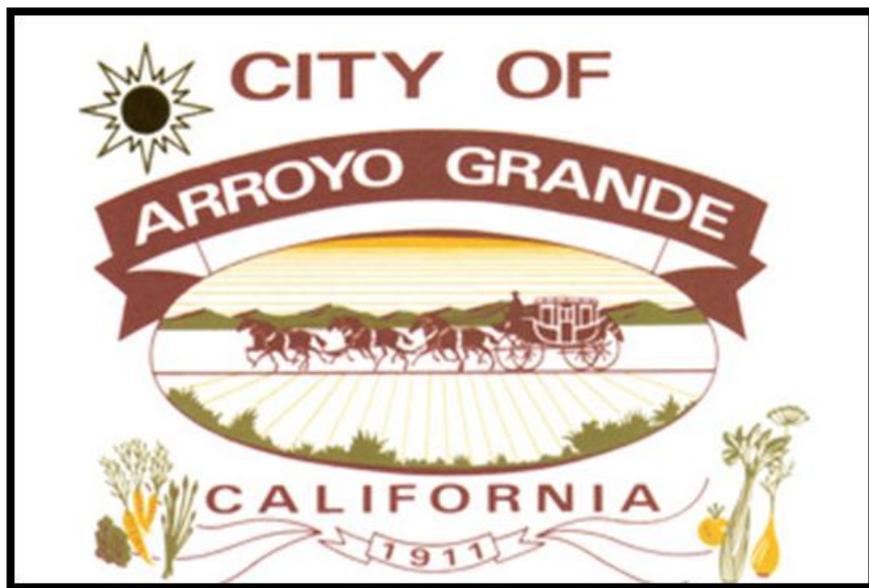


Urban Water Management Plan



2010 Update

Final

1/17/2012

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Acronyms

AFY	Acre-feet per year
AGP-TCM	Arroyo Grande Plain of the Tri-Cities Mesa
Ccf	Hundred cubic feet
CEQA	California Environmental Quality Act
CIMIS	California Irrigation Management Information System
CSA	Community service area
CSD	Community services district
CUWCC	California Urban Water Conservation Council
DAF	Dissolved air flotation
DBP	Disinfection-by-products
DMMs	Demand management measures
DWR	California Department of Water Resources
ERP	Emergency Response Plan
ETo	Evapotranspiration
FY	Fiscal Year
Gpcd	Gallons per capita per day
WTP	Water treatment plant
LUE	Land Use Element
MGD	Million Gallons per Day
MOU	Memorandum of Understanding
MWC	Mutual water company
NCMA	Northern Cities Management Area
NPDES	National Pollutant Discharge Elimination System
NRW	Non-revenue water
OCSD	Oceano Community Services District

PG&E	Pacific Gas and Electric
RO	Reverse osmosis
SB7	Senate Bill x 7-7
SDWA	Safe Drinking Water Act
Settlement	Judgment in the Santa Maria Groundwater Basin Litigation
SLOCOG	San Luis Obispo Council of Governments
SLOFCWCD	San Luis Obispo County Flood Control and Water Conservation District
SSLOCSO	South San Luis Obispo County Sanitation District
TDS	Total dissolved solids
THM	Trihalomethanes
ULF	Ultra-low flow toilet
UWMP Act	Urban Water Management Plan Act
UWMP	Urban water management plan
WRCC	Western Regional Climate Center
WWTP	Wastewater treatment plant

1.0 Introduction & Agency Coordination

Water Code section 10620

(a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

(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.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d)

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

(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.

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

Water Code section 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.

(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to 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 urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(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).

This report describes the 2010 update of the Urban Water Management Plan (UWMP) for the City of Arroyo Grande (City). The City is located in the Southern portion of San Luis Obispo County. The City supplies its customers with domestic water service and fire protection and currently serves a population of 16,901.

The City prepared an Urban Water Management Plan in May 2001 for submittal to the California Department of Water Resources (DWR) under the California Urban Water Management Planning Act (UWMP Act) (Water Code Section 10610, et seq.). The 2001 UWMP was amended in January 2003 based on comments from DWR in the Urban Water Management Plan Review Summary. The 2005 UWMP update was prepared to include information that had changed since the May 2001 UWMP, and to format the report according to the "Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan". The 2005 UWMP update was adopted by resolution in 2006 and submitted to DWR. The 2005 UWMP was revised to address DWR comments, and re-submitted in September 2010. The 2005 UWMP was accepted by DWR on December 9, 2010. The following 2010 UWMP update has been prepared to address requirements that have changed since the 2005 UWMP update. Table 1-1 shows a summary of changes made to the UWMP Act since 2005.

Table 1-1. Summary of Changes to the UWMP Act Since 2005			
Change	New/ Revised Water Code Section Number	Summary of Changes	UWMP Approach
Notification	10621(b)	<i>Added:</i> Provide at least 60 days notification to any city or county within which the supplier provides water for the public hearing required by Section 10642.	The County of San Luis Obispo, which is located within the City's service area, was notified in a timely manner to meet the requirement. A copy of the letter of notification of preparation of the UWMP is attached in Appendix D.
DMM Compliance	10631(j)	<i>Changed:</i> Members of the CUWCC will be considered in compliance with the DMM evaluation (10631 (f) and (g)) if they comply with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008 and by submitting their CUWCC annual reports.	The City is not a member of the CUWCC.

