

CHAPTER 7 ALTERNATIVE WATER SUPPLIES

Alternative water supplies available to the CDA member agencies include the compliment of water supplies in each CDA retail agency portfolio that are available through system interconnections. In particular, several CDA retail service agencies have imported water available through the Inland Empire Utilities Agency (IEUA) and the Western Municipal Water District (WMWD). Also, certain agencies have access to recovered groundwater produced at the Arlington Desalter. Expanded groundwater production capacity is also available from the Chino Basin Dry Year Yield Program Facilities.

7.1 WATER SYSTEM INTERCONNECTIONS

Interagency Transfer of Water

The OBMP (1999)¹ and the Peace Agreement (2000)² provides for interagency transfer of water. Under the auspices of the CBWM, all water purveying agencies have interconnections that allows for the transfer of potable water from one agency to another in case of emergency. Also, the aforementioned agreements allow for intra-basin transfers of stored water in the Basin aquifer from one agency to another.

The CDA Interconnections and transfers

With interconnections at the respective Desalters, the CDA has the capability of transferring “excess” water produced by the Desalters. The CDA is required by the JPA Agreement to produce a minimum of 24,600 AFY of desalted water. Surplus water available from the Desalters in excess of the amounts described in the Agreement may be sold by the CDA. The price of desalted water delivered from the Facilities shall be a uniform per acre-foot amount for all CDA members (Purchasers), and will be set to recover all fixed and variable cost incurred by the CDA. Also, there is to be no additional costs for wheeling or transportation of water made available by the CDA to each Purchaser’s designated point of delivery. The price of desalted water sold to entities which are not Purchasers and which have not become Members of the CDA shall be determined in the sole discretion of the CDA Board. Thus, water wheeled to outside agencies is accomplished by the CDA Board and not by an individual CDA Member.

Members of the CBWM Appropriative Pool and the State of California have the first priority right to purchase “excess” desalted water developed by the Chino II Desalter and the Chino I Expansion on an equal basis, pursuant to a water supply contract. The terms and conditions for the purchase or sale of water from the Chino I Desalter areas provided through separate agreement.³

¹ CBWM OBMP, August 19, 1999, p. 4-33

² CBWM Peace Agreement Chino Basin, June 29, 2000, p. 47 – 49.

³ CBWM Peace Agreement Chino Basin, June 29, 2000, p. 47.

7.2 ALTERNATIVE WATER SUPPLIES

Imported Water

As a member of MWD, IEUA provides wholesale State Water Project (SWP) water to the Water Facilities Authority (WFA) that operates a water purification plant located at Benson Avenue and 18th Street in the City of Upland, CA. Three CDA entities are members/owners of the WFA, (the cities of Chino, Chino Hills and Ontario) and receive treated SWP water from the WFA water purification plant.

As a member of MWD, WMWD provides wholesale Colorado River Water (CRW), treated as potable water, to the City of Norco, through the City of Corona's potable water distribution system. The City of Norco also has access to water from the Arlington Desalter, located near the SAWPA office in Riverside, CA. Colorado River water is not allowed in the Chino Basin.

Groundwater

Groundwater is the primary source of potable water for all CDA agencies. All entities have potable water wells that extract water from the aquifers in their areas. The cities of Chino, Chino Hills and Ontario, the JCSD and the Santa Ana River Water Company all pump water from the Chino Basin. The City of Norco has groundwater wells that extract water from the Temescal Basin on the west side of the Santa Ana River.

Recycled Water in Chino Basin

Recycled water from the IEUA Regional Water Recycling facilities produce a Title 22 quality water that is suitable for all water needs except, direct potable use, this valuable commodity is now available to the cities of Chino, Chino Hills and Ontario, and may be available to JCSD in the future.

The recharge of water in the Chino Basin has taken on new intensity with the completion of the Chino Basin Facilities Improvement Program (CBFIP). The CBFIP provided for; 1) the redevelopment of 16 existing groundwater recharge sites, the development of two new sites (totaling 42 recharge basins), 2) the construction of two new pump stations and two pressure pipelines, and 3) five rubber dams and three drop inlets to enhance the recharge of storm, imported and recycled water. A Supervisory Control and Data Acquisition System (SCADA), remotely controls and monitors the recharge system. The recharged storm water, imported and recycled water are accounted for, and allocated to, the respective retail agencies who are members of the CBWM.

Current Water Management Strategies

IEUA's water management goals are as follows:

- Continue development of the groundwater recovery program by:

- Continuing pumping and treating 24,000 AFY of brackish groundwater by Desalters 1 and 2.
 - Complete phase III expansion of the groundwater recovery program by adding approximately 16,000 AF of capacity, giving a total of 40,000 AFY of capacity by 2012.
 - Pumping and treating plumes of contaminated water to a potable water quality and distribute the water for beneficial purposes.
 - Continue wellhead treatment via existing and future Ion Exchange Facilities (see also conjunctive use program below).
- In 2007, IEUA and its retail agencies completed a Recycled Water Business Plan which outlined a strategy that would achieve maximum reuse of all available recycled water.
 - The Recycled Water Business Plan will increase recycled water connected capacity to 50,000 AFY (35,000 AFY for direct reuse, 15,000 AFY for groundwater recharge).
- Expand the 100,000 AF existing Chino Basin Groundwater conjunctive use program by a minimum of 50,000 AF. This strategy will provide dry year water supplies for the Chino Basin and parts of the Santa Ana River Watershed.
 - Expand and improve groundwater storage and extraction capabilities.
 - Increase the 25,000 AFY storage capacity by 15,000 AFY with Aquifer Storage Recovery wells and conveyance facilities.
 - Increase the 33,000 AFY extraction capacity by 17,000 AFY with new wells, Ion Exchange Facilities, Aquifer Storage Recovery wells and conveyance facilities.
 - Continue negotiations with MWD on expanding the conjunctive use program to include a negative capacity of -100,000 AFY and a maximum capacity of +300,000 AFY.
- Achieve maximum capture, recharge, and use of all available stormwater;
 - Continue to implement the Chino Basin Facilities Improvement Program, which could increase stormwater recharge by 1,000 AFY to 3,000 AFY.
 - Implementing programs to comply with the San Bernardino County's recently adopted MS4 permit could increase stormwater recharge by 5,000 AFY to 10,000 AFY.
 - Implement the Chino Basin Recharge Master Plan Update and increase recharge basin capacities and inlet capacities, which could increase stormwater recharge by 10,000 AFY to 18,000 AFY.
 - Continue to expand and implement Low Impact Development programs:
 - Green roofs, infiltration basins/trenches, pervious pavement, detention ponds, swales/biofilters, rainwater harvesting and landscaping are methods of capturing stormwater/runoff on site.

- Long Term Water Use Efficiency Plan – Implement an effective-innovative water use efficiency program that will continue to maximize efficient water use indoors and expand efficient water use outdoors. IEUA and its retail agencies have outlined strategies for achieving demand reduction in indoor and outdoor uses (Chapter 4). Implementation of these strategies will significantly contribute to the region’s efforts to diversify its water portfolio. The strategies included in the Plan are designed to meet the requirement of the following:
 - California Urban Water Conservation Council’s Best Management Practices
 - Assembly Bill 1420 Statute
 - Governor’s call for 20% per capita water use reduction by 2020
 - Future conservation legislation and regulation

All of the above concepts have been discussed in previous chapters and all help to minimize dependence upon imported water supplies. By emphasizing local water supply development within the service area, the region has developed and will continue to develop a cost-effective supply that reduces the dependence on imported supplies.