

CITY OF NORCO

URBAN WATER MANAGEMENT PLAN

2015



CITY OF NORCO
2870 CLARK AVENUE
NORCO, CA 92860

CITY OF NORCO 2015 URBAN WATER MANAGEMENT PLAN

CONTACT SHEET

Date plan submitted to the Department of Water Resources: July 1, 2016

Responsible for Plan Preparation: City of Norco, Department of Public Works

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The Water Supplier is a: **Municipality**

The Water Supplier is a: **Retail Agency**

Utility services provided by the water supplier include: **Water, Wastewater Collection and Recycled Water.**

Is this Agency a Bureau of Reclamation Contractor? **No**

Is this Agency a State Water Project Contractor? **No**

CITY OF NORCO URBAN WATER MANAGEMENT PLAN

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LIST OF ABBREVIATIONS AND ACRONYMS

<u>Abbreviation</u>	<u>Description</u>
AB	Assembly Bill
ADD	Average Daily Demand
AF	Acre Feet
AFY	Acre Feet per Year
AD	Arlington Desalter
AMR	Automated Meter Reading System
BMP	Best Management Practices
BPS	Booster Pumping Station
CASGEM	CA Statewide Groundwater Elevation Monitoring Program
CDA	Chino Desalter Authority
CBW	Chino Basin Watermaster
CEHTP	California Environmental Health Tracking Program
CIMIS	California Irrigation Management Information System
CII	Commercial, Industrial, Institutional, water use sectors
CRC	California Rehabilitation Center
CRWQCB	California Regional Water Quality Control Board
CUWCC	California Urban Water Conservation Council
CWC	California Water Code
DMMs	Demand Management Measures
DOF	Department of Finance
DDW	Division of Drinking Water
Du/ac	Dwelling Units per Acre
eARDWP	Electronic Annual Reports to the Drinking Water Program
DWR	Department of Water Resources
EPA	Environmental Protection Agency
ETo	Evapotranspiration
FAR	Floor Area Ratio
FY	Fiscal Year
GIS	Geographic Information System
Gpcd	Gallons per Capita per Day
Gpm	Gallons per Minute
GWMP	Groundwater Management Plan
Hfc	Hundred Cubic Feet
HGL	Hydraulic Grade Line
HOA	Home Owners' Association
IRP	Integrated Resource Plan
IRWM	Integrated Regional Water Management
ITP	Independent Technical Panel
LMD	Landscape Maintenance District
LAFCO	Local Agency Formation Commission
MCL	Maximum Contaminant Level
MFR	Multi-Family Residential

LIST OF ABBREVIATIONS AND ACRONYMS

<u>Abbreviation</u>	<u>Description</u>
MG	Million Gallons
Mgd	Million Gallons per Day
Mg/l	Milligrams per Liter
MOU	Memorandum of Understanding
MWD	Metropolitan Water District
NPDES	National Pollutant Discharge Elimination System
NOAA	National Oceanic and Atmospheric Administration
PWS	Public Water System
RUWMP	Regional Urban Water Management Plan
RW	Recycled Water
RWMP	Recycled Water Master Plan
RWQCB	Regional Water Quality Control Board
SAWPA	Santa Ana Watershed Project Authority
SB	Senate Bill
SB X7-7	Senate Bill Seven of the Senate's Session of 2009
SCAG	Southern California Association of Governments
SDP	Seawater Desalination Project
SGMA	Sustainable Groundwater Management Act
SRF	Single Family Residence
SOI	Sphere of Influence
SWP	State Water Project
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
ULF	Ultra Low Flush
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
WARN	Water/Wastewater Agency Response Network
WCS	Water Code Section
WDR	Waste Discharge Requirement
WMP	Water Master Plan
WMWD	Western Municipal Water District
WRF	Water Reclamation Facility
WRCOG	Western Riverside Council of Governments
WRR	Water Recycling Requirement
WSA	Water Supply Assessment
WSCP	Water Shortage Contingency Plan
WSDM	Water Surplus and Drought Management
WSRP	Water Shortage Response Plan
WTP	Water Treatment Plant

Standardized Forms, Tables, or Displays (*Appendix E*)

CWC 10644

(a)(2) The plan, or amendments to the plan, submitted to the department ... shall include any standardized forms, tables, or displays specified by the department.

CWC 10608.52

(a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.

(b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24... The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.

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EXECUTIVE SUMMARY

2015 URBAN WATER MANAGEMENT PLAN

The Urban Water Management Plan Act requires water agencies to document their long-term resource planning responsibilities to ensure adequate water supplies are available to meet existing and future demands. The Act also requires agencies to develop a water shortage contingency plan, response plan during drought conditions, and water conservation programs and policies. This report was prepared in compliance with the California Water Code, with the guidelines established by the Department of Water Resources.

The City of Norco (City) was incorporated in 1964 and has a service area of approximately 15 square miles, located in the northwestern portion of Riverside County. The land use is primarily residential, with small portions of commercial and industrial. The City of Norco is approaching build out with about 12 percent vacant land.

The City's population growth over the past 5 years has slowed significantly as compared to growth over the previous 20 years. The City's 2010 population was 27,160 and the 2016 population is 25,890. The City's water service area contains a State of California prison (CRC) which houses a population of approximately 3,000 inmates; these individuals are included in the overall population.

The City owns and operates a potable domestic drinking water system, wastewater collection system, and recycled water system within the City's boundaries. The service area consists of approximately 15 square miles in western Riverside County, within the Santa Ana River Watershed. The City is a member agency of the Chino Desalter Authority ("CDA"), a Joint Powers Authority. The City is an appropriator in the Chino Basin and a part of the Chino Basin Judgement. The City is also a member of the Western Riverside County Regional Wastewater Authority ("WRCRWA") a Joint Powers Authority.

The City extracts groundwater from both the Temescal and Chino water basins. The City purchases reverse osmosis treated water from the Chino Desalter Authority and the Arlington Desalter. The City purchases imported treated water from Western Municipal Water District through a metered connection to the City of Corona.

CHAPTER 1 INTRODUCTION AND OVERVIEW

The City's 2015 Urban Water Management Plan (UWMP) was prepared in compliance with the Urban Water Management Planning Act (UWMPA), as amended by Assembly Bills 2661, 1869, 11X, and 2067; Senate Bills 1420 and 1036; and the Water Conservation Act of 2009. The City's 2015 UWMP includes all information necessary to meet the requirements of California Water Code (CWC), Division 6, Part 2.6.

1.1 Background and Purpose

CWC 10608.12

(p) "Urban retail water supplier" means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

(r) "Urban wholesale water supplier," means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

The City currently serves approximately 7,500 municipal connections and delivers approximately 8,000 acre-feet (AF) annually to its customers. In accordance with the CWC, the City is considered an urban water supplier and is required to prepare an UWMP every five years. The 2015 UWMP meets the CWC requirements and applicable laws outlined below.

The California Water Code requires urban water suppliers within the state to prepare and adopt UWMPs for submission to the California Department of Water Resources (DWR). The UWMPs, which must be filed every five (5) years, must satisfy the requirements of the UWMPA of 1983 including amendments that have been made to the Act. The UWMPA requires urban water suppliers servicing 3,000 or more connections, or supplying more than 3,000 AF of water annually, to prepare an UWMP. The purpose of the UWMP is to maintain efficient use of urban water supplies, continue to promote conservation programs and policies, ensure that sufficient water supplies are available for future beneficial use, and provide a mechanism for response during drought conditions. This report, which was prepared in compliance with the California Water Code, and as set forth in the guidelines and format established by DWR, constitutes the City's 2015 UWMP.

Water planning is an essential function of water suppliers but becomes critical as California continues to be challenged with ongoing drought and expected long-term climate changes. There is no substitute for water planning at the local water supplier level. Local suppliers have the knowledge and ability to consider and understand the unique circumstances of each individual agency. With the understanding of their agency they can provide for participation by the community, and tailor the planning to local conditions. The UWMP Act has been modified over the years in response to the State's water shortages, droughts, and other factors. A significant amendment was made in 2009, after the drought of 2007-2009 and as a result of the governor's call for a statewide 20 percent reduction in urban water use by the year 2020. This was the Water Conservation Act of 2009, also known as SB X7-7 (*Appendix*

B). This Act required agencies to establish water use targets for 2015 and 2020 that would result in statewide savings of 20 percent by 2020.

1.2 Urban Water Management Planning and the California Water Code

This section summarizes the CWC sections applicable to UWMPs, changes to the code since 2010 UWMPs, and the Water Conservation Act of 2009.

1.2.1 Urban Water Management Plan Act of 1983 (Appendix A)

In 1983, State Assembly Bill (AB) 797 modified the California Water Code Division 6, by creating the UWMPA. Several amendments to the original UWMPA, which were introduced since 1983, have increased the data requirements and planning elements to be included in the 2005 and 2010 UWMPs.

Initial amendments to the UWMPA required that total projected water use be compared to water supply sources over the next 20 years, in 5-year increments. Recent DWR guidelines also suggest projecting through a 25-year planning horizon to maintain a 20-year timeframe until the next UWMP update has been completed and for use in developing Water Supply Assessments. The 2015 UWMPs will provide additional framework for long term water planning and inform the public of a supplier's plans for long-term resource planning that ensures adequate water supplies for existing and future demands. This UWMP requires urban water suppliers to report, describe, and evaluate, water deliveries and uses, water supply sources, efficient water uses, demand management measures, and water shortage contingency planning.

Other amendments require that UWMPs include provisions for recycled water use, demand management measures, and a water shortage contingency plan, set forth therein. Recycled water was added in the reporting requirements for water usage and figures prominently in the requirements for evaluation of alternative water supplies, when future projections predict the need for additional water supplies. Each urban water purveyor must coordinate the preparation of the water shortage contingency plan with other urban water purveyors in the area, to the extent practicable. Each water supplier must also describe their water demand management measures that are being implemented, or scheduled for implementation.

In addition to the UWMPA and its amendments, there are several other regulations that are related to the content of the UWMP. In summary, the key relevant regulations are:

- AB 1420: Requires implementation of demand management measures (DMMs) / best management practices (BMPs) to qualify for water management grants or loans.
- AB 1465: Requires water suppliers to describe opportunities related to recycled water use and storm water recapture to offset potable water use.
- Amendments Senate Bill (SB) 6101, and SB 2212, which became effective beginning January 1, 2002, require counties and cities to consider information relating to the availability of water to supply new large developments by mandating the preparation of further water supply planning and Water Supply Assessments.

- SB 1087: Requires water suppliers to report single family residential (SFR) and multi-family residential (MFR) projected water use for planned lower income units separately.
- Amendment SB 3185 requires the UWMP to describe the opportunities for development of desalinated water, including but not limited to, ocean water, brackish water, and groundwater, as long-term supply.
- AB 105 requires urban water suppliers to submit their UWMPs to the California State Library
- SBx7-7: Requires development and use of new methodologies for reporting population growth estimates, base per capita use, and water conservation, and requires meeting the developed water conservation targets in order to qualify for water management grants and loans. This water bill also extended the 2010 UWMP adoption deadline for retail agencies to July 1, 2011.
- Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for State water grants or loans. The complete text of the Water Conservation Act is in Appendix B. Guidance for addressing the requirements of the Act is found in Chapter 5 of the Guidebook and in the *Methodologies* document. Retail water agencies are required to set targets and track progress toward decreasing daily per capita urban water use in their service area, which will assist the State in meeting its 20 percent reduction goal by 2020.
- SB 1478: This bill was signed on September 23, 2010 and extends the 2010 UWMP deadline for wholesale agencies, such as the Metropolitan Water District of Southern California (MWDSC), to July 1, 2011, as SBx7-7 did for retail agencies.

1.2.2 Applicable Changes to the Water Code since 2010 UWMPs

Since the 2010 UWMP, the Act was amended by AB 2067 and Senate Bill (SB) 1420, both signed by Governor Brown on September 19, 2014. AB 2067 requires that each urban water supplier submit its 2015 plan to the DWR by July 1, 2016, and also expands the requirements for water demand management measures, including requiring retail water suppliers to discuss each measure implemented over the past 5 years and those planned for the future to help achieve water use targets. SB 1420 requires that plans be submitted electronically, include standardized forms and/or tables specified by DWR, include quantification and reporting on distribution system water loss, and, when available, have water use projections account for estimated water savings from adopted codes, standards, ordinances, or transportation and land use plans.

Another Senate Bill, SB 1036, also signed by Governor Brown on September 19, 2014, stipulates that urban water suppliers should include certain energy-related information (e.g., an estimate of the amount of energy used to extract or divert water supplies).

1.2.3 Water Conservation Act of 2009 (SB X7-7)

On November 10, 2009, the state legislature passed the Water Conservation Bill of 2009 (also referred to as SB X7-7) as a water conservation component to the Delta legislative

package. The bill seeks a 20 percent statewide reduction in urban per capita water use in California by December 31, 2020. SB X7-7 required that each retail agency preparing a 2010 UWMP calculate baseline per capita water use as well as an interim (to be met in the 2015 UWMP) and final (for 2020) water use reduction targets. The methodologies used to calculate both the baseline per capita water use and targets were outlined in the 2010 UWMP guidelines, published by DWR in March 2011.

1.3 Urban Water Management Plans in Relation to Other Planning Efforts

In addition to the City's UWMP preparation efforts, the City is actively involved in other regional efforts regarding water supply planning and groundwater basin management. The City is an Appropriative Pool member of the adjacent Chino Basin, overlies the Temescal Water Basin, and participates in the management and planning of these groundwater sources, as described briefly below.

1.3.1 Groundwater Management Plan

Historically, the City has developed local groundwater sources to meet its water demands. Currently, the City uses pumped groundwater, purchased treated groundwater and imported water to meet its demands. The City's service area and existing active wells overlie the Temescal Groundwater Basin. This groundwater basin is not adjudicated and is managed by the local agencies. The local groundwater producers rely on a regional collaborative effort to collectively work to improve groundwater and to develop local projects that will improve water supply reliability.

The collective agreement between the local agencies to manage the Temescal Basin will be a key accomplishment. The City also owns wells in the Chino Basin which is an adjudicated groundwater basin. These are examples of local projects and alliances that increase water supply reliability and benefit the groundwater basin by reducing reliance in groundwater.

1.4 UWMP Organization

This 2015 UWMP is organized in ten chapters listed below. The chapters are organized in the same order as recommended in the 2015 UWMP Guidebook.

Chapter 1 - Introduction and Overview provides an overview of the California Water Code sections applicable to the UWMPs and discusses the importance and extent of the City's water management planning efforts.

Chapter 2 - Plan Preparation provides information on the City's process for developing the UWMP, including regional efforts of outreach and coordination with other stakeholder agencies.

Chapter 3 - System Description describes the City's service area, and climate, the Public Water System, and the City's organizational structure and history.

Chapter 4 - System Water Use describes and quantifies the current and projected water uses within the City's service area.

Chapter 5 – SB X7-7 Baselines and Targets describes the methods the City used for calculating the baseline and target water consumption to demonstrate the City has achieved the 2015 interim water use target, and is on track for achieving the 2020 water use target.

Chapter 6 - System Supplies describes and quantifies the current and projected sources of water available to the City. This chapter also includes a description and quantification of potential recycled water uses and supply availability.

Chapter 7 -Water Supply Reliability Assessment describes the reliability of the City's water supply and projects the reliability out 20 years, for normal, single dry years and multiple dry years.

Chapter 8 - Water Shortage Contingency Planning provides the City's staged plan for dealing with water shortages, including a catastrophic supply interruption.

Chapter 9 - Demand Management Measures describes the City's efforts to promote conservation and to reduce demand on its water supply and addresses several demand management measures.

Chapter 10 - Plan Adoption, Submittal, and Implementation describes the steps taken to adopt and submit the UWMP and to make it publicly available. This chapter also includes a discussion of the City's plan to implement the UWMP.

A checklist of specific UWMP requirements was developed and is presented in **Appendix A** to indicate the location where the required element is addressed in the document.

1.5 UWMPs and Grant or Loan Eligibility

Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for State water grants or loans. Retailer agencies are required to set targets and track progress toward decreasing daily per capita urban water use in their service area. Specifically, this means that agencies must meet their 2015 interim urban water use targets and report compliance in their 2015 UWMP. The City based on the SB X7-7 worksheets has verified compliance in 2015.

1.5.1 Funding Eligibility for Retail and Wholesale Suppliers

In order for an urban water supplier to be eligible for any water management grant or loan administered by DWR, the agency must have a current UWMP on file that has been

determined by DWR to address the requirements of the CWC. A current UWMP must also be maintained by the water supplier throughout the term of any grant or loan administered by DWR.

An UWMP may also be required in order to be eligible for other State funding, depending on the conditions that are specified in the funding guidelines. Agencies should seek guidance on the specifics of any State funding source from the funding agency.

1.5.2 Funding Eligibility for Retail Suppliers Only

CWC 10608.56

(a) On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

(c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.

(f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the requirements of this part or Part 2.8 (commencing with Section 10800).

CCR Section 596.1

(b)(2) "disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

Changes to California law require that beginning in 2016, urban retail water suppliers must comply with water conservation requirements established by the Water Conservation Act of 2009 in order to be eligible for State water grants or loans. For 2015 UWMPs, this means that a retail water agency must meet its 2015 Interim Urban Water Use Target (see *Chapter 5*) and report compliance in the 2015 UWMP. Suppliers may still be eligible if either of the below requirements are met:

1. The urban retail water supplier submits a schedule, financing plan, and budget, for achieving the per capita reductions; and/or
2. The urban retail water supplier submitted to DWR, for DWR's approval, documentation demonstrating that its entire service area qualifies as a disadvantaged community.

If an agency met its 2015 Interim Target, or met either of the exceptions above, and is participating in a multiagency water project or an Integrated Regional Water Management Plan, it shall remain eligible to receive grants or loans even though one or more of the other participating agencies is not in compliance with the SB X7-7 requirements

1.6 DWR Contact Information

Region	DWR UWMP Staff	Phone	Email
Statewide	Gwen Huff	(916) 651-9672	Gwen.Huff@water.ca.gov
Northern	Jessica Salinas-Brown	(530) 529-7355	Jessica.SalinasBrown@water.ca.gov
North Central	Kim Rosmaier	(916) 376-9660	Kim.Rosmaier@water.ca.gov
South Central	Luis Avila	(559) 230-3364	Luis.Avila@water.ca.gov
Southern	Sergio Fierro	(818) 500-1645	Sergio.Fierro@water.ca.gov

CHAPTER 2 PLAN PREPARATION

This chapter provides information on the City's process for developing the 2015 UWMP, including efforts in coordination and outreach with other agencies in the region.

2.1 Basis for Preparing a Plan

CWC 10617 "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems...

CWC 10620 (b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

CWC 10621 (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero, except as provided in subdivision (d). **(d)** Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2

The City currently serves approximately 7,500 municipal water connections and delivers approximately 8,000 AF of water annually to its customers (**Table 2-1**). In accordance with the CWC, the City is considered an urban water supplier and is required to prepare an UWMP every five years. This document includes all the requirements of the UWMP and can be read as a stand-alone document. The 2015 UWMP standardized tables are included in the main body of the document, and all of the tables applicable to the City's UWMP are also presented in **Appendix B**.

The City understands that water is a limited resource and that a long term reliable supply of water is essential to protect the local and state economy. The City also recognizes that, while conservation and efficient use of water is a statewide concern, planning is best done at the local level. The 2015 UWMP, contains planning information to assist the City in developing a reliable supply of quality water in sufficient quantities for beneficial uses.

2.1.1 Public Water Systems

CWC 10644 (a)(2) The plan, or amendments to the plan, submitted to the department ... shall include any standardized forms, tables, or displays specified by the department.

CWC 10608.52

(a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.

(b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24... The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.

California Health and Safety Code 116275

(h) "Public Water System" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.

The City is a public water system (PWS) and in accordance with the CWC and the California Health and Safety Code. The service area of the City (i.e., city boundaries) is served by one PWS, as reported in **Table 2-1**

Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
3310025	City of Norco	7,500	7,138.3 Acre Feet
TOTAL		7,500	7,138.3
NOTES:			

2.3 Individual Planning and Compliance

The City prepared this 2015 UWMP as an individual retailer to report data solely within its service area (**Table 2-2**). The City coordinates with other water supply agencies in the region regarding water supply reliability and groundwater management activities and recycled water generated from the WRCRWA wastewater treatment facility, described in further detail in Section 2.4.

2.3.1 Regional UWMP

CWC 10620

(d)(1) An urban water supplier may satisfy the requirements of this part by participation in area wide, regional, watershed, or basin wide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

The City has participated in the Western Municipal Water District and the Chino Basin Desalter Authority 2015 UWMP's. Western Municipal Water District will include recycled water information from the WRCRWA.

2.3.2 Regional Alliance

CWC 10608.20

(a)(1) ...Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis as provided in subdivision (a) of Section 10608.28...

CWC 10608.28

(a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement by any of the following:

- (1)** Through an urban wholesale water supplier.
- (2)** Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).
- (3)** Through a regional water management group as defined in Section 10537.
- (4)** By an integrated regional water management funding area.
- (5)** By hydrologic region.
- (6)** Through other appropriate geographic scales for which computation methods have been developed by the department.

(b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

Table 2-2: Plan Identification		
Select Only One	Type of Plan	Name of RUWMP or Regional Alliance <i>if applicable</i> <i>drop down list</i>
<input checked="" type="checkbox"/>	Individual UWMP	
	<input type="checkbox"/> Water Supplier is also a member of a RUWMP	
	<input type="checkbox"/> Water Supplier is also a member of a Regional Alliance	
<input type="checkbox"/>	Regional Urban Water Management Plan (RUWMP)	
NOTES:		

2.4 Fiscal or Calendar Year and Units of Measure

CWC 1608.20

(a)(1) Urban retail water suppliers...may determine the targets on a fiscal year or calendar year basis.

The City reports water volumes on a fiscal year (FY) basis consistently throughout the 2015 UWMP (Table 2-3). The City’s fiscal year starts on July 1 and ends on June 30 of the following year. Therefore, 2015 represents the City’s fiscal year from July 1, 2014 to June 30, 2015. Consistent with fiscal year reporting, the City presented the complete 2015 water supply data in Table 2-1 based on records from July 1, 2014 to June 30, 2015.

In terms of the reporting units, the City reports all water volumes in units of AF consistently throughout the 2015 UWMP (Table 2-3).

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
<input type="checkbox"/>	Agency is a wholesaler
<input checked="" type="checkbox"/>	Agency is a retailer
Fiscal or Calendar Year (select one)	
<input type="checkbox"/>	UWMP Tables Are in Calendar Years
<input checked="" type="checkbox"/>	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
7/1	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF
NOTES:	

2.5 Coordination and Outreach

CWC 10631

(j) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier’s plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

The City is active in regional strategies related to water supply and groundwater management with Western Municipal Water District (WMWD), the Chino Desalter Authority (CDA), City of Corona, Jurupa Community Services District (JCSD), and the Chino Basin Watermaster.

2.5.1 Wholesale and Retail Coordination

The City purchases treated groundwater from WMWD’s Arlington Desalter, treated groundwater from the Chino Basin Desalter Authority, and treated surface water from Municipal Water District of Southern California (MWD) via WMWD and wheeled through a connection with the City of Corona.

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name <i>(Add additional rows as needed)</i>
Western Municipal Water District
Chino Basin Desalter Authority
Metropolitian Water District
MWD water is delivered through a connection with the City of Corona.

2.5.2 Coordination with Other Agencies and the Community

<p>CWC 10620 (d)(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.</p> <p>CWC 10642 Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan...</p>
--

In addition to the water supply planning efforts in the preparation of the UWMP, the City coordinates with other water agencies in the region for water supply planning and identifying local and regional projects that would improve water supply reliability and benefit of the individual groundwater basins. The City’s primary source of water is pumped groundwater. In addition to its local groundwater supply, the City entered into an agreement with WMWD to purchase 4,400 AF of treated groundwater to meet its annual water demands. As a member agency of the Chino Desalter Authority, the City has agreed to purchase 1,000 AF annually of treated groundwater and actively participates in regional management of the authority and Chino Basin. The City owns three inactive groundwater wells located in the Chino Basin.

The City entered into an agreement to purchase treated surface water from WMWD in emergency situations. The surface water supply agreement will be discussed in Chapter 6.

Currently, local groundwater from the Temescal Groundwater Basin contributes about thirty (30) percent of the City's annual water production. The City works with a number of water agencies in the surrounding area to develop regional solutions for groundwater management.

By coordinating with neighboring water agencies the City ensures that its long term water supply needs, as outlined in this UWMP, will be incorporated into regional water planning and groundwater management efforts.

2.5.3 Notice to Cities and Counties

CWC 10621

(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.

The City has sent a notification letter that the 2015 UWMP was under preparation, a copy of the draft 2015 UWMP, and a notice of intention to adopt. The City's notification to Western Municipal Water District, Chino Desalter Authority, City of Corona, and Jurupa Community Services District is reported in Chapter 10 (**Table 10-1**). The notification that an UWMP update was in progress was sent on May 5, 2016, a copy of the letter is included in **Appendix B**.

CHAPTER 3 SYSTEM DESCRIPTION

This chapter provides a general description of the City's water supply system, including a description of the service area, climate, and projected population.

3.1 General Description

CWC Section 10631

Describe the service area of the supplier

The City's water service area is located in the northwestern portion of Riverside County (County) and includes the incorporated City of Norco, California. The City boundaries are adjacent to the neighboring communities of the City of Riverside to the east, the City of Eastvale to the north, and the City of Corona to the south.

The City is the sole water purveyor for the residents and businesses of Norco. The City's water service area encompasses approximately 15 square miles. The service area is divided by the Interstate 15 Freeway (I-15) which runs north and south through the City. Major local roads include Hamner Avenue, running in a north-south direction, Sixth Street, running in an east-west direction, and River Road running in a northeast-southwest direction.

The City's land use is primarily residential (half acre properties), with smaller portions of commercial, industrial, and open space. The City is mostly built out, with about 9 percent vacant land. The residential properties that lie within the water service area are zoned primarily residential animal keeping.

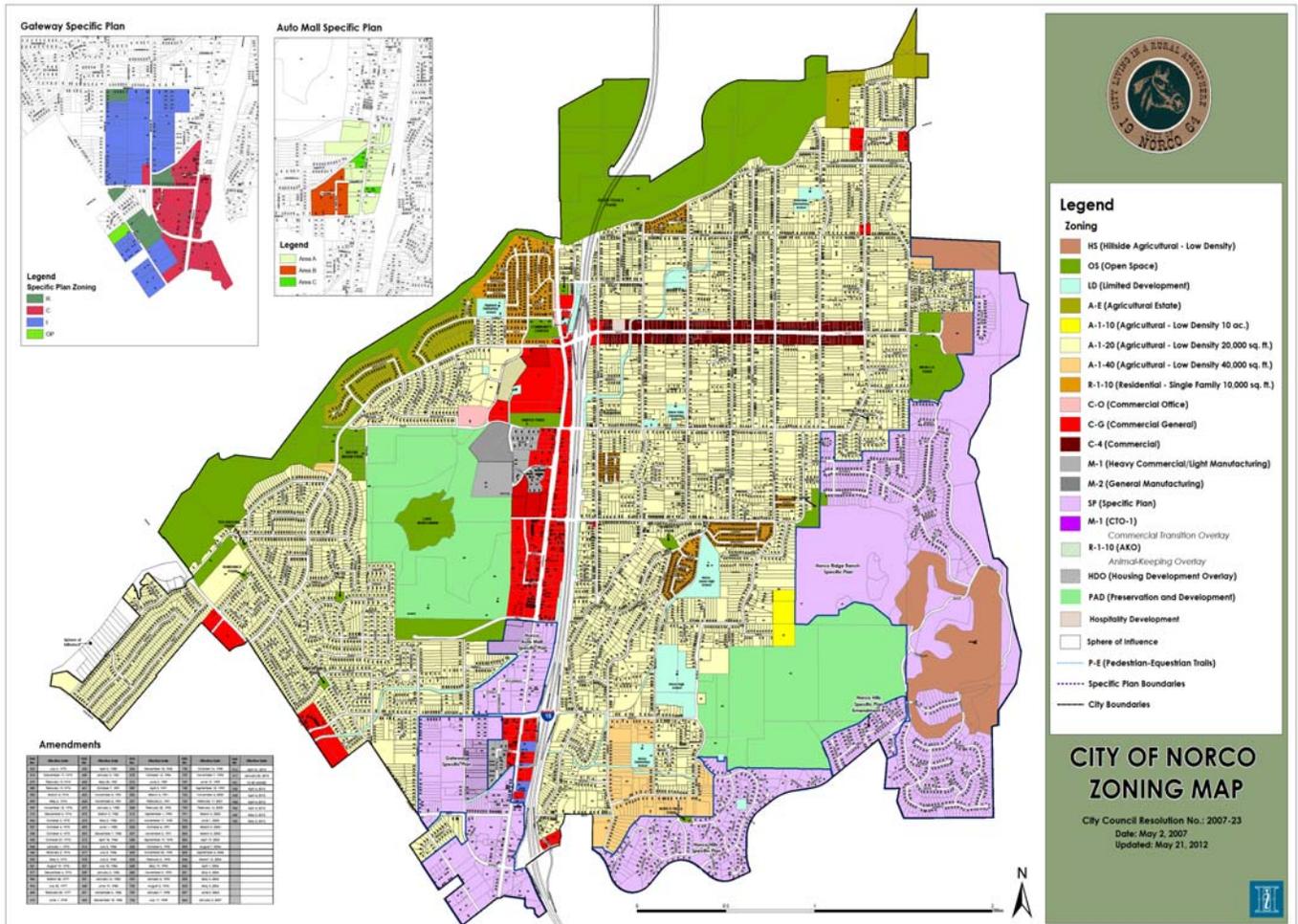
Open Space zoning category includes both irrigated areas, such as parks, and non-irrigated areas, such as preserved natural open space. The City's General Plan, originally adopted in 1987, and updated as required, provides a more detail description of the land use in the service area.