Table 1-1. Summary of Changes to the UWMP Act Since 2005			
Wholesale Suppliers Source Water	10631(j)	<i>Deleted:</i> Text identifying the specific types of water an Urban water supplier may seek information from a wholesaler supplier. The option to seek information from a wholesale supplier is not deleted, just the identification of source water types.	No impact to this UWMP.
Lower Income housing water use projections	10631.1	<i>Added:</i> Water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households (Health and Safety Code Section 50079.5) will be provided. These water use projections are to assist a supplier in complying with Government Code Section 65589.7 to grant priority of the provision of service to housing units affordable to lower income households.	Values are estimated based on the City's customer data and the San Luis Obispo Council of Governments' Regional Housing Needs Plan (see Section 5.2.6).
Linkage of DMM to State grant or loan program	10631.5(a)	<i>Changed:</i> After January 1, 2009, eligibility for state-funded grants or loans will be conditioned on the implementation of Section 10631 DMMs. If a DMM is not currently being implemented, then the urban water supplier submits to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement. If a DMM is not locally cost-effective (the present value of the local benefits is less than the present value of local costs to implement the DMM), then the water supplier will submit supporting documentation and the DWR will provide a determination within 120 days of UWMP submittal.	No impact to this UWMP.

Table 1-1. Summary of Changes to the UWMP Act Since 2005			
DMM Compliance	10631.5(b)	<i>Added:</i> DWR will consult with other agencies and public input and develop eligibility requirements for meeting compliance with DMM implementation. Determination of DMM compliance will be based on an individual water agencies implementation or participation with a regional group. An individual water agency will not be denied eligibility if another participating regional agency does not comply with each of the DMMs	No impact to this UWMP.
Determination of Grant and Loan Eligibility	10631.5(c)	<i>Added:</i> Grant and loan eligibility, based on DMM compliance, will be included in the funding guidelines.	No impact to this UWMP.
	10631.5(d)	<i>Added:</i> The administering agency will request an eligibility determination from DWR regarding “the requirements of this section”. DWR will respond within 60 days.	No impact to this UWMP.
	10631.5(e)	<i>Added:</i> The water supplier may submit copies of its annual reports and other relevant documents to assist DWR in determining implementation or scheduling of the water suppliers DMMs. Water suppliers that are signatories of the CUWCC MOU may submit its annual reports to support its DMM activities.	The City is not a signatory to the CUWCC MOU.
	10631.5(f)	<i>Added:</i> “This section” is in effect only until July 1, 2016, after which it is repealed, unless another statute is enacted.	No impact to this UWMP.
New DMM Independent Technical Panel	10631.7	<i>Added:</i> DWR, with the CUWCC, will convene a technical panel to provide information and recommendations to DWR and the Legislature on new DMMs, technologies, and approaches. There is further language on the panel members and timing.	No impact to this UWMP.
Potential Recycled Water Uses	10633(d)	<i>Added:</i> Indirect potable reuse is to be considered as an option for a potential use of recycled water.	No impact to this UWMP.

Table 1-1. Summary of Changes to the UWMP Act Since 2005			
UWMP Distribution	10644(a)	<i>Added:</i> A copy of the UWMP will also be submitted to the California State Library no later than 30 days after its adoption	The City will submit a copy of its adopted UWMP to the California State Library to meet this requirement.
Exemplary UWMP Elements	10644(b)	<i>Added:</i> ‘Exemplary’ elements of individual plans are to be identified in the 2011 Legislative Report	No impact to this UWMP.
Exemplary UWMP	10644(c)	<i>Added:</i> (1), (2), and (3). Clarifying that “exemplary” DMMs are those that achieve water saving significantly above the levels established by DWR to meet the requirements of 10631.7. The results are to be distributed to the panel convened pursuant to Section 10631.7 and the public.	No impact to this UWMP.
Retail Deadline	144644(j)(1)	<i>Added:</i> An urban retail water supplier is granted an extension to July 1, 2011, for adoption of an urban water management plan.	The City will make its best effort to adopt the plan in a timely manner.
Wholesaler Deadline	144644(j)(2)	<i>Added:</i> An urban wholesale water supplier whose urban water management plan . . . is granted an extension to July 1, 2011, to permit coordination between an urban wholesale water supplier and urban retail water suppliers.	No impact to this UWMP.
	10657	Deleted.	No impact to this UWMP.

In addition to the changes to the UWMP Act since 2005 shown in Table 1-1, the Water Conservation Bill of 2009, also known as Senate Bill X 7-7, was enacted in November 2009. To increase statewide water use efficiency, it requires reduction of the statewide average per capita daily water consumption by 20 percent by December 31, 2020, and requires “all water suppliers to increase the efficiency of this essential resource” (California Water Code § 10608.4(a)). The requirements of Senate Bill x 7-7 (SB7) are shown in Table 1-2. For more information regarding per capita water use refer to Section 5.3 and the *Base Daily Per Capita Water Use and Target Water Use Technical Memorandum* attached as Appendix E.

Table 1-2. Changes Since the 2005 UWMP- Water Conservation Bill Requirements	
CWC Citation	Summary
10608.20(e)	Include the base daily per capita water use, urban water use target, interim water use target, and compliance daily per capita water use. Provide basis for determination and supporting data references.
10608.20(g)	The 2015 UWMP can update the 2020 urban water use target.
10608.20(h)(2)	An urban retail water supplier shall use the methods developed by the department in compliance [with methodologies and criteria developed by DWR]
10608.20(j)	Deadline for adoption of a UWMP is extended to July 1, 2011 to allow use of the technical methodologies developed to establish base daily, target, interim target, and compliance daily per capita water use.
10608.36	Wholesale suppliers will provide an assessment of their present and proposed future measures, programs, and policies to achieve water use reduction required in SB x 7- 7.
10608.40	Urban water suppliers will report progress toward meeting urban water use targets in their UWMPs using a standardized form to be developed by DWR. Note: This applies only to 2015 and 2020 UWMPs because they will report “progress” toward meeting targets established in this, the 2010 UWMP.
10608.42	DWR will review the 2015 UWMPs and report to the Legislature the progress toward achieving a 20-percent reduction in urban water use by December 31, 2020.

