

CHAPTER 1 INTRODUCTION

The Chino Basin Desalter Authority Urban Water Management Plan 2005 (CDA UWMP) was prepared by Inland Empire Utilities Agency (IEUA) (an ex-officio member of the CDA) as a companion document to the IEUA UWMP 2005 (see Appendix I). This is the initial CDA UWMP, 2005.

1.1 CHINO BASIN DESALTER AUTHORITY

The “Chino Basin Desalter Authority” (CDA) was formed under a Joint Exercise of Powers Agreement (JPA) on September 25, 2001 (See Appendix A). The Jurupa Community Services District (JCSD), the Santa Ana River Water Company (SARWC), the Cities of Chino, Chino Hills, Norco and Ontario and the Inland Empire Utilities Agency (IEUA) are members of the CDA. The CDA purifies brackish groundwater extracted from the lower Chino Basin with the Chino 1 and 2 Desalter facilities and distributes the drinking water to member agencies.

A six-member Board of Directors governs the CDA; each director is designated and appointed by the governing body of the entity that he or she represents. IEUA’s representative serves as an ex-officio member. Characteristics of each of the CDA member agencies are summarized in Table 1-1.

Table 1-1 CDA Member Agency Characteristics

CDA Members in San Bernardino County and Inland Empire Utilities Agency Service Area	
City of Chino	The City of Chino serves water to approximately 76,000 residents of the City and some unincorporated areas in San Bernardino County.
City of Chino Hills	The City of Chino Hills provides water to approximately 78,000 residents of the City.
City of Ontario	The City of Ontario supplies water to approximately 163,000 residents of the City and some unincorporated areas of San Bernardino County. The City of Ontario also serves a small portion of the City of Rancho Cucamonga.
Inland Empire Utilities Agency	The IEUA serves as an ad-hoc member of the CDA Board; and provides assistance with financial commitments, seeking grant funds, loans, etc. The Agency also assists with design, bidding and construction.
CDA Members in Riverside County and Western Municipal Water District Service Area	
City of Norco	The City of Norco supplies water to approximately 25,500 residents of the City. The areas that receive water from CDA are within the Jurupa Community Service Water District, usually the northern portion of the District.
Santa Ana River Water Company	The Santa Ana River Water Company provides water to a population of 7,920 in northwestern Riverside County. The SARWC will receive water from CDA Desalters 1 and 2.
Jurupa Community Services District	The Jurupa Community Services District provides water to a population of 70,000 residents in its service area, plus portions of the City of Norco.

The cities of Chino, Chino Hills, and Ontario are located in San Bernardino County and are entirely within the boundaries of the IEUA. The Jurupa Community Services District (JCSD), the Santa Ana River Mutual Water Company (SARWC), and the City of Norco are within the Western Municipal Water District (WMWD), located in Riverside County. Both IEUA and WMWD are members of the Metropolitan Water District of Southern California (MWD) with responsibility to provide wholesale imported water to the retail agencies within their respective service areas. The IEUA and WMWD boundaries are shown in Figure 1-1. Figure 1-2 shows general locations of CDA entities.

A six-member Board of Directors governs the CDA. The Board selects from the membership of the Board, a Chairperson and Vice-Chairperson. The Board also appoints a Secretary who may be a Director. The Treasurer is the Executive Manager of Finance and Administration of IEUA, who serves in the combined office of Treasurer and Auditor.

As provided in the Joint Powers of Agreement, each member of the Board is entitled to vote. A voting Member's vote is weighted according to the relative proportion of each Member's existing firm commitment to purchase water proportional to the total quantity of water then available for purchase from the CDA by all of its Members. The weighting of votes as initially established is shown in Table 1-2.

