quality management criteria in the Chino Basin.

In response to the results of Regional Board and Watermaster's (Program Element 1) groundwater quality monitoring programs Watermaster has refined its water quality monitoring to identify and characterize water quality anomalies such as the VOC anomaly north of the Chino I Desalter well field. Watermaster staff is participating in the process to develop TMDL's for Reach 3 of the Santa Ana River and other water bodies in the lower Chino Basin. Watermaster staff is coordinating with the Regional Water Quality Control Board with regard to surface water quality and the Department of Toxic Substances Control with regarding to developing a monitoring program to track perchlorate in groundwater in the Glen Avon area.

Watermaster and Regional Board Propose TDS and Nitrogen Objectives to Promote Maximum Benefit of Waters Available to the Chino Basin

Watermaster staff is working with the TIN/TDS Task Force to revise the subbasin boundaries, and TIN and TDS objectives for the Chino Basin to promote maximum beneficial use of waters in the basin (as opposed to an antidegradation based objectives). In April 2002, Watermaster proposed specific subbasin boundaries, and TIN and TDS objectives for the Chino Basin. The TIN/TDS Task Force and the Regional Water Board have reacted favorably to the Watermaster proposal, have modified it slightly, and it is likely that the modified Watermaster proposal will be included in the Basin Plan update that will occur in 2003.

Cooperative Effort to Determine State of Hydraulic Control

One outstanding issue to resolve regarding the Basin Plan changes is to develop a monitoring plan to evaluate the state of hydraulic control in the southern end of the basin. Hydraulic control is one tool that can be used to maximize the safe yield of the basin. Watermaster staff developed a monitoring program for OBMP purposes and described this effort in the Initial State of the Basin report (October, 2002). The execution of this monitoring program is included in Program Element 1. OCWD and the Regional Board are very interested in the hydraulic control management concept as a means to

protect the water quality of the Santa Ana River. Hydraulic control will become a commitment of Watermaster if the proposed subbasin boundaries, and TIN and TDS objectives for the Chino Basin are adopted. Watermaster, OCWD and Regional Board staffs are working to develop a monitoring program to assess the state of hydraulic control and to provide information to Watermaster to manage future production and recharge. The initial phase of the monitoring program should be implemented this fiscal year. This program will change or adapt over time as new information is developed and will last for several years. The coordination and review of the hydraulic control monitoring data and the development of management programs to achieve hydraulic control have been added to Program Element 6 and 7.

Chino Basin Salt Budget

Watermaster has developed a salt budget tool to estimate the current and future salt loads to the Basin and the salt benefits of the OBMP. This tool is currently being used to establish TDS objectives for the northern part of the Basin based on maximum beneficial use of water available to the region. These projections are based on the water supply plan in the Implementation Plan and include alternative recycled water and state project water recharge scenarios. A letter report describing the salt budget will be submitted to Watermaster by December 31, 2002

PROGRAM ELEMENT 8 – DEVELOP AND IMPLEMENT GROUNDWATER STORAGE MANAGEMENT PROGRAM; AND

PROGRAM ELEMENT 9 – DEVELOP AND IMPLEMENT STORAGE AND RECOVERY PROGRAM

This section summarizes the work accomplished to date and the work planned over the next few months for the Chino Basin Dry Year Yield Program (DYY) and Storage and Recovery (S&R) Program. The DYY Program involves development of a maximum of 100,000 AF of storage. The S&R Program explores potential storage beyond the 100,000 AF developed for the DYY Program with the Metropolitan Water District of Southern California (Metropolitan).

The Dry Year Yield Program is the first in a series of storage and recovery programs that will be implemented to use the estimated 500,000 acre-feet of safe storage capacity, as identified in the Implementation Plan.

Activities Accomplished To Date

The activities accomplished to date are summarized in Table 1 and described more fully below.

Development of an Asset Inventory. An asset inventory was conducted to obtain information on all existing groundwater production, water transmission, and imported water treatment facilities. Specifically, this information included well locations, capacities, and water quality constraints; major water transmission pipeline locations and sizes (greater than or equal to 16 inches in diameter); and available imported water treatment capacity. This information was used to determine the existing Chino Basin in-lieu storage capacity and required facilities for larger in-lieu exchange programs beyond existing capabilities.