Information used to complete this report was compiled from a variety of sources, including:

- *Arroyo Grande Groundwater Basin Groundwater Management Agreement* (see Appendix B)
- *Arroyo Grande Urban Water Management Plan 2005 Update, September 2010*
- *Arroyo Grande Water Supply Alternatives, August 24, 2004* (1)
- *Capacity Evaluation of the Lopez Pipeline* (2)
- *City of Arroyo Grande General Plan Housing Element* (3)
- *City of Arroyo Grande General Plan Land Use Element* (4)
- City of Arroyo Grande Staff
- *City of Arroyo Grande Water Conservation Program, May 13, 2003* (see Appendix C)
- *City of Arroyo Grande Water System Master Plan, Month 2011* (Currently being developed) (5)
- *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan, March 2011* (6)
- *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use, February 2011* (7)
- *Recycled Water Distribution System Conceptual Plan* (8)
- *Recycled Water Distribution System Conceptual Plan Technical Memorandum* (9)
- *Regional Housing Needs Plan* (10)
- *San Luis Obispo County 2040 Population, Housing & Employment Forecast* (11)

- *San Luis Obispo County Flood Control and Water Conservation District Zone 3 Urban Water Management Plan 2010 Update* (12)
- *San Luis Obispo County Master Water Plan* (13)
- *San Luis Region Integrated Regional Water Management Plan* (14)
- *Supplemental Water Supply Study Nacimiento Pipeline Extension* (15)
- *Water and Wastewater Financial Plan and Rate Study* (16)
- *Water Balance Study for the Northern Cities Area* (17)
- *Water Recycling Update Report* (18)
- *Water Supply Study: Desalination* (19)

1.1 Purpose of the Urban Water Management Plan

The State of California requires all urban water suppliers serving more than 3,000 customers or providing more than 3,000 acre-feet of water annually to develop an UWMP, and to submit a plan to the DWR every five years. The UWMP is a valuable planning document used for multiple purposes:

- Satisfies the requirements of the California Urban Water Management Planning Act (UWMP Act)
- Provides a reliable tool for future City water use planning
- Provides guidance for discussing regional water and land use planning with local agencies
- Provides a tool to ensure the City's eligibility for DWR grants and drought assistance
- Provides a standardized methodology to assess and report water supply needs and availability to the state government and community members
- Serves as a critical component for developing the San Luis Region Integrated Regional Water Management Plan (IRWMP)
- Serves as a resource for the California Water Plan and a planned online information exchange system called the Water Planning Information Exchange (Water PIE) being developed by DWR

The UWMP includes a description and evaluation of existing and potentially available sources of water supply, projected population and future water demand, demand management measures (DMMs), and strategies for responding to water shortages.

1.2 Plan Development and Adoption

The 2010 UWMP update has been prepared to include information that has changed since the 2005 UWMP, as amended, and to format the report according to the DWR's *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan, March 2011* (6).

The City prepared this update of its UWMP during the summer of 2011 and adopted it on January 10, 2012. The updated plan was presented at a public hearing conducted by the City Council on January 10, 2012 and was submitted to the DWR, the California State Library, and San Luis Obispo County within 30 days of City Council adoption. A notice of intent to prepare the UWMP was sent to the County of San Luis Obispo on July 20, 2011 (see Appendix D). The public review hearing was noticed on December 27, 2011 and the hearing notice is attached in

Section 8.1. In addition, the City maintained a copy of the 2010 UWMP update in its office and on its website prior to the public hearing. This plan includes all information necessary to meet the requirements of the California Water Code, Division 6, Part 2.6.

1.2.1 Agency Coordination

Coordination between multiple departments within the City provided valuable input including long-range land use projections and future service needs, past and current water use data, billing structures, and leak audit information.

In the interest of collaboration and shared resources, the City has coordinated development of the UWMP with nearby water and governing agencies. Table 1-3 shows the agencies the City coordinated with during the preparation of this UWMP. The City receives a portion of its water resources from the Lopez Reservoir Project as described in Section 3.2. The City provided its Lopez Reservoir Project demand for the next twenty years to the San Luis Obispo County Flood Control and Water Conservation District (SLOFCWCD) in a letter that is available in Appendix D. SLOFCWCD prepared its 2010 UWMP Update for Zone 3, which operates Lopez Reservoir and provides treated potable water to a number of other agencies in south San Luis Obispo County including the City of Pismo Beach, the City of Grover Beach, Avila Beach Community Services District, Oceano Community Services District, and County Service Area 12, which includes Port San Luis Harbor District. In its UWMP, SLOFCWCD identified the projected demand from the City as 2,290 AFY through 2030 based on the City's current entitlement of the current safe yield as discussed in Section 3.2. The City coordinated with all of the agencies involved with the Lopez Reservoir Project during the development of its UWMP.

One of the City's groundwater sources is the Santa Maria Valley Groundwater Basin. The basin is adjudicated, and the terms of the adjudication proceedings require formalized interagency coordination and collaboration, including a framework for monitoring, sharing information, and discussing water usage and impacts of pumping activity. The Santa Maria Valley Groundwater Basin and the specifics relating to the adjudication are described in further detail in Section 3.3.1.