Table 1-2 Weighted Voting % by Commitment to Purchase Water

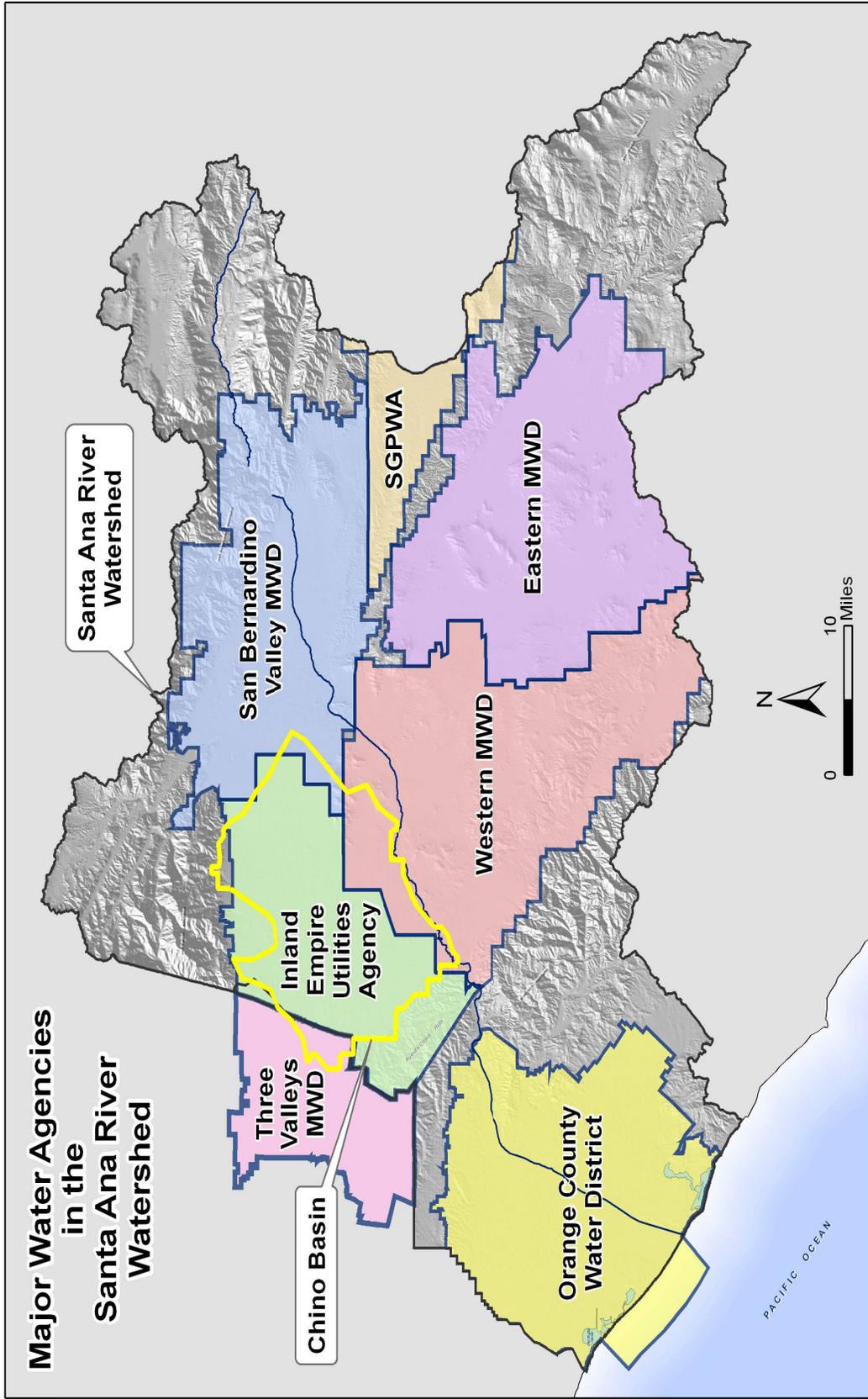
Member Agency of CDA	Weight Vote	Commitment to Purchase AFY
Jurupa Community Services District	33.33%	8,200
City of Chino	20.33%	5,000
City of Ontario	20.33%	5,000
City of Chino Hills	17.07%	4,200
Santa Ana River Water Company	4.88%	1,200
City of Norco	4.07%	1,000
TOTAL	100%	24,600