The City Council consists of five members elected at-large by voters in November of odd-numbered years. Each year, the Mayor and Mayor Pro Tem are chosen by the City Council members. The Mayor presides at Council meetings and acts as the ceremonial head of the City. The Mayor Pro Tem serves as Mayor in the absence of the Mayor.

3.2 Service Area Boundary Maps

The City's service area is contiguous with the City boundaries and has undergone relatively small changes since incorporation with the exception of one annexation area (Silverlakes) totaling approximately 122.0 acres.

Figure – 3.1



3.3 Service Area Climate

CWC Section 10631

Describe the service area of the supplier, including... climate

The climate in the City is typical of Southern California with generally mild temperatures, minimal days below freezing, and approximately 330 days of sunshine per year. The City's average monthly temperature ranges from 48.3 to 78.2 degrees Fahrenheit (degrees F), with an annual average temperature of 63.25 degrees F. The daily extreme low and high temperatures have been measured to be 22 degrees F and 118 degrees F, respectively. ETo averages a total of 56.37 inches per year. The average annual temperature is 63.3 degrees F.

The City historically has an average annual precipitation of approximately 12.71 inches. Records show that the monthly precipitation has been as high as 17 inches and as low as 0 inches. Most of the rainfall occurs during the period of November through April. Source of historical precipitation is California Irrigation Management System (CIMIS) and the Western Regional Climate Center (WRCC).

3.3.1 Climate Change

As recommended in the 2015 UWMP Guidebook, the City evaluated the vulnerabilities to climate change qualitatively as part of this UWMP and completed the IRWM Climate Change Vulnerability Assessment presented in **Appendix C**. A narrative summary of potential climate change impacts on the City's water demand and water supply is included in Section 4.6 and Section 6.10, respectively. **Appendix C** includes a narrative summary of identified vulnerabilities of climate change on other categories, including sea level rise, flooding, ecosystem and habitat vulnerability, and hydropower.

3.4 Service Area Population and Demographics

CWC Section 10631

Describe the service area of the supplier, including current and projected population ...The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available .

As is expected from nearing build-out conditions, the City's population growth over the past 5 years has slowed significantly as compared to growth seen in the previous two decades. Since 2005, the City's population has increased slightly, about 100 people. In comparison, the City grew by about 2,500 people during the previous 5-year period (between 2000 and 2005). The City's population is currently estimated at approximately 25,890, as shown along with 20 years of historical data in Table 3.1.

The City's 2001 Water Master Plan (WMP) estimated the population served by the City to be approximately 26,500 residents in 2005, with very minor growth estimated since 2005. The California Rehabilitation Center houses approximately 3,000 inmates (the prison population is included in the City of Norco census).

The City's population grew from approximately 23,302 in 1990 to 27,370 in 2010, an increase of approximately 15 percent.

The City has not experienced any significant growth over the last five years and the population has in fact decreased with a reduction in the prison system. The City anticipates approximately 200 people to be added between 2015 and 2020 with similar growth thereafter. This reduced growth trend can be seen in Table 3-1 which graphically depicts future population projections.

Population projections are shown from 2015 through 2040. The projected population for 2040 is 29,300, which is approximately 12 percent higher than the current 2015 service area population of 25,890. This yields an average yearly growth rate of 0.005 percent during the planning period. The UWMP may use the Western Regional Council of Governments (WRCOG) City Population Projection for further data analysis and projections. WRCOG is a sub-region within the Southern California Association of Governments (SCAG). As such, WRCOG uses SCAG population projection data for its estimates.

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040(opt)
	25,890	26,800	27,300	27,800	28,800	29,300
NOTES:						

3.4.1 Other Demographic Factors

CWC 10631
 Describe the service area of the supplier, including. . . other demographic factors affecting the supplier's water management planning.

The City's residential land use is relatively uniform and consistent with the City's General Plan and continues to follow the existing trend, with additional future residential developments and increased population (that is not anticipated large-scale industrial development). Therefore, future water use trends are anticipated to be similar to current trends. Most existing housing units in the City fall under the category of animal keeping single-family residential at densities of 2 units per acre. The majority of new residential development will be built within this density range. Medium-density residential, with 8 to 20 units per acre, exists to a smaller degree within the city. Within new growth areas, single-family residential is planned between single-family neighborhoods and higher density housing, providing a smooth transition between different land uses.

CHAPTER 4 SYSTEM WATER USE

This chapter describes and quantifies the City's current water use and future water use projections through the year 2040 as based on currently available information. Projected water demands assist in determining the design of future water supply facilities. Water use and production records, combined with projections of population and urban development, provide the basis for estimating future water use requirements. This chapter describes the City's potable water demands, and projects potential recycled water demand for the year 2016.

4.1 Recycled versus Potable and Raw Water Demand

Historically the majority of water demands provided by the City are primarily for residential land uses, with commercial, industrial, and institutional uses comprising approximately 32 percent of total usage between 2010 and 2015. As of 2015, the City currently maintains approximately 7,500 water meters.

The total supplies for the City over the previous five years averaged 8,000 acre-feet per year (AFY). In FY 2014-15 the City produced a total of 7,138.3 AF, of which 2,126.3 AF was produced from local groundwater sources, 3,871.5 AF was purchased from the Arlington Desalter, 1,040.4 AF was purchased from the Chino Desalter Authority, and 100.1 AF from imported water supplies (WMWD).

Between 1990 and 1999, the City's local groundwater supply met about 90 percent of the overall demand with the remaining 10 percent met by purchased water and imported water. Since 1999, the City's local groundwater has accounted for approximately 38 percent of the overall demands with purchased water accounting for the remaining 62 percent of the overall demand. The production numbers vary from year to year depending upon weather conditions and local groundwater quality. Future demand projections assume approximately the same percentage between groundwater and purchased water supplies, as the City has expressed this ratio as a planning goal. This will be supplemented through the use of future recycled water sources. The anticipated drinking water quantities are projected to remain relatively consistent as future demands increase slightly through the planning horizon of 2040.

The City anticipates groundwater and purchased water demand projections to remain constant, relative to each other, declining in consumption in order to reach the Water Conservation Act of 2009 target for 2020 and then resuming a growth trend due to normal population growth.

The City is currently updating its WMP and developing a Recycled Water Master Plan (RWMP) to determine future recycled water demands.

The City is entitled to approximately 2.7 MGD of treated recycled water from the WRCRWA wastewater treatment facility for recycled purposes. The WRCRWA wastewater treatment facility expansion is currently under construction to increase the capacity from eight (8) MGD to fourteen (14) MGD.

The City has designed and constructed the backbone distribution infrastructure to provide recycled water and currently provides non-potable well water to three municipal parks. Future recycled water projects will include golf courses, parks, landscape maintenance districts, schools, dual plumbing, agriculture, and freeway landscaping. The City has executed an agreement to provide recycled water to the City of Corona for use in their recycled system.

The City's plans for existing capacity and future expansion of its recycled water system will be updated in the upcoming RWMP. Based on the demand projections derived in the RWMP, the City's future recycled water system may be expanded to provide future customers with a high level of reliability of the supply.

Additionally, the development and establishment of a recycled water rate will be structured to offer a fiscal incentive for potential customers to switch from potable water to recycled water for purposes such as irrigation and commercial processes.

4.2 Water Uses by Sector

CWC 10631

(e)(1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural...

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

This chapter includes information on water reclamation and its potential for use as a water source for the City in accordance with the UWMPA.

The City does not have any unmetered accounts and is planning to continue installing meters for all future accounts. Water losses within the City's distribution system are estimated at 6 percent (based on historical data) and listed as unmetered deliveries. The City has installed an automated meter reading system (AMI) throughout its entire distribution system (100% of the accounts).

The City classifies meters within its water service area into the following categories: single-family residential (SFR), multi-family residential (MFR), commercial, industrial, institutional, and landscape (potable water and recycled water accounts) .

The City does not wholesale water to other agencies.

The City’s historical residential water use comprises the majority of accounts, with single family residential representing 62 percent and multi-family representing 7 percent of total account distribution. Landscape and commercial comprise 20 percent of the City’s accounts, while institutional, industrial and agricultural are the remaining 11 percent.

The projected potable water usage is anticipated to decrease as a result of program implemented to meet mandatory reduction in per capita water use by 2020 and the transition of some existing potable water demands to recycled water. While projected potable water demands are calculated to decrease, customer accounts are projected to continue increasing at a normal rate along with population growth despite the drop in demand. It is important to note that this assumption implies that future water consumption will be due to a decrease in usage per account, rather than a system wide reduction of total accounts.

The City currently has two in-fill housing projects planned, consisting of approximately 20 to 30 single-family residential units. If a new develop project is proposed, it may be required to submit a water, sewer, and recycled water master plan.

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type <i>(Add additional rows as needed)</i>	2015 Actual		
<i>Drop down list</i> <i>May select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>	Additional Description <i>(as needed)</i>	Level of Treatment When Delivered <i>Drop down list</i>	Volume
Single Family		Drinking Water	4,120
Multi-Family		Drinking Water	83
Commercial		Drinking Water	875
Landscape		Drinking Water	1,099
Institutional/Governmental		Drinking Water	962
TOTAL			7,138
Volume totals are in acre feet.			

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type <i>(Add additional rows as needed)</i>	Additional Description <i>(as needed)</i>	Projected Water Use <i>Report To the Extent that Records are Available</i>				
		2020	2025	2030	2035	2040-opt
<i>Drop down list</i> <i>May select each use multiple times</i> <i>These are the only Use Types that will be recognized by the WUEdata online submittal tool</i>						
Single Family		4,200	4,500	4,700	4,800	5,000
Multi-Family		83	85	87	89	91
Commercial		925	935	945	955	965
Landscape		900	800	700	600	500
Institutional/Governmental		700	650	550	450	400
	TOTAL	6,808	6,970	6,982	6,894	6,956
Projected water use in acre feet.						

Table 4-2 shows the City water demand projections incorporating the water conservation targets associated with the Water Conservation Act of 2009 (“Water Demand with 20x2020 Conservation”). This represents the demand the City is required to meet based on the mandated water conservation targets assuming the population growth discussed in Chapter 3.

The City has made significant efforts in development of its recycled water system, and plans to expand its recycled water system over the next decade. The selected baseline period reflects per-capita demands prior to development of the City’s recycled water system. Thus, it is assumed that the entire projected recycled water demand be deducted as a potable offset since the baseline per-capita demand does not reflect any recycled water usage.

The actual water demand in 2015 was 7,138 AF, significantly lower than the projected demand. The majority of this decrease in demand is believed to be due to the recent water conservation mandates by the state.

In 2020, recycled water use is projected to reach approximately 200 AFY which will reduce potable water demand by the same amount. The City anticipates further water conservation will be necessary.

Overall, the City anticipates minimal growth in residential customers and steady growth in commercial customers. As further discussed in later chapters, the City is committed to ensuring these demands can be met no matter the conditions in the future. These demands, both current and projected, are totaled in **Table 4-3**, along with the current and projected recycled water demands described in detail in Chapter 6. These demands together establish the City’s total water demand.

Table 4-3 Retail: Total Water Demands						
	2015	2020	2025	2030	2035	2040 (opt)
Potable and Raw Water <i>From Tables 4-1 and 4-2</i>	7,138	6,808	6,970	6,982	6,994	7,000
Recycled Water Demand* <i>From Table 6-4</i>	0	200	200	200	200	150
TOTAL WATER DEMAND	7,138	7,008	7,170	7,182	7,194	7,150
<i>*Recycled water demand fields will be blank until Table 6-4 is complete.</i>						
NOTES:						

4.3 Distribution System Water Losses

CWC 10631

(e)(1) *Quantify, to the extent records are available, past and current water use over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:...*

(J) *Distribution system water loss*

(3)(A) *For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.*

(B) *The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.*

4.3 Distribution System Water Losses

Water system losses were calculated by accounting for metered use, and subtracting production from deliveries. Overall, the annual water loss is approximately 5 to 6 percent of total water produced by the City. This is slightly lower than losses estimated in the 2010 UWMP. The City meters all water production meters and all customer meters within its distribution system. Water production meters are read at each site daily, calculated and checked against the SCADA system. Water production meters are calibrated once per year at a minimum. All customer water services are metered and monitored for accuracy using the AMI system. Any customer meter determined to be not functioning is repaired or replaced.

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
07/2014	428.2
* Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.	
NOTES:	

Water suppliers are required to quantify their distribution system losses using the American Water Works Association Method. Guidance is found in Appendix L. An electronic copy of the audit in Excel format shall be submitted to DWR using DWR’s online submittal tool.

4.4 Estimating Future Water Savings

CWC 10631

(e)(4)(A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following: (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

As shown in **Table 4-5**, passive savings include water savings from codes, standards, ordinances, or transportation and land use plans that affect new and future customers. These future water savings were not directly included in the average conditions water use projections in **Table 4-3**, though they indirectly are applied in assumptions about the City’s future water conservation measures and recycled water use efforts to ensure SB X7-7 targets are met.

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) <i>Drop down list (y/n)</i>	No
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc... utilized in demand projections are found.	
Are Lower Income Residential Demands Included In Projections? <i>Drop down list (y/n)</i>	No
NOTES:	

4.5 Water Use for Lower Income Households

CWC 10631.1

(a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.

California Health and Safety Code 50079.5

(a) "Lower income households" means persons and families whose income does not exceed the qualifying limits for lower income families... In the event the federal standards are discontinued, the department shall, by regulation, establish income limits for lower income households for all geographic areas of the state at 80 percent of area median income, adjusted for family size and revised annually.

The CWC Section 10631.1(a) requires suppliers to estimate projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the Housing Element of the General Plan for the service area of the City (City of Norco, 1987). This requirement does not require quantification of current water use by lower income households. Lower income refers to a household earning less than 80 percent of the annual median income for the area, as adjusted by household size. The 2015 Housing Element uses a median household income of \$85,142, 80 percent of which is \$68,113.

The UWMPA requires that the UWMP identify low income housing developments within the agency's service area and develop demand projections for those units. The Housing Element of the City's General Plan provides information on Regional Housing Needs Allocation Progress (RHNA). This element of the update contains plans to construct low and very low income housing units by 2020. A total of 1,379 of these low income dwelling units are in construction or remain to be built before the 2020 deadline.

4.6 Climate Change

Changes of hydrology in the Norco area as a result of climate change could lead to changes in water demand, both in quantities and patterns. The completed ESJIRWM Climate Change Vulnerability Assessment is presented in **Appendix C**. With respect to demand, potential impacts from climate change are summarized below:

Increased temperature and evapotranspiration will result in increased domestic water use.

Food processing industries in the City will require additional cooling as surface water temperature increases.

While the City does not provide water generally to agriculture, there is an animal keeping life style in the City, increased evapotranspiration will increase animal water consumption in the service area.

CHAPTER 5

SB X7-7 BASELINES AND TARGETS

The Water Conservation Bill of 2009 requires individual retail water suppliers to set water conservation targets for 2015 and 2020 to support the overall state goal of reducing urban potable per capita water use by 20 percent by 2020. Individual supplier conservation targets must be determined using one of four methods that are based upon a baseline of use that is calculated using the specific guidelines described in DWR's *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* (DWR,2011).

The City's baselines and targets were calculated pursuant to the 2015 UWMP Guidebook to be consistent with the fiscal year data used throughout the UWMP and to incorporate 2010 Census data. In the 2015 UWMP, the City confirms its water use targets, demonstrates compliance with its water use target for the year 2015, and shows that the City is on track to achieve its 2020 target

GPCD Terminology

When determining water use in a UWMP, two terms are often used interchangeably:

- Daily per Capita Water Use - the amount of water used per person per day. In the UWMP calculations, this is total water use within a service area, divided by population and is measured in gallons.
 - Gallons per Capita per Day (GPCD) – This is the “Daily per Capita Water Use” measured in gallons. Therefore, the term commonly used when referring to “Daily per Capita Water Use” is “Gallons Per Capita per Day” or “GPCD.”
- It may also be important to distinguish GPCD (as used in Urban Water Management Plans) from the R-GPCD that is used in drought reporting to the State Water Resources Control Board.
- GPCD is the total water use within a service area (residential, commercial, institutional, etc...) minus allowable exclusions, divided by the population. This is used in UWMPs for purposes of the Water Conservation Act of 2009.
 - R-GPCD is solely the estimated residential water use in a service area divided by population. R-GPCD is used in drought reporting to SWRCB for purposes of complying with the Governor's drought declarations and executive orders in 2014 and 2015 (as of the publication of this Guidebook).

5.1 Updating Calculations from 2010 UWMP

For purposes of identifying baselines and targets, the following definition applies:

CWC 10608.12

(r) “Urban wholesale water supplier” means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

CWC 10608.36

Urban wholesale water suppliers shall include in the urban water management plans... an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part.

The City of Norco did not submit a 2010 Urban Water Management Plan.

5.1.2 Use of 2010 Census Data

For both 2010 and 2000, the actual population numbers used are from DOF projections.

5.1.3 SB X7-7 Verification Form

The City calculated the data used in the baseline calculations and demonstrated compliance with the water use target by completing the standardized tables of the SB X7-7 Verification Form. The complete SB X7-7 Verification Form is included in **Appendix E**.

5.2 Baseline Periods

CWC 10608.20

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

Methodologies DWR 2011, Methodology 2 Service Area Population Page 27 - Water suppliers may revise population estimates for baseline years between 2000 and 2010 when 2010 census information becomes available. DWR will examine discrepancy between the actual population estimate and DOF's projections for 2010; if significant discrepancies are discovered, DWR may require some or all suppliers to update their baseline population estimates.

CWC 10608.20

(e) An urban retail water supplier shall include in its urban water management plan due in 2010. . . the baseline daily per capita water use...along with the bases for determining those estimates, including references to supporting data.

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

The City describes its 10 to 15-year baseline period calculations in section 5.3.1 and its 5-year baseline calculation in section 5.3.2.

5.3.1 Determination of the 10-15 Year Baseline Period (Baseline GPCD)

CWC 10608.12

(b) "Base daily per capita water use" means any of the following:

(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

The City used a 10-year baseline period for the 2015 UMWPs due to a recycled water delivery of zero in 2008, per DWR's methodology. The 2015 UMWP used fiscal years 2003 – 2012 for the 10-year baseline period to develop the baseline per capita water usage.

5.3.2 Determination of the 5-Year Baseline Period (Target Confirmation)

CWC 10608.12

(b) (3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

For the 5-year baseline period, the City used fiscal years 2006 - 2010 in the 2015 UWMP. Fiscal years 2006 - 2010 were selected for use in the 2015 UWMP to confirm that the calculated 2020 target does not exceed the maximum allowable water use target.

5.4 Service Area Population

CWC 10608.20

(e) An urban retail water supplier shall include in its urban water management plan due in 2010...the baseline per capita water use,...along with the bases for determining those estimates, including references to supporting data.

(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.

CWC10644

(a)(2) The plan...shall include any standardized forms, tables or displays specified by the department.

In order to correctly calculate annual GPCD, agencies must determine the population that they served for each baseline year in both of the baseline periods and for the 2015 compliance year. If an agency did not use 2010 U.S. Census data for its baseline population calculations in the 2010 UWMP (the full census data set was not available until 2012) the agency must calculate its baseline population for the 2015 UWMPs using 2000 and 2010 Census data.

The City's water service area is contiguous with the City boundaries as shown in **Figure 3-1**. In other words, the area used for calculating the service area population is the same as the water service area used in the gross water use calculation. The City's population has undergone a minor change since the 2010 with a decrease in the CRC state prison population.

5.4.1 Population Methodologies

Since the City's water service area is identical to the City boundary, population estimates were taken directly from DOF tables, except for the two Census years of 2000 and 2010.

5.5 Gross Water Use

CWC 10608.12

(g) "Gross Water Use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:

- (1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier
- (2) The net volume of water that the urban retail water supplier places into long term storage
- (3) The volume of water the urban retail water supplier conveys for use by another urban water supplier
- (4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

California Code of Regulations Title 23 Division 2 Chapter 5.1 Article

Section 596 (a) An urban retail water supplier that has a substantial percentage of industrial water use in its service area is eligible to exclude the process water use of existing industrial water customers from the calculation of its gross water use to avoid a disproportionate burden on another customer sector.

Data to determine the gross water use for each year within the 5 and 10-year baseline periods were provided by the City. The gross water use was calculated using DWR's Methodology 4 and was based on the City's metered groundwater and purchased water production (beginning in FY 2003). The City maintains approximately 11.4 million gallons of operational storage in the distribution system as of FY 2015. Furthermore, there are no considerable deliveries for agricultural or process water use; therefore, no deductions for these water uses are necessary. Gross water use is therefore equivalent to the amount of water entering the distribution system.

For recalculating the baseline and target per capita water use, gross water use was reported for each fiscal year in the 10-year baseline, 5-year baseline, and FY 2015. The City has been purchasing treated groundwater supplied from the Arlington Desalter and the Chino Basin Desalter Authority since 2001.

5.5.1 Gross Water Tables

The City completed the gross water tables in the SB X7-7 Verification Form. These tables are included in **Appendix E** and were submitted to DWR along with the 2015 UWMP. **Table 5-2** summarizes the gross water data in the SB X7-7 Verification Form, in units of AF.

5.6 2015 and 2020 Targets

CWC 10608.20

(e) An urban retail water supplier shall include in its urban water management plan due in 2010. . . urban water use target, interim urban water use target,...along with the bases for determining those estimates, including references to supporting data (10608.20(e)).

CWC 10608.20

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan...

This section describes the methodology used to recalculate the 2015 and 2020 water use targets in the 2015 UWMP.

5.6.1 Select and Apply a Target Method

The four allowable methods for calculating water use targets are:

- Method 1: 80% baseline daily per capita use (GPCD)
- Method 2: Performance Standards
- Method 3: 95% of the DWR hydrologic region per capita use target
- Method 4: Applying savings by water sector

The City chose to use Method 1 for calculating its water use target in the 2015 UWMP using DOF population estimates tied to U.S. Census benchmarks, data by fiscal year, and a 10-year baseline period. The 2020 target water use is calculated as 80 percent of the baseline GPCD water use for the 10-year period from 2003 – 2010. The result of the target analysis is presented in **Table 5-4** as the “Confirmed 2020 Target” of 267 GPCD.

5.6.2 5 - Year Baseline – 2020 Target Confirmation

CWC 10608.22

Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier’s per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

5.7.3 Baselines and Targets Summary

Table 5-1 Baselines and Targets Summary					
<i>Retail Agency or Regional Alliance Only</i>					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	<i>From SB X7-7 Table 1</i>	<i>From SB X7-7 Table 1</i>	<i>From SB X7-7 Table 5</i>	<i>From SB X7-7 Table 8</i>	<i>SB X7-7 Table 7-F</i>
5 Year	<i>From SB X7-7 Table 1</i>	<i>From SB X7-7 Table 1</i>	<i>From SB X7-7 Table 5</i>		
*All values are in Gallons per Capita per Day (GPCD)					
NOTES:					

5.8 2015 Compliance Daily per Capita Water Use (GPCD)

CWC 10608.12

(e) "Compliance daily per-capita water use" means the gross water use during the final year of the reporting period...

CWC 10608.24

(a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

CWC 10608.20

(e) An urban retail water supplier shall include in its urban water management plan due in 2010 . . . compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

5.8.1 2015 Adjustments to 2015 Gross Water Use

CWC 10608.24

(d)(1) When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:

(A) Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.

(B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.

(C) Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.

(2) If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.

Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use, Methodology 4

This section discusses adjustments to compliance-year GPCD because of changes in distribution area caused by mergers, annexation, and other scenarios that occur between the baseline and compliance years.

CHAPTER 6 SYSTEM SUPPLIES

6.1 Purchased or Imported Water

The City is a member agency of the Chino Desalter Authority (CDA), a Joint Powers of Authority; with an annual obligation to purchase 1,000 AFY of reverse osmosis treated potable groundwater water. The City entered into a purchase water agreement with WMWD to purchase a minimum of 4,400 AFY of treated groundwater annually from the Arlington Desalter reverse-osmosis treatment facility.

The City's imported water is supplied by MWD and purchased through WMWD, a member agency of MWD. The City's imported water supply consists of treated water supplied via the Mills Pipeline from MWDSC's Henry J. Mills filtration plant to the City of Corona, then wheeled through a metered connection to the City.

6.2 Groundwater

The City's service area and distribution system overlies the Temescal Groundwater Basin, with a small the portion of the service area being overlying the southern end of the Chino Groundwater Basin. The Chino Groundwater Basin is an adjudicated basin, managed by the Chino Basin Watermaster. The City is a member of the Appropriative Pool in the Chino Basin.

The majority of the City's groundwater supplies are pumped from the Temescal and Chino groundwater basins. The City has four (4) active groundwater wells located in the Temescal that provide water directly to the water distribution system. The City owns three (3) inactive groundwater wells located in the Chino groundwater basin.

Water purchased by the City from the Chino Desalter Authority is extracted from the Chino groundwater basin. Water purchased by the City from the Arlington Desalter is extracted from the Arlington groundwater basin.

In the past decade the City has designed and constructed an iron, manganese and arsenic treatment removal facility to increase the production of local groundwater water relative to imported water. The City has been committed to utilizing local groundwater sources to meet current and expected future water demands.

6.2.1 Basin Description

CWC 10631

(b) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan: (2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater.

The majority of the City of Norco service area overlies the Temescal Groundwater Basin, with a small the portion of the service area being overlying the southern end of the Chino Groundwater Basin. The Chino Groundwater Basin is an adjudicated basin, managed by the Chino Basin Watermaster. The City of Norco is a member of the Appropriative Pool.

The City's local groundwater supplies are pumped from the Temescal and Chino groundwater basins. The City has four (4) active groundwater wells located in the Temescal that provide water directly to the water distribution system. The City owns three (3) inactive groundwater wells located in the Chino groundwater basin.

Water purchased by the City from the Chino Desalter Authority is extracted from the Chino groundwater basin. Water purchased by the City from the Arlington Desalter is extracted from the Arlington groundwater basin.

The Temescal basin encompasses an area of approximately 26 square miles bound by the Santa Ana River, La Sierra Hills, El Sobrante Hills and the Santa Ana Mountains. Typical depths for the City's wells in the Temescal basin range from 180 to 1,100 feet. Groundwater quality of these wells typically does not meet the EPA and Division of Drinking Water (DDW) maximum contaminant levels (MCL) for fluoride (2 mg/L), arsenic, and secondary standards for iron and manganese.

The Chino Basin is one of the largest groundwater basins in Southern California containing approximately 5,000,000 AF of water and has an unused storage capacity of approximately 1,000,000 AF. The Chino Basin consists of approximately 235 square miles of the upper Santa Ana River watershed and lies within portions of San Bernardino, Riverside, and Los Angeles counties. Approximately 5% of the Chino Basin is located in Los Angeles County, 15% in Riverside County, and 80% in San Bernardino County. The Chino Basin is bounded by Cucamonga Basin and the San Gabriel Mountains to the north, the Temescal Basin to the south, Chino Hills and Puente Hills to the southwest, San Jose Hills, Pomona and Claremont Basins on the northwest and the Rialto/Colton Basins on the east. The legal boundaries of the Chino Basin are defined in the Judgment.

6.2.2 Groundwater Management

CWC 10631

(b) ...If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier...or any other specific authorization for groundwater management.

(2) ...For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.

On January 2, 1975, several Chino Basin producers filed suit in California State Superior Court for San Bernardino County (the "Court") to settle the problem of allocating water rights in the Chino Basin. On January 27, 1978, the Court entered a judgment establishing "Chino Basin Municipal Water District v. City of Chino et. al." how water rights would be managed within the Chino Basin and establishing a Watermaster to administer the (the "Judgment"). The Watermaster is a Court created entity established pursuant to the Judgment. The Judgment adjudicated all groundwater rights in Chino Basin and contains a physical solution

to meet the requirements of water users having rights in or dependent upon the Chino Basin. The judgment also appointed the Watermaster to account for and implement the management planning associated with the Chino Basin. The Judgment declared that the initial operating safe yield of the Chino Basin is 145,000 AFY, which is allocated (i) 82,800 AFY to the Agricultural Pool, (ii) 7,366 AFY to the Non-Agricultural Pool, and (iii) 54,834 AFY to the Appropriative Pool.

The Temescal Groundwater Basin is not currently adjudicated. There are three public agencies, the City of Corona, Home Gardens, and the City of Norco that have historically extracted water from the basin. The agencies have agreed to develop a basin water resources management plan.

6.2.3 Overdraft Conditions

CWC 10631

(b)(2) For basins that have not been adjudicated, (provide) information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

The City of Corona completed a Groundwater Management Plan (GWMP) that the City of Norco has reviewed. The report indicates that overdraft conditions may have occurred in the Temescal basin during the last 3 years of the 1990 to 2004 period as pumping increased from about 10,000 AFY to almost 20,000 AFY. The City will continue to rely on the groundwater basin for a substantial amount of its local groundwater water supply. The City has identified numerous strategies for managing groundwater while maintaining groundwater production. The City of Corona GWMP concluded that, assuming no other significant changes in the water extraction amount, average pumping totals of about 12,000 AFY in Temescal basin would result in no significant loss of groundwater storage. The City may shift a portion of its local groundwater production/extraction from the Temescal groundwater basin to the Chino groundwater basin.

6.2.4 Historical Groundwater Pumping

CWC 10631

(b) ...If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan: **(3)** A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

The groundwater basins underlying the City have undergone significant changes since groundwater development began in the early 1900s. Since that time, the groundwater basins have supported a variety of uses including extensive agricultural irrigation, and increasing urban use. Early agricultural activities in the basin were supplemented by diversions of surface water imported into the basin. Agricultural reliance on groundwater increased through the 1940s and 1950s, peaking in the early 1960s but continuing into the 1970s. Increasing urban use has replaced most of that early agricultural demand.

Groundwater pumping has varied over time. In the late 1940s, the total amount of groundwater pumping in the basin was about 20,000 AFY. That amount increased to between 25,000 AFY and 32,000 AFY from the late 1950s to the mid-1970s. Total groundwater pumping decreased to below 20,000 AFY in the 1980s and early 1990s due to a decrease in agricultural irrigation, but has increased to about 25,000 AFY in recent years due to municipal pumping. The majority of the groundwater extraction within Temescal basin was from the cities of Norco and Corona.