Table 1-3. Agency Coordination							
	Participated in Developing the Plan	Commented on the Draft	Attended Public Meetings	Was Contacted for Assistance	Was Sent a Copy or URL Link to the Draft Plan	Was Sent a Notice of Intention to Adopt	Was Sent a Copy or URL Link to the Final UWMP
Avila Beach Community Services District					X	X	X
Avila Valley Mutual Water Company					X	X	X
California Department of Water Resources				X			X
California State Library							X
City of Grover Beach					X	X	X
City Pismo Beach					X	X	X
City of Santa Maria					X	X	X
County of San Luis Obispo				X	X	X	X
County Service Area 12					X	X	X
Nipomo Mesa Management Area Technical Group					X	X	X
Northern Cities Management Area Technical Group					X	X	X
Oceano Community Services District					X	X	X
Port San Luis Harbor District					X	X	X
San Luis Obispo Council of Governments					X	X	X
San Luis Obispo County Flood Control and Water Conservation District				X	X	X	X
San Miguelito Mutual Water Company					X	X	X

Table 1-3. Agency Coordination							
	Participated in Developing the Plan	Commented on the Draft	Attended Public Meetings	Was Contacted for Assistance	Was Sent a Copy or URL Link to the Draft Plan	Was Sent a Notice of Intention to Adopt	Was Sent a Copy or URL Link to the Final UWMP
Santa Maria Valley Water Conservation District					X	X	X
South San Luis Obispo County Sanitation District					X	X	X

1.2.2 Public Participation

The City has involved the public in the conservation planning process since the development of its first UWMP in 1985. Since the last update of the UWMP in 2005, the City has distributed information, including the City’s Conservation Program, Mandatory Retrofit Program, as well as annual water quality reports on the City’s website, in customer utility bills, and by general mail. A public hearing for the UWMP was held on January 10, 2012. Legal public notices were published in the local newspaper (The Tribune) at least two weeks prior to the hearing, and copies of the draft plan were made available on the City’s website (www.arroyogrande.com) and posted at the City Hall prior to the public hearing.

1.2.3 City Council Meetings and Adoption

As discussed previously, a public hearing was held at a regular City Council meeting on January 10, 2012 for the 2010 UWMP update. The UWMP was adopted at a regular City Council meeting on January 10, 2012.

1.3 Relationship of the UWMP to Other Planning Efforts

The City has identified the need to obtain additional water to maintain a reliable supply portfolio. The *Water Supply Alternatives Study* was prepared in August 2004 to identify one or more short, intermediate, and long term supply alternatives that meet the City’s objectives for water quantity, quality, and reliability (1). The *Water Supply Alternatives Study* report was followed by other supplemental water supply reports including the following:

- *Water Recycling Update Report, January 2009* (18)
- *Water Supply Study: Desalination, January 2006* (19)
- *Supplemental Water Supply Study Nacimiento Pipeline Extension* (15)
- *Capacity Evaluation of the Lopez Pipeline for Delivery of Additional State Water Project Supplies to the Northern Cities Technical Memorandum* (2)
- *Memorandum: Lopez Reservoir Expansion- Spillway Raise Project Advisory Group Recommendations, January 2009* (subsequent study currently being developed)

The City Council reviewed the San Luis Obispo County Integrated Regional Water Management Plan (IRWMP), of which the City is a participant, on October 11, 2005 at its public meeting. The City is coordinating the preparation of the UWMP with this regional water planning effort. The UWMP serves as a critical component for developing the IRWMP and maintains consistency with the goals and policies of the IRWMP. The IRWMP provides an opportunity for the City to apply for state funding for planning or implementation of projects and enhances integration with regional, countywide, and statewide water resources planning strategies and policies.

Through its involvement in the Northern Cities Management Area (NCMA), the City has reviewed and provided input on the County's ongoing Master Water Plan Update project, including demand and supply projections developed prior to this UWMP.

The City is beginning an update of the Agriculture, Conservation and Open Space Element of the General Plan, which will include goals and policies for the City's water resources. The UWMP will provide information and background for this planning process.

The City is preparing an update of the Housing Element of its General Plan. A draft of the Housing Element will be available in mid-November. This UWMP will be consistent with the information provided in the Housing Element.

The City is also preparing an update to its Wastewater System and Water System Master Plans. This UWMP was prepared in concurrence with the master planning efforts and reflects consistent demand and supply data and projections.

1.4 UWMP Organization

This UWMP update has been prepared according to the *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan* (6). Information from the 2005 UWMP has been incorporated and reformatted to comply with the format and requirements described in the 2010 Guidebook.

2.0 Service Area Characteristics

Water Code section 10630 & 10631

10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

10631. A plan shall be adopted in accordance with this chapter that shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. 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.

The following sections describe the service area of the City, including the current and projected climate, population, and demographics

2.1 Description of Service Area

The City is located in the southern portion of San Luis Obispo County along the banks of the Arroyo Grande Creek. The Pacific Ocean lies approximately 1.5 miles to the west. The City is bordered by the City of Grover Beach to the west, the communities of Oceano and Halcyon to the southwest, Pismo Beach to the northwest and unincorporated portions of the County of San Luis Obispo to the north, northeast, and southeast. The City, a general law entity, currently incorporates 5.87 square miles of land with primarily residential and agricultural land uses. The City's distinctive character derives from its traditional ties to agriculture, physical diversity, unique village, small town atmosphere, and rural settings. The current (2010) population of the City is 17,252 according to the U.S. Census Bureau; however the City currently serves water to a population of 16,901 residents. The City's water service area population includes residents of 9 water service connections outside of City limits and excludes residents of 138 connections served by Oceano Community Service District in an area located in the southwest portion of the City limits (see Figure 2-2). All 6,473 connections to the City's water system are metered, and there are no agricultural or industrial connections. In 2010, the City purchased and produced a total of 2,955 acre-feet of water. Water supply sources for the City are described in Section 3.0.