The information collected from the asset inventory was summarized in tabular and graphical form. A map was prepared illustrating the information described above. The map provides a quick reference for information on existing facilities and planning of additional facilities required for various S&R program scenarios.

Table1
Summary of Activities Accomplished To Date

Item	Activities
Asset Inventory Development	▪ Gathered additional information on existing groundwater production, imported water treatment, and water conveyance facilities ▪ Completed asset inventory and facilities map ▪ Met with each DYY Program participant to confirm findings
Decision Management Issues Identification	▪ Developed an issues schema ▪ Attended meetings with Metropolitan/CBWM
S&R Facilities Model Development	▪ Conducted preliminary model runs for both DYY and S&R programs ▪ Identified preliminary maximum sized in-lieu S&R program
Potential Facility Sites Investigation	▪ Gathered aerial photos of vacant land ▪ Conducted physical site investigation of potential facility locations ▪ Prepared a report with facts, photos, maps, and field sketches of over 25 potential sites ▪ Held meetings with all DYY Program participants to develop facilities alternatives
Put and Take Rate Analysis	▪ Held meetings with CBWM to refine analysis ▪ Developed a conceptual level rate analysis summarizing proposed put and take rates
Development of New Three-Dimensional Groundwater Model to Assess S&R Proposals and other Basin Management Programs	▪ Conceptual model completed in August 2002 ▪ Model is currently being calibrated.
Draft Treatment Technologies Technical Memorandum Preparation	▪ Development of Draft TM summarizing recommended treatment strategies for specific groundwater contaminants

After the preliminary asset inventory was prepared, meetings were held with each Dry Year Yield Program participant to confirm the findings. Significant findings are listed below:

- Total groundwater production capacity of the appropriators with in-lieu potential surveyed is 350,000 AF, including production capacity in other basins.
- Total Chino Basin groundwater production capacity is 264,000 AF.
- Total unimpaired (by water quality) groundwater production capacity is 225,000 AF.
- Total Chino Basin imported water treatment capacity is 226,000 AF.

Identification of Decision Management Issues. For the DYY Program, coordination of management issues between the appropriators and Metropolitan will be a key component. Black & Veatch, with assistance from the Watermaster, prepared an issues

schematic that will be used to develop a DYY Program for mutual benefit of all parties. Key management issues are summarized on Figure 1.

Black & Veatch has also met with representatives from Metropolitan regarding development of the DYY program as well as the potential for a future larger program with Metropolitan.