Source: Joint Exercise of Powers Agreement (Sept. 25, 2001)

Bonds were issued by the CDA pursuant to an Indenture of Trust, dated as June 1, 2004, by and between the Authority and U.S. Bank National Association, as Trustee, and will be payable from the sources described in the bond documents. The issuance of Bonds totaled \$110,500,000, due June 1, 2035.¹ The bonds were issued to refinance the 2002 Chino I Desalter Project by (i) refunding the

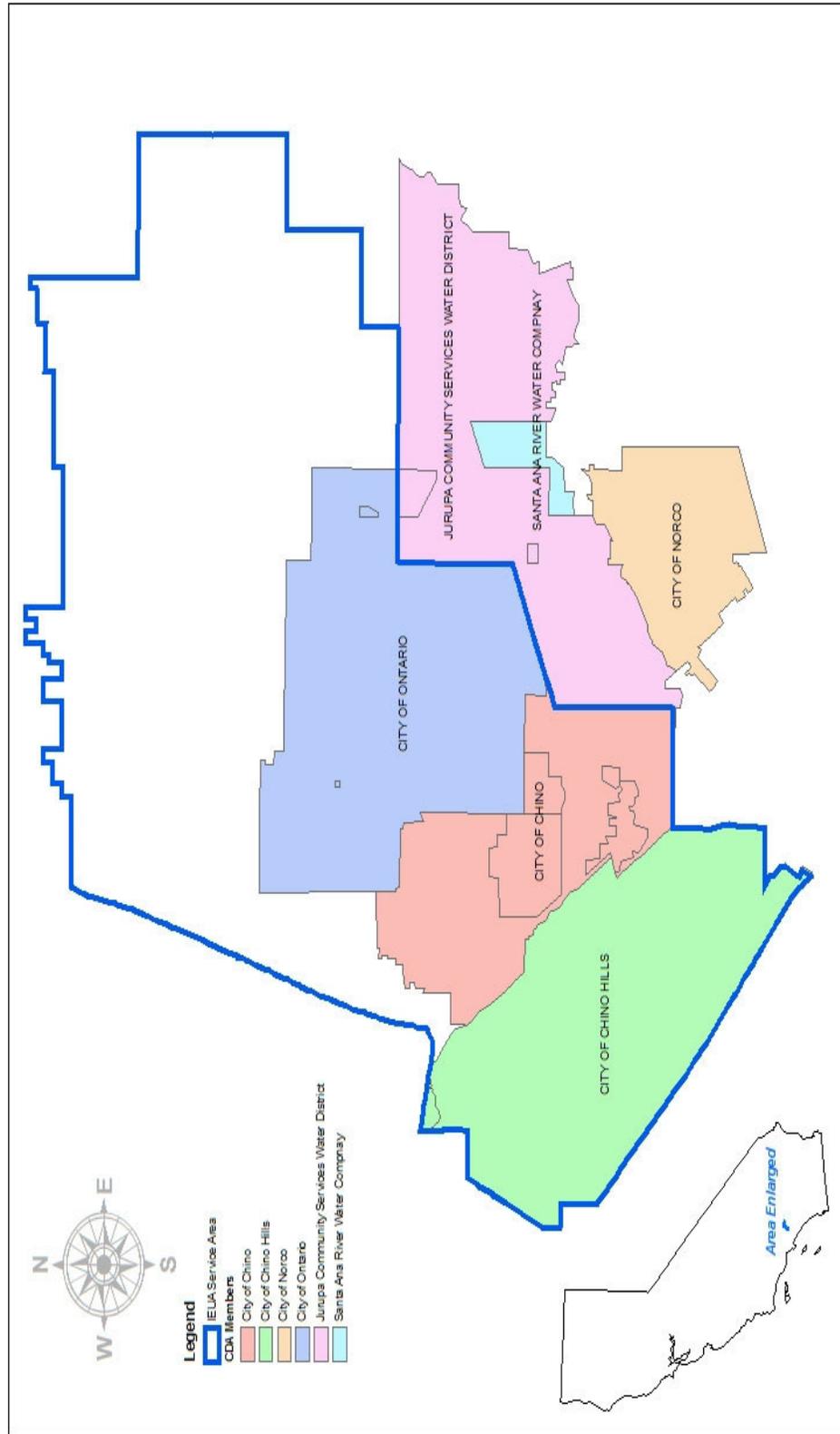
¹ Chino Basin Desalter Authority Adjustable Rate Desalter Revenue Refunding Bonds Series 2004A-1 and Series 2004A-2, June 2004.

Figure 1-1 IEUA and WMWD Boundaries Relative to the Chino Groundwater Basin



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Figure 1-2 Service Areas of CDA Entities



\$100,000,000 outstanding principal amount of the Chino Basin Desalter Authority Variable Rate Demand Desalter Revenue Bonds, Series 2002A, (ii) to provide additional financing for the 2002 Project, (iii) to acquire a debt service reserve fund surety bond, and (iv) to pay the cost of issuance for the Bonds.

1.2 URBAN WATER MANAGEMENT PLANNING ACT

The CDA UWMP 2005 (Plan) is consistent with the State of California Water Code Sections 10610 through 10656, known as the Urban Water Management Planning Act (Act). Originally enacted in 1983, the Act requires that every urban water supplier (providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually) prepare and adopt an urban water management plan. The Act requires urban water suppliers to prepare plans that describe and evaluate reasonable and practical efficient water uses, recycling and conservation activities. These plans must be filed with the California Department of Water Resources every five years.

Since 1983, many amendments have been added to the Act (the most recent occurring in 2004). These amendments require additional actions addressing urban water management plan preparation and consideration for such issues as: metering, drought contingency planning, and water recycling. A copy of the Urban Water Management Plan Act is included in Appendix A of the IEUA UWMP, June 2005.

1.3 DWR GUIDANCE

The Department of Water Resources (DWR) has provided detailed background information to guide water districts in developing the 2005 Urban Water Management Plans. Appendix G of the IEUA UWMP 2005 has a copy of DWR's check list for preparing an UWMP in compliance with the water code. Additional information can be found on DWR's web page (www.dwater.ca.gov). IEUA staff has followed the DWR guidelines and checklist in the development of both the CDA and IEUA Urban Water Management Plans. In addition, IEUA has contacted DWR² directly to solicit guidance on this CDA UWMP.

1.4 REGIONAL WATER AGENCY COORDINATION

The six CDA voting agencies are involved in water management within the lower Chino Basin. These include JCSD, SARWC, and the cities of Chino, Chino Hills, Norco and Ontario. Each of these agencies is preparing their own UWMP that describes the water supplies and urban development within both residential housing, industrial, and commercial expansion that is occurring within their respective service areas. The Chino Basin Optimum Basin Management Plan (OBMP), dated August 19, 1999, guides the development of water resources in

²Telephone conversation with David Inouye of DWR

the area. Other key agencies involved in the CDA water supply project include: the Inland Empire Utilities Agency (IEUA), the Western Municipal Water District (WMWD), the California Regional Water Quality Control Board (RWQCB), the Chino Basin Watermaster (CBWM), the Santa Ana Watershed Project Authority (SAWPA), and the Metropolitan Water District of Southern California (MWD). Each of these agencies is discussed in detail in the IEUA UWMP.

1.5 CITY AND COUNTY NOTIFICATION OF CHANGES TO THE UWMP

As required by amendments to the Urban Water Management Planning Act, water suppliers are required to send notifications to all cities and counties in the supplier's service area that an Urban Water Management Plan is being prepared or updated, and that they are invited to provide comments during the preparation of the document or the updating process. The notice of preparation was mailed to 24 agencies in San Bernardino and Riverside Counties on November 2, 2005. A copy of the notification is included in the CDA UWMP 2005, Appendix B. On September 27, 2005, IEUA distributed to members of the CDA and WMWD a CD containing the draft CDA UWMP for review and comment.

1.6 CDA COORDINATION WITH LOCAL AGENCIES

The CDA (assisted by IEUA as an ex-officio member) is required to coordinate UWMP preparation with local and regional agencies by soliciting their input during the planning process for each UWMP. Table 1-3 provides a list of local and regional agencies and their level of involvement in preparation of this CDA UWMP 2005.

1.7 STRATEGIC OBJECTIVE FOR GROUNDWATER MANAGEMENT

The principal drainage for the Chino Groundwater Basin is the Santa Ana River. It flows sixty-nine miles across the Santa Ana Watershed from its origin in the San Bernardino Mountains to the Pacific Ocean. The Santa Ana River enters the Basin at the Riverside Narrows and flows along the southern Chino Basin boundary to the Prado Flood Control Reservoir where it is eventually discharged through the outlet or spillway of the Prado Dam and ultimately to the Pacific Ocean. Several intermittent streams in the Chino Basin drain to the River. Year-round flow occurs along the entire reach of the Santa Ana River due to surface inflows at Riverside Narrows, discharges from municipal water recycling plants to the Santa Ana River, and rising groundwater.

Table 1-3 Agencies Involved in CDA UWMP 2005 Preparation

	Participated in CDA UWMP Development	Commented on CDA UWMP Draft	Attended Public Meetings	Sent Notice of Preparation	Received Copy of Draft CDA UWMP	Sent Notice of Intention to Adopt
MWDSC				√		√
Inland Empire Utilities Agency	√	√	√	√	√	√
City of Chino	√		√	√	√	√
City of Chino Hills	√	√	√	√	√	√
City of Ontario	√		√	√	√	√
City of Norco	√		√	√	√	√
Jurupa Community Services District	√		√	√	√	√
Santa Ana River Water Company	√		√	√	√	√
Western Municipal Water District	√		√	√	√	√
Santa Ana Watershed Project				√		√
Santa Ana RWQCB				√		√
County of San Bernardino				√		√
County of Riverside				√		√
City of Corona				√		√

Groundwater in the southern portion of the Chino Basin is high in salts and nitrates. The “Maximum Benefit” concept for managing the Chino Basin (Basin) was approved by the SARWQCB in the 2004 Santa Ana River Basin Plan update. It provided that “hydraulic control” and groundwater quality improvement projects could be implemented to prevent degradation of adjacent downstream water supplies, and in particular, the Santa Ana River. The lower Basin area was identified with the intent to control and manage outflow of groundwater high in salts and nitrates from the Basin into the Santa Ana River. The Chino Basin Desalter Authority (CDA), and its service area, was established to reclaim the lower Chino Basin groundwater as a potable water resource. It is estimated that as much as 50,000 AFY of groundwater will need to be extracted from the lower Basin to maintain “hydraulic control.” This would be done through a series of well fields along an east-west line at the south end of the Basin. If the contaminated water is treated for potable use through desalination, not only will the extracted water provide a reliable water supply, but it will also reverse degradation of water quality and provide hydraulic control in the south end of the Basin.

Figure 1-3 illustrates the relative location of the six water purveyors in the southern part of the Basin, the location of the east-west hydraulic control line, groundwater extraction wells, and the Santa Ana Watershed Project Authority's (SAWPA) Santa Ana Regional Interceptor (SARI) brine disposal system.

**Figure 1-3 CDA
Main Features**

- Legend**
- ▲ Desalter I Well
 - ▲ Desalter I Expansion Well
 - Desalter II Well
 - Stream
 - SARI Line
 - Water Body
 - Chino Basin Hydrologic Boundary
 - Quaternary Alluvium