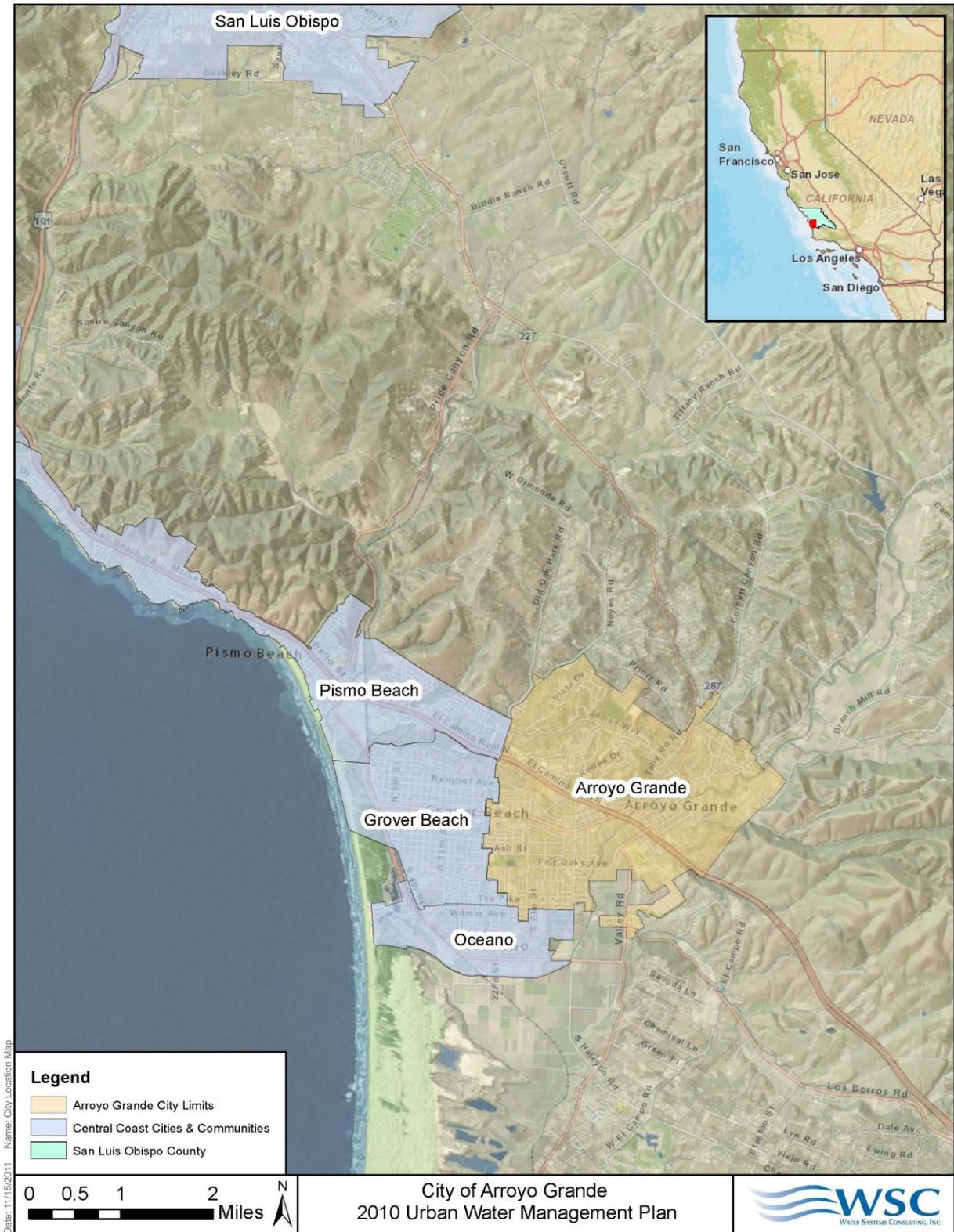


Figure 2-1. Arroyo Grande Vicinity on California Central Coast

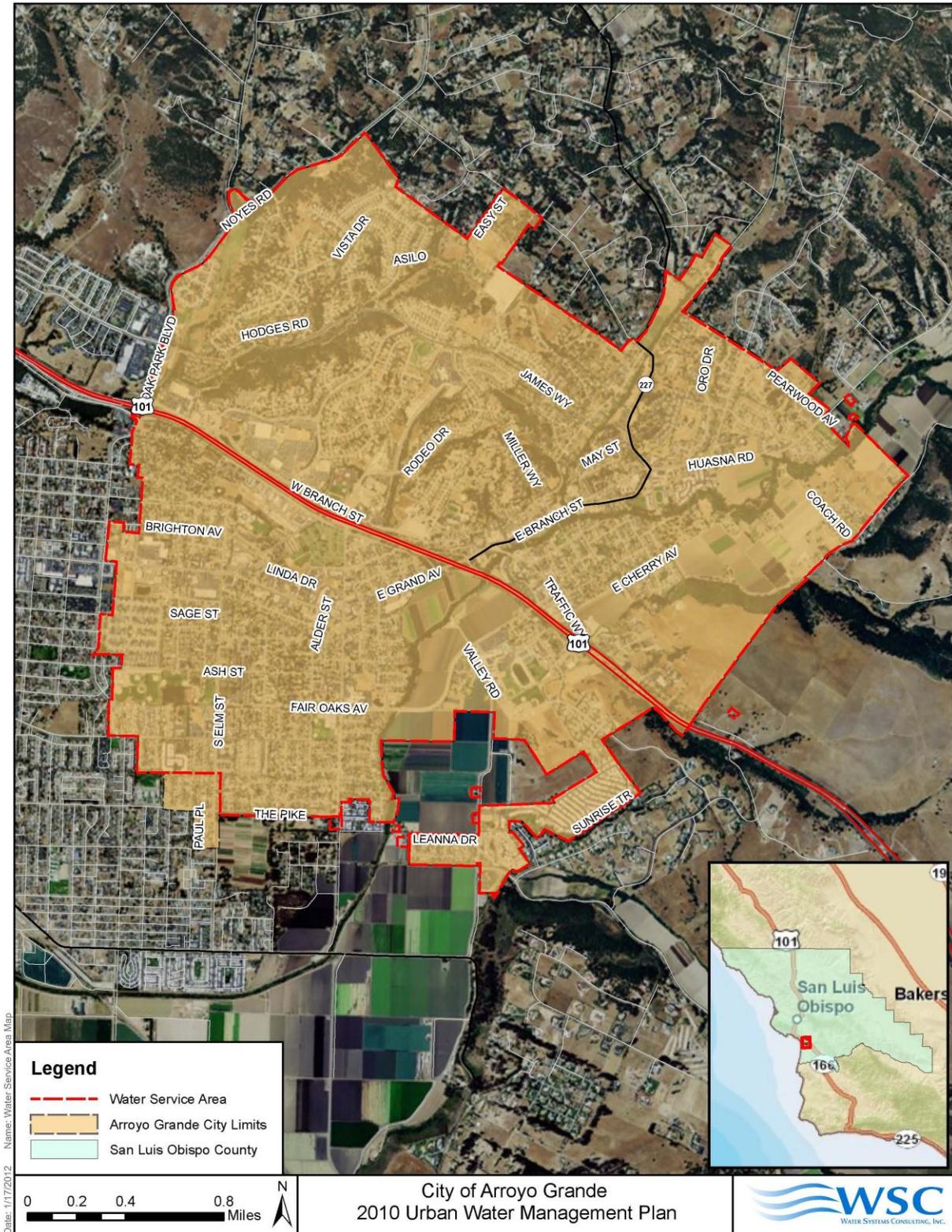


Figure 2-2. Water Service Area

The City delivers both surface water and groundwater through its pressurized distribution system. The distribution system is composed of 88 miles of distribution mains, six storage reservoirs, six pumping stations, and 6,473 service connections. The City's well system consists of eight wells, chloramination facilities, and a static mixer. Well No. 9 and No. 10 extract water from the Pismo Formation located outside of the NCMA boundary. Raw water from Well No. 9 receives treatment prior to entering into the system for iron/manganese and hydrogen sulfide. Lopez Project water receives treatment at the Lopez Water Treatment Plant (Lopez WTP) and enters the City's system at two metering stations. All City potable water is treated to meet drinking water standards, regardless of the source of supply. Wastewater treatment is conducted by the South San Luis Obispo County Sanitation District (SSLOCSD) at their Regional Treatment Facility located in Oceano.

2.2 Population and Demographics

The City is largely built-out and is expected to experience only modest growth over the next 25 years. The build-out population, defined as the maximum population that can occur considering the zoning and land use designations of the current General Plan, is established at 20,000 persons based on the City's General Plan Housing Element. The build-out population may increase if an annexation of approximately 185 acres of land and subsequent development were to occur on a portion of land that lies southeast of the City within the City's Sphere of Influence. The land use development policies within the City are established in the City's General Plan, principally by the Land Use Element (LUE) (4). The last comprehensive update to the General Plan occurred in October 2001, with Housing Element amendments certified by the state in 2005.

The City's population within City Limits was 17,252 in 2010 according to the 2010 U.S. Census. The City does not serve water to the entire population within its City Limits. The Oceano Community Services District serves a portion of the population in the southwestern part of the City. The City also serves some customers outside of City Limits. To meet the requirements of Senate Bill x 7-7 (SB7), an estimate of the service area population was calculated in the *Base Daily Per Capita Water Use and Target Water Use Technical Memorandum* attached as Appendix E. Based on the methodology described in Appendix E, the service area population in 2010 was 16,901.

The San Luis Obispo Council of Governments (SLOCOG) projects population for the City through 2040 in its *San Luis Obispo County 2040 Population, Housing & Employment Forecast* (11). The service area population projections are based on annual growth rates calculated from the mid growth scenario population projections from SLOCOG's report. The annual growth rates are applied to the 2010 service area population to yield the projected service area population shown in Table 2-1.

Table 2-1. Historical and Projected Population for the City of Arroyo Grande and the City's Water Service Area¹						
	2005	2010	2015	2020	2025	2030
Service Area Population	16,682	16,901	17,553	17,943	18,552	19,077
City Population	16,599 ²	17,252 ³	17,524 ⁴	18,407 ⁴	18,933 ⁴	19,591 ⁴

¹ The City population is based on the population within the City Limits boundary and the water service area population is based on the City's service area boundary, which is different from the City Limits.

² Source: U.S. Census Bureau, 2005-2009 American Community Survey

³ Source: U.S. Census Bureau, 2010

⁴ SLOCOG 2040 Population, Housing & Employment Forecast (11)

Existing zoning districts within the City are shown in Figure 2-4 below. The future land use area allocated for residential development is estimated to be 86 percent Residential Single Family, 10 percent Residential Multi-Family, and 4 percent Mobile Home Parks at build-out (see Figure 2-3). Historically, most of the City's residential growth has occurred on large lots and at low densities. However, it is anticipated that future growth will be redistributed to the City's mixed-use and higher density residential areas. Based on project submittals over the past two years, as well as projected development, the recent and foreseeable trend for new residential development is in the form of higher density, mixed use infill and redevelopment, clustered subdivision, small-lot planned unit development and condominiums.