Total production exceeded 15,000 AFY in Temescal basin from 1951 to 1978 in support of agriculture irrigation with peak production occurring from 1959 through 1964. Production declined to below 10,000 AFY by 1979 and averaged about 9,419 AFY over the next 17 years (1979-1996). During this time, agricultural pumping had significantly declined, but municipal pumping had not yet increased. Since 2002, pumping has exceeded 20,000 AFY for the first time since the 1960s peak irrigation totals.

Table 6-1 Retail: Groundwater Volume Pumped						
<input type="checkbox"/>	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type <i>Drop Down List</i> <i>May use each category multiple times</i>	Location or Basin Name	2011	2012	2013	2014	2015
<i>Add additional rows as needed</i>						
Alluvial Basin	Chino Basin	0	0	0	0	0
Alluvial Basin	Temescal Basin	2,564.90	2,739.60	2,664.10	2,532.60	1,903.30
	TOTAL	2,565	2,740	2,664	2,533	1,903
NOTES:						

6.3 Surface Water

The City does not treat surface water and does not have any local surface water sources.

6.4 Stormwater

The Temescal basin receives runoff and recharge from almost 14,000 acres of uplands in the adjacent Santa Ana Mountains. Watersheds contributing runoff from the east are almost as large, but contribute less runoff because of lower elevations and corresponding precipitation. The City of Norco does not currently provide direct recharge into the Temescal basin.

6.5 Wastewater and Recycled Water

The City is a member agency of the Western Riverside County Regional Wastewater Authority (WRCRWA), a Joint Powers Authority (JPA). WRCRWA owns and operates a wastewater conveyance, treatment and disposal system. There are six (6) agencies having the right to discharge to the WRCRWA treatment facility and collection system, the Member

Agencies are the Home Gardens Sanitary District, the Jurupa Community Services District, Western Municipal Water District, the Santa Ana Watershed Project Authority, the City of Corona and the City of Norco.

Each member agency has the right to utilize their discharge capacity to the WRCRWA plant for recycled water use. The City owns 27.5 percent of the total capacity or 2.7 million gallons per day. The City also owns 100,000 GPD of sanitary sewer collection capacity and wastewater treatment capacity in the City of Corona wastewater system.

The City owns and operates a sanitary sewer collection system that includes eleven (11) lift stations and approximately 106 miles of pipeline.

The City designed and constructed a recycled water distribution system in 2007 to deliver recycled water to all municipal facilities. The City's recycled water distribution system currently consists of approximately 8 miles of pipeline with a storage reservoir, two booster pump stations, and two pressure reducing stations. The City is currently under contract with an independent consulting firm for the preparation of a RWMP.

Although the City has constructed the backbone infrastructure to provide recycled water, the City currently does not provide recycled water. Future recycled water customers will include golf courses, municipal parks, landscape maintenance districts, schools, dual plumbing, agriculture, and freeway landscaping.

6.5.1 Recycled Water Coordination

CWC 10633

The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.

The City and the City of Corona have executed an agreement to allow Norco to provide recycled water to Corona's recycled system.

The City as a member of WRCRWA coordinates and plans for regional beneficial uses of recycled water.

6.5.2 Wastewater Collection, Treatment, and Disposal

CWC 10633

- (a) (Describe) the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

CWC 10633

- (b) (b) (Describe) the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

The City owns and operates a sanitary sewer collection system that includes eleven (11) lift stations and approximately 106 miles of pipeline.

The City is a member agency of the WRCRWA which owns and operates a wastewater conveyance, tertiary treatment and disposal system. The City also owns 100,000 GPD of sanitary sewer collection and wastewater treatment capacity in the City of Corona system.

The City has historically discharged a waste stream of approximately 1.9 million gallons per day (mgd) to the WRCRWA for treatment. The City is entitled to approximately 1.8 mgd of tertiary treated, disinfected recycled water. WRCRWA has requested a “Petition of Change” to remove the effluent discharge from the Santa Ana River for use as recycled water by the member agencies.

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
<input type="checkbox"/> There is no wastewater collection system. The supplier will not complete the table below.						
Percentage of 2015 service area covered by wastewater collection system <i>(optional)</i>						
Percentage of 2015 service area population covered by wastewater collection system <i>(optional)</i>						
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? <i>Drop Down List</i>	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? <i>Drop Down List</i>	Is WWTP Operation Contracted to a Third Party? <i>(optional)</i> <i>Drop Down List</i>
<i>Add additional rows as needed</i>						
City of Norco	Metered	2,128	Western Riverside County Regional Wastewater Authority	Western Riverside County Regional Wastewater Authority	No	Yes
Total Wastewater Collected from Service Area in 2015:		2,128				
NOTES:						

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015										
<input checked="" type="checkbox"/> No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.										
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number <i>(optional)</i>	Method of Disposal <i>Drop down list</i>	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level <i>Drop down list</i>	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
<i>Add additional rows as needed</i>										
Total							0	0	0	0
NOTES:										

6.5.3 Recycled Water System

CWC 10633

(c) (Describe) the recycled water currently being used in the supplier’s service area, including, but not limited to, the type, place, and quantity of use.

The City’s recycled water distribution system currently consists of approximately 8 miles of pipeline with a storage reservoir, two booster pump stations, and two pressure reducing stations. Although recycled water is not yet permitted for use from the WRCRWA plant, the City is using a non-potable well as a source of water for the existing recycled water system.

6.5.4 Recycled Water Beneficial Uses

CWC 10633

(d) (Describe and quantify) the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

CWC 10633

(e) (Describe) the projected use of recycled water within the supplier’s service area at the end of 5, 10, 15, and 20 years and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

The City is in the process of preparing a recycled water master plan and market assessment to determine future recycled water demands and identify additional areas of the City that may benefit economically from recycled water service.

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area								
<input type="checkbox"/> Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.								
Name of Agency Producing (Treating) the Recycled Water:			Western Riverside County Regional Wastewater Authority					
Name of Agency Operating the Recycled Water Distribution System:			City of Norco					
Supplemental Water Added in 2015			None					
Source of 2015 Supplemental Water			None					
Beneficial Use Type	General Description of 2015 Uses	Level of Treatment <i>Drop down list</i>	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation	Yes	Tertiary	0	500	500	500	500	500
Landscape irrigation (excludes golf courses)	Yes	Tertiary	0	150	150	150	150	150
Golf course irrigation	Yes	Tertiary	0	128	128	128	128	128
Commercial use	Yes	Tertiary	0	56	56	56	56	56
Industrial use								
Geothermal and other energy production								
Seawater intrusion barrier								
Recreational impoundment	Yes	Tertiary	0	10	10	10	10	10
Wetlands or wildlife habitat								
Groundwater recharge (IPR)*								
Surface water augmentation (IPR)*								
Direct potable reuse								
Other (Provide General Description)								
			Total:	0	844	844	844	844
*IPR - Indirect Potable Reuse								
NOTES:								

6.5.4.2 Planned Versus Actual Use of Recycled Water

CWC 10633
 (e) (Provide) a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

Future recycled water customers will include golf courses, municipal parks, landscape maintenance districts, schools, dual plumbing, agriculture, and freeway landscaping.

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual		
<input checked="" type="checkbox"/>	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.	
Use Type	2010 Projection for 2015	2015 Actual Use
Agricultural irrigation		
Landscape irrigation (excludes golf courses)		
Golf course irrigation		
Commercial use		
Industrial use		
Geothermal and other energy production		
Seawater intrusion barrier		
Recreational impoundment		
Wetlands or wildlife habitat		
Groundwater recharge (IPR)		
Surface water augmentation (IPR)		
Direct potable reuse		
Other	<i>Type of Use</i>	
Total	0	0
NOTES:		

6.5.5 Actions to Encourage and Optimize Future Recycled Water Use

CWC 10633
 (f) (Describe the) actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

CWC 10633
 (g) (Provide a) plan for optimizing the use of recycled water in the supplier’s service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

The City’s plans for existing and future expansion of its recycled water system will be updated in the proposed RWMP. Based on the demand projections in the RWMP, the City’s recycled

water system will be augmented as needed to provide future customers with a high level of reliability of the supply.

Additionally, the development of a recycled rate structure designed to offer a fiscal incentive through a less expensive rate per unit compared to the residential outdoor potable water rate and the commercial, industrial, institutional and government potable water rate. Recycled water deliveries will also reduce potable water consumption, in an effort to meet mandated water conservation measures.

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
<input type="checkbox"/>	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
<i>Add additional rows as needed</i>			
Recycled water	Landscape/irrigation	2016	50
Recycled water	Municipal Parks	2016	50
Total			100
NOTES:			

6.6 Desalinated Water Opportunities

CWC 10631

(h) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

The UWMPA requires that the UWMP address the opportunities for development of desalinated water, including ocean water, brackish water and groundwater. Currently there is no opportunity for ocean water desalination directly by the City, but the City is a member of the Chino Desalter Authority and purchases water from the Arlington Desalter facility.

At this time it is neither practical nor economically feasible for the City to implement a seawater desalination program. However, the City may participate in a regional partnership if presented as a reliable opportunity for future water supply solutions.

6.7 Exchanges or Transfers

CWC 10631

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

6.7 Exchanges or Transfers

Regional water transfer and exchange opportunities are discussed with regional partners. The City is discussing multiple short and long term potable water and recycled water transfer projects with regional partners.

6.7.1 Emergency Interties

The City has emergency interties with Jurupa Community Services District and the City of Corona.

6.8 Future Water Projects

CWC 10631

(g) ...The urban water supplier shall include a detailed description of expected future projects and programs... that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
<input type="checkbox"/>	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
<input type="checkbox"/>	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type <i>Drop Down List</i>	Expected Increase in Water Supply to Agency <i>This may be a range</i>
	<i>Drop Down List (y/n)</i>	<i>If Yes, Agency Name</i>				
<i>Add additional rows as needed</i>						
New Groundwater Well	No			2020	Average Year	3 AFT/Day
Bluff Treatment Project	No		Arsenic Removal	2025	Average Year	3 Aft/Day
NOTES:						

6.9 Summary of Existing and Planned Sources of Water

CWC 10631

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision 10631(a).

(4) (Provide a) detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

Water Supply	Additional Detail on Water Supply	2015		
<i>Drop down list</i> <i>May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool</i>		Actual Volume	Water Quality <i>Drop Down List</i>	Total Right or Safe Yield <i>(optional)</i>
<i>Add additional rows as needed</i>				
Recycled Water		1	Recycled Water	
Total		1		0
NOTES:				

Water Supply	Additional Detail on Water Supply	Projected Water Supply <i>Report To the Extent Practicable</i>									
		2020		2025		2030		2035		2040 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
<i>Add additional rows as needed</i>											
Purchased or Imported Water		6,000		6,000		6,000		6,000		6,000	
Groundwater		3,000		3,200		3,200		3,200		3,200	
Recycled Water		1,825		1,825		1,825		1,825		1,825	
Total		10,825	0	11,025	0	11,025	0	11,025	0	11,025	0
NOTES:											

6.10 Climate Change Impacts to Supply

The local region experienced a prolonged drought from 1987 through 1992 and 2009 through 2015. The City continued to meet its customer’s water demands through careful management

of its groundwater sources, cooperative agreements, and asserting water conservation measures. Community involvement made it possible to have voluntary water rationing during this period.

The City has invested its resources in multiple groundwater basins, creating supply flexibility, and has maintained surface water connections. The City has also been involved with regional stakeholders to develop strategies to increase water opportunities.

DRAFT

CHAPTER 7

WATER SUPPLY RELIABILITY ASSESSMENT

7.1 Constraints on Water Sources

CWC 10631

(c)(2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

CWC 10634 The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

The UWMPA requires that the UWMP address the reliability of the agency's water supplies. This includes supplies that are vulnerable to seasonal or climatic variations. In addition, an analysis must be included to address supply availability in a single dry year and in multiple dry years.

The City faces many of the same water supply issues as other water purveyors in Southern California. Drought, climatic challenges, water conveyance, environmental regulation, and competition for water from outside the region all force changes in water deliveries and the timing of those deliveries.

Water quality is an important factor in determining supply reliability; if adequate quality cannot be maintained, then the supply may be lost. In general, the City is well-equipped to handle a variety of constituents present in its supply sources that can affect water quality.

Although the City does not rely heavily on imported water, it purchases imported water is supplied by WMWD, through the City of Corona, the water is ultimately imported to the region by MWD. Because of competing needs and uses associated with these water resources, MWD has undertaken a number of planning efforts during the past 15 years. Some of the most recent documents include the 2010 Integrated Water Resources Plan update, the Water Surplus and Drought Management Plan, the Water Supply Allocation Plan, and a Long Term Conservation Plan. These documents were valuable tools and assisted with the preparation of this document.

Groundwater supplies are considered our most reliable supply source since they are not normally impacted by short term droughts. However, a groundwater basin must be replenished in years with above normal rainfall in order to maintain the supply in drought years. Hence, in extended droughts, levels within the groundwater basin may fall as the basin is not replenished through natural inflows.

The City has made efforts in the past years to decrease its reliance on imported water by developing additional local and regional groundwater supply resources.

As discussed in Chapter 4, the City is a member agency of WRCRWA, a Joint Powers Authority, a wastewater treatment facility. The City owns 2.7 MGD of treatment capacity. The plant treated effluent is currently not being used for landscaping or dual plumbing but is discharged directly to the Santa Ana River Basin. Recycled water is generally considered to be a reliable water supply since the wastewater facilities provide effluent regardless of climatic conditions. It is not likely that drought conditions would have a significant effect on the City's ability to utilize this recycled water source.

7.2 Reliability by Type of Year

CWC 10631

(c)(1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

- (A) an average water year,
- (B) a single dry water year,
- (C) multiple dry water years.

7.2.1 Types of Years

There are two primary aspects of supply reliability that should be considered. The first relates to immediate service needs and is primarily a function of the availability and adequacy of the supply facilities. The second aspect is climate-related, and involves the availability of water during mild or severe drought periods. This section compares water supplies and demands during three water year types, a normal/average water year, single-dry water year, and multiple-dry water years.

7.2.1.1 Average Year

The normal or average year type is a year in the historical sequence that most closely represents median runoff levels and patterns. The supply quantities for this condition are derived from historical average production yields.

7.2.1.2 Single-dry year

The single-dry year is defined as a year with the minimum useable supply. The supply quantities for this condition are derived from the minimum historical annual production yield.

7.2.1.3 Multiple-dry year period

Multiple-dry year is defined as three or more consecutive years with the minimum useable supply. Water systems are more vulnerable to these droughts of long duration, because they deplete water storage reserves in local and state reservoirs and in groundwater basins. The supply quantities for this condition are derived from the minimum historical three consecutive years' annual average yields.

7.2.1.4 Sources for Water Data

Over the last decade, the City’s potable water supply has shifted to rely primarily on local and regional groundwater supplies with minor deliveries of water imported from WMWD. In identifying historic supply reliability conditions throughout dry year and multiple dry year events, the specific periods or years are consistent with the years in MWD’s.

Table 7-1 Retail: Basis of Water Year Data			
Year Type	Base Year <i>If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 1999-2000, use 2000</i>	Available Supplies if Year Type Repeats	
		<input type="checkbox"/>	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		<input checked="" type="checkbox"/>	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available	% of Average Supply
Average Year	1993		100%
Single-Dry Year	1977		
Multiple-Dry Years 1st Year	1990		
Multiple-Dry Years 2nd Year	1991		
Multiple-Dry Years 3rd Year	1992		
Multiple-Dry Years 4th Year <i>Optional</i>			
Multiple-Dry Years 5th Year <i>Optional</i>			
Multiple-Dry Years 6th Year <i>Optional</i>			
Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.			
NOTES:			

7.3 Supply and Demand Assessment

CWC 10635

(a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional or local agency population projections within the service area of the urban water supplier.

The UWMP requires that the City demonstrate that sufficient water supplies be available to meet the next 25 years of projected water demands. During normal water years, no curtailments or other reductions in supply are expected for any of the City’s supplies. The projected normal water year supplies and demands from 2020 to 2040 are shown in **Table 7-2** as developed initially for **Table 6-8** and **Table 4-4**, respectively. The source water supply is larger than the demand in all years, so the City is not expected to have any supply shortfalls during normal water years or any issues with providing a reliable and consistent supply of water.

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals (autofill from Table 6-9)	10,825	11,025	11,025	11,025	11,025
Demand totals (autofill from Table 4-3)	7,008	7,170	7,182	7,194	7,150
Difference	3,817	3,855	3,843	3,831	3,875
NOTES:					

During single-dry water years, there may be up to a 50 percent curtailment in the City’s surface water supplied by WMWD. No reductions are assumed for the City’s purchased water, groundwater, or recycled water supplies. The projected single-dry water year supplies from 2020 to 2040 are shown in **Table 7-3**.

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	10,825	11,025	11,025	11,025	11,025
Demand totals	7,008	7170	7,182	7,194	7,150
Difference	3,817	3,855	3,843	3,831	3,875
NOTES:					

Because the City’s surface water supply is the only supply that is considered to be susceptible to dry water years, and because the City only relies on surface water in emergency situations, a reduction of 100 percent would not affect multiple dry-year demands. The City supplies available during multiple-dry water years are assumed to be no different than supplies available during single-dry water years. The projected multiple-dry water year supplies from 2020 to 2040 are shown in **Table 7-4**.

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	10,828	11,025	11,025	11,025	11,025
	Demand totals	7,008	7,170	7,182	7,194	7,150
	Difference	3,820	3,855	3,843	3,831	3,875
Second year	Supply totals	10,828	11,025	11,025	11,025	11,025
	Demand totals	7,008	7,170	7,182	7,194	7,150
	Difference	3,820	3,855	3,843	3,831	3,875
Third year	Supply totals	10,828	11,025	11,025	11,025	11,025
	Demand totals	7,008	7,170	7,182	7,194	7,150
	Difference	3,820	3,855	3,843	3,831	3,875
Fourth year <i>(optional)</i>	Supply totals	10,828	11,025	11,025	11,025	11,025
	Demand totals	7,008	7,170	7,182	7,194	7,150
	Difference	3,820	3,855	3,843	3,831	3,875
Fifth year <i>(optional)</i>	Supply totals	10,828	11,025	11,025	11,025	11,025
	Demand totals	7,008	7,170	7,182	7,194	7,150
	Difference	3,820	3,855	3,843	3,831	3,875
Sixth year <i>(optional)</i>	Supply totals	10,828	11,025	11,025	11,025	11,025
	Demand totals	7,008	7,170	7,182	7,194	7,150
	Difference	3,820	3,855	3,843	3,831	3,875
NOTES:						

7.4 Regional Supply Reliability

The City has improved its water supply sources resulting in a flexible capacity to meet its customer's water demands. During the past few years the City has entered into water purchase agreements with the Arlington Desalter and Chino Desalter Authority resulting in reverse osmosis treated groundwater source availability being provided from two separate groundwater basins. These source enhancements allow the City to manage its water supplies during both wet and dry years.

As mentioned previously, the City is considering possible future projects to utilize more of the recycled water available from the WRCRWA treatment facility in order to further improve the City's water supply reliability, improve basin overdraft condition by offsetting groundwater pumping, and put recycled water into beneficial use.

The City recognizes the need to continue to develop additional high quality water sources. With the potential of equipment failures, natural disasters, and drought, the City is committed to inter-agency and connections and regional solutions to adequately prepare to meet future water demands.

Historical water deliveries provide an indication, but not a certainty, as to the reliability of future water supplies. Water quality, regulatory changes, facility failures, and climate can influence water deliveries.

At this time, WMWD has outlined plans for over 90 projects which range in scale from regional to local, but all of which provide some benefit to the City. These projects fall primarily into the following categories:

- Conveyance.
- Conjunctive Management and Groundwater Storage.
- Recycled Municipal Water.
- Flood Control.
- Groundwater and Aquifer Remediation.
- Matching Water Quality to Use.
- Pollution Prevention.
- Recharge Area Protection.
- Urban Runoff Management.

A more complete list and outline of future projects can be found in WMWD's Integrated Regional Water Management Plans and 2015 UWMP.

CHAPTER 8

WATER SHORTAGE CONTINGENCY PLANNING

CWC 10632

(a) The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier.

The UWMPA requires that the City has an urban water shortage contingency analysis that includes stages of action to be undertaken in the event of water supply shortages, a draft water shortage contingency resolution or ordinance, prohibitions, consumption reduction methods and penalties; an analysis of revenue and expenditure impacts and measures to overcome these impacts, actions to be taken during a catastrophic interruption, and a mechanism for measuring water use reduction. This chapter references several relevant ordinances and resolutions related to water conservation.

8.1 Stages of Action

CWC 10632

(a)(1) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.

The City has invested considerable effort and capital in developing a diverse water supply to ensure redundancy and flexibility in dealing with supply interruptions. Historically, the City has responded to water shortages through implementation of various conservation measures. In 1977, the City adopted a resolution and Ordinance 397 for a program of voluntary reduction of nonessential uses of water to reduce consumption by 15 percent during the multiple year drought at the time. Currently, Title 14, Chapter 14.04 of the Norco Municipal Code, as amended by Ordinance 991 details the City's current water conservation rules and water shortage contingency plan. As shown in Table 8.1, the water shortage stages include consideration of water shortages up to Stage 5, a Water Shortage Emergency, which includes reductions in water consumption by more than 50 percent.

All requirements of the City's Water Conservation Ordinance are in effect during normal water conditions. The waste of water is prohibited and defined in the Water Conservation Ordinance as:

- Do not use water to wash down sidewalks, driveways, parking areas, tennis courts, patios, or other paved areas, except to alleviate immediate safety or sanitation hazards.
- Adjust sprinklers and irrigation systems to avoid overspray, runoff, and waste. Customers should also avoid watering on windy days.

- Irrigate all landscapes before dawn, if possible, but never between 8:00 a.m. and 8:00 p.m. Use a hand-held hose equipped with a positive shut-off nozzle or bucket to water landscaped areas that are not irrigated by a landscape irrigation system.
- Agricultural users are requested to reduce water usage and to consult with the local resource conservation district as needed or industry associations in their area for appropriate water conservation measures and to implement them as soon as possible.
- Residents are urged to design and install water-wise landscaping utilizing native and other drought-tolerant plant materials and minimize turf areas for permanent water conservation.
- Developers of commercial properties are urged to design and install water-wise landscaping utilizing native and other drought-tolerant plant materials and minimize turf areas for permanent water conservation, as required by City landscape ordinances.
- Install water-saving devices in indoor plumbing.
- Check faucets, toilets, and pipes, both indoors and outdoors, for leaks and repair them immediately.
- Use re-circulated water to operate decorative fountains, ponds, lakes or other similar aesthetic structures.
- Wash motor vehicles, trailers, boats, and all other mobile equipment using a bucket or a hand-held hose with a positive shut-off nozzle, mobile high-pressure/low-volume wash system, or at a commercial site that re-circulates (reclaims) water onsite. Avoid washing during hot conditions when additional water is required due to evaporation.
- Restaurants or other public places where food is served shall not serve drinking water to any customer unless requested by a customer.
- Irrigation is prohibited during and for 48 hours after any measurable rainfall.
- Operators of hotels and motels must provide guests with the option of choosing not to have towels and linens laundered daily. The hotel or motel shall prominently display notice of this option in each guestroom using clear and easily understood language. (Ord. 991, 2015)

Table 8-1 Retail Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction ¹ <i>Numerical value as a percent</i>	Water Supply Condition <i>(Narrative description)</i>
<i>Add additional rows as needed</i>		
I	5%	Water Shortage Watch
II	20%	Water Shortage Caution
III	30%	Water Shortage Alert
IV	40%	Water Shortage Critical
V	50%	Water Shortage Emergency
¹ One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.		
NOTES:		

8.2 Prohibitions on End Uses

CWC 10632

(a)(4) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUEdata online submittal tool</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement? <i>Drop Down List</i>
<i>Add additional rows as needed</i>			
I	Landscape - Restrict or prohibit runoff from landscape irrigation		Yes
I	Landscape - Limit landscape irrigation to specific times		Yes
I, II	Landscape - Limit landscape irrigation to specific days		Yes
I	Landscape - Prohibit certain types of landscape irrigation		Yes
V	Landscape - Prohibit all landscape irrigation		Yes
II, III	Landscape - Other landscape restriction or prohibition		Yes
I	CII - Restaurants may only serve water upon request		Yes
I	Water Features - Restrict water use for decorative water features, such as fountains		Yes
V	Other water feature or swimming pool restriction		Yes
I	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
I	Other - Prohibit use of potable water for washing hard surfaces		Yes
I	Other - Require automatic shut of hoses		Yes
I	Other - Prohibit use of potable water for construction and dust control		Yes
NOTES:			

CWC 10632

(b) Commencing with the urban water management plan update due July 1, 2016, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

Health and Safety Code Section 115921

As used in this article the following terms have the following meanings:

(a) "Swimming pool" or "pool" means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. "Swimming pool" includes in-ground and aboveground structures and includes, but is not limited to, hot tubs, spas, portable spas, and non-portable wading pools.

Stage I. Water Shortage Watch

During Stage I, there is minimal potential for a supply shortage and a 5 to 10 percent or greater voluntary reduction is suggested.

All requirements of the City's Water Conservation Ordinance are in effect for Stage I during normal conditions. Also, as in normal conditions, the State's Model Water Efficient Landscape Ordinance is in effect in the City, per the State's mandate as of January 1, 2010. Norco's Water Conservation Program consists mainly of outdoor watering restrictions enforced through public participation, public education through local fairs and other events, bill inserts, and newspaper articles, and WMWD's regional outreach.

Enforcement procedures and penalties for water wasting continue as described in the City of Norco Water Conservation Ordinance Section 14.04.730.

Stage II. Water Shortage Caution

During Stage II of a water supply shortage, the shortage is considered minor and a 10 percent up to 20 percent reduction in water usage is required for the City to meet the immediate needs of its customers. Water alert conditions are declared, the water shortage situation is explained to the public, and consumers are asked for a 10 percent or greater mandatory water use reduction.

Existing ongoing water conservation measures are continued and emphasized as necessary to alert the public of the nature of the water supply shortage. The City maintains an ongoing public information campaign consisting of distribution of literature, town hall meetings, bill inserts, and conversation messages on their web site. Educational programs in area schools are ongoing and utilized as necessary.

All requirements of Stage I remain in effect. Additional requirements include:

- All persons using water provided from the City shall comply with level 1, water shortage watch, water conservation practices during a level 2 water shortage and shall also comply with the following additional conservation measures:
- Whether irrigated with potable or nonpotable water, limit all ornamental and turf irrigation to four days per week for no more than 10 minutes per station per day. This provision does not apply to functional turf areas such as athletic fields at schools and parks.
- Ornamental landscape or turf that utilizes properly operating water-efficient devices which include, but are not limited to, drip/micro irrigation systems, stream rotor sprinklers, and are operated by a functional irrigation controller, may upon verification by the City or its representative be irrigated for up to 30 minutes per station on the days authorized for landscape irrigation.

- Verification and repair of all leaks shall occur within 72 hours of notification by the City unless other arrangements are approved by the City Manager or designee. (Ord. 991, 2015)

Enforcement procedures and penalties for water wasting continue as described in the City of Norco Water Conservation Ordinance Section 14.04.740.

Stage III. Water Shortage Alert

During Stage III, the water supply shortage is moderate. The City aggressively continues its public information and education programs. Consumers are asked for a 20 percent up to a 30 percent mandatory water use reduction.

All requirements of Stages I and II remain in effect. Additional requirements include:

- All persons using water provided from the City shall comply with level 1, water shortage watch, and level 2, water shortage caution, conservation practices during a level 3, water shortage alert, condition and shall also comply with the following additional mandatory conservation measures:
- Whether irrigated with potable or nonpotable water, limit all ornamental and turf irrigation to three days per week for no more than 10 minutes per station per day.
- Ornamental landscape or turf that utilizes properly operating water-efficient devices which include, but are not limited to, drip/micro irrigation systems, stream rotor sprinklers, and are operated by a functional irrigation controller, may upon verification by the City or its representative, be irrigated for up to 20 minutes per station on the days authorized for landscape irrigation.
- The following irrigation schedule will be implemented and enforced: odd addresses (the last digit is an odd number) may irrigate on Monday, Wednesday and Friday. Even addresses (the last digit is an even number) may irrigate on Tuesday, Thursday and Saturday. There will be no authorized landscape irrigation on Sunday.
- An alternative three-day schedule may be requested for irrigation of functional turf areas at schools and parks.
- Vehicles may only be washed at commercial carwashes that re-circulate water or by high-pressure/low-volume wash devices.
- Potable water may not be used for construction purposes. Nonpotable and/or recycled water must be utilized.

- Verification and repair of all leaks shall occur within 48 hours of notification by the City. (Ord. 991, 2015)

Enforcement procedures and penalties for water wasting continue as described in the City of Norco Water Conservation Ordinance Section 14.04.750.

Stage IV. Water Shortage Critical

During Stage IV of a water supply shortage, the shortage is severe and a 30 percent up to 40 percent reduction in water usage is required for the City to meet the immediate needs of its customers. The City aggressively continues its public information and education programs and consumers are asked for a 30 percent or greater mandatory water use reduction.