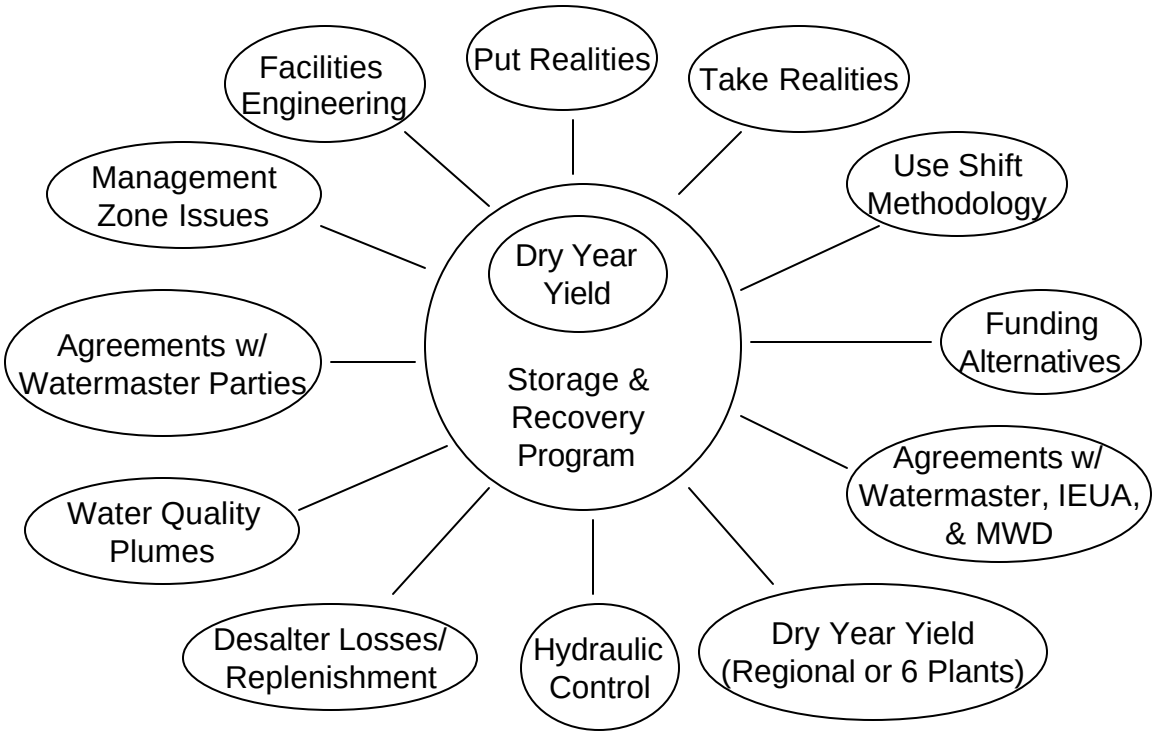


Figure 1. Issues Schematic

Development of Storage and Recovery Facilities Model. Black & Veatch developed a model to accurately and efficiently evaluate potential S&R Program scenarios. The information collected from the asset inventory combined with the most up-to-date water supply plans for the appropriators with in-lieu potential was used to determine the maximum program sizes under varying put/take terms and groundwater management assumptions. The model predicts water supply plans for each agency over the next 20 years and estimates the additional facilities and associated costs, if any, required to implement a specific sized program.

In particular, the model was used to evaluate both the 100,000 AF DYY Program and to determine the maximum potential in-lieu S&R Program. Preliminary results indicate that the 100,000 AF DYY program can be implemented with the facilities identified in the

proposal to Metropolitan, dated January 2002. Also, assuming a five-year put and a three-year take cycle, the maximum sized in-lieu program within the Chino Basin would be approximately 220,000 AF. However, if a five or seven year take term was realized, the maximum sized program could be as high as 504,000 AF.

During a put year, imported water is purchased in-lieu of groundwater production. Likewise, during a take year, groundwater production is increased in-lieu of purchasing additional imported water. The size of an in-lieu storage and recovery program is limited by the imported water treatment capacity in put years or the groundwater production capacity in take years. Assuming the put and take terms are equivalent, if the imported water treatment capacity exceeds the groundwater production capacity, then the groundwater production capacity limits the size of the in-lieu storage and recovery program.

The facilities required to implement the 100,000 AF DYY Program will be financed with the funding provided by Metropolitan. These facilities may include three to six ion exchange (IX) facilities that would treat poor quality groundwater and up to eight new wells that would pump either good or poor quality groundwater. Additional facilities required to implement the 220,000 AF program may include approximately 13.5 miles of imported water transmission pipelines, as well as packed tower aeration and granular activated carbon treatment facilities. Detailed facility requirements and locations for both the DYY Program and larger S&R Program will be presented in the Preliminary Design Report that will be developed over the next few months.

Investigation of Potential Facility Sites. Black & Veatch has conducted preliminary aerial photo and site investigations for potential IX and well facility locations around the Chino Basin. Preliminary facility locations were identified and presented at steering committee meetings. General criteria for new treatment facility sites included distance from source wells, availability of vacant land, and distance from the existing non-reclaimable wastewater (NRW) line. General criteria for new well sites included availability of vacant land, groundwater quality constraints (new production wells will be located in areas of unimpaired water quality), and spacing between other wells.

Analysis of Dry Year Yield Put and Take Rates. An Analysis of Dry Year Yield Put and Take Rates was conducted to identify financial incentives for appropriators participating in the Dry Year Yield Program. The preliminary analysis showed that if an agency were to participate in the Dry Year Yield Program during put or take years, the equivalent cost of water would be less than the current availably supply. For the purposes of this analysis, the term “rates” identifies a financial relationship, as opposed to the rate at which groundwater may be withdrawn from the Chino Basin. Black & Veatch is currently working with Watermaster staff to determine the most appropriate methodology for sharing the benefits of the DYY Program and S&R Program.

Development of Draft Treatment Technologies Memorandum. Black & Veatch has developed a preliminary Draft Treatment Technologies Technical Memorandum. This memorandum summarizes available treatment technologies for the groundwater contaminants commonly found in the Chino Basin and presents preliminary

recommendations for treatment strategies. The information developed in this memorandum will be used to determine the required treatment systems necessary to implement S&R programs where pumping of poor quality groundwater is required. This memorandum will be included as an appendix to the Preliminary Design Report.

CEQA Coordination. A facilities report was developed for CEQA coordination. This report summarized the groundwater treatment facilities, production wells, pipelines, and waste disposal pipelines required for implementation of the DYY Program. The major equipment and power requirements as well as operations requirements for each of the facilities were identified in the facilities report. Specific locations for each of the proposed facilities were also identified.

Activities Planned For Next Few Months

The activities planned for the next few months include further development of the DYY Program and the estimation of the "operational storage requirement" and "safe storage" as defined the Peace Agreement Implementation Plan. In addition, S&R Program activities will include development of facility requirements and cost estimates, groundwater modeling of the S&R scenarios, and development of a financial incentive plan for all S&R Program participants. Specific tasks planned are summarized below.

Finalize Storage and Recovery Scenarios. Agency water supply plan modifications during put and take years will be finalized for both the DYY and S&R programs. The estimated shifts between groundwater and imported supplies will be identified, and the facilities required for the S&R Program will be developed.

Confirm Locations of Dry Year Yield Facilities. The December 2001 Draft Conceptual Facilities Descriptions and Scope of Work Report identified the initial facility preferences of the DYY Program participants. Since March of this year, each of the participants has been reevaluating their preliminary facilities and locations preferences identified in the December 2001 Report. Final verification of the facilities and their locations is anticipated in the next two weeks.

Develop Preliminary Design Report. Preliminary facility layout drawings showing pipe alignments, and treatment facility locations and connections to the NRW line will be developed. Also, preliminary layout drawings of each treatment facility will be developed. An operations and implementation plan will also be developed during this period.

Groundwater Modeling. Black & Veatch is working with Wildermuth Environmental, Inc., to conduct the groundwater modeling for both the DYY and Storage & Recovery Programs. This model will show the effects of the aforementioned programs on groundwater quality and flow in the Chino Basin.

Develop Financial Incentive Plan. Black & Veatch will continue working with Watermaster on a proper approach for delivering financial incentives to Chino Basin appropriators. The put and take rate analysis will be finalized during this period.

Estimate *Operational Storage Requirement* and *Safe Storage.* Operational storage and safe storage are terms that were defined in the OBMP Phase 1 report and the OBMP Implementation Plan. The operational storage requirement is the storage or volume in the Chino Basin that is necessary to maintain safe yield. Safe storage is an estimate of the maximum storage in the Basin that will not cause significant water quality and high groundwater-related problems. A third term, safe storage capacity, can be developed from these two terms to set the upper bound on the unused storage capacity that can be allocated to a storage and recovery program. The safe storage capacity is the difference between safe storage and operational storage requirement and is the storage that could be safely used by producers and Watermaster for storage programs. Currently, Watermaster is assuming the safe storage capacity is about 500,000 acre-ft. The allocation and use of storage in excess of safe storage will presumptively require mitigation, that is, mitigation must be defined and resources committed to mitigation prior to allocation and use. Watermaster will develop estimates of the *operational storage requirement* and safe storage as defined in the Peace Agreement Implementation Plan before June 30, 2003.

SUMMARY OF FACILITIES DEVELOPED THROUGH OBMP IMPLEMENTATION

Implementation of the OBMP has led to the development of a number of new facilities. For Program Element No. 2, facilities developed include modifications to existing recharge basins and new imported water turnouts. Table 2 presents the groundwater recharge improvement projects and Plate 1 presents the locations of these facilities. Under Program Element Nos. 3&5, facilities developed include an expansion of the existing Chino I Desalter, construction of a new Chino II Desalter, and appurtenant source water pipelines, wells, finished water pipelines and pump stations. Table 3 summarizes the Chino Basin Desalter Authority (CDA) facilities and Plate 2 presents the locations of these facilities. Program Element Nos. 8&9 includes development of new ion exchange, well, and turnout facilities for the DYY Program. Table 4 and Plate 3 provide a summary of the DYY facilities and their locations, respectively. Plate 4 presents the locations of the facilities currently under development through implementation of the OBMP.

Table 2
Groundwater Recharge Improvement Projects

Recharge Facility Improvement Projects	Mgmt. Zone	Max. Recharge Capacity (AFY)	Preliminary Cost Estimate ($Million)
Brooks Street Basin	1	6,900	1.4
College Heights Basins	1	8,100	2.3
8th Street Basins	1	5,200	1.9
Montclair Basins	1	19,500	--
Upland Basin	1	10,700	2.4
Ely Basins	2	10,700	3.6
Etiwanda Spreading Grounds	2	10,700	--
Hickory Basin	2	6,400	1.0
Jurupa Basin	2	1,300	6.6
Lower Day Basin	2	5,200	1.1
San Sevaine 1,2,& 3	2	26,300	0.9
San Sevaine 4 & 5	2	9,100	--
Turner 1 Basin	2	2,700	0.8
Turner 2,3, & 4 Basins	2	7,000	1.9
Victoria Basin	2	7,100	2.0
Wineville Basin	2	<500	
Banana Basin	3	5,200	1.2
Declez Basin	3	2,400	1.2
Etiwanda Conservation Pond	3	8,000	1.2
RP-3 Ponds	3	12,000	4.0
TOTAL		**165,000**	**33.5**

Table 3
Chino Basin Desalter Authority (CDA) Facilities

CDA Facility	Cost ($Million)
CHINO I DESALTER	
IX Trtmt Plant Expansion (5.6 MGD)	4.8
Pump Stations	2.3
Pipelines	7.4
Supply Wells for Trtmt Plant Expansion	4.0
Subtotal	**18.6**
CHINO II DESALTER	
RO & IX Trmt Plant (11.6 MGD)	28.3
Pump Stations	3.8
Pipelines	4.5
Wells	8.7
Subtotal	**45.3**
TOTAL ESTIMATED COST	**63.9**

Table 4
Dry Year Yield Program Facilities

DYY Facility	Production	Estimated Cost ($Million)
ION EXCHANGE FACILITIES	**AFY**	
Southwest A (Chino)	3,000	4.1
Northwest B (Chino/MVWD)	2,200	2.1
Southwest C (Chino Hills)	2,200	2.3
Southwest D (Chino Hills)	2,000	2.1
North Central (CCWD)	3,000	3.9
Southwest B (MVWD)	1,500	1.4
Central (Ontario)	3,000	5.3
West (Pomona)	3,000	1.7
Northwest (Upland)	3,000	3.2
Subtotal		**26.2**
WELL FACILITIES	**gpm**	
CCWD New Well 1	2,000	1.0
CCWD New Well 2	2,000	1.0
MVWD New Well 1	1,500	1.0
Ontario New Well 1	2,000	1.0
Ontario New Well 2	2,000	1.0
Ontario New Well 3	2,000	1.0
Ontario New Well 4	2,000	1.0
SAWC New Well 1	2,000	1.0
Subtotal		**8.0**
MWD TURNOUTS	**cfs**	
New MWD turnout at Etiwanda	40	1.0
CB-11TB Reactivation	30	TBD
CB-15T Reactivation	30	TBD
Subtotal		**1.0**
TOTAL ESTIMATED COST		**35.2**

<<<Insert Plate 1. Proposed Groundwater Recharge Improvement Projects>>>

<<<Insert Plate 2. CDA Facilities>>>

<<<Insert Plate 3. Dry Year Yield Program Facilities>>>

<<<Insert Plate 4. Summary of New Facilities Developed Through OBMP Implementation>>>