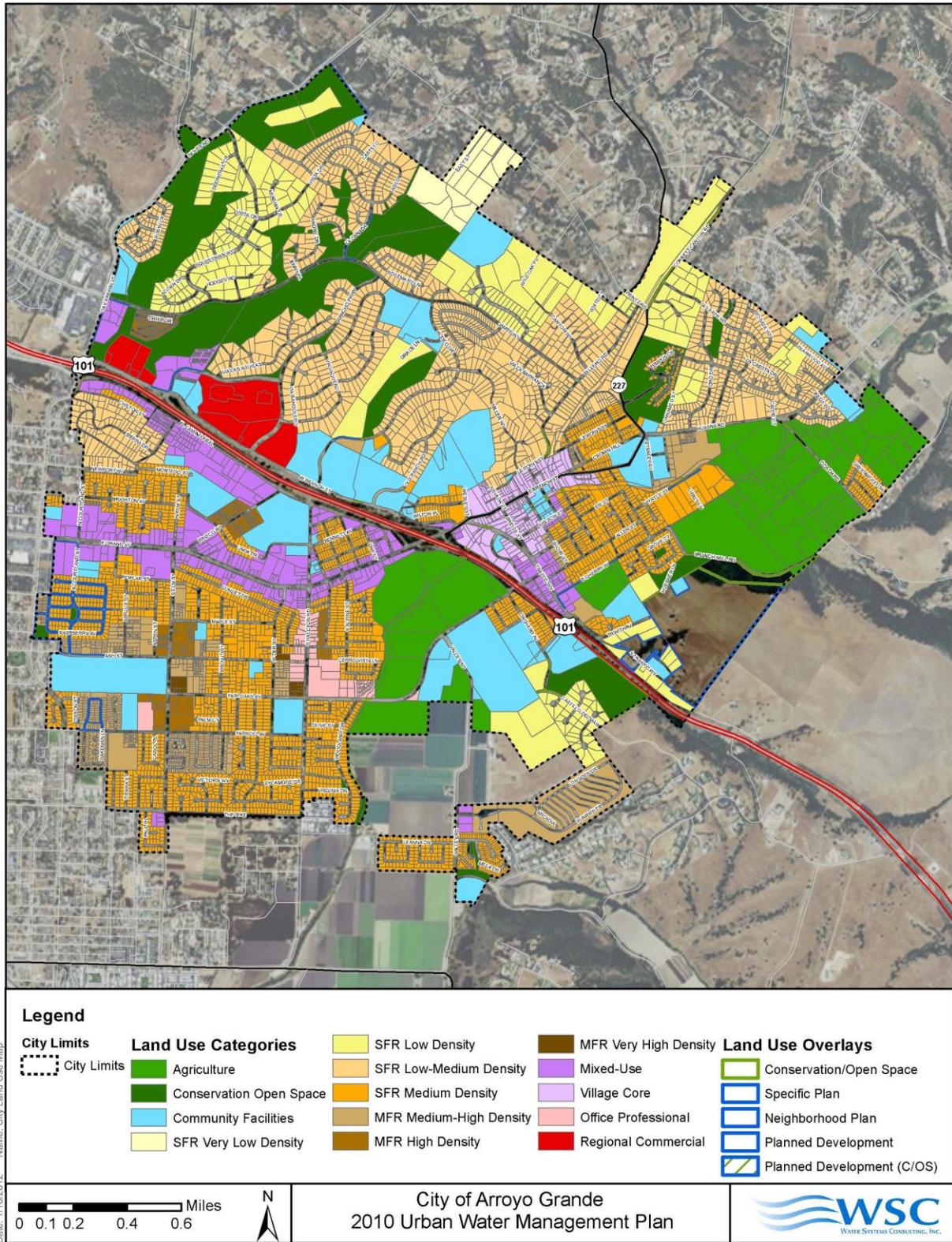


Figure 2-3. City of Arroyo Grande General Plan Land Use Map

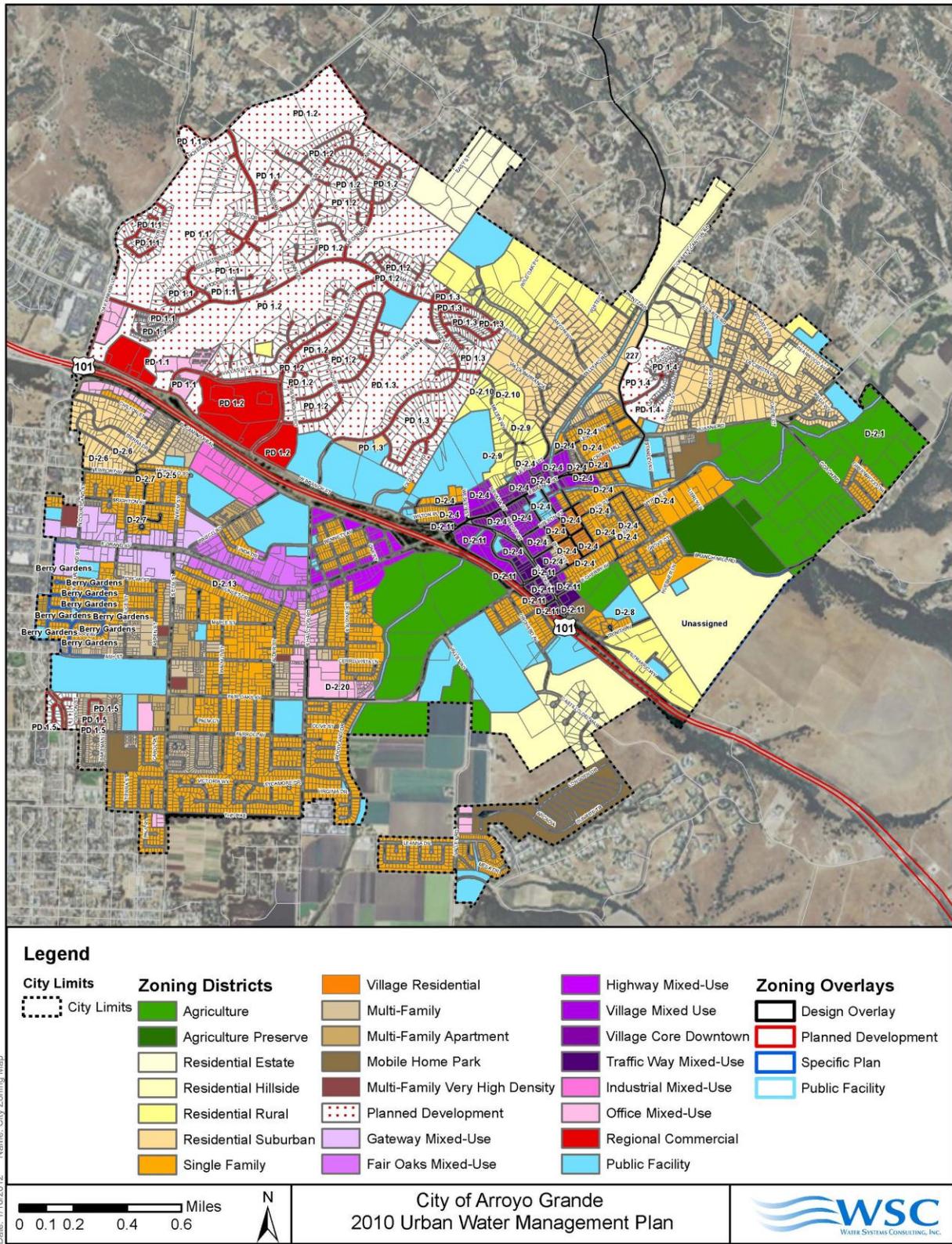


Figure 2-4. City of Arroyo Grande Zoning Map

2.3 Climate

The climate of the City has a Mediterranean coastal climate with mild, dry summers and cool, wet winters. The annual precipitation is 16.14 inches, with the majority of the rain occurring during the months of January through March. Table 2-2 and Table 2-3 outline the climate characteristics for the City area based on average historical climate data. The normal year evapotranspiration rate (Eto) for the City is approximately 52 inches.

Table 2-2. Climate						
	Jan	Feb	Mar	Apr	May	Jun
Standard Monthly Average ETo ¹	2.21	2.5	3.8	5.08	5.7	6.19
Average Rainfall (inches) ²	3.61	3.66	2.51	1.06	0.31	0.02
Average Temp (F) ³	52.94	54.4	55.21	56.86	58.17	60.32

¹Eto data from CIMIS (20)

²Average rainfall data from San Luis Obispo County Public Works Volunteer Precipitation Gauge Station (AG Corp Yard #177.1) www.slocountywater.org/weather (years 1966 -2010)

³Average temperature data from Western Regional Climate Center <http://www.wrcc.dri.edu> (years 1949-2010)

Table 2-3. Climate Continued							
	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Standard Monthly Average Eto ¹	6.43	6.09	4.87	4.09	2.89	2.28	52.13
Average Rainfall (inches) ²	0.02	0	0.12	0.6	1.68	2.55	16.14
Average Temp (F) ³	61.28	62.09	62.48	61.15	57.55	53.7	57.8

¹Eto data from CIMIS (20)

²Average rainfall data from San Luis Obispo County Public Works Volunteer Precipitation Gauge Station (AG Corp Yard #177.1) www.slocountywater.org/weather (years 1966 -2010)

³Average temperature data from Western Regional Climate Center <http://www.wrcc.dri.edu> (years 1949-2010)

3.0 Water Supply Sources

Water Code Section 10631

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