All requirements of Stages I, II, and III remain in effect. Additional requirements include:

- All persons using water provided by the City shall comply with level 1, water shortage watch, level 2, water shortage caution, and level 3, water shortage alert, conservation practices during a level 4, water shortage critical, condition and shall also comply with the following additional mandatory conservation measures:
- Whether irrigated with potable or nonpotable water, limit all irrigation to two days per week for no more than 10 minutes per station per day. Exemptions include:
- Maintenance of existing landscaping necessary for fire protection as specified by the Fire Marshal of the local fire protection agency having jurisdiction over the property to be irrigated. If fire protection landscaping is not sustainable by irrigation two days per week, irrigation may be increased to not more than three days per week;
- Maintenance of existing landscaping for erosion control may be irrigated up to three days per week, watering of livestock and other animals, Public works projects that support public health and safety; and actively irrigated environmental mitigation projects.
- Ornamental landscape or turf that utilizes properly operating water-efficient devices which include, but are not limited to, drip/micro irrigation systems, stream rotor sprinklers and are operated by a functional irrigation controller, may upon verification by the City or its representative be irrigated for up to 10 minutes per station on the days authorized for landscape irrigation.
- The following irrigation schedule will be implemented and enforced: odd addresses (the last digit is an odd number) may irrigate on Monday and Thursday. Even addresses (the last digit is an even number) may irrigate on Tuesday and Friday.

There will be no authorized landscape irrigation on Wednesday, Saturday, and Sunday.

- Upon the declaration of a water shortage response level 4 water shortage critical condition, no new temporary construction meters shall be provided, no statements of immediate ability to serve or provide potable water service such as letters (“Will Serve”) of water availability shall be issued. No new potable water services or meters shall be provided, except under the following circumstances:
- A valid, unexpired building permit has been issued for a portion of a project for which construction is in progress;
- The project is necessary to protect the public’s health, safety, and welfare as determined by the City Council; or
- The applicant provides substantial evidence to the satisfaction of the City of an enforceable commitment that water demands for the project will be offset by 125 percent prior to the provision of a new water meter(s). This provision shall not be construed to preclude the resetting or turn-on of meters to provide continuation of water service or to restore service that has been interrupted for a period of one year or less.
- Upon the declaration of a water shortage response level 4 condition, the City will suspend consideration of annexations to its service area, unless the annexation increases the water supply available to the City by more than the anticipated demands of the property to be annexed.
- To increase conservation, the City may establish a water allocation for property served. The following method will be utilized which accounts for general public health and safety:

Residential and Multifamily Customers.

- The City Council will determine the water allocation target percentage for residential accounts in the resolution adopting a level 4 water shortage response.
- This calculation will not apply to any residential account that uses less than 10 units in the billing period to ensure water is provided for public health and safety. A residential water allocation target will be calculated for each account by comparing the current billing period usage to the same period in the previous year.

If the residential account uses more water than the water allocation target amount, a penalty will be applied as noted in Section 14.04.790.

Commercial Customers.

- The City Council will determine the water allocation target percentage for commercial accounts in the resolution adopting a level 4 water shortage response.
- A commercial water allocation target will be calculated for each account by comparing the current billing period usage to the same period in the previous year.
- If the commercial account uses more water than the water allocation target amount, said commercial account shall be subject to the penalties set forth herein.
- Dedicated irrigation accounts must reduce their usage by a minimum of 50 percent. The amount may be adjusted by a resolution of the Board of Directors as deemed necessary to meet water supply demands.

An application may be made to the City Council for a variance from the water allocation target. (Ord. 991, 2015)

Enforcement procedures and penalties for water wasting continues as described in the City of Norco Water Conservation Ordinance Sections 14.01.760.

Stage V. Water Shortage Emergency

During Stage V of a water supply shortage, the shortage is critical and a 50 percent or greater reduction in water usage is required for the City to meet the immediate needs of its customers. The City aggressively continues its public information and education programs and consumers are asked for a 50 percent or greater mandatory water use reduction.

All requirements of Stages I, II, III, and IV remain in effect. Additional requirements may include:

- To increase conservation, the City may establish a water allocation for the property served. The following method will be utilized which accounts for general public health and safety.

Residential and Multifamily Customers.

- The City Council will determine the water allocation target percentage for residential accounts in the resolution adopting a level 5 water shortage response.

- This calculation will not apply to any residential accounts that use less than 10 units in the billing period to ensure water is provided for public health and safety.
- A residential water allocation target will be calculated for each account by comparing the current billing period usage to the same period in the previous year.
- If the residential account uses more water than the water allocation target amount, said residential accounts shall be subject to the penalties set forth herein.

Commercial Customers.

- The City Council will determine the water allocation target percentage for commercial accounts in the resolution adopting a level 5 water shortage response.
- A commercial water allocation target will be calculated for each account by comparing the current billing period usage to the same period in the previous year.
- If the commercial account uses more water than the water allocation target amount, said commercial account shall be subject to the penalties set forth herein.
- Dedicated irrigation accounts must reduce their usage by 50 percent. The amount may be adjusted by a resolution of the City Council as deemed necessary to meet water supply demands.

An application may be made to the City Council for a variance from the water allocation target. (Ord. 991, 2015)

Enforcement procedures and penalties for water wasting continue as described in the City of Norco Water Conservation Ordinance Section 14.04.770.

8.3 Penalties, Charges, Other Enforcement of Prohibitions

CWC 10632

(a)(6) Penalties or charges for excessive use, where applicable

A breakdown of the actions taken and/or violations and penalties in the event of water waste can be found in NMC Section 14.04.790.

8.4 Consumption Reduction Methods

CWC 10632

(a)(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

Consumption reduction methods are actions taken by the City in order to help reduce water consumption in its service area. These methods, briefly described in the narrative description above relative to each stage of the water conservation program, include ongoing public outreach and conservation activities described more completely as part of the discussion of DMMs in Chapter 9. The City’s Water Conservation Program uses several forms of public education to encourage water conservation on a continuous basis. In the event of a water shortage, some of these activities may be further emphasized, though few specific actions are briefly described in **Table 8-3**.

8.4.1 Categories of Consumption Reduction Methods

Table 8-3 describes categories recognized by the City. The City also reduces irrigation to municipal parks and buildings.

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods		
Stage	Consumption Reduction Methods by Water Supplier <i>Drop down list</i> <i>These are the only categories that will be accepted by the WUdata online submittal tool</i>	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>		
I, II, III, IV, V	Offer Water Use Surveys	Individual water audits/online customer portal
I, II, III, IV, V	Provide Rebates on Plumbing Fixtures and Devices	Provided by WMWD and MWD
I, II, III, IV, V	Provide Rebates for Landscape Irrigation Efficiency	Provided by WMWD and MWD
III, IV, V	Decrease Line Flushing	Reduction in water system flushing
I	Reduce System Water Loss	Meter calibration
NOTES:		

8.5 Determining Water Shortage Reductions

CWC 10632

(a)(9) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

Section 10632(a)(9) of the CWC requires that the urban suppliers include a mechanism for determining actual reductions in water use. For metered accounts, reductions in water use for each user can be determined based on meter readings. As described previously, the City installed an automated water meter system at all service connections.

In the event of a water shortage, the City will audit its production and consumption meters more frequently to detect potential water loss and/or individual usage increases.

The City can track its water use reduction through the state's DRINC portal, operated by the State Water Resources Control Board, which records the monthly usage by urban water suppliers made mandatory by drought emergency regulations. The website tracks water use reduction by comparing each supplier's monthly total potable water production with the same month's total production in 2013.

As of April 2016, the City has reduced residential water use approximately 25 percent compared with the same time period in 2013.

8.6 Revenue and Expenditure Impacts

CWC 10632

(a)(7) An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

Section 10632(a)(7) of the CWC requires an analysis of the impacts of the actions taken for conservation and water restriction on the revenues and expenditures of the water supplier, along with measures to overcome these impacts.

With the implementation of the water conservation measures mandated by the 2015 Executive Order, expenditures are expected to increase due to the executed water purchase agreements requiring the City to "take or pay". These agreements will require the City to continue purchasing the more expensive treated water in lieu of producing less expensive local groundwater. Due to this potential for expenditures to outpace revenue during a water shortage, the City will initiate a rate study during 2016 and create a rate model that is adjusted annually to ensure an ongoing revenue stream that will adequately support operation of the utility. The 25 percent reduction in revenue will create a reduction that will require adjustments to the fixed service charge for metered customers to help buffer the economic impacts of a reduction in use due to water shortage restrictions. For a catastrophic shortage, the City would use financial reserves to support the operation of the utility in the

short term. For a long term shortage, such as a multi-year drought, the City would make rate adjustments or institute drought pricing as needed.

During the current drought, the City has not considered drought pricing and plans to continue utilizing its flat rate structure until the 2016 rate study is completed.

8.6.1 Drought Rate Structures and Surcharges

The City continues to utilize a flat rate structure.

8.7 Resolution or Ordinance

CWC 10632

(a)(8) A draft water shortage contingency resolution or ordinance.

Section 10632(a)(8) of the CWC requires the inclusion of a draft water shortage contingency resolution or ordinance. In the event of a water shortage emergency, the following is a draft water shortage contingency resolution to be passed by the Norco City Council. The following draft resolution will provide the City Council's support to the Public Works Director during "Emergency Water Conservation" conditions.

RESOLUTION NO. 2016 - _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF NORCO, CALIFORNIA, ALLOWING THE DIRECTOR OF PUBLIC WORKS THE ABILITY TO INCREASE WATER RESTRICTIONS DURING AN EMERGENCY WATER CONSERVATION EVENT LOCATED IN NORCO CALIFORNIA

WHEREAS, Norco Municipal Code, Chapter 14.04.700 Article XXII Section, Emergency Water Conservation Program allows the Public Works Director to determine the degree of emergency and determine what additional restrictions of water use or other appropriate actions must be taken to protect the water system and the citizens of Norco; and

WHEREAS, the City of Norco is experiencing water shortages, therefore;

BE IT RESOLVED the City of Norco Council full support is given to the Public Works Director to make the appropriate recommendations which may include increased restrictions on watering days and hours, restrictions on washing vehicles, etc., restrictions on large water users, restrictions on flushing of water lines, restrictions on the filling of swimming pools, and increases in the current penalties for not complying with water conservation restrictions for the duration of the emergency, and urge full support and cooperation from the citizens of Norco.

PASSED AND ADOPTED by the City Council at a regular meeting held on June 15, 2016.

Mayor of the City of Norco, California

ATTEST:

Cheryl Link, City Clerk
City of Norco, California

8.8 Catastrophic Supply Interruption

CWC 10632

(a)(3) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

A catastrophic event that constitutes a proclamation of a water shortage is any event, either natural or manmade, that causes a severe shortage of water, synonymous with or with greater severity than the Stage III or Stage IV water conservation shortage conditions. The City has developed an SSMP for sewer operations includes appropriate personnel listings, resource inventories, locations for emergency operations centers, response procedures, and the steps necessary to resume normal operations. The City has entered into an MOA with WMWD to receive their CDA water, and is currently updating its Water Master Plan. The new operational challenges will require the City to create a water operations plan.

The City maintains a sound preventative maintenance program for its distribution system. Auxiliary generators are available and improvements to water facilities are made to minimize loss of these facilities during an earthquake or any disaster causing an electric power outage.

As described previously, the City has the ability to produce water from three individual groundwater basins creating water production flexibility.

8.9 Minimum Supply Next Three Years

CWC 10632

(a)(2) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.

CWC Section 10632(a)(2) requires an estimate of the minimum annual water supply availability during each of the next three water years (October 1 of the previous year to September 30 of 2016, 2017, and 2018) based on the driest three-year historical sequence for the agency's water supply previously determined in Chapter 7.

The City of water supply has historically been 70 percent purchased reverse-osmosis treated groundwater and local groundwater. The reliability of the groundwater supply over a 3-year

drought is assumed to be 100 percent. Even though regional groundwater levels have dropped slightly, no short-term groundwater supply problems are anticipated in the next three years, even if they remain dry. Recycled water for the next three years is based on the volume of wastewater treated, and available from the WRCRWA. **Table 8-4** shows the minimum water supply available for the next three water years assuming three years of dry conditions.

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	10,825	10,825	10,825
NOTES:			



CHAPTER 9 DEMAND MANAGEMENT MEASURES

9.1 Demand Management Measures for Retail Agencies

CWC 10631

(f)(A)... The narrative shall describe the water demand management measure that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

- (i)** Water waste prevention ordinances.
- (ii)** Metering.
- (iii)** Conservation pricing.
- (iv)** Public education and outreach.
- (v)** Programs to assess and manage distribution system real loss.
- (vi)** Water conservation program coordination and staffing support.
- (vii)** Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

The City actively encourages community participation in its water conservation efforts per city Water Conservation Ordinance No. 397. BMPs are water conservation practices that have been identified by the California Urban Water Conservation Council, conferences, BMP workshops, free publications, research regarding water management practices, leadership legislation, and networking with other agencies and special interest groups.

A description of the City's recommended water demand measures that may be implemented, or are scheduled for analysis. The City has planned for a potable water and recycled water rate study, waste water prevention ordinances, development of public information programs, distribution system audits, recycled water programs, and regional partnerships. The City has attempted to institute and comply with all BMPs where applicable. The UWMP outlines water conservation programs and BMPs currently implemented and planned by the City

9.1.1 Water waste prevention ordinances

The City's ongoing Water Conservation Ordinance (Norco Municipal Code, Chapter 14.04 first implemented in 1977 with the most recent update going into effect in 2015 defines water waste prohibitions for the City's customers.

The Ordinance provides several definitions of the “waste of water,” outlines watering days and hours, describes the City’s enforcement procedures, and discusses the violations and infractions process.

The effectiveness of the Water Conservation Ordinance can be determined by the overall reduction in water use. An effective way to evaluate the efforts of conservation is a periodic review of individual customer water use. Various studies have estimated water savings as a result of metering and commodity pricing. The City will continue to monitor the effectiveness of their DMM, through coordination with other DMMs, such as public education and outreach and water conservation program, may increase effectiveness. Combining customer education and outreach with this DMM is likely to improve its overall effectiveness. The City’s outreach efforts are described more thoroughly in the Public Education and Outreach section.

9.1.2 Metering

CWC 526

- (a) Notwithstanding any other provisions of law, an urban water supplier that, on or after January 1, 2004, receives water from the federal Central Valley Project under a water service contract or subcontract... shall do both of the following:
 - (1) On or before January 1, 2013, install water meters on all service connections to residential and nonagricultural commercial buildings... located within its service area.

CWC 527

- (a) An urban water supplier that is not subject to Section 526 shall do both the following:
 - (1) Install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025.

The City meters all potable water sources, recycled water sources, and wastewater discharges. The City also meters all potable water customers. The City has installed an automated meter reading system with access through the internet for customers to review and monitor their water usage.

9.1.3 Conservation Pricing

The City continues to have a flat water rate structure. The City has planned a water rate study in 2016.

9.1.4 Public Education and Outreach

The City has actively encouraged community participation in its water management planning efforts. The City has an active web site, participates in social media, and is developing an APP to push messaging. The majority of public education and outreach programs are administered by WMWD for the benefit their member agencies which includes the City of Norco. This ensures thorough coverage and consistent messaging.

9.1.5 Programs to Assess and Manage Distribution System Real Loss

The City has a five-year water capital improvement fund program designed to fund the replacement of distribution water lines, and other water infrastructure. The City has recently installed an automated meter reading system on all service connections.

9.1.6 Water Conservation Program Coordination and Staffing Support

The City does not have a formal water conservation program division. The City utilizes staff from all departments to assist with water conservation activities. WMWD has a water conservation program staff administering the extensive programs for their member agencies. The City is a member of WEAC.

9.1.7 Other Demand Management Measures

The implementation of the majority of the demand management measures are administered by WMWD for its member agencies which includes the City. WMWD offers a variety of financial incentives and rebate programs. WMWD currently offers a variety of rebates through its Water Conservation Rebate Program to promote the retrofitting of residential plumbing fixtures. Presently, on-going rebates are available for ultra-low flow toilets, low-flow shower heads, rain barrels, high-efficiency clothes washers, automatic sprinkler timers, hose bib manual timers, and insulated hot water blankets through an application and reimbursement system, and a turf replacement program when funds are available.

The City's Building Code requires that all new residential and commercial construction and major remodels or renovation of existing homes install low flow plumbing fixtures and fittings, including low flow toilets and showerheads.

9.2 Implementation over the Past Five Years

CWC 10631

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1)(A) ... a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years.

The nature and extent of DMM implementation over the past five years was already addressed in the individual sections describing each DMM above.

9.3 Planned Implementation to Achieve Water Use Targets

CWC 10631

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1)(A) ...The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

Any future implementation plans were already discussed in the individual sections describing each DMM above.

9.4 Members of the California Urban Water Conservation Council

CWC 10631

(i) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.

WMWD is a signatory to the BMP MOU as described in Section 9.1. As a signatory WMWD will continuously develop new conservation programs over the next 25 years to meet the requirements of each of the BMPs. In 2008, WMWD adopted a Water Use Efficiency Master Plan and regularly updates its Regional Water Use Efficiency Business Plan, both of which plan for the expansion of programs within its service area. Developing technology, opportunities, and funding will dictate the direction of these programs in their service area. Additional information on water conservation outreach and efforts is contained in the WMWD UWMP.

CHAPTER 10

PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

This chapter discusses the UWMP adoption, submittal, and implementation process. It is organized in accordance with the 2015 UWMP Guidebook sections and requirements to assist DWR in its review.

10.1 Inclusion of All 2015 Data

Data provided in this UWMP reflects fiscal years ending June 30 or each year. Data utilized is current through the end of the last full year – June 30, 2015.

10.2 Notice of Public Hearing

To provide the public opportunities to participate in the UWMP process, the City provided notification of the preparation of the updated document and public noticing of the public hearing, as described here. These steps were consistent with all California Water Code requirements for notification of availability of this document in its draft and final forms.

10.2.1 Notice to Cities and Counties

CWC 10621

(b) Every urban water supplier required to prepare a plan shall... at least 60 days prior to the public hearing on the plan ... notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.

CWC 10642

...The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area...

During the preparation of this UWMP, the City notified regional water suppliers and cities that provide water of its UWMP preparation and public hearing date, 30 days prior to the public hearing. The public hearing was held June 15, 2016 at the regular City Council meeting. A draft version of the UWMP was sent to the water agencies and cities listed below approximately 30 days prior to the public hearing for review and comment. Both notifications included the time and place of the public hearing.

Table 10-1 provides a list of the water agencies and cities that received the 30 day as well as the public hearing notification. The City notified Jurupa Community Services District, City of Corona, Western Municipal Water District, and Chino Basin Desalter Authority.

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
City of Corona	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Jurupa Community Services District	<input type="checkbox"/>	<input checked="" type="checkbox"/>
WMWD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CDA	<input type="checkbox"/>	<input checked="" type="checkbox"/>
County Name <i>Drop Down List</i>	60 Day Notice	Notice of Public Hearing
<i>Add additional rows as needed</i>		
Riverside County	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>

10.2.2 Notice to the Public

CWC 10642

...Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection...Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code...

Government Code 6066

Publication of notice pursuant to this section shall be once a week for two successive weeks. Two publications in a newspaper published once a week or oftener, with at least five days intervening between the respective publication dates not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the fourteenth day, including therein the first day.

10.3 Public Hearing and Adoption

CWC 10642

...Prior to adopting a plan, the urban water supplier shall hold a public hearing thereon.

CWC 10608.26

(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.

(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.

The City encouraged public participation in the UWMP development process through the noticing of the public hearing and by encouraging the review of the draft document. Availability of the draft UWMP and a legal notice of the public hearing was provided prior to the June 15, 2016 public hearing at a regular scheduled City Council meeting. The public hearing notice provided the time and place of the hearing as well as the location where the UWMP was available for public review (Norco City Hall) during normal business hours. This notice was published in a local newspaper once a week for two consecutive weeks with at least five days between each notice.

10.3.1 Adoption

CWC 10642

...After the hearing, the plan shall be adopted as prepared or as modified after the hearing

The public hearing was held at a regular City Council meeting on June 15, 2016 at 7:00 p.m. located at the City of Norco City Council chambers. The adoption of the plan occurred following the public hearing. Documentation of the letters notifying the public and agencies, along with public notices of the hearing encouraging the involvement of the general public, letters of correspondence and the adoption resolution are included in **Appendix B**.

10.4 Plan Submittal

CWC 10621

(d) An urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

CWC 10644

(a)(1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption.

CWC 10635

(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

The draft UWMP was made available for public review before the public hearing; the adopted plan was made available for public review during normal business hours for at least 30 days following adoption. The adoption resolution is provided in **Appendix B**.

The final 2015 UWMP was provided electronically to DWR, California State Library, the water agencies and cities listed in Table 10-1. The report was provided within 30 days after adoption by July 1, 2016. DWR received the adopted UWMP text and the data tables electronically through the WUE data online submittal tool that DWR developed.

10.5 Public Availability

CWC 10645

Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

10.6 Amending an Adopted UWMP

CWC 10621

(c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

CWC 10644

(a)(1) Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

APPENDIX A – UWMP CHECKLIST

Checklist Arranged by Subject

CWC Section	UWMP Requirement	Subject	Guidebook Location
10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1
10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 2.5.2
10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	Plan Preparation	Section 2.5.2
10631(a)	Describe the water supplier service area.	System Description	Section 3.1
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4
10631(a)	Indicate the current population of the service area.	System Description Baselines/Target	Sections 3.4 and 5.4
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier	System Water Use	Section 4.5
10608.20(b)	Retail suppliers shall adopt a 2020 water use target using one of four methods.	Baselines and Targets	Section 5.7 and App E
10608.20(e)	Retail suppliers shall provide baseline daily per	Baselines and	Chapter 5 and

	capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Targets	App E
10608.22	Retail suppliers’ per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.7.2
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.8.2
10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	Section 5.1
10608.40	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 5.8 and App E
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2
10631(b)(1)	Indicate whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2.2
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1
10631(b)(2)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2
10631(b)(2)	For unadjudicated basins, indicate whether or not the department has identified the basin as	System Supplies	Section 6.2.3

	overdrafted, or projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.		
10631(b)(3)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6.2.4
10631(b)(4)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Sections 6.2 and 6.9
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.7
10631(g)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years.	System Supplies	Section 6.8
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6
10631(j)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use projections from that source.	System Supplies	Section 2.5.1
10631(j)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	Section 2.5.1
10633	For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.1
10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 6.5.2
10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.5.2.2
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3 and 6.5.4

10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4
10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 6.5.4
10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.5.5
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5
10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.4
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1
10631(c)(1)	Provide data for an average water year, a single dry water year, and multiple dry water years	Water Supply Reliability Assessment	Section 7.2
10631(c)(2)	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source.	Water Supply Reliability Assessment	Section 7.1
10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1
10635(a)	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.3
10632(a) and 10632(a)(1)	Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Water Shortage Contingency Planning	Section 8.1
10632(a)(2)	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency.	Water Shortage Contingency Planning	Section 8.9
10632(a)(3)	Identify actions to be undertaken by the urban water supplier in case of a catastrophic	Water Shortage Contingency	Section 8.8

	interruption of water supplies.	Planning	
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3
10632(a)(7)	Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts.	Water Shortage Contingency Planning	Section 8.6
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7
10632(a)(9)	Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis.	Water Shortage Contingency Planning	Section 8.5
10631(f)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.2 and 9.3
10631(f)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	Sections 9.1 and 9.3
10631(i)	CUWCC members may submit their 2013-2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU.	Demand Management Measures	Section 9.5
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Section 10.3
10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.	Plan Adoption, Submittal, and Implementation	Section 10.2.1
10621(d)	Each urban water supplier shall update and submit its 2015 plan to the department by July 1,	Plan Adoption, Submittal, and	Sections 10.3.1 and 10.4

	2016.	Implementation	
10635(b)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 60 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 10.4.4
10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Sections 10.2.1
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4.3
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4.4
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2
10645	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5

APPENDIX B – NOTIFICATION LETTERS

DRAFT



CITY of NORCO

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CITY OF NORCO PUBLIC HEARING NOTICE 2015 URBAN WATER MANAGEMENT PLAN

April 21, 2016

Curtis D. Paxton
General Manager
Chino Basin Desalter Authority
2151 S. Haven Avenue
Ontario, CA 91761

Attn: Mr. Paxton

The City of Norco is in the process of preparing their Urban Water Management Plan. The California Water Code requires urban water suppliers within the state of California to prepare and adopt Urban Water Management Plans (UWMPs) for submission to the California Department of Water Resources (DWR). The UWMPs, which must be filed every five (5) years, must satisfy the requirements of the Urban Water Management Planning Act (UWMPA) of 1983 including amendments that have been made to the Act. The UWMPA requires urban water suppliers servicing 3,000 or more connections, or supplying more than 3,000 acre-feet (aft) of water annually, to prepare an UWMP.

A public hearing is scheduled for June 15, 2016 at 7:00 pm in the Norco City Council Chambers, 2820 Clark Avenue, Norco, CA 92860. All interested parties are invited to attend the public hearing and provide comments regarding the Draft 2015 UWMP. The draft plan will be available for review beginning May 10, 2016 on the City's web site (<http://www.norco.ca.us>) and at City Hall located at 2870 Clark Avenue, Norco, CA 92860. The final UWMP will be submitted to the DWR after adoption.

Respectfully,

Chad Blais
Director of Public Works

CITY COUNCIL

KEVIN BASH
Mayor

GREG NEWTON
Mayor Pro Tem

BERWIN HANNA
Council Member

ROBIN GRUNDMEYER
Council Member

TED HOFFMAN
Council Member



CITY of NORCO

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CITY OF NORCO PUBLIC HEARING NOTICE 2015 URBAN WATER MANAGEMENT PLAN

April 21, 2016

John Rossi
General Manager
Western Municipal Water District
14205 Meridian Pkwy.
Riverside, CA 92508

Attn: Mr. Rossi

The City of Norco is in the process of preparing their Urban Water Management Plan. The California Water Code requires urban water suppliers within the state of California to prepare and adopt Urban Water Management Plans (UWMPs) for submission to the California Department of Water Resources (DWR). The UWMPs, which must be filed every five (5) years, must satisfy the requirements of the Urban Water Management Planning Act (UWMPA) of 1983 including amendments that have been made to the Act. The UWMPA requires urban water suppliers servicing 3,000 or more connections, or supplying more than 3,000 acre-feet (aft) of water annually, to prepare an UWMP.

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Respectfully,

Chad Blais
Director of Public Works

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Council Member

TED HOFFMAN
Council Member



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CITY OF NORCO PUBLIC HEARING NOTICE 2015 URBAN WATER MANAGEMENT PLAN

April 21, 2016

Jonathan Daly
General Manager
Department of Water & Power
City of Corona
755 Public Safety Way
Corona, CA 92880

Attn: Mr. Daly

The City of Norco is in the process of preparing their Urban Water Management Plan. The California Water Code requires urban water suppliers within the state of California to prepare and adopt Urban Water Management Plans (UWMPs) for submission to the California Department of Water Resources (DWR). The UWMPs, which must be filed every five (5) years, must satisfy the requirements of the Urban Water Management Planning Act (UWMPA) of 1983 including amendments that have been made to the Act. The UWMPA requires urban water suppliers servicing 3,000 or more connections, or supplying more than 3,000 acre-feet (aft) of water annually, to prepare an UWMP.

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Respectfully,

Chad Blais
Director of Public Works

CITY COUNCIL

KEVIN BASH
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ROBIN GRUNDMEYER
Council Member

TED HOFFMAN
Council Member



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CITY OF NORCO PUBLIC HEARING NOTICE 2015 URBAN WATER MANAGEMENT PLAN

April 21, 2016

Todd Corbin
General Manager
Jurupa Community Services District
11201 Harrel Street
Jurupa Valley, CA 91752

Attn: Mr. Corbin

The City of Norco is in the process of preparing their Urban Water Management Plan. The California Water Code requires urban water suppliers within the state of California to prepare and adopt Urban Water Management Plans (UWMPs) for submission to the California Department of Water Resources (DWR). The UWMPs, which must be filed every five (5) years, must satisfy the requirements of the Urban Water Management Planning Act (UWMPA) of 1983 including amendments that have been made to the Act. The UWMPA requires urban water suppliers servicing 3,000 or more connections, or supplying more than 3,000 acre-feet (aft) of water annually, to prepare an UWMP.

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Respectfully,

Chad Blais
Director of Public Works

CITY COUNCIL

KEVIN BASH
Mayor

GREG NEWTON
Mayor Pro Tem

BERWIN HANNA
Council Member

ROBIN GRUNDMEYER
Council Member

TED HOFFMAN
Council Member

APPENDIX C – CLIMATE CHANGE VULNERABILITY ASSESSMENT

The Climate Change Vulnerability Assessment is taken from the Climate Change Handbook for Regional Water Planning, USEPA and DWR, 2011. The vulnerability assessment highlights those water-related resources that are important to a region and are sensitive to climate change.

I. Water Demand

Are there major industries that require cooling/process water in your planning region?

Response: No

Does water use vary by more than 50% seasonally in parts of your region?

Response: No

Are crops grown in your region climate-sensitive? Would shifts in daily heat patterns, such as how long heat lingers before night-time cooling, be prohibitive for some crops?

Response: No

Do groundwater supplies in your region lack resiliency after drought events?

Response: No

Are water use curtailment measures effective in your region?

Response: Yes

Are some instream flow requirements in your region either currently insufficient to support aquatic life, or occasionally unmet?

Response: No

II. Water Supply

Does a portion of the water supply in your region come from snowmelt?

Response: Yes

Does part of your region rely on water diverted from the Delta, imported from the Colorado River, or imported from other climate-sensitive systems outside your region?

Response: Yes

Does part of your region rely on coastal aquifers? Has salt intrusion been a problem in the past?

Response: No

Would your region have difficulty in storing carryover supply surpluses from year to year?

Response: No

Has your region faced a drought in the past during which it failed to meet local water demands?

Response: No

Does your region have invasive species management issues at your facilities, along conveyance structures, or in habitat areas?

Response: No

III. Water Quality

Are increased wildfires a threat in your region? If so, does your region include reservoirs with fire-susceptible vegetation nearby which could pose a water quality concern from increased erosion?

Response: No

Does part of your region rely on surface water bodies with current or recurrent water quality issues related to eutrophication, such as low dissolved oxygen or algal blooms? Are there other water quality constituents potentially exacerbated by climate change?

Response: No

Are seasonal low flows decreasing for some waterbodies in your region? If so, are the reduced low flows limiting the waterbodies' assimilative capacity?

Response: No

Are there beneficial uses designated for some water bodies in your region that cannot always be met due to water quality issues?

Response: Yes

Does part of your region currently observe water quality shifts during rain events that impact treatment facility operation?

Response: No

IV. Sea Level Rise

Has coastal erosion already been observed in your region?

Response: No

Are there coastal structures, such as levees or breakwaters, in your region?

Response: No

Is there significant coastal infrastructure, such as residences, recreation, water and wastewater treatment, tourism, and transportation) at less than six feet above mean sea level in your region?

Response: No

Are there climate-sensitive low-lying coastal habitats in your region?

Response: No

Are there areas in your region that currently flood during extreme high tides or storm surges?

Response: No

Is there land subsidence in the coastal areas of your region?

Response: No

Do tidal gauges along the coastal parts of your region show an increase over the past several decades?

Response: No

V. Flooding

Does critical infrastructure in your region lie within the 200-year floodplain? DWR's best available floodplain maps are available at:

http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/best_available_maps/

Response: No

Does part of your region lie within the Sacramento-San Joaquin Drainage District

Response: No

Does aging critical flood protection infrastructure exist in your region?

Response: No

Have flood control facilities (such as impoundment structures) been insufficient in the past?

Response: No

Are wildfires a concern in parts of your region?

Response: No

VI. Ecosystem and Habitat Vulnerability

Does your region include inland or coastal aquatic habitats vulnerable to erosion and sedimentation issues?

Response: No

Does your region include estuarine habitats which rely on seasonal freshwater flow patterns?

Response: No

Do climate-sensitive fauna or flora populations live in your region?

Response: No

Do endangered or threatened species exist in your region? Are changes in species distribution already being observed in parts of your region?

Response: Yes

Does the region rely on aquatic or water-dependent habitats for recreation or other economic activities?

Response: No

Are there rivers in your region with quantified environmental flow requirements or known water quality/quantity stressors to aquatic life?

Response: No

Do estuaries, coastal dunes, wetlands, marshes, or exposed beaches exist in your region? If so, are coastal storms possible/frequent in your region?

Response: No

Does your region include one or more of the habitats described in the Endangered Species Coalition's Top 10 habitats vulnerable to climate change <http://www.endangered.org/its-getting-hot-out-there/>

Response: Yes

Are there areas of fragmented estuarine, aquatic, or wetland wildlife habitat within your region? Are there movement corridors for species to naturally migrate? Are there infrastructure projects planned that might preclude species movement?

Response: No

VII. Hydropower

Is hydropower a source of electricity in your region?

Response: No

Are energy needs in your region expected to increase in the future? If so, are there future plans for hydropower generation facilities or conditions for hydropower generation in your region?

Response: Yes; No

APPENDIX D – WATER AUDIT

The water audit is an accounting exercise that is conceptually similar to a financial audit. Whereas a financial audit tracks all sources and uses of funds for an organization, a water audit tracks all sources and uses of water within a water system over a specified period.

The City meters all source production and customer service connections within its service area.

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APPENDIX E – SB X7-7 VERIFICATION FORM

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments <i>(in GPCD)</i>					2015 GPCD <i>(Adjusted if applicable)</i>	Did Supplier Achieve Targeted Reduction for 2015?
		Enter "0" if Adjustment Not Used			TOTAL Adjustments	Adjusted 2015 GPCD		
		Extraordinary Events	Weather Normalization	Economic Adjustment				
246	336	<i>From Methodology 8 (Optional)</i>	<i>From Methodology 8 (Optional)</i>	<i>From Methodology 8 (Optional)</i>	-	246	246	YES
NOTES:								

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APPENDIX F – PURCHASE WATER AGREEMENTS

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AMENDED AND RESTATED
WATER PURCHASE AGREEMENT

Dated as of January 1, 2011

By and Between

CHINO BASIN DESALTER AUTHORITY

and

THE CITY OF NORCO

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AMENDED AND RESTATED WATER PURCHASE AGREEMENT

This Agreement, dated as of January 1, 2011, by and between the Chino Basin Desalter Authority (the "Authority"), a joint exercise of powers agency duly organized and existing pursuant to Article 1, Chapter 5, Division 7, Title 1 of the Government Code (the "Joint Powers Act"), commencing with Section 6500, and the City of Norco (the "Purchaser").

WITNESSETH:

WHEREAS, the Purchaser and certain other Authority members who are water purveyors in the Chino Basin currently receive desalted water from the Authority pursuant to Water Purchase Agreements dated as of January 15, 2002.

WHEREAS, in accordance with the provisions of that certain Peace Agreement dated as of June 29, 2000, the Peace II Agreement, and Amendment No. 2 to Joint Exercise of Powers Agreement Creating the Chino Basin Desalter Authority, the Authority has agreed to expand the existing desalted water facilities of the Authority by addition of the Expansion Project, in order to: (1) increase the output thereof by a projected 10,600 acre-feet per year for a cumulative total of 35,200 acre-feet per year; and (2) sell such increased production to the Expansion Group; and (3) provide for increased reliability of desalted water deliveries from the Authority's existing facilities.

WHEREAS, such expansion of the Authority's existing desalter water facility is being undertaken through the design and construction of the Desalter Phase 3 Expansion Facilities ("Expansion Project"), which will be fully integrated with the Authority's existing desalter water facilities.

WHEREAS, the Expansion Project will be designed and constructed in accordance with direction received from Chino Basin Watermaster and in a manner that Chino Basin Watermaster believes will facilitate hydraulic control through reoperation in the Chino Basin, thereby creating an estimated additional 400,000 acre-feet of controlled overdraft, which will be allocated in accordance with the Peace II Agreement.

WHEREAS, the Expansion Group has commenced the design and construction of the Expansion Project, in furtherance of which Western, on behalf of the Expansion Group, has entered into an Intergovernmental Agreement with the Authority, dated October 21, 2009, which provides for the design, construction and acceptance by the Authority of a portion of the Expansion Project.

WHEREAS, in furtherance of the design and construction of the Expansion Project, Western and the Authority are anticipated to enter into that certain Second Amended and Restated Intergovernmental Agreement dated concurrently with this Agreement, which provides for Western to act as Project Manager in connection with the design and construction of the Expansion Project.

WHEREAS, the Authority is entering into a new Water Purchase Agreement with Western and a series of Amended and Restated Water Purchase Agreements with all other members of the Authority to document its acceptance of the design and construction work for the Expansion Project already completed, to accept responsibility for the completion of the Expansion Project (but not the obligation to pay the cost of such work, except as specifically set forth in Section 13(k)) and the integration of the Expansion Project into the Authority's existing desalter water facilities, and to

document the obligations of all Purchasers and Authority members who are water purveyors with regard to its desalter water facility, including the Expansion Project as they are designed, constructed, become operational and are fully integrated with the Authority's existing desalter water facilities.

WHEREAS, the Expansion Group has agreed to pay all capital costs for the design and construction of the Expansion Project allocated to the Expansion Group, as set forth in Exhibit E, attached hereto and incorporated herein, financed independently by each Expansion Group member (or the Authority in the event of a default of an Expansion Group member), as provided in this Agreement.

WHEREAS, in consideration for its payment of the capital costs of the Expansion Project, each Expansion Group member will receive the new or additional Project Allotment set forth in the third column of Exhibit A.

WHEREAS, if any member of the Expansion Group defaults in its obligation to pay for its share of the capital costs of the Expansion Project, this Agreement authorizes the Authority to issue Authority Bonds to cover such unmet costs, which Authority Bonds will be secured solely by revenues generated by such defaulting Expansion Group member's water system and on a parity with such Expansion Group member's bond and contract obligations that constitute operation and maintenance expenses.

WHEREAS, each Expansion Group member shall not be responsible for Authority operations and maintenance costs associated with the Expansion Project unless and until the Expansion Project Completion Date.

WHEREAS, upon full integration of the Expansion Project into the existing desalter water facilities, the price of desalter product water (not including Debt Service on any Authority Bonds issued after execution of this Agreement and Debt Service on outstanding Authority Bonds previously paid by Authority members) delivered from the Authority's desalted water facilities, including the Expansion Project, shall be charged to all members of the Authority at a rate calculated to achieve a uniform melded pro-rata allocation of costs among all Authority members, except as expressly otherwise provided herein, based upon each member's proportionate firm commitment to purchase water from the Authority, as set forth in Exhibit A.

WHEREAS, the Authority and the Purchaser now wish to enter into this Amended and Restated Purchase Agreement to provide for the acquisition, construction, operation and financing of the expanded desalted water facilities, for the sale by the Authority to the Purchaser of the Purchaser's Project Allotment and certain other matters.

NOW THEREFORE, the parties hereto do agree as follows:

Section 1. Definitions.

The following terms shall, for all purposes of this Agreement have the following meanings:

"Administrative Costs" means the administrative costs allocable to the operation and management of the Authority, calculated in accordance with generally accepted accounting principles, including but not limited to insurance, taxes (if any), fees of auditors, accountants,

attorneys or engineers and insurance premiums, but shall not include Project Operation and Maintenance Expenses.

“Authority” shall have the meaning assigned thereto in the preamble hereto.

“Authority Bonds” means bonds, notes or other evidences of indebtedness issued by or on behalf of the Authority to finance or refinance the Project.

“Authority Fiscal Year” means the twelve month period commencing on July 1 of each calendar year and ending on the following June 30 or such other twelve month period which may be designated by the Authority as its fiscal year.

“Bonds” mean all bonds, notes or similar obligations (but not including Contracts) of the Purchaser authorized and issued by the Purchaser under and pursuant to applicable laws of the State of California after the date of execution of this Agreement, the principal of and interest on which are an operation and maintenance expense of the Purchaser Water System determined in accordance with generally accepted accounting principles and which are secured by a pledge or a lien on Purchaser Net Water System Revenues and which are on a parity with the obligations of the Purchaser under this Agreement.

“Bond Resolution” means the resolution or resolutions providing for the issuance of Authority Bonds and the terms thereof, and any indenture or trust agreement related thereto.

“Contract Payments” means:

- (1) the interest payable during such Purchaser Fiscal Year on all outstanding Bonds, assuming that all outstanding term Bonds are redeemed or paid from sinking fund payments as scheduled (except to the extent that such interest is to be paid from the proceeds of the sale of any Bonds);
- (2) that portion of the principal amount of all outstanding serial Bonds maturing during such Purchaser Fiscal Year;
- (3) that portion of the principal amount of all outstanding term Bonds required to be redeemed or paid during such Purchaser Fiscal Year; and
- (4) that portion of payments under Contracts (other than under this Agreement) constituting principal and interest required to be made at the times provided in the Contracts.

“Contracts” means this Agreement and all contracts of the Purchaser authorized and executed by the Purchaser under and pursuant to the applicable laws of the State of California after the date of execution of this Agreement, the payments under which are an operation and maintenance expense of the Purchaser Water System determined in accordance with generally accepted accounting principles and which are secured by a pledge of or lien on the Purchaser Net Water System Revenues and which are on a parity with the obligations of the Purchaser under this Agreement.

“Debt Service” means, as of the date of calculation and with respect to Authority Bonds, an amount equal to the sum of (i) interest payable during such Authority Fiscal Year on Authority Bonds, except to the extent that such interest is to be paid from capitalized interest, (ii) that portion of principal of Authority Bonds payable during such Authority Fiscal Year, (iii) amounts necessary to

replenish the Reserve Fund created pursuant to the Bond Resolution, and (iv) all letters of credit and other financing costs payable on a periodic basis. Such interest, principal installments and financing costs for such series shall be calculated on the assumption that no Authority Bonds outstanding at the date of calculation will cease to be outstanding except by reason of the payment of principal on the due date thereof;

provided further that, as to any such Authority Bonds bearing or comprising interest at other than a fixed rate, the rate of interest used to calculate Debt Service shall be one hundred ten percent (110%) of the greater of (a) the daily average interest rate on such Authority Bonds during the twelve (12) calendar months preceding the date of calculation (or the portion of the then current Authority Fiscal Year that such Authority Bonds have borne interest) or (b) the most recent effective interest rate on such Authority Bonds prior to the date of calculation; and

provided further that, as to any such Authority Bonds or portions thereof bearing no interest but which are sold at a discount and which discount accretes with respect to such Authority Bonds or portions thereof, such accreted discount shall be treated as interest in the calculation of Debt Service; and

provided further that the amount on deposit in a debt service reserve fund on any date of calculation of Debt Service shall be deducted from the amount of principal due at the final maturity of the Authority Bonds for which such debt service reserve fund was established and in each preceding Authority Fiscal Year until such amount is exhausted.

“Expansion Group” means the City of Ontario, Western, and Jurupa Community Services District.

“Expansion Project” means the facilities described in the Chino Desalter Phase 3 Comprehensive Predesign Report approved by the Authority Board of Directors on January 6, 2011. The Authority and the Purchaser acknowledge that portions of the Expansion Project are currently being designed or constructed and that the definition of the Expansion Project may be revised from time to time prior to commencement of construction with the approval of the Authority Board of Directors but without amendment to this Agreement.

“Expansion Project Completion Date” means the date that is thirty-five (35) days following recordation of the final notice of completion for the Expansion Project (which date shall not be prior to the date that the Expansion Project is operating substantially at design capacity).

“Facilities Acquisition Agreement” means the Facilities Acquisition Agreement, dated as of January 15, 2002, by and between SAWPA and the Authority, as such Facilities Acquisition Agreement may be amended or supplemented from time-to-time.

“Fixed Project Costs” means capital costs, including Debt Service, and reserves for repair and replacement and improvement to the Project and for payment of Debt Service of the Project, and all other amounts paid by the Authority other than Variable O&M Costs and Fixed O&M Costs.

“Fixed O&M Costs” means operation, maintenance, power, replacement and other costs, including Project Operation and Maintenance Expenses and a reasonable reserve for contingencies, in each case incurred by the Authority with respect to the Project, irrespective of the amount of water delivered to the Project Participants, including but not limited to amounts required to be deposited in

not limited to amounts payable to Jurupa Community Services District under the Agreement By And Between The Chino Basin Desalter Authority, Jurupa Community Services District, The City Of Ontario, The City Of Norco And Santa Ana River Water Company Providing For The Transportation Of Chino II Desalter Water, as it may be amended from time to time.

“Independent Certified Public Accountant” means any firm of certified public accountants appointed by the Purchaser, or the Authority, as the case may be, and each of whom is independent pursuant to the Statement on Auditing Standards No. 1 of the American Institute of Certified Public Accountants.

“Intergovernmental Agreement” means the Second Amended and Restated Governmental Agreement by and between the Authority and Western Municipal Water District of Riverside County, as such agreement may be amended or supplemented from time-to time.

“Joint Powers Agreement” means the Joint Exercise of Powers Agreement creating the Chino Basin Desalter Authority, as such agreement may be amended or supplemented from time to time.

“Peace II Agreement” means that certain Peace II Agreement: Party Support for Watermaster’s OBMP Implementation Plan, – Settlement and Release of Claims Regarding Future Desalters, dated as of October 25, 2007.

“Project” means those certain facilities necessary to produce and deliver desalted water to the Project Participants, including the following: (i) the existing Chino I Desalter, (ii) the existing Chino I Expansion facilities, (iii) the existing Chino II Desalter, (iv) the Expansion Project and (v) related water pipelines, electric generators and associated facilities. The Authority and the Purchaser acknowledge that portions of the Expansion Project are currently being designed or constructed and that the definition of the Project may be revised from time-to-time prior to commencement of construction without amendment to this Agreement. The Project does not include any obligations of Western under the Peace II Agreement other than the obligation to construct and finance the Expansion Project.

“Project Allotment” means the volume of desalted water per year set forth on Exhibit A hereto.

“Project Operation and Maintenance Expenses” means the actual costs spent or incurred by the Authority for maintaining and operating the Project, calculated in accordance with generally accepted accounting principles and Section 9 hereof, including (among other things) the expenses of management and repair and other expenses necessary to maintain and preserve the Project, in good repair and working order, or charges required to be paid by it to comply with the terms of the Authority Bonds or of this Agreement, but excluding in all cases (i) depreciation, replacement and obsolescence charges or reserves therefor, (ii) amortization of intangibles or other bookkeeping entries of a similar nature, (iii) Administrative Costs, (iv) costs of capital additions, replacements, betterments, extensions or improvements to the Project, which under generally accepted accounting principles are chargeable to a capital account or to a reserve for depreciation and (v) Debt Service.

“Project Participant” means the Purchaser and each entity listed in Exhibit A hereto executing Water Purchase Agreements with the Authority.

“Purchaser” shall have the meaning assigned thereto in the preamble hereto.

“Purchaser Fiscal Year” means the twelve month period commencing on July 1 of each year and ending on the following June 30 or such other twelve month period which may be designated by the Purchaser as its fiscal year.

“Purchaser Net Water System Revenues” means, for any Purchaser Fiscal Year, the Purchaser Water System Revenues for such Purchaser Fiscal Year less the Purchaser Operation and Maintenance Expenses for such Purchaser Fiscal Year.

“Purchaser Operation and Maintenance Expenses” means the costs spent or incurred by the Purchaser for maintaining and operating the Purchaser Water System, calculated in accordance with generally accepted accounting principles, including (among other things) the expenses of management and repair and other expenses necessary to maintain and preserve the Purchaser Water System, in good repair and working order, and including administrative costs of the Purchaser, salaries and wages of employees, payments to the Public Employees Retirement System, overhead, insurance, taxes (if any), fees of auditors, accountants, attorneys or engineers and insurance premiums, and all other reasonable and necessary costs of the Purchaser, but excluding in all cases (i) depreciation, replacement and obsolescence charges or reserves therefor, (ii) amortization of intangibles or other bookkeeping entries of a similar nature, (iii) charges for the payment of principal and interest on Bonds or Contracts and (iv) payments under this Agreement.

“Purchaser Share” means the Purchaser’s Project Allotment divided by the sum of all Project Participants’ Project Allotments, all as set forth as Exhibit A hereto.

“Purchaser Water System” means properties and assets, real and personal, tangible and intangible, of the Purchaser now or hereafter existing, used or pertaining to the acquisition, treatment, reclamation, transmission, distribution and sale of water, including all additions, extensions, expansions, improvements and betterments thereto and equipment relating thereto; provided, however, that to the extent the Purchaser is not the sole owner of an asset or property or to the extent that an asset or property is used in part for the above described water purposes, only the Purchaser’s ownership interest in such asset or property or only the part of the asset or property so used for water purposes shall be considered to be part of the Purchaser Water System.

“Purchaser Water System Revenues” means the income, rents, rates, fees, charges, and other moneys derived by the Purchaser from the ownership or operation of Purchaser Water System including, without limiting the generality of the foregoing, (i) all income, rents, rates, fees, charges or other moneys derived from the sale, furnishing, and supplying of water and other services, facilities, and commodities sold, furnished, or supplied through the facilities of Purchaser Water System, including standby and availability charges, capital water facilities fees for design, construction and reconstruction expenses, development fees and other fees allocable to the Purchaser Water System, (ii) taxes or assessments as may be imposed if the levy thereof and payment hereunder is permitted by law, and (iii) the earnings on and income derived from amounts set forth in clauses (i) and (ii) above, and shall not include (y) customers’ deposits or any other deposits subject to refund until such deposits have become the property of the Purchaser and (z) proceeds of any taxes or assessments except taxes or assessments described in clause (ii) above.

“SAWPA” means the Santa Ana Watershed Project Authority, a joint exercise powers agency, including the successors and assigns thereof.

“Term Sheet” means the Integrated Chino-Arlington Desalters System Term Sheet, entered into by each of the Project Participants in 2001.

“Trustee” means the entity or entities designated by the Authority pursuant to any Bond Resolution to administer any funds or accounts required by such Bond Resolution or otherwise.

“Variable O&M Costs” means the operation, maintenance, power, replacement and other costs, including Project Operation and Maintenance Expenses incurred by the Authority in connection with the Project in an amount which is dependent upon and varies with the amount of water delivered to the Project Participants.

“Water Purchase Agreement” means this Amended and Restated Water Purchase Agreement and each Amended and Restated Water Purchase Agreement by and between the Authority and a Project Participant, as the same may be amended or supplemented from time to time.

“Western” means Western Municipal Water District of Riverside County, including the successor thereof.

Section 2. Purpose.

The purpose of this Agreement is for the Authority to sell Project Allotment to the Purchaser, to deliver Project Allotment to the Purchaser available from the Project, to provide the terms and conditions of such delivery and sale and to provide for the acquisition, construction and financing of the Project. The parties hereto confirm that this Agreement constitutes a contractual right to purchase desalted water and that no water right is being transferred by the Authority to any Project Participant under this Agreement.

Section 3. Financing, Construction and Operation.

The Authority will use its best efforts to cause or accomplish the acquisition, construction, operation and financing (subject to Section 13(k)) of the Project, the obtaining of all necessary authority and rights, consents and approvals, and the performance of all things necessary and convenient therefor, subject to compliance with all necessary federal and state laws, including but not limited to the California Environmental Quality Act (“CEQA”), the terms and conditions of the Authority’s permits and licenses and all other agreements relating thereto. Notwithstanding the foregoing, the Authority acknowledges that, subject to Section 13(k), the Purchaser has no obligation to pay Fixed Project Costs for the initial costs of the Expansion Project. The Purchaser acknowledges and agrees that the Authority has contracted with Western to design, acquire and construct the Expansion Project in accordance with the Intergovernmental Agreement.

Section 4. Delivery of Water.

(a) Request by Purchaser. Pursuant to the terms of this Agreement, the Authority shall provide to the Purchaser, and the Purchaser shall take, or cause to be taken, in each Authority Fiscal Year an amount of water equal to the Purchaser’s Project Allotment unless the Purchaser notifies the Authority, pursuant to procedures to be developed by the Authority, that the Purchaser requires an amount of water less than the Purchaser’s Project Allotment. Subject to the Project Participant’s payment obligations hereunder, the Authority agrees to use its best efforts to deliver desalted water pursuant to this Agreement meeting the water quality standards set forth in Section 5.3 of the Joint

Powers Agreement and all applicable local, state and federal water quality standards as such standards may be in effect from time to time.

(b) Points of Delivery; Flow Rate. The Authority will deliver or cause to be delivered to or for the account of the Purchaser the amount of water specified in each request at a flow rate and through delivery structures at a point along the Project to be agreed upon by the Authority and the Purchaser. The Authority will remain available to make or cause to be made all necessary and possible arrangements for transmission and delivery of such water in accordance with this Agreement.

(c) Delivery of Water Not Delivered in Accordance with Schedule. If in any Authority Fiscal Year the Authority, as a result of causes beyond its control, is unable to deliver any portion of the Purchaser's Project Allotment for such Authority Fiscal Year as provided for in the delivery schedule established for that Authority Fiscal Year, the Purchaser may elect to receive the amount of water which otherwise would have been delivered to it during such period at other times during the Authority Fiscal Year or subsequent to such Authority Fiscal Year, to the extent that such water is then available and such election is consistent with the Authority's overall delivery ability, considering the then current delivery schedules of all Project Participants and the Authority.

(d) SARWC Request. Pursuant to the Joint Powers Agreement, if Santa Ana River Water Company cannot receive the full 1,200 acre feet of water allocated thereto as provided in the Term Sheet, then Jurupa Community Services District and the City of Ontario will abate their deliveries of water from the Project on a pro-rata basis (based on the Project Allotments set forth in the second column of Exhibit A) to ensure that Santa Ana River Water Company can receive the full 1,200 acre feet of water from the Authority for such year. Notwithstanding the foregoing, Jurupa Community Services District and the City of Ontario shall only have such obligation if Santa Ana River Water Company's demand for water is constant or at a "steady-rate" of 744 gpm.

Section 5. Curtailment of Delivery for Maintenance Purposes.

(a) Authority May Curtail Deliveries. The Authority may temporarily discontinue or reduce the delivery of water to the Purchaser hereunder for the purposes of necessary investigation, inspection, maintenance, repair, or replacement of any of the Project facilities necessary for the delivery of water to the Purchaser. The Authority shall notify the Purchaser as far in advance as possible of any such discontinuance or reduction, except in cases of emergency, in which case notice shall be given as soon thereafter as possible.

(b) Purchaser May Receive Later Delivery of Water Not Delivered. In the event of any discontinuance or reduction of delivery of water pursuant to subsection (a) of this Section, the Purchaser may elect to receive the amount of water which otherwise would have been delivered to it during such period under the water delivery schedule for that Authority Fiscal Year at other times during the Authority Fiscal Year or subsequent to such Authority Fiscal Year to the extent that such water is then available and such election is consistent with the Authority's overall delivery ability, considering the then current delivery schedules of all Project Participants and the Authority.

Section 6. Shortage in Water Supply.

In any Authority Fiscal Year in which there may occur a shortage or interruption in the supply of water available for delivery to the Project Participants, including but not limited to

shortages or interruptions caused by changes in laws, regulations or rulings relating to or affecting the Authority's permits and licenses, with the result that such supply is less than the total of the annual Project Allotments of all Project Participants for that Authority Fiscal Year, the Authority shall reduce the delivery of water to the Purchaser in accordance with the Joint Powers Agreement.

Section 7. Measurement of Water Delivered.

The Authority shall measure, or cause to be measured, all water delivered to the Purchaser and shall keep and maintain accurate and complete records thereof. For this purpose and in accordance with Section 4 hereof, the Authority shall install, operate, and maintain, or cause to be installed, operated and maintained, at all delivery structures for delivery of water to the Purchaser at the point of delivery determined in accordance with Section 4(b) such measuring devices and equipment as are satisfactory and acceptable to both parties. Said devices and equipment shall be examined, tested, and serviced by the Authority regularly to insure their accuracy. At any time or times, the Purchaser may inspect such measuring devices and equipment, and the measurements and records taken therefrom.

Section 8. Responsibility for Delivery and Distribution of Water.

(a) Neither the Authority nor any of its officers or agents shall be liable for the control, carriage, handling, use, disposal, or distribution of water supplied to the Purchaser after such water has passed the points of delivery established in accordance with Section 4(b) hereof; nor for claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal or distribution of such water beyond said points of delivery and including attorneys fees and other costs of defense in connection therewith; the Purchaser shall indemnify and hold harmless the Authority and its officers, agents, and employees from any such damages or claims of damages.

(b) Neither the Purchaser nor any of its officers, agents, or employees shall be liable for the control, carriage, handling, use, disposal, or distribution of water supplied to the Purchaser until such water has passed the points of delivery established in accordance with Section 4(b) hereof; nor for claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal or distribution of such water prior to such water passing said points of delivery and including attorneys fees and other costs of defense in connection therewith; the Authority shall indemnify and hold harmless the Purchaser and its officers, agents, and employees from any such damages or claims of damages.

Section 9. Rates and Charges.

(a) Establishment of Rates and Charges. The Authority shall fix charges to the Purchaser under this Agreement to produce revenues to the Authority from the Project equal to the amounts anticipated to be needed by the Authority to pay Administrative Costs and to pay the actual cost of producing the Purchaser's Project Allotment, which shall include the following costs of the Authority to deliver the Purchaser's Project Allotment through the Project: (i) Fixed Project Costs, (ii) Fixed O&M Costs and (iii) Variable O&M Costs.

(b) Insufficiency of Funds. If Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs collected by the Authority are insufficient to operate and maintain the Project as

contemplated under the Joint Powers Agreement, the Authority shall notify the Purchaser of such insufficiency and the Purchaser shall pay to the Authority an amount of such insufficiency equal to such insufficiency multiplied by the Purchaser Share. The obligation of the Purchaser to pay Administrative Costs shall commence immediately upon the execution and delivery of this Agreement and shall continue so long as the Purchaser is a member of the Authority. The obligation of the Purchaser to pay Fixed Project Costs and Fixed O&M Costs shall commence immediately upon execution of this Agreement and continue to exist and be honored by the Purchaser whether or not water is furnished to it from the Project at all times or at all (which provision may be characterized as an obligation to pay all costs on a take-or-pay basis whether or not water is delivered or provided and whether or not the Project is completed or is operable).

(c) Source of Payments. The obligation of the Purchaser to make payments under this Agreement is a limited obligation of the Purchaser and not a general obligation thereof. The Purchaser shall make payments under this Agreement solely from Purchaser Water System Revenues as a Purchaser Operation and Maintenance Expense. The Purchaser shall make such payments on a parity with other Purchaser Operation and Maintenance Expenses and prior to any other payments other than Bonds or Contracts. Nothing herein shall be construed as prohibiting (i) the Purchaser from using any other funds and revenues for purposes of satisfying any provisions of this Agreement or (ii) from incurring obligations payable on a parity with the obligations under this Agreement so long as the Purchaser complies with Section 13(a) hereof.

(d) Obligation Is Not Subject To Reduction. The Purchaser shall make payments of Fixed Project Costs and Fixed O&M Costs under this Agreement whether or not the Project is completed, operable, operated or retired and notwithstanding the suspension, interruption, interference, reduction or curtailment of operation of the Project or of water contracted for in whole or in part for any reason whatsoever. Such payments are not subject to any reduction, whether offset or otherwise, and are not conditioned upon performance by the Authority or any other Project Participant under this Agreement or any other agreement.

(e) Several Obligation. The Purchaser shall not be liable under this Agreement for the obligations of any other Project Participant. The Purchaser shall be solely responsible and liable for performance of its obligations under this Agreement. The obligation of the Purchaser to make payments under this Agreement is a several obligation and not a joint obligation with those of the other Project Participants.

(f) Allocation of Costs and Expenses.

Except as expressly provided in Sections 3 and 13(k) for payment of Expansion Project Fixed Project Costs, the Authority shall not allocate costs and expenses in any way which discriminates among Project Participants.

(i) Method of Computation of Fixed Project Costs and Fixed O&M Costs. The Fixed Project Costs shall be sufficient to return to the Authority those capital costs of the Authority necessary to deliver water to the Purchaser. The Fixed O&M Costs shall be sufficient to return to the Authority Project Operation and Maintenance Expenses and a reasonable reserve for contingencies, in each case incurred by the Authority with respect to the Project, irrespective of the amount of water delivered to the Project Participants. The total amount of Fixed Project Costs shall be allocated to the Purchaser by multiplying the Purchaser Share times all Fixed Project Costs. The total amount of Fixed O&M Costs shall

be allocated to the Purchaser by multiplying the Purchaser Share times all Fixed O&M Costs. The Purchaser Share of Fixed Project Costs and Fixed O&M Costs shall initially be calculated using the figures in the second column on Exhibit A; commencing upon the Expansion Project Completion Date, the Purchaser Share of Fixed Project Costs and Fixed O&M Costs shall be calculated using the expanded Purchaser's Project Allotment described in the third column on Exhibit A.

(ii) Method of Computation of Variable O&M Costs. The Variable O&M Costs shall return to the Authority those costs of the Project which constitute Variable O&M Costs. There shall be computed for the Project a charge per acre-foot of water which will return to the Authority the total projected Variable O&M Costs of the Project for each Authority Fiscal Year. The parties confirm that if the Purchaser complies with the notice requirement of Section 4(a), no Variable O&M Costs will be allocated to the Purchaser for the portion of Project Allotment not produced by the Authority for the Purchaser.

(iii) Method of Computing Administrative Costs. Administrative Costs shall be sufficient to return to the Authority all costs of operating and managing the Authority, including reasonable reserves for contingencies. The total amount of Administrative Costs shall be allocable to the Purchaser by multiplying (i) the Project Allotment in the third column on Exhibit A divided by the total Project Allotment in the third column on Exhibit A, times (ii) all Administrative Costs.

(iv) Adjustments. The Authority shall update the values and amounts of Administrative Costs, Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs on a quarterly basis, including year-to-date comparisons to the approved Administrative Costs budget and Project budget in order that the costs and expenses to the Purchaser may accurately reflect increases or decreases from Authority Fiscal Year to Authority Fiscal Year in Administrative Costs, Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs. In addition, each such determination shall include an adjustment to be paid or received by the Purchaser for succeeding Authority Fiscal Years which shall account for the differences, if any, between projections of Administrative Costs, Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs used by the Authority in determining the amounts of said Administrative Costs, Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs for all preceding Authority Fiscal Years and actual Administrative Costs, Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs incurred by the Authority for water delivered to the Purchaser during such Authority Fiscal Years.

(v) Interest Earnings. Interest earnings on all amounts paid by the Purchaser to the Authority shall be credited to the Purchaser through the budgeting process.

The Authority hereby acknowledges the right of the Purchaser to prepay all, or any portion of, the Purchaser's Project Share of Fixed Project Costs constituting Debt Service pursuant to this Agreement based on the Purchaser's Project Allotment, if and to the extent such prepayment is permitted under the applicable Bond Resolution. The Authority shall accept from the Purchaser prepayments of all, or any portion of, the Purchaser's Project Share of Fixed Project Costs constituting Debt Service and apply such prepayments as set forth in this Section 9(f)(i). If and to the extent such prepayment is permitted under the applicable Bond Resolution, the Authority and the Purchaser agree that the Purchaser may prepay all or a portion of its obligation to pay Fixed Project Costs constituting Debt Service pursuant to this Section 9 by providing the Treasurer of the Authority

written notice of (i) its intention to pay to the Trustee, on or before the Prepayment Date (as defined below), the Purchaser's Project Share of the principal amount of the Authority Bonds (the "Prepayment Amount"), and (ii) that the Purchaser has sufficient funds available to pay the Prepayment Amount on or before the Prepayment Date. The Prepayment Amount shall be calculated as: (1) a principal payment equal to the Purchaser's Project Share, as adjusted to reflect prepayments of Authority Bonds by any other Project Participant, of Authority Bonds then outstanding and being prepaid, in the principal amount and of the maturities designated in writing by the Purchaser; plus (2) accrued interest from the last date on which the Purchaser made a payment of the Purchaser's Project Share of Debt Service to the first date the Debt Service may be redeemed by the Authority after the Authority has received written notice from the Purchaser of its intention to prepay such Debt Service (the "Prepayment Date"); plus (3) any applicable redemption premium with respect to the Authority Bonds to be refunded on the Prepayment Date, less (4) a credit for the Purchaser's Project Share, as adjusted to reflect prepayments of Authority Bonds by any other Project Participant, of any cash funded reserve fund established for the Authority Bonds from proceeds of such Authority Bonds. After providing written notice to the Authority as described above, the Purchaser shall deposit with the Trustee the Prepayment Amount, in immediately available funds, no later than the last business day before the Prepayment Date. In the event the Authority issues additional Authority Bonds for the Project, the Purchaser may also prepay all or a portion of its allocable share of the principal amount of those Authority Bonds, calculated as set forth in the preceding sentence.

(g) Time and Method of Payment.

(i) Administrative Costs, Fixed Project Costs and Fixed O&M Costs. The Purchaser shall pay to the Authority, on or before January 15, April 15, July 15 and October 15 of each Authority Fiscal Year, 25% of the charge to the Purchaser for such Authority Fiscal Year of the Administrative Costs, Fixed Project Costs and Fixed O&M Costs. The parties acknowledge that Purchasers of Project Allotment allocable to the Expansion Project have no obligation to pay Fixed O&M Costs associated with the Expansion Project until the Expansion Project Completion Date.

(ii) Variable O&M Costs. The Purchaser shall pay to the Authority the charges to the Purchaser for the Variable O&M Costs for the three-month period commencing on the next succeeding January 1, April 1, July 1 or October 1 so that the Authority receives quarterly payments of Variable O&M Costs three months in advance of the time when such Variable O&M Costs will begin to be incurred by the Authority.

(iii) Contest of Accuracy of Charges. If the Purchaser questions or disputes the correctness of any billing statement by the Authority, it shall pay the Authority the amount claimed when due and shall, within thirty (30) days of the completion and delivery of the Authority's annual audit, request an explanation from the Authority. If the bill is determined to be incorrect, the Authority will adjust the bill to the Purchaser in the next Authority Fiscal Year, including an adjustment equal to the interest actually earned by the Authority on its general reserves during such period. If the Authority and the Purchaser fail to agree on the correctness of a bill within thirty (30) days after the Purchaser has requested an explanation, the parties shall promptly submit the dispute to arbitration under Section 1280 et seq. of the Code of Civil Procedure.

Section 10. Annual Budget and Billing Statement.

The Authority will prepare a preliminary annual budget for each applicable Authority Fiscal Year for credits, costs and expenses relating to Administrative Costs and a preliminary annual budget for each applicable Authority Fiscal Year for credits, costs and expenses relating to the Project, including Variable O&M Costs, Fixed O&M Costs and Fixed Project Costs. The Authority shall submit a draft of such budgets to the Purchaser on or prior to each April 1 for review and comment. Authority staff shall use its best efforts to resolve any questions or concerns caused by a Project Participant during such review. The Board of Directors of the Authority will adopt the final annual budgets for the applicable Authority Fiscal Year on or before June 1 of each Authority Fiscal Year after at least one public hearing on the budgets and shall allow any Project Participant which may object to any provision of the budgets to present such objection during such hearing. The Authority shall supply a copy of said final annual budgets to the Purchaser on or before June 15 of each Authority Fiscal Year. Any amendment to a budget shall be submitted to the Purchaser for review and comment at least 30 days prior to action thereon by the Authority Board of Directors. Any such amendment shall be subject to the same hearing requirements applicable to the budgets set forth above.

Section 11. Obligation in the Event of Default.

(a) Written Demand. Upon failure of the Purchaser to (i) make any payment in full when due under this Agreement or (ii) to perform any other obligation hereunder, the Authority shall make written demand upon the Purchaser. If a failure described in clause (i) above is not remedied within thirty (30) days from the date of such demand or, if Authority Bonds are outstanding, for such additional time as is reasonably required, in the sole discretion of the Trustee, to correct the same, such failure shall constitute a default at the expiration of such period. If a failure described in clause (ii) cannot be remedied within thirty (30) days from the date of such demand but the Purchaser commences remedial action within such thirty (30) day period, such failure shall not constitute a default hereunder. Notice of any such demand shall be provided to each other Project Participant by the Authority. Upon failure of the Authority to perform any obligation of the Authority hereunder, the Purchaser shall make written demand upon the Authority, and if said failure is not remedied within thirty (30) days from the date of such demand or, if Authority Bonds are outstanding, for such additional time as is reasonably required, in the sole discretion of the Trustee, to correct the same, such failure shall constitute a default at the expiration of such period. Notice of such demand shall be provided to each Project Participant by the Purchaser making such written demand.

In addition to any default resulting from breach by the Authority or the Purchaser of any agreement, condition, covenant or term hereof, if the Authority or the Purchaser shall file any petition or institute any proceedings under any act or acts, state or federal, dealing with or relating to the subject of bankruptcy or insolvency or under any amendment of such act or acts, either as a bankrupt or as an insolvent or as a debtor or in any similar capacity, wherein or whereby the Authority or the Purchaser asks or seeks or prays to be adjudicated a bankrupt, or is to be discharged from any or all of its debts or obligations, or offers to its creditors to effect a composition or extension of time to pay its debts, or asks, seeks or prays for a reorganization or to effect a plan of reorganization or for a readjustment of its debts or for any other similar relief, or if the Authority or the Purchaser shall make a general or any assignment for the benefit of its creditors, then in each and every such case the Authority or the Purchaser, as the case may be, shall be deemed to be in default hereunder.

(b) Transfer for Defaulting Purchaser's Account. Upon the failure of the Purchaser to make any payment which failure constitutes a default under this Agreement, the Authority shall use its best efforts to transfer for the Purchaser's account all or a portion of the Purchaser's Project Allotment for all or a portion of the remainder of the term of this Agreement. Notwithstanding that all or any portion of the Purchaser's Project Allotment is so transferred, the Purchaser shall remain liable to the Authority to pay the full amount of its share of costs hereunder as if such sale or transfer has not been made, except that such liability shall be discharged to the extent that the Authority shall receive payment from the transferee thereof.

(c) Termination of Entitlement to Project Allotment; Continuing Obligations. Upon the failure of the Purchaser to make any payment which failure constitutes a default under this Agreement and causes the Authority to be in default under any Bond Resolution, the Authority may (in addition to the remedy provided by subsection (b) of this Section) give notice of termination of the provisions of this Agreement insofar as the same entitle the Purchaser to its Project Allotment which notice shall be effective within 30 days thereof unless such termination shall be enjoined, stayed or otherwise delayed by judicial action. Irrespective of such termination, the Purchaser shall remain liable to the Authority to pay the full amount of costs hereunder.

(d) Enforcement of Remedies. In addition to the remedies set forth in this Section, upon the occurrence of an Event of Default as defined herein, the Authority or the Purchaser, as the case may be, shall be entitled to proceed to protect and enforce the rights vested in such party by this Agreement by such appropriate judicial proceeding as such party shall deem most effectual, either by suit in equity or by action at law, whether for the specific performance of any covenant or agreement contained herein or to enforce any other legal or equitable right vested in such party by this Agreement or by law. The provisions of this Agreement and the duties of each party hereof, their respective boards, officers or employees shall be enforceable by the other party hereto by mandamus or other appropriate suit, action or proceeding in any court of competent jurisdiction, with the losing party paying all costs and attorney fees.

(e) Trustee is Third Party Beneficiary. Any Trustee for Authority Bonds shall have the right, as a third party beneficiary, to initiate and maintain suit to enforce this Agreement to the extent provided in any Bond Resolution.

Section 12. Transfers, Sales and Assignments of Project Allotment or Purchaser Water System.

(a) Transfer of Project Allotment. The Purchaser has the right to make transfers, sales, assignments and exchanges (collectively "transfers") of its Project Allotment or its rights or obligations with respect thereto only as expressly provided in this Section. In no event shall any sale or other disposition of all or any portion of the Purchaser's Project Allotment relieve the Purchaser of any of its obligations hereunder. The Purchaser shall give notice to the Authority in accordance with rules and regulations approved by the Authority from time to time.

(b) Sale or Other Disposition of Project Allotment. If in any Fiscal Year the Purchaser determines in accordance with 4(a) not to receive all of the Project Allotment, the Authority shall offer such portion of the Project Allotment to the State of California at a price to be determined by the Authority with the concurrence of the Purchaser. If the State of California declines to purchase such Project Allotment, the Purchaser shall have the right to sell such portion of the Project Allotment to another Project Participant or an entity which is not a Project Participant. No such sale

of the Project Allotment shall relieve the Purchaser of any of its obligations hereunder. Any revenue received by the Authority in consideration for any portion of the Purchaser's Project Allotment shall be credited to the Purchaser. The requirement set forth in this Section 12(b) that the Purchaser offer the Purchaser's Project Allotment to the State of California before selling such Project Allotment to another Project Participant or any other entity is intended to implement the Term Sheet, shall be interpreted in a manner consistent with the Term Sheet, and shall only apply to the extent required by the Term Sheet.

Section 13. Covenants of the Purchaser.

The Authority and the Purchaser agree that the covenants contained in this Section shall only be enforced by the Authority to the extent necessary to enforce the payment provisions contained herein.

(a) Amount of Rates and Charges. The Purchaser will fix, prescribe and collect rates and charges for the Purchaser Water System which will be at least sufficient to yield during each Purchaser Fiscal Year Purchaser Net Water System Revenues (excluding Contract Payments, Administrative Costs, Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs) equal to one hundred twenty-five percent (125%) of the Contract Payments, Administrative Costs, Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs for such Purchaser Fiscal Year. The Purchaser may make adjustments from time to time in such rates and charges and may make such classification thereof as it deems necessary, but shall not reduce the rates and charges then in effect unless the Purchaser Net Water System Revenues from such reduced rates and charges will at all times be sufficient to meet the requirements of this section.

(b) Against Sale or Other Disposition of Property. Subject to Section 13(j), the Purchaser will not sell, lease or otherwise dispose of the Purchaser Water System or any part thereof unless the governing board of the Purchaser determines in writing that such sale, lease or other disposition will not materially adversely affect the Purchaser's ability to comply with subsection (a) of this Section and, in the case of a sale or other disposition, the entity acquiring the Purchaser Water System or such part thereof shall assume all obligations of the Purchaser, allocable to such Purchaser Water System or part thereof, under this Agreement. The Purchaser will not enter into any agreement or lease which impairs the operation of the Purchaser Water System or any part thereof necessary to secure adequate Purchaser Net Water System Revenues for the payment of the obligations imposed under this Agreement or which would otherwise impair the rights of the Authority with respect to the Purchaser Water System Revenues or the operation of the Purchaser Water System.

(c) Against Competitive Facilities. To the extent permitted by existing law and within the scope of its powers but only to the extent necessary to protect the rights of the owners of Authority Bonds, the Purchaser will not acquire, construct, maintain or operate and will use its best efforts not to permit any other public or private agency, corporation, district or political subdivision or any person whomsoever to acquire, construct, maintain or operate within the boundaries of the Purchaser any water system competitive with the Purchaser Water System which might have the effect of materially adversely affecting the Purchaser's ability to pay Administrative Costs, Fixed Project Costs, Fixed O&M Costs and Variable O&M Costs.

(d) Maintenance and Operation of the Purchaser Water System; Budgets. The Purchaser will maintain and preserve the Purchaser Water System in good repair and working order at all times

and will operate the Purchaser Water System in an efficient and economical manner and will pay all Purchaser Operation and Maintenance Expenses as they become due and payable. On or before the first day of each Purchaser Fiscal Year thereafter, the Purchaser will adopt and file with the Authority a budget approved by the legislative body of the Purchaser, including therein in the estimated Administrative Costs, Fixed O&M Costs, Variable O&M Costs and Fixed Project Costs payable to the Authority. Any budget may be amended at any time during any Purchaser Fiscal Year and such amended budget shall be filed by the Purchaser with the Authority.

(e) Insurance. The Purchaser shall procure and maintain or cause to be procured and maintained insurance on the Purchaser Water System with responsible insurers so long as such insurance is available from reputable insurance companies, or, alternatively, shall establish a program of self-insurance, or participate in a joint powers agency providing insurance or other pooled insurance program, in such amounts and against such risks (including accident to or destruction of the Purchaser Water System) as are usually covered in connection with water systems similar to the Purchaser Water System.

(f) Accounting Records and Financial Statements.

(i) The Purchaser will keep appropriate accounting records in which complete and correct entries shall be made of all transactions relating to the Purchaser Water System, which records shall be available for inspection by the Authority and the Trustee at reasonable hours and under reasonable conditions.

(ii) The Purchaser will prepare and file with the Authority annually within two hundred ten (210) days after the close of each Purchaser Fiscal Year (commencing with the Purchaser Fiscal Year ending June 30, 2002) financial statements of the Purchaser for the preceding Purchaser Fiscal Year prepared in accordance with generally accepted accounting principles, together with a report of an Independent Certified Public Accountant thereon. The Purchaser will promptly furnish a copy of such report to the Authority and to the Trustee.

(g) Protection of Security and Rights of the Authority. The Purchaser will preserve and protect the rights of the Authority and the Trustee to the obligations of the Purchaser hereunder and will warrant and defend such rights against all claims and demands of all persons.

(h) Payment of Taxes and Compliance with Governmental Regulations. The Purchaser will pay and discharge all taxes, assessments and other governmental charges which may hereafter be lawfully imposed upon the Purchaser Water System or any part thereof or upon the Purchaser Water System Revenues when the same shall become due. The Purchaser will duly observe and conform with all valid regulations and requirements of any governmental authority relative to the operation of the Purchaser Water System or any part thereof, but the Purchaser shall not be required to comply with any regulations or requirements so long as the validity or application thereof shall be contested in good faith.

(i) Further Assurances. The Purchaser will adopt, deliver, execute and make any and all further assurances, instruments and resolutions as may be reasonably necessary or proper to effect the financing and refinancing of the Project and to allow the Authority to comply with reporting obligations, to assure the Authority of the Purchaser's intention to perform hereunder and for the

better assuring and confirming unto the Authority and the Trustee of the rights and benefits provided to them herein.

(j) Maintenance of Tax-Exempt Status of Authority Bonds. Notwithstanding any other provision of this Agreement, the Purchaser shall not take any action or omit to take any action, directly or indirectly, in any manner, which would result in any of the Authority Bonds being treated as an obligation not described in Section 103(a) of the Internal Revenue Code of 1986, as amended, by reason of classification of such Authority Bond as a "private activity bond" within the meaning of Section 141 of said Code or for any other reason.

(k) Expansion Project Fixed Project Costs. While the Purchaser is not obligated to pay to the Authority any share of the initial Expansion Project Fixed Project Costs, the Purchaser shall be obligated to pay Fixed Project Costs allocated to the Expansion Project commencing, as to each separate component of the Expansion Project, upon the expiration of the warranty period stated in the construction contract for such component of the Expansion Project, which warranty period shall not be fewer than 6 months following completion of construction of such component of the Expansion Project.

Section 14. Covenants of the Authority.

(a) Insurance. The Authority shall procure and maintain or cause to be procured and maintained insurance on the Project with responsible insurers so long as such insurance is available from reputable insurance companies, or, alternatively, shall establish a program of self-insurance, or participate in a joint powers agency providing insurance or other pooled insurance program, covering such risks, in such amounts and with such deductibles as shall be determined by the Authority and as may be required under the Authority Bonds. The Authority shall indemnify and hold harmless the Purchaser from any liability for personal injury or property damage resulting from any accident or occurrence arising out of or in any way related to the construction or operation of the Project.

(b) Accounting Records and Financial Statements.

(i) The Authority will keep appropriate accounting records in which complete and correct entries shall be made of all Authority transactions relating to the Project, which records shall be available for inspection, copying and audit by the Purchaser and its accountants, attorneys and agents at reasonable hours and under reasonable conditions.

(ii) The Authority will prepare annually within two hundred ten (210) days after the close of each Authority Fiscal Year (commencing with the Authority Fiscal Year ending June 30, 2011) financial statements of the Authority for the preceding Authority Fiscal Year prepared in accordance with generally accepted accounting principles, together with a report of an Independent Certified Public Accountant thereof. The Authority will promptly furnish a copy of such report to the Purchaser and to the Trustee.

(c) Compliance with Law. The Authority shall comply with all local, state and federal laws applicable to the Project.

(d) Against Sale or Other Disposition of Project. The Authority will not sell, lease or otherwise dispose of the Project or any part thereof unless the Board of Directors of the Authority

determines that such sale, lease or other disposition will not materially adversely affect the Authority's ability to comply with its obligations hereunder and under the Authority Bonds.

(e) Maintenance and Operation of the Project. Subject to the payment obligations of the Project Participants hereunder, the Authority will maintain and preserve the Project in good repair and working order at all times and will operate the Project in an efficient and economical manner consistent with the Joint Powers Agreement. Notwithstanding the foregoing, no material portion of the Project shall be abandoned by the Authority without the consent of all Project Participants.

(f) Future Fixed Project Costs. With respect to Fixed Project Costs (other than Expansion Project Fixed Project Costs, which shall be paid by the Expansion Group) anticipated to be funded through the issuance of Authority Bonds, the Authority shall give written notice to the Purchaser of its share of Fixed Project Costs 90 days prior to the proposed date of issuance of Authority Bonds therefor. Unless the Purchaser deposits such Fixed Project Costs with the Authority no later than 30 days prior to the proposed date of issuance of Authority Bonds therefor, the Authority shall include such Fixed Project Costs in the Authority Bonds.

(g) Expansion Project Water Available to the Expansion Project Completion Date. The parties agree that in the event that water is produced from the Expansion Project prior to the Expansion Project Completion Date, the Authority will negotiate with the Purchasers on an equitable allocation of such water as well as the allocation of Fixed O&M Costs and Variable O&M Costs relating thereto, determined by taking into account generally accepted accounting principles.

Section 15. Term.

(a) No provision of this Agreement shall take effect until it and Water Purchase Agreements with all Project Participants have been duly executed and delivered to the Authority together with an opinion for each Project Participant of an attorney or firm of attorneys in substantially the form attached hereto as Exhibit B and an opinion for the Authority of Stradling Yocca Carlson & Rauth, a Professional Corporation, General Counsel, in substantially the form attached hereto as Exhibit C.

(b) Notwithstanding the delay in effective date of this Agreement until all Project Participants have complied with subsection (a) of this Section, it is agreed by the Purchaser that in consideration for the Authority's signature hereto, and for its commitment to use its best efforts to obtain the commitment of all Project Participants, the Purchaser upon its execution and delivery of this Agreement to the Authority along with the required opinion and any required evidence of compliance as required by subsection (a) of this Section shall be immediately bound not to withdraw its respective offer herein made to enter into this Agreement as executed and/or supplemented or to decrease or terminate its Project Allotment before March 31, 2011.

(c) The term of this Agreement shall continue until the later of January 15, 2031 or the final maturity of Authority Bonds. The parties hereto agree to negotiate in good faith to amend this Agreement on or prior to such date to extend the term hereof and to include terms and conditions as are mutually agreeable to the parties, provided that the price to be paid with respect to the Project Allotment in such amendment shall reflect the payment of capital costs to such date.

Section 16. Assignment.

The Authority may pledge and assign to any Trustee for Authority Bonds, all or any portion of the payments received under this Agreement from the Purchaser and the Authority's other rights and interests under this Agreement. Such pledge and assignment by the Authority shall be made effective for such time as the Authority shall determine and provide that the Trustee shall have the power to enforce this Agreement in the event of a default by the Authority under a Bond Resolution. The Purchaser may assign its rights or obligations under this Agreement only in accordance with Section 12 hereof.

Section 17. Amendments.

Except as otherwise provided in this Agreement, on and after the date Authority Bonds are issued and so long as any Authority Bonds are outstanding in accordance with the applicable Bond Resolution, Section 9, 11, 12, 13, 14 and 16 and this Section of this Agreement shall not be amended, modified or otherwise changed or rescinded by agreement of the parties without the consent of each Trustee for Authority Bonds whose consent is required under the applicable Bond Resolution. This Agreement may only be otherwise amended, modified, changed or rescinded in writing by each of the parties hereto.

The Authority agrees not to grant to the owners of Authority Bonds as individuals any rights relating to the amendment, modification or change of this Agreement.

Notwithstanding the foregoing, the sections of this Agreement set forth in the prior paragraph of this Section may be amended without the consent of each Trustee for Authority Bonds for any of the following purposes:

(a) to add to the agreements, conditions, covenants and terms contained herein required to be observed or performed by the Authority or the Purchaser other agreements, conditions, covenants and terms hereafter to be observed or performed by the Authority or the Purchaser, or to surrender any right reserved herein to or conferred herein on the Authority or the Purchaser, and which in either case shall not adversely affect the interests of the owners of any Authority Bonds;

(b) to make such provisions for the purpose of curing any ambiguity or of correcting, curing or supplementing any defective provision contained herein or in regard to questions arising hereunder which the Authority or the Purchaser may deem desirable or necessary and not inconsistent herewith, and which shall not materially adversely affect the interests of the owners of any Authority Bonds;

(c) to make any modifications or changes necessary or appropriate in the opinion of a firm of nationally recognized standing in the field of law relating to municipal bonds to preserve or protect the exclusion from gross income of interest on the Authority Bonds for federal income tax purposes;

(d) to make any modifications or changes to this Agreement in order to enable the execution and delivery of Authority Bonds on a parity with any Authority Bonds previously issued and to make any modifications or changes necessary or appropriate in connection with the execution and delivery of Authority Bonds;

(e) to make any other modification or change to the provisions of this Agreement which does not materially adversely affect the interests of the owners of any Authority Bonds;

(f) to make changes to the definition of "Project," as such changes may be approved by the Authority Board of Directors.

Section 18. Miscellaneous.

(a) Headings. The headings of the sections hereof are inserted for convenience only and shall not be deemed a part of this Agreement.

(b) Partial Invalidity. If any one or more of the covenants or agreements provided in this Agreement to be performed should be determined to be invalid or contrary to law, such covenant or agreement shall be deemed and construed to be severable from the remaining covenants and agreements herein contained and shall in no way affect the validity of the remaining provisions of this Agreement.

(c) Counterparts. This Agreement may be executed in several counterparts, all or any of which shall be regarded for all purposes as one original and shall constitute and be but one and the same instrument.

(d) Governing Law. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA.

(e) Notices. Any notices required or permitted to be given hereunder shall be given in writing and shall be delivered (a) in person, (b) by certified mail, postage prepaid, return receipt requested, (c) by Federal Express or another reputable commercial overnight courier that guarantees next day delivery and provides a receipt, or (d) by telefacsimile or telecopy, and such notices shall be addressed as follows:

If to Purchaser: City of Norco
2870 Clark Ave.
Norco, CA 92860
Attn: Bill Thompson

With a copy to: Harper & Burns LLP
453 S. Glassell Street
Orange, CA 92866
Attn: John Harper

If to Authority: Chino Basin Desalter Authority
c/o City of Ontario
1425 South Bon View Avenue
Ontario, CA 91761
Attn: Authority Coordinator

With a copy to: Stradling Yocca Carlson & Rauth
660 Newport Center Drive
Newport Beach, CA 92660
Attention: Douglas Brown

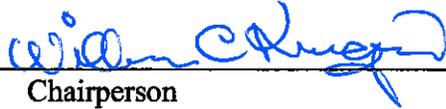
or to such other address as either party may from time to time specify in writing to the other party. Any notice shall be deemed delivered when actually delivered, if such delivery is in person, upon deposit with the U.S. Postal Service, if such delivery is by certified mail, upon deposit with the overnight courier service, if such delivery is by an overnight courier service, and upon transmission, if such delivery is by telefacsimile or telecopy.

(f) Merger of Prior Agreements. This Agreement and the exhibits hereto constitute the entire agreement between the parties and supersede all prior agreements and understandings between the parties relating to the subject matter hereof. This Agreement amends, restates and supersedes the Water Purchase Agreement between the Authority and the Purchaser, dated as of January 15, 2002, in its entirety. This Agreement is intended to implement, and should be interpreted consistent with, the Joint Powers Agreement.

(g) Time of the Essence. Time is of the essence in the performance of this Agreement.

IN WITNESS WHEREOF the Purchaser has executed this Agreement with the approval of its governing body, and caused its official seal to be affixed and the Authority has executed this Agreement in accordance with the authorization of its Board of Directors.

CHINO BASIN DESALTER AUTHORITY

By: 
Chairperson

Attest:

By: 
Secretary

CITY OF NORCO

By: 
City Manager
Beth Groves

[SEAL]

Attest:

By: 
City Clerk
Brenda K. Jacobs CMC

EXHIBIT A

<u>Project Participant</u>	<u>Project Allotment Prior to Initial Delivery of Expansion Project Water (acre-feet)</u>	<u>Project Allotment After Initial Delivery of Expansion Project Water (acre-feet)</u>
City of Chino	5,000	5,000
City of Chino Hills	4,200	4,200
City of Norco	1,000	1,000
City of Ontario	5,000	8,533
Jurupa Community Services District	8,200	11,733
Santa Ana River Water Company	1,200	1,200
Western Municipal Water District	<u>0</u>	<u>3,534</u>
	24,600	35,200

EXHIBIT B

November 16, 2011

Chino Basin Desalter Authority
2151 South Haven Avenue, Suite 202
Ontario, CA 91761

City of Norco
2870 Clark Avenue
Norco, CA 92860

Ladies and Gentlemen:

We are City Attorney to the City of Norco (the "Purchaser") under the Amended and Restated Water Purchase Agreement, dated as of January 1, 2011 (the "Agreement"), between the Chino Basin Desalter Authority (the "Authority") and the Purchaser, and have acted as general counsel to the Purchaser in connection with the matters referred to herein. As such counsel we have examined and are familiar with (i) documents relating to the existence, organization and operation of the Purchaser provided to us by the Purchaser, (ii) certifications by officers of the Purchaser, (iii) all necessary documentation of the Purchaser relating to the authorization, execution and delivery of the Agreement, and (iv) an executed counterpart of the Agreement. Terms used herein and not otherwise defined have the respective meanings set forth in the Agreement.

Based upon the foregoing and such examination of law and such other information, papers and documents as we deem necessary or advisable to enable us to render this opinion, including the Constitution and laws of the State of California, together with the resolutions, ordinances and public proceedings of the Purchaser, we are of the opinion that:

1. The Purchaser is a general law city, duly created, organized and existing under the laws of the State of California and duly qualified to furnish water service within its boundaries.
2. The Purchaser has legal right, power and authority to enter into the Agreement and to carry out and consummate all transactions reasonably contemplated thereby, and the Purchaser has complied with the provisions of applicable law relating to such transactions.
3. The Agreement has been duly authorized, executed and delivered by the Purchaser, is in full force and effect as to the Purchaser in accordance with its terms and, subject to the qualifications set forth in the second to the last paragraph hereof, and assuming that the Authority has all requisite power and authority, and has taken all necessary action, to authorize, execute and deliver such Agreement, the Agreement constitutes the valid and binding obligation of the Purchaser.
4. The obligations of the Purchaser to make payments under the Agreement from the Revenues of its Purchaser Water System or other lawfully available funds as provided in Section 9(c) of the Agreement is a valid, legal and binding obligation of the Purchaser enforceable in accordance with its terms.
5. No approval, consent or authorization of any governmental or public agency, authority or person is required for the execution and delivery by the Purchaser of the Agreement.

6. The authorization, execution and delivery of the Agreement and compliance with the provisions thereof will not conflict with or constitute a breach of, or default under, any instrument relating to the organization, existence or operation of the Purchaser, any commitment, agreement or other instrument to which the Purchaser is a party or by which it or its property is bound or affected, or any ruling, regulation, ordinance, judgment, order or decree to which the Purchaser (or any of its officers in their respective capacities as such) is subject or any provision of the laws of the State of California relating to the Purchaser and its affairs.

7. There is no action, suit, proceeding, inquiry or investigation at law or in equity, or before any court, public board or body, pending or, to our knowledge, threatened against or affecting the Purchaser or any entity affiliated with the Purchaser or any of its officers in their respective capacities as such, which questions the powers of the Purchaser referred to in paragraph 2 above or the validity of the proceedings taken by the Purchaser in connection with the authorization, execution or delivery of the Agreement, or wherein any unfavorable decision, ruling or finding would materially adversely affect the transactions contemplated by the Agreement, or which would adversely affect the validity or enforceability of the Agreement.

The opinion expressed in paragraphs 3 and 4 above are qualified to the extent that the enforceability of the Agreement may be limited by any applicable bankruptcy, insolvency, reorganization, arrangement, moratorium, or other laws affecting creditors' rights, to the application of equitable principles and to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against public agencies in the State of California and provided that no opinion is expressed with respect to any indemnification or contribution provisions contained therein.

This opinion is rendered only with respect to the laws of the State of California and the United States of America and is addressed only to the Chino Basin Desalter Authority and the Purchaser. No other person is entitled to rely on this opinion, nor may you rely on it in connection with any transactions other than those described herein.

Very truly yours,

John R. Harper
City Attorney

STRADLING YOCCA CARLSON & RAUTH

A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
660 NEWPORT CENTER DRIVE, SUITE 1600
NEWPORT BEACH, CA 92660-6422
TELEPHONE (949) 725-4000
FACSIMILE (949) 725-4100

ORANGE COUNTY
(949) 725-4000
SAN DIEGO
(658) 926-3000
SAN FRANCISCO
(415) 283-2240
SANTA BARBARA
(805) 730-6800
SACRAMENTO
(916) 448-2350

October 12, 2011

Chino Basin Desalter Authority

The Project Participants Listed on
Exhibit A attached hereto

Ladies and Gentlemen:

We are general counsel to the Chino Basin Desalter Authority (the "Authority") and are familiar with those certain Amended and Restated Water Purchase Agreements and that certain Water Purchase Agreement, each dated as of January 1, 2011 (each, an "Agreement"), between the Authority and each of the water contractors identified on Exhibit A attached hereto (each, a "City") in connection with the matters referred to herein. As special counsel we have examined and are familiar with (i) documents relating to the existence, organization and operation of the Authority provided to us by the Authority, (ii) certifications by officers of the Authority, (iii) all necessary documentation of the Authority relating to the authorization, execution and delivery of the Agreement, and (iv) an executed counterpart of the Agreement. Terms used herein and not otherwise defined have the respective meanings set forth in the Agreement.

Based upon the foregoing and such examination of law and such other information, papers and documents as we deem necessary or advisable to enable us to render this opinion, including the Constitution and laws of the State of California, together with the resolutions, ordinances and public proceedings of the Authority, we are of the opinion that:

1. The Authority is a joint exercise of powers agency duly created, organized and existing under the laws of the State of California.
2. The Authority has legal right, power and authority to enter into the Agreement and to carry out and consummate all transactions reasonably contemplated thereby, and the Authority has complied with the provisions of applicable law relating to such transactions.
3. The Agreement has been duly authorized, executed and delivered by the Authority, is in full force and effect as to the Authority in accordance with its terms and, subject to the qualifications set forth in the second to the last paragraph hereof, and assuming that each City has all requisite power and authority, and has taken all necessary action, to authorize, execute and deliver such Agreement, the Agreement constitutes the valid and binding obligation of the Authority.

4. No approval, consent or authorization of any governmental or public agency, authority or person is required for the execution and delivery by the Authority of the Agreement.

5. The authorization, execution and delivery of the Agreement and compliance with the provisions thereof will not conflict with or constitute a breach of, or default under, any instrument relating to the organization, existence or operation of the Authority, any commitment, agreement or other instrument to which the Authority is a party or by which it or its property is bound or affected, or, to the best of our knowledge, any ruling, regulation, ordinance, judgment, order or decree to which the Authority (or any of its officers in their respective capacities as such) is subject or any provision of the laws of the State of California relating to the Authority and its affairs.

6. There is no action, suit, proceeding, inquiry or investigation at law or in equity, or before any court, public board or body, pending or, to our knowledge, threatened against or affecting the Authority or any of its officers in their respective capacities as such, which questions the powers of the Authority referred to in paragraph 2 above or the validity of the proceedings taken by the Authority in connection with the authorization, execution or delivery of the Agreement, or wherein any unfavorable decision, ruling or finding would materially adversely affect the transactions contemplated by the Agreement, or which, in any way, would adversely affect the validity or enforceability of the Agreement.

The opinion expressed in paragraph 3 above is qualified to the extent that the enforceability of the Agreement may be limited by any applicable bankruptcy, insolvency, reorganization, arrangement, moratorium, or other laws affecting creditors' rights, to the application of equitable principles and to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against public agencies in the State of California and provided that no opinion is expressed with respect to any indemnification or contribution provisions contained therein.

This opinion is rendered only with respect to the laws of the State of California and the United States of America and is addressed only to the Authority and the Project Participants. No other person is entitled to rely on this opinion, nor may you rely on it in connection with any transactions other than those described herein.

Respectfully submitted,

STRADLING YOCCA CARLSON &
RAUTH



EXHIBIT D

**LIST OF NOTES, BONDS OR OTHER OBLIGATIONS OF THE PURCHASER
AS OF THE DATE OF EXECUTION
TO WHICH PURCHASER WATER SYSTEM REVENUES ARE PLEDGED**

[To be inserted]

EXHIBIT E

EXPANSION PROJECT
FIXED PROJECT COST DISTRIBUTION

Table 8.10 Capital Cost Distribution for Option C (Expand Chino II to 22.7 mgd with Concentrate Reduction) Chino Desalter Phases 3 PDR JCSO/Ontario/WIWD	Chino Phases 3 Sponsors			Non-Sponsors			TOTAL *
	Ontario	JCSO	Western	Chino	Chino Hills	Nonco	
PRODUCT WATER ALLOCATION							
Phases 1 and 2 (Acre-Feet/Year)	20%	33%	0%	20%	17%	4%	1,200
Phase 3 (Acre-Feet/Year)	33%	33%	33%	0%	0%	0%	0
Total (Acre-Feet/Year)	24%	33%	10%	14%	12%	3%	1,200
RAW WATER SYSTEM CAPITAL COSTS:							
Wells:							
Wells CWFA-1, 2, 3, 4, 5, and 6 + Monitoring Wells	33%	33%	33%	0%	0%	0%	\$0
Pipelines:							
Raw Water Pipeline from Well CWFA-6 to Chino I	33%	33%	33%	0%	0%	0%	\$0
Raw Water Interio Pipeline	33%	33%	33%	0%	0%	0%	\$0
Raw Water Pump Station	33%	33%	33%	0%	0%	0%	\$0
Raw Water Interio Pump Station	33%	33%	33%	0%	0%	0%	\$0
WATER TREATMENT FACILITIES CAPITAL COSTS:							
Chino I Modifications to Maintain Current Capacity (100% Sponsors)	33%	33%	33%	0%	0%	0%	\$0
Chino II 10.5 mgd RO/IX Expansion (100% Sponsors)	33%	33%	33%	0%	0%	0%	\$0
Chino II Transfer Pumps (48.8% CDA/51.2% Sponsors)	27%	33%	17%	10%	8%	2%	\$19,441
Chino II Chemical System Modifications (100% CDA)	24%	33%	10%	14%	12%	3%	\$284
Chino II Spare Parts (100% CDA)	24%	33%	10%	14%	12%	3%	\$12,500
HVAC Modifications (39% CDA/62% Sponsors)	28%	33%	21%	8%	6%	2%	\$4,789
Concentrate Reduction Facilities (100% Sponsors)	33%	33%	33%	0%	0%	0%	\$0
PRODUCT WATER SYSTEM CAPITAL COSTS:							
Pipelines:							
Pipeline from Chino II to Riverside Dr./Hammer Ave. (Ontario Zone 1010)	61%	0%	39%	0%	0%	0%	\$0
Pipeline from Riverside Dr./Hammer Ave. to Detroit St.	0%	0%	100%	0%	0%	0%	\$0
Pump Stations:							
Chino II - JCSO Product Water (Clearwell to Zone 1110)	0%	100%	0%	0%	0%	0%	\$0
Chino II - Ontario/Western Product Water (Clearwell to Zone 1010)	61%	0%	39%	0%	0%	0%	\$0
Milliken Res - Ontario (Zone 1010 to Zone 1212)	100%	0%	0%	0%	0%	0%	\$0
Capital Costs Subtotal	\$37,246,263	\$28,940,732	\$49,842,063	\$186,067	\$166,466	\$37,013	\$44,416
Less Approved Grant Funding	(\$8,922,324)	(\$6,537,716)	(\$11,538,960)	\$0	\$0	\$0	\$0
Adjusted Capital Costs	\$28,322,939	\$22,223,017	\$37,902,992	\$186,067	\$166,466	\$37,013	\$44,416
30 Year Amortization Period 5.0% Fixed Amortization Rate							
ANNUALIZED CAPITAL (\$/YEAR)	\$1,842,448	\$1,432,629	\$2,466,686	\$12,039	\$10,113	\$2,408	\$2,889

Notes:

a. Capital costs are construction costs plus engineering/contingency and legal/administration costs escalated to construction midpoint.

WATER PURCHASE AGREEMENT

Dated July 1, 2003

By, Between, and Among

CITY OF NORCO
a California municipal corporation;

WESTERN MUNICIPAL WATER DISTRICT OF RIVERSIDE COUNTY
a California municipal water district;

and

SANTA ANA WATERSHED PROJECT AUTHORITY
a California joint powers authority
(on behalf of Project Agreement 9 Committee)

**WATER PURCHASE AGREEMENT BETWEEN AND AMONG
THE CITY OF NORCO, WESTERN MUNICIPAL WATER DISTRICT
AND THE SANTA ANA WATERSHED PROJECT AUTHORITY**

THIS WATER PURCHASE AGREEMENT ("Agreement") is between and among the City of Norco, a California municipal corporation ("Norco"), the Western Municipal Water District of Riverside County, a California municipal water district ("Western"), and the Santa Ana Watershed Project Authority ("SAWPA"), a California joint powers authority. Norco, Western, and SAWPA are sometimes hereinafter individually referred to as "Party" and collectively as "Parties." Because SAWPA is executing this Agreement for the benefit of Project Agreement 9 Committee of SAWPA ("PC 9") pursuant to Resolution No. 353, SAWPA is hereinafter sometimes referred to as PC 9 and all references to PC 9 shall mean SAWPA.

RECITALS

A. Western is a party to an agreement entitled "Santa Ana Watershed Project Authority - Project Agreement 9 Committee" and dated August 3, 1983. The agreement establishes PC 9 of the Santa Ana Watershed Project Authority, composed of Western and OCWD for the purpose of constructing, owning, operating, maintaining, and assuming all financial liability and responsibility for a groundwater desalination plant and appurtenant facilities, wells, and pipelines as depicted on the attached Exhibit "A" and commonly known as the Arlington Desalter.

B. On or about March 2001, Norco and Western (as well as other parties overlying the Chino Groundwater Basin) entered into the Integrated Chino-Arlington Desalters System Term Sheet ("Term Sheet") through which Norco expressed its intention to maximize its purchase of Potable Water from the Arlington Desalter, subject to the right of Home Gardens County Water District to purchase Potable Water from the Arlington Desalter to fulfill its needs.

C. On November 21, 2001, Norco adopted the August 2001 Water Facilities Master Plan which indicates Norco's intent to purchase at least 4,400 acre-feet of Potable Water from the Arlington Desalter as part of its overall plan for the distribution and sale of potable water in Norco.

D. Pursuant to SAWPA Resolution No. 353, adopted March 13, 2001, the governing board of SAWPA has delegated to PC 9 of SAWPA the authority to unilaterally exercise all powers in furtherance of the construction, ownership, operation, and maintenance of the Arlington Desalter, as long as such exercise of powers does not impose a financial obligation on SAWPA.

E. The purpose of this Agreement is to implement the intent of the August 2001 Water Facilities Master Plan, to implement the intent of Norco and Western as expressed in the Term Sheet, and to provide the terms and conditions for the delivery and sale of Potable Water to Norco from the Arlington Desalter.

NOW THEREFORE, in consideration of the mutual covenants and conditions stated herein and other valuable consideration, the sufficiency of which is hereby acknowledged, the

Parties hereby agree as follows:

TERMS

1. Definitions. The following terms shall, for the purposes of this Agreement, have the following meanings:

“Actual Annual Revenues” means the total amount of revenue received by PC 9 during the Fiscal Year from the operations of the Arlington Desalter, including, but not limited to, revenue from the sale of Potable Water and Desalted Water, and revenue from the investment of funds generated by the Arlington Desalter, as reported after completion and acceptance of the annual audit for the Fiscal Year.

“Actual Annual Project Costs” means any and all costs that were actually paid during the Fiscal Year relating to or arising out of the ownership, operation, maintenance, repair, or replacement of the Arlington Desalter, as reported after completion and acceptance of the annual audit for the Fiscal Year.

“Annual Budget” means the budget for the Arlington Desalter for the Fiscal Year, adopted as set forth in Section 7 of this Agreement.

“Annual Water Baseline” means the Norco Requested Water plus the Home Gardens Requested Water.

“Arlington Desalter” means the groundwater desalination plant and appurtenant facilities, wells, clearwell, pumps, and pipelines, as depicted on and described in the attached Exhibit “A,” including any future expansions thereof or additional facilities added or connected thereto.

“Cost of Service” means that portion of the Total Remaining Project Costs projected to be paid during the Fiscal Year, minus the amount of money projected to be received from the sale of Desalted Water to OCWD during the Fiscal Year, as set forth in the Annual Budget.

“Delivery Schedule” shall have the meaning ascribed to this term as set forth in Section 2(b) of this Agreement.

“Desalted Water” means water produced and delivered from the Arlington Desalter which meets the minimum quality standard of not more than 35 parts per million (ppm) for nitrates and not more than 450 ppm for total dissolved solids.

“Fiscal Year” means the twelve month period commencing on July 1 of each calendar year and ending on the following June 30 or such other twelve month period which may be designated by PC 9 as its fiscal year. The initial Fiscal Year under this Agreement is the Fiscal Year in which Potable Water is first delivered to Norco by PC 9 through the Arlington Desalter.

"Home Gardens" means the Home Gardens County Water District, a California county water district, organized and existing in the County of Riverside, California.

"Home Gardens Right" means that portion or all of the Home Gardens Option exercised by Home Gardens within five years from the effective date of this Agreement, which amount shall be deducted thereafter from the Norco Right.

"Home Gardens Option" means the option of Home Gardens to acquire from PC 9 a right of up to Four Hundred (400) acre-feet of Potable Water produced by the Arlington Desalter, pursuant to a written agreement with PC 9 containing similar terms and conditions set forth in this Agreement. Any portion of the Home Gardens Option which remains unexercised after five (5) years from the effective date of this Agreement, shall automatically expire and be null and void.

"Home Gardens Requested Water" means the amount of Potable Water requested by Home Gardens prior to the preparation of the budget for each Fiscal Year as set forth in Section 7, to be delivered to Home Gardens from the Arlington Desalter, which amount shall not exceed the Home Gardens Right, unless PC 9 determines that the additional requested quantities of Potable Water are available for delivery to Home Gardens.

"Independent Certified Public Accountant" means any firm of certified public accountants appointed by Norco or PC 9, as the case may be, and each of whom is independent pursuant to the Statement on Auditing Standards No. 1 of the American Institute of Certified Public Accountants.

"Norco Right" means Four Thousand Four Hundred (4,400) acre-feet of Potable Water produced by the Arlington Desalter, unless such amount is reduced by the Home Gardens Right.

"Norco Requested Water" means the amount of Potable Water requested by Norco prior to the preparation of the Annual Budget, to be delivered to Norco from the Arlington Desalter pursuant to the terms of this Agreement, which amount shall not exceed the Norco Right, unless PC 9 determines that the additional requested quantities of Potable Water are available for delivery to Norco. If the Norco Requested Water is less than the Norco Right, PC 9 shall notify Norco that a cash payment by Norco in the amount of any deficit carryover resulting therefrom, as calculated pursuant to Section 10 of this Agreement, may be required by PC 9 at the end of the Fiscal Year.

"Norco Share" means the Norco Requested Water divided by the Annual Water Baseline.

"OCWD" means the Orange County Water District, a California special district, organized and existing pursuant to the Orange County Water District Act, Chapter 924, Statutes of 1933, as amended.

"PC 9" means that certain project committee of SAWPA, composed of Western and OCWD, and formed pursuant to an agreement entitled "Santa Ana Watershed Project Authority - Project Committee Agreement 9" and dated August 3, 1983, for the purpose of

constructing, owning, operating, maintaining, and assuming all financial liability and responsibility for the Arlington Desalter. Pursuant to SAWPA Resolution No. 353, adopted March 13, 2001, PC 9 has been delegated the authority by the SAWPA governing board to unilaterally exercise all powers in furtherance of the construction, ownership, operation, and maintenance of the Arlington Desalter, as long as such exercise of powers does not impose a financial obligation on SAWPA.

"Point of Delivery" shall have the meaning ascribed to this term as set forth in Section 2(c) of this Agreement.

"Potable Water" means Desalted Water which has been disinfected and pumped into the Arlington Desalter's potable water delivery system, and which meets the minimum quality standard of not more than 25 parts per million (ppm) for nitrates and not more than 350 ppm for total dissolved solids.

"Project Participants" means Norco and, if it elects to exercise the Home Gardens Right, Home Gardens.

"Surplus Potable Water" means Potable Water that is available for sale from the Arlington Desalter after fulfillment of all Potable Water needs of Norco and Home Gardens, including consideration of the Delivery Schedule of such Potable Water pursuant to this Agreement and a similar agreement, if any, with Home Gardens.

"Term" shall have the meaning ascribed to this term as set forth in Section 19 of this Agreement.

X "Term Sheet" means that certain agreement executed on or about March 2001 by various parties overlying the Chino Groundwater Basin, including Norco and Western, and known as the Integrated Chino-Arlington Desalters System Term Sheet, which was filed with the Superior Court of San Bernardino County on September 19, 2001 in Case No. RCV 51010, otherwise known as the Chino Groundwater Basin Adjudication case.

"Total Remaining Project Costs" means the amount of money projected to be necessary to pay all costs for the ownership, operation, maintenance, repair, and replacement of the Arlington Desalter until the end of the Term or any extension thereof as provided in Section 19, including the following: all capital costs and any debt service associated with or arising from the Arlington Desalter; reserves for the repair, replacement, and improvement of the Arlington Desalter; operational and material costs such as energy, chemicals, salaries, wages, and labor costs; the expenses of management and repair and other expenses necessary to maintain and preserve the Arlington Desalter in good repair and working order; administrative costs; payments to the Public Employees Retirement System; overhead; insurance; taxes (if any); fees of auditors, accountants, attorneys or engineers; insurance premiums; and all other reasonable and necessary costs. Total Remaining Project Costs shall be calculated annually prior to the adoption of the Annual Budget, in accordance with generally accepted accounting principles, and shall include the surplus or deficit carryover from the prior Fiscal Year, if any, as determined under Section 10 of this Agreement.

2. Delivery of Potable Water.

a. Quality of Potable Water. Subject to Norco's payment obligations set forth in Section 9, and Section 10 as applicable, of this Agreement, PC 9 agrees to use its best efforts to deliver Potable Water pursuant to this Agreement meeting all applicable local, state and federal water quality standards as may be in effect from time to time.

b. Delivery Schedule. Each Fiscal Year, PC 9 and Norco shall develop a mutually agreeable schedule for delivery of the Norco Requested Water ("Delivery Schedule"). The Delivery Schedule shall allow, if necessary, for the delivery of differing quantities of Potable Water, at specified times and rates of delivery, throughout the Fiscal Year, subject only to the capacity of the Arlington Desalter and pipelines to produce and convey such quantities at the specified times and rates, and the overall quantity of Potable Water available for delivery from the Arlington Desalter. In establishing the Delivery Schedule, Norco shall have the right to receive a percentage of the total amount of Potable Water available for delivery on any day, equal to the Norco Share.¹ PC 9 and Norco may mutually agree to modify the Delivery Schedule at any time as may be necessary.

c. Point of Delivery. PC 9 shall deliver or cause to be delivered to or for the account of Norco the quantity of Potable Water at the time and rate specified in the Delivery Schedule, at the turnout locations constructed by PC 9 at points along the Arlington Desalter pipeline ("Point of Delivery"). PC 9 will remain available to make or cause to be made all necessary and possible arrangements for transmission and delivery of such Potable Water in accordance with this Agreement.

d. Delivery of Potable Water Not Delivered in Accordance with the Delivery Schedule. If in any Fiscal Year, as a result of causes beyond its control, PC 9 is unable to deliver Potable Water to Norco as provided for in the Delivery Schedule, Norco may elect to receive the amount of Potable Water which otherwise would have been delivered to it during such period, at other times during the Fiscal Year to the extent that such Potable Water is then available and such election is consistent with PC 9's overall delivery ability, considering the then current Delivery Schedule for Home Gardens, if any, and the overall quantity of Potable Water available for delivery.

3. Curtailment of Delivery for Maintenance Purposes.

a. PC 9 May Curtail Deliveries. PC 9 may temporarily discontinue or reduce the delivery of Potable Water to Norco for the purpose of investigating, inspecting, maintaining, repairing, or replacing of any Arlington Desalter facility related to the delivery of Potable Water to Norco. PC 9 shall notify Norco as far in advance as possible of any such temporary discontinuance or reduction, except in cases of emergency, in which case notice shall be provided to Norco as soon as practicable after such temporary discontinuance or reduction.

¹ This sentence and the right of Norco "to receive a percentage of the total amount of Potable Water available for delivery on any day, equal to the Norco Share," shall only apply to the total amount of Potable Water the Arlington Desalter is capable of producing on any day (i.e., the daily capacity of the Arlington Desalter) prior to any expansion of the Arlington Desalter capacity pursuant to Section 11(b) of this Agreement.

b. Norco May Receive Later Delivery of Potable Water Not Delivered. In the event of any discontinuance or reduction of the delivery of Potable Water pursuant to subsection (a) of this section, Norco may elect to receive the amount of Potable Water which otherwise would have been delivered to it during such period under the Delivery Schedule, at other times during the Fiscal Year to the extent that such Potable Water is then available and such election is consistent with PC 9's overall delivery ability, considering the then current Delivery Schedule for Home Gardens, if any, and the overall quantity of Potable Water available for delivery.

4. Shortage in Potable Water Supply. In any Fiscal Year in which there may occur a shortage or interruption in the supply of Potable Water available for delivery to Norco, including but not limited to shortages or interruptions caused by changes in laws, regulations, or rulings relating to or affecting the permits and licenses for the Arlington Desalter, with the result that such supply is less than the Annual Water Baseline for that Fiscal Year, PC 9 shall reduce the delivery of Potable Water to Norco by an amount equal to the total shortage for the Fiscal Year multiplied by the Norco Share.

5. Measurement of Potable Water Delivered. PC 9 shall measure, or cause to be measured, all Potable Water delivered to Norco and shall keep and maintain accurate and complete records thereof. For this purpose, PC 9 shall install, operate, and maintain, or cause to be installed, operated and maintained at the Points of Delivery such measuring and flow control devices and equipment as are satisfactory and acceptable to both parties. Said devices and equipment shall be examined, tested, and serviced by PC 9 at least annually to insure their accuracy. At any time, Norco may inspect such measuring devices and equipment, and the measurements and records taken therefrom.

6. Responsibility for Delivery and Distribution of Potable Water.

a. Neither PC 9, Western, or OCWD, nor any of their officers, agents, or employees shall be liable for the control, carriage, handling, use, disposal, or distribution of Potable Water delivered to Norco after such Potable Water has passed any Point of Delivery; nor for claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal or distribution of such Potable Water beyond any Point of Delivery, and including attorneys fees and other costs of defense in connection therewith; and Norco shall indemnify and hold harmless PC 9, Western, and OCWD, and their officers, agents, and employees from any such damages or claims of damages.

b. Neither Norco nor any of its officers, agents, or employees shall be liable for the control, carriage, handling, use, disposal, or distribution of Potable Water delivered to Norco until such Potable Water has passed a Point of Delivery; nor for claim of damage of any nature whatsoever, including but not limited to property damage, personal injury or death, arising out of or connected with the control, carriage, handling, use, disposal or distribution of such Potable Water prior to such Potable Water passing the Points of Delivery, and including attorneys fees and other costs of defense in connection therewith; and PC 9 shall indemnify and hold harmless Norco and its officers, agents, and employees from any such damages or claims of damages.

7. Annual Budget. PC 9 shall prepare an annual budget for the Arlington Desalter for each Fiscal Year that includes the following: (i) the Total Remaining Project Costs, (ii) the Cost of Service, (iii) the Annual Water Baseline, and (iv) the rate for the purchase of Potable Water during the Fiscal Year determined in accordance with Section 8 of this Agreement. PC 9 shall use its best efforts to submit a draft of the Annual Budget to Norco on or prior to April 1 for review and comment. PC 9 shall use its best efforts to resolve any questions or concerns raised by Norco during such review. PC 9 shall use its best efforts to adopt a final Annual Budget on or before June 1, and a copy of the adopted Annual Budget shall be supplied to Norco. Any amendment to the adopted Annual Budget shall be submitted to Norco prior to any action thereon by PC 9.

8. Rate for Potable Water.

a. Rate Objective. The rates established hereunder for the sale of Potable Water from the Arlington Desalter are based on PC 9's Cost of Service to provide Potable Water. Throughout the term of this Agreement, considering the expected periodic and annual fluctuations in the Total Remaining Project Costs, PC 9 shall use its best efforts to create uniform annual adjustments in the rates established for the purchase of Potable Water by Norco.

b. Establishment of Rate. Concurrent with the adoption of the Annual Budget, PC 9 shall fix a rate per acre-foot for the purchase of Potable Water from the Arlington Desalter in accordance with the following formula:

$$\text{Rate} = (\text{Cost of Service}) \div (\text{Annual Water Baseline})$$

9. Payment.

a. Monthly Charge. At the end of each month, PC 9 shall submit to Norco an invoice detailing the charges to Norco under this Agreement for the delivery of Potable Water during the previous month. The charges shall be calculated in accordance with the following formula:

$$\text{Monthly Charge} = (\text{Rate}) \times (\text{Actual amount of Potable Water delivered to Norco during the previous month})$$

Norco shall pay the amount set forth in the invoice no later than forty-five (45) days after the date of the invoice. Any amount remaining unpaid after forty-five (45) days from the date set forth in the invoice shall accrue interest at the rate of ten percent (10%) per annum.

b. Contesting the Accuracy of Charges. If Norco questions or disputes the correctness of any billing statement by PC 9, it shall pay PC 9 the amount claimed when due and shall, within thirty (30) days of the completion and delivery of the annual audit for the Fiscal Year, request an explanation from PC 9. If it is determined that the bill was incorrect, PC 9 shall adjust the bill to Norco in the next Fiscal Year, including an adjustment equal to the interest actually earned by PC 9 on its general reserves during such period. If PC 9 and Norco fail to agree on the correctness of a bill within thirty (30) days after Norco has requested an explanation, the Parties shall promptly submit the dispute to arbitration in accordance with

Section 14(b) of this Agreement.

10. Carryover. Within thirty (30) days after completion and acceptance of the annual audit for the Fiscal Year, PC 9 shall determine a surplus or deficit carryover, if any, to be included in the next annual calculation of the Total Remaining Project Costs. The carryover shall be calculated in accordance with the following formula:

$$\text{Carryover} = (\text{Actual Annual Revenues}) - (\text{Actual Annual Project Costs})$$

If for any Fiscal Year the carryover is a negative number, and PC 9 determines in its sole and absolute discretion that all or part of the deficit carryover is a result of Norco's failure to take delivery of Potable Water during the Fiscal Year in an amount equal to the Norco Right, and PC 9 determines in its sole and absolute discretion that payment of the deficit carryover is necessary for the financial stability and integrity of the Arlington Desalter, PC 9 may declare that Norco shall pay all or portion of the deficit carryover immediately or over a period of time, and Norco shall be obligated to make such payment.

11. Expansion of Arlington Desalter Capacity. Any improvements made to the Arlington Desalter that increase the capacity of any component of the Arlington Desalter to produce or deliver Potable Water or Desalted Water shall be done in accordance with either of the following:

a. If the improvements are requested by Norco and agreed to by PC 9, this Agreement shall be amended to provide that the costs of such improvements are included within the Total Remaining Project Costs.

b. If the improvements are requested by a third-party and agreed to by PC 9, or if the improvements are initiated at the discretion of PC 9, such improvements shall not be undertaken unless (i) any additional Potable Water is sold at the same rate as the Potable Water sold to Norco, (ii) agreements are executed for purchase of any additional Potable Water, and (iii) PC 9 determines that construction of the improvements will not cause the rate at which Potable Water is sold to Norco to increase more than if the improvements were not constructed.

12. Sale of Surplus Potable Water. Surplus Potable Water shall be sold by PC 9 at the rate for the purchase of Potable Water established under Section 8 of this Agreement. Any person to whom Surplus Potable Water is sold by PC 9 shall take into consideration the terms and conditions of the Term Sheet.

13. Transfer of the Norco Requested Water. Any proposed transfer, sale, or other disposition of the Norco Requested Water shall take into consideration the terms and conditions of the Term Sheet. Norco shall give ninety (90) days' advance written notice to PC 9 of any proposed transfer, sale, or other disposition pursuant to this section.

14. Event of Default; Breach; Remedies.

a. Written Demand. Upon the failure of a party (i) to make any payment in full when due under this Agreement or (ii) to perform any other obligation hereunder ("Event of Default"), a party may deliver written demand to the party in default to correct the Event of

Default. If an Event of Default is not remedied within thirty (30) days from the date of such demand, the Event of Default shall constitute a breach of this Agreement. If an Event of Default described in clause (ii) above cannot be remedied within thirty (30) days from the date of such demand, but the party in default commences remedial action within such thirty (30) day period, the Event of Default shall not constitute a breach of this Agreement.

b. Arbitration. Any dispute which may arise under this Agreement by and between the Parties shall be submitted to binding arbitration. Arbitration shall be conducted by the San Bernardino/Riverside Panel of the Judicial Arbitration and Mediation Services, Inc., or any other arbitration service the Parties agree to in writing, in accordance with its rules in effect at the time of the commencement of the arbitration proceeding, and as set forth in this section. The arbitrator must decide each and every dispute in accordance with the laws of the State of California, and all other applicable laws. Unless the PARTIES stipulate to the contrary in writing, prior to the appointment of the arbitrator, all disputes shall first be submitted to non-binding mediation, conducted by Judicial Arbitration and Mediation Services, Inc., or any other mediation service the Parties agree to in writing, in accordance with its rules and procedures for such mediation.

15. Accounting Records and Financial Statements.

a. PC 9 will keep appropriate accounting records in which complete and correct entries shall be made of all transactions relating to the Arlington Desalter, which records shall be available for inspection, copying and audit by Norco and its accountants, attorneys and agents at reasonable hours and under reasonable conditions.

b. PC 9 will prepare annually within two hundred ten (210) days after the close of each Fiscal Year (commencing with the Fiscal Year ending June 30, 2002) financial statements of PC 9 for the preceding Fiscal Year, prepared in accordance with generally accepted accounting principles, together with a report of an Independent Certified Public Accountant thereof. PC 9 will promptly furnish a copy of such report to Norco.

16. Compliance with Law. PC 9 shall comply with all local, state and federal laws applicable to the Arlington Desalter.

17. Maintenance and Operation of the Arlington Desalter. Subject to the payment obligations of the Project Participants hereunder, PC 9 will maintain and preserve the Arlington Desalter in good repair and working order at all times and will operate the Arlington Desalter in an efficient and economical manner.

18. Effective Date; Delayed Date for Certain Obligations. This Agreement shall be effective July 1, 2003, except that any obligation of Western to deliver Potable Water under this Agreement, and any obligation of Norco to make any payment for Potable Water under this Agreement, shall not become effective unless and until Potable Water is first delivered to Norco by Western through the Arlington Desalter and pipelines. Notwithstanding the foregoing, this Agreement shall not be effective unless and until an Agreement between PC 9 and OCWD is executed that provides, at a minimum, the following: (a) OCWD shall purchase Desalted Water at a rate per acre-foot equivalent to OCWD's average cost of purchasing an acre-

foot of imported water for replenishment purposes from the Municipal Water District of Orange County; and (b) OCWD's purchase obligation, as set forth above, shall be waived during such time that OCWD determines and notifies SAWPA that any Desalted Water in the Santa Ana River is being discharged into the Pacific Ocean.

19. Term. The term of this Agreement shall continue until June 30, _____, 2036 ("Term"). No later than five (5) years prior to the end of the Term, the Parties hereby agree to negotiate in good faith to amend this Agreement prior to the end of the Term to do the following: (a) extend the Term of this Agreement; (b) add a term to this Agreement listing the capital improvements that will be required for the Arlington Desalter to perform satisfactorily and in compliance with this Agreement during the Term extension; and (c) add the costs of such capital improvements to the Total Remaining Project Costs. All additional or amended terms negotiated under this section shall be mutually agreeable to the Parties.

20. Miscellaneous.

a. Headings. The headings of the sections hereof are inserted for convenience only and shall not be deemed a part of this Agreement.

b. Partial Invalidity. If any one or more of the covenants or agreements provided in this Agreement to be performed should be determined to be invalid or contrary to law, such covenant or agreement shall be deemed and construed to be severable from the remaining covenants and agreements herein contained and shall in no way affect the validity of the remaining provisions of this Agreement.

c. Counterparts. This Agreement may be executed in several counterparts, all or any of which shall be regarded for all purposes as one original and shall constitute and be but one and the same instrument.

d. Governing Law. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA.

e. Notices. Any notices required or permitted to be given hereunder shall be given in writing and shall be delivered (a) in person, (b) by certified mail, postage prepaid, return receipt requested, (c) by Federal Express or another reputable commercial overnight courier that guarantees next day delivery and provides a receipt, or (d) by telefacsimile or teletype, and such notices shall be addressed as follows:

Norco: City of Norco
P.O. Box 428
Norco, CA 92860
Attn: Superintendent of Public Works
Fax: (909) 270-5622

Western: Western Municipal Water District
P.O. Box 5286
Riverside, CA 92508
Attn: General Manager
Fax: (909) 780-3837

PC 9: Santa Ana Watershed Project Authority
11615 Sterling Ave.
Riverside, CA 92503
Attn: Project Committee No. 9
Fax: (909) 785-7076

or to such other address as either party may from time to time specify in writing to the other party. Any notice shall be deemed delivered when actually delivered, if such delivery is in person, upon deposit with the U.S. Postal Service, if such delivery is by certified mail, upon deposit with the overnight courier service, if such delivery is by an overnight courier service, and upon transmission, if such delivery is by telefacsimile or telecopy.

f. Merger of Prior Agreements. This Agreement constitutes the entire agreement between the Parties and supersedes all prior agreements and understandings between the Parties relating to the subject matter hereof.

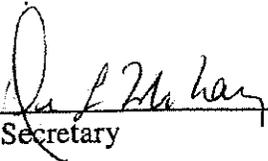
g. Time of the Essence. Time is of the essence in the performance of this Agreement.

IN WITNESS WHEREOF, Norco has executed this Agreement with the approval of its governing body, and SAWPA has executed this Agreement on behalf of PC 9 in accordance with Resolution No. 353, and Western has executed this Agreement with the approval of its governing body.

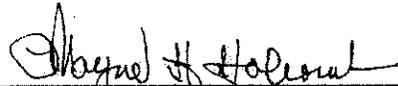
[SIGNATURES OF PARTIES ON NEXT PAGE]

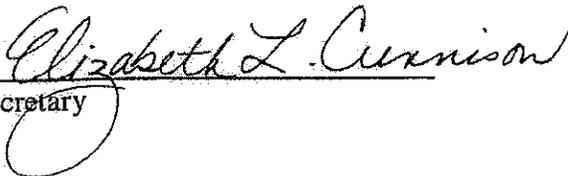
CITY OF NORCO

By: 
Mayor

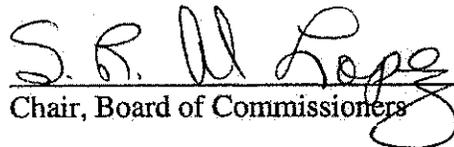
Attest:
By: 
Secretary

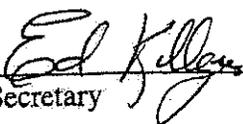
**WESTERN MUNICIPAL WATER DISTRICT
OF RIVERSIDE COUNTY**

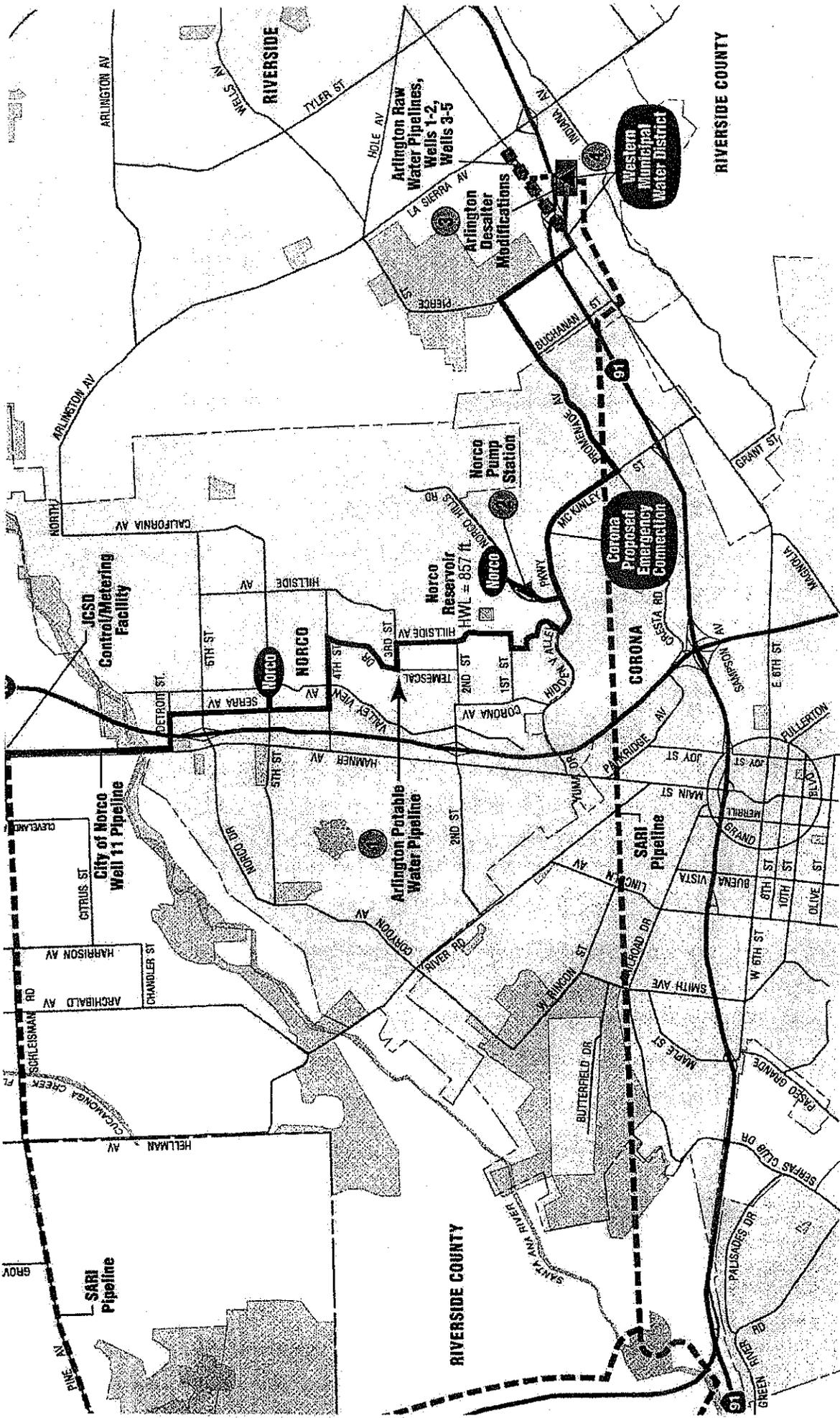
By: 
President, Board of Directors

Attest:
By: 
Secretary

**SANTA ANA WATERSHED PROJECT
AUTHORITY (on behalf of Project Committee
No. 9)**

By: 
Chair, Board of Commissioners

Attest:
By: 
Secretary



LEGEND	DESCRIPTION	OWNER	DESCRIPTION
—	Proposed Potable Water Pipeline	(SAWPA)	Existing Well
.....	Existing Potable Water Pipeline	(SAWPA)	Proposed Pump Station / Modifications
—	Proposed Raw Water Pipeline	(SAWPA)	Existing SARI Pipeline (shown schematically)
.....	Existing Raw Water Pipeline	(SAWPA)	Desalter
—	Proposed Potable Water Pipeline	(WMWD)	Agency Proposed / Future Turnouts
.....	Existing Potable Water Pipeline	(Other)	Agency Proposed Emergency Connection

MEMORANDUM OF UNDERSTANDING
BETWEEN WESTERN MUNICIPAL WATER DISTRICT,
THE CITY OF NORCO, AND THE CITY OF CORONA

This Agreement is entered into as of the 15th day of May, 1996, by and between the Cities of Corona, Norco and Western Municipal Water District (Western).

RECITALS

1. The Cities of Corona and Norco are both within the service area of Western, which was created in 1954 to distribute supplemental imported water to the western end of Riverside County.
2. The City of Norco is faced with a shortage of water that meets the requirements of the California Safe Drinking Water Act and is under a mandate by the State Department of Health Services to provide a short term (5 years or less) solution to this problem, while a permanent and long term improved water supply is established. Because Western is the regional agency with the mission to provide supplemental water to the area which includes Norco, Norco has asked for Western's assistance to obtain such supplemental water.
3. Western has a supply of water available from the Mills Filtration Plant (Mills) that it can provide to Norco to make up for the city's shortage. However, the only financially feasible way for Western to deliver this water to Norco is through Corona's existing water system.
4. Norco and Western, with cooperation of Corona staff, have ascertained by computer modeling, that Western could provide up to 4,000 gallons of water per minute to Norco through Corona's water system without adversely affecting Corona's system. Water would be provided primarily to Corona's water system using Reaches A-E and Reach F of the Mills Gravity

Line (Gravity Line). Because of system demand constraints, Corona may choose to receive some or all of the water wheeled to Norco from its WR-19 connection to the Metropolitan Water District (MWD) of Southern California Lower Feeder (Colorado River water), or other local water supplies available to Corona. In the case of Colorado River water, Corona shall provide treatment from its Lester Water Treatment Plant. Water would be delivered to Norco in the vicinity of Norco Hills Road and Yuma Drive from Corona's 1060 pressure zone.

5. The Parties recognize that Corona will at times receive benefit from Western's delivery of Mills water, including high pressure from Western's La Sierra tank at USGS elevation 1515 and higher quality in the form of lower total dissolved solids and lower nitrates.

NOW, THEREFORE, in consideration of the foregoing recitals and the covenants hereinafter contained, the Parties agree as follows:

1. Waters to be delivered to Norco will be delivered to the Corona connection at the end of Reach F of the Gravity Line or as otherwise noted in the RECITALS, and "wheeled" by Corona from that location to the point of delivery to Norco.
2. Corona will deliver to Norco, as close as possible, the same quantity of water purchased from MWD by Western on behalf of Norco.
3. Norco shall take delivery of water from Corona in the vicinity of Norco Hills Road and Yuma Drive in the City of Corona.
4. The quantity of water delivered to Norco will be measured by a meter located between the connection of Corona's system and the first point of delivery to Norco.

5. The quantity of water delivered to Corona will be measured by utilizing the existing meter located at the end of the Gravity Line or when appropriate, its meter to MWD's Lower Feeder (WR-19). The actual quantity of water consumed by, and invoiced to Corona will be calculated by subtracting the metered amount of water delivered to Norco from the meter at the end of the Gravity Line. When Corona is unable to take sufficient Mills water from its connection to the Gravity Line to match the delivery to Norco, Western shall apply the balance of the water delivered to Norco to Western's invoices to Corona for the WR-19 connection. For the purposes of this Agreement, Corona's compensation for the purchase of Colorado River water and treatment costs shall be considered equal the purchase price of Mills water.
6. The meter measuring water delivered to Norco as well as the meter(s) delivering water to Corona will be read and maintained by Western.
7. Norco will have the responsibility to design, fund, construct, operate (except the meter) and maintain (except the meter) all facilities from the point of connection to the City of Corona water system to the connection to Norco's system.
8. The actual connection to Corona's system will be designed, funded, constructed, and maintained by Norco, but will be jointly operated by Norco and Corona.
9. The design of the metering facilities, connection facility, flow control facilities, pressure reduction facility, and transmission pipeline shall be subject to review and approval by Corona (Western shall review the metering facilities only)

with the CEQA clearances, contract administration (to include inspection, change orders, payments, etc.) and funding of the construction being Norco's total responsibility.

10. The facilities shall be subject to inspection and approval by Corona (Western shall inspect the metering facilities only) during construction and again before they are activated.
11. If practical, the design of the facilities shall provide for the future ability of Norco water to be delivered to Corona. If Corona agrees that the cost benefit of this addition is attractive, Corona may approve the construction and will reimburse Norco for one half of the cost of the construction of that portion of the project upon completion of the installation. (Because Corona's system is at a higher hydraulic grade than Norco's, this will necessitate the inclusion of piping for temporary Corona pumps to be utilized at Corona's cost).
12. Norco will lease nine (9) cubic feet per second (approximately 4,000 gallons per minute) of capacity in the Gravity Line.
13. Leased capacity shall be paid for monthly and calculated by the formula of ten per cent of the Gravity Line capacity purchase price of \$581,000 per cubic feet per second for the capacity leased each day (\$80.39 per acre foot).
14. Water purchased by Norco shall be at the then current rate for water delivered to Corona at the end of the Gravity Line payable to Western and shall change as MWD's and Western's costs change. (The current rate is \$432.50 per acre foot as of July 1995).

15. Deliveries of all Gravity Line water shall be pre-arranged (scheduled) with Corona and Western according to Western's operating rules (currently being a minimum of 24 hours ahead and at a constant rate of flow). Details of scheduling deliveries by Corona to Norco shall be closely coordinated between Norco and Corona. For the purposes of this Agreement, Norco agrees to accept a minimum delivery of 400 gallons per minute (approximately 0.9 cubic feet) or no less than 10% of the manufacturers rated capacity for the meter assembly used.
16. Corona's wheeling charges shall be calculated as 5% of Norco's purchased water costs charged by Western, excluding any leases, surcharges or penalties. (The current rate is \$432.50 per acre foot as of July 1995).
17. The term of this Agreement is for a period of five (5) years, subject to extension or cancellation only by mutual agreement of all Parties. On or about four (4) years from the adoption of this Memorandum, the three Parties (Corona, Norco and Western) shall meet to determine if any such extension shall be considered.
18. It will be Western's responsibility to invoice the appropriate Parties for payment based on the quantities of waters delivered and at the sales price as discussed above. It will also be Western's responsibility to collect from Norco and pay to Corona the "wheeling" charge payments and treatment costs for Colorado River water, due to Corona, said payment may be processed as a credit on invoices of Corona payments due Western.
19. This Agreement contains the entire agreement between the Parties with respect to the matters herein provided, and any other understanding, discussion or oral agreement not expressly set forth herein shall have no force or effect.

20. Should any party of this Agreement commence an action or proceeding in court with respect to this Agreement or the enforcement hereof or with respect to the rights and duties of the parties hereunder, the party prevailing in such action or proceeding shall be entitled to receive from the losing party, such amount as the court may award for the payment of its costs incurred in prosecuting or defending such action or proceeding, including such amount as the court may determine is reasonable for the payment of the fees of its attorneys and costs incurred by its for expert witnesses, in addition to such other relief as the court may grant.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the date first above written.

WESTERN MUNICIPAL WATER DISTRICT OF
RIVERSIDE COUNTY

BY: 
President of the Board of Directors

CITY OF CORONA

BY: 
Mayor

CITY OF NORCO

BY: 
Mayor

XI. 11

**AGREEMENT BY AND BETWEEN JURUPA COMMUNITY SERVICES
DISTRICT AND THE CITY OF NORCO PERTAINING TO THE
PROVISION OF WATER SERVICE TO THE CITY**

This agreement is entered into this 17th day of June, 1992, by and between Jurupa Community Services District ("JCSD") and the City of Norco ("Norco"), sometimes respectively hereinafter referred to individually or collectively as "the party" or "the parties".

RECITALS

A. Norco owns, maintains and operates domestic water wells located in the service area of JCSD adjacent to the Swan Lake Mobile Home Park together with a waterline which transports the water produced from the wells to the service area of Norco.

B. Norco's wells intermittently produce water which does not meet drinking water standards with respect to nitrate.

C. JCSD owns, maintains and operates an eight inch waterline located adjacent to Norco's water facilities along Hamner Avenue which was installed for the purpose of providing supplemental water to the Swan Lake Mobile Home Park from JCSD's potable water system.

D. JCSD presently produces all of its potable water from wells located to the north of Norco's wells from an area of the Chino Basin with generally lower nitrate levels than Norco's wells.

E. In order to reduce the nitrate level in Norco's water system Norco desires to purchase water from JCSD's eight inch waterline located along Hamner Avenue to blend with water produced from Norco's wells.

NOW, THEREFORE, IN CONSIDERATION OF THE FOREGOING RECITALS AND OF THE PROMISES CONTAINED HEREIN, THE PARTIES AGREE AS FOLLOWS:

Section 1. CONNECTION BY NORCO TO JCSD POTABLE WATER SYSTEM. Norco shall be responsible for all costs of connecting its waterline to JCSD's waterline which connection shall be in conformance with JCSD's applicable standards and specifications, including but not limited to, the installation of an approved backflow prevention device. The connection shall be performed by Norco or its contractor under the supervision and inspection of JCSD.

Section 2. Limitation On Available Rate Of Flow. The primary purpose of JCSD's eight inch waterline installed south of Bellegrave Avenue along Hamner Avenue is to provide water service to customers within JCSD's service area, including the Swan Lake Mobile Home Park. For this reason, it is understood and agreed that the available rate of flow to Norco from said waterline shall be limited to a peak demand not to exceed 750 gallons per minute and a valve or other rate of flow limitation device shall be installed at the connection point to limit the rate of flow accordingly. In the event Norco requires a temporary rate of flow which exceeds a peak demand of 750 gallons per minute, such additional water may be provided on the same terms and conditions contained herein subject to JCSD determining in its sole discretion that such water is available.

Section 3. Cost of Water. The water provided to Norco from JCSD's water system shall be sold at the rate charged to JCSD customers, which is presently \$0.62 per hundred cubic foot, plus \$0.20 per hundred cubic foot in addition to a monthly minimum meter charge based on the size of the water meter installed at the connection point. It is

understood and agreed that Norco shall be subject to any increases in water rates or the monthly minimum meter charge on the same basis as JCSD's customers, however, in no event, subject to the provisions of Sections 5 and 6, shall the rate charged to Norco for water delivered exceed the rate charged to JCSD customers plus \$0.20 per hundred cubic foot.

Section 4. No Capacity Right. It is understood and agreed that in connection with the delivery of water from JCSD to Norco as provided for herein, Norco shall gain no capacity right in JCSD's water system or facilities, or entitlement to the delivery of water except as provided for herein, including but not limited to a right of reimbursement for any charges paid for water.

Section 5. Watermaster Charges. In the event the Chino Basin ("the Basin") Watermaster determines that the groundwater produced from the Basin by JCSD and delivered to Norco is subject to a charge, assessment or fee in connection with the exportation of water from the Basin as may be provided for by the Basin Judgment and/or Watermaster Rules and Regulations, and the Watermaster levies such charge, assessment or fee on water produced from the Basin by JCSD which is delivered to Norco, JCSD may increase the rate charged to Norco for water in an amount equivalent to the Watermaster charge, assessment or fee in addition to the charges for water as provided for in Sections 3 and 6.

Section 6. Availability of Desalter Water. In the event JCSD operates or purchases water from desalters for use in JCSD's potable water system, it shall have the right to increase the charges for water delivered to Norco based on the cost of operating and maintaining the desalters including capital costs or the cost of purchasing desalter water, plus \$0.20 per hundred cubic foot, rather than on the basis provided for in Section 3.

Section 7. Quality Of Water Delivered To Norco.

All water delivered to JCSD's customers from its potable water system presently meets drinking water standards, however, it is understood and agreed that JCSD has no obligation to provide water of a certain quality to Norco except in conformance with Federal and State standards for drinking water in effect at the time this agreement is executed. In the event Federal or State standards for nitrate or other constituents are revised in the future resulting in the quality of water provided by JCSD for drinking purposes not meeting the revised standards, JCSD will exercise best efforts to provide water to Norco in conformance with the revised standards, however, it shall not be under any special or separate obligation apart from the requirements of the Federal or State standards or administrative directives or allowances that may be applicable to JCSD to provide Norco with water of certain quality.

Section 8. Entire Agreement. This agreement constitutes the entire agreement between the parties hereto and any other understandings, discussions, or oral agreements not expressly set forth herein shall have no force or effect.

Section 9. Inurement. This agreement shall inure to the benefit of and be binding upon the successors and assigns of the parties.

Section 10. Attorneys' Fees. Should either party to this agreement commence an action or proceeding in court with respect to this agreement, or for the enforcement hereof, or with respect to the rights and duties of the parties hereunder, the party prevailing in such action or proceeding shall be entitled to receive from the losing party such amount or amounts as the court may award for the payment of its costs incurred in prosecuting or defending such action or

proceeding, including such amount as the court may determine is reasonable for the payment of the fees of its' attorneys and the costs incurred by it for expert witnesses, in addition to such other relief as the court may grant.

Section 11. Termination Of Agreement. Either party may terminate this agreement upon not less than six (6) months advance written notice to the other party unless a longer or shorter termination notice is mutually agreed to in writing by the parties.

BY: Cliff Wanamaker

PRESIDENT, JURUPA COMMUNITY SERVICES DISTRICT

BY: Barbara Carmichael

MAYOR, CITY OF NORCO

AMENDMENT TO AGREEMENT BY AND BETWEEN JURUPA COMMUNITY SERVICES DISTRICT AND THE CITY OF NORCO PERTAINING TO THE PROVISION OF WATER SERVICE TO THE CITY

This amendment is entered into by and between Jurupa Community Services District ("JCSD") and the City of Norco ("Norco"), sometimes respectively hereinafter referred to individually or collectively as "the party" or "the parties".

RECITALS

A. The "Agreement By And Between Jurupa Community Services District And The City Of Norco Pertaining To The Provision Of Water And Sewer Service To The City" (hereinafter referred to as "the Water Service Agreement") dated June 17, 1992 sets forth the terms and conditions for the provision of water service from JCSD to Norco.

B. Subsequent to the execution of the Water Service Agreement by the parties the Chino Basin Watermaster informed JCSD that it would be preferable with respect to the Chino Basin Judgment to account for water produced from the Basin as if it were being produced directly by Norco.

C. The parties desire to amend the Water Service Agreement consistent with the recommendations of the Chino Basin Watermaster.

NOW, THEREFORE, IN CONSIDERATION OF THE FOREGOING RECITALS AND OF THE PROMISES CONTAINED HEREIN, THE PARTIES AGREE AS FOLLOWS:

Section 1. AMENDMENT OF WATER SERVICE AGREEMENT.

The provisions set forth in Sections 3 and 5 of the Water Service Agreement are hereby rescinded and shall no longer be of any force and effect and said Agreement amended as follows:

"Section 3. Cost of Water. The water provided to Norco from JCSD's water system shall be sold at the rate of \$0.24 per hundred cubic foot, which does not include groundwater replenishment charges levied by the Chino Basin ("the Basin") Watermaster on water produced by JCSD, plus \$0.20 per hundred cubic foot in addition to a monthly minimum meter charge based on the size of the water meter installed at the connection point. It is understood and agreed that Norco shall be subject to any increases in water rates or the monthly minimum meter charge on the same basis as JCSD's customers, however, in no event, subject to Section 6, shall the rate charged to Norco by JCSD for water delivered exceed the rate charged to JCSD's customers, less groundwater replenishment charges levied by the Chino Basin Watermaster on water produced by JCSD, plus \$0.20 per hundred cubic foot."

"Section 5. Watermaster Charges. In recognition of the provisions of the Chino Basin Judgment ("the Judgment") with respect to the production of groundwater from the Basin, water which is delivered by JCSD to Norco shall for purposes of groundwater production and/or the levy of replenishment charges by the Chino Basin Watermaster under the Judgment and/or Watermaster Rules and Regulations be considered produced directly by Norco and accounted for accordingly."

Section 2. No Effect On Remaining Provisions Of Water Service Agreement. The amendments set forth in Section 1 herein shall not have any effect on the remaining provisions of the Water Service Agreement except as expressly provided for in that Section.

Section 3. Entire Amendment. This amendment constitutes the entire amendment to the Water Service Agreement between the parties hereto and any other

understandings, discussions, or oral agreements not expressly set forth herein shall have no force or effect.

Section 4. Inurement. This amendment shall inure to the benefit of and be binding upon the successors and assigns of the parties.

Section 5. Attorney's Fees. Should either party to this amendment commence an action or proceeding in court with respect to this amendment, or for the enforcement hereof, or with respect to the rights and duties of the parties hereunder, the party prevailing in such action or proceeding shall be entitled to receive from the the losing party such amount or amounts as the court may award for the payment of its costs incurred in prosecuting or defending such action or proceeding, including such amount as the court may determine is reasonable for the payment of the fees of its' attorneys and the costs incurred by it for expert witnesses, in addition to such other relief as the court may grant.

Section 6. Effective Date. This amendment shall become effective upon the date of the last party's execution thereof.

Date: 9-11-92

By: Cliff Wanamaker
PRESIDENT, JURUPA COMMUNITY SERVICES DISTRICT

Date: August 19, 1992

By: Barbara J. Carmichael
MAYOR, CITY OF NORCO