(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 (a). 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, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which 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. For basins that have not been adjudicated, 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.

(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.

(4) 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.

The City has a variety of water sources including groundwater, local surface water, and ponded storm water used for groundwater recharge, irrigation and construction water. The City has completed multiple studies of potential supplemental water supply sources including an extension of the Nacimiento Pipeline, desalination, recycled water, and State Water Project water from the County. These studies are discussed further in Section 3.4, Section 6.16, and Section 6.17. Other potential sources of water include water transfer agreements as discussed in Section 3.4.1. The following tables outline the City's current and planned water supplies for the next 20 years.

Table 3-1. Historical Water Supply – AFY						
Water Supply Sources	1980	1985	1990	1995	2000	2005
Groundwater – Santa Maria Groundwater Basin	1,202	1,202	1,202	1,202	1,202	1,202
Groundwater – Pismo Formation	0	0	0	80	80	80
County of San Luis Obispo Lopez Reservoir Project	2,290	2,290	2,290	2,290	2,290	2,290
Surplus Lopez Project Water		600	700	910	500	0
Oceano Community Services District						100
TOTAL	3,490	4,090	4,192	4,472	4,062	3,758

Table 3-2. Current and Projected Water Supply – AFY					
Water Supply Sources	2010	2015	2020	2025	2030
Groundwater – Santa Maria Groundwater Basin	1,323	1,323	1,323	1,323	1,323
Groundwater – Pismo Formation ¹	80	200	200	200	200
County of San Luis Obispo Lopez Reservoir Project	2,290	2,290	2,290	2,290	2,290
Oceano Community Services District ²	100	100			
TOTAL	3,793	3,913	3,813	3,813	3,813

¹ Assumes 80 AFY of groundwater from Well No. 9, 80 AFY from Well No. 10, and 40 AFY from Well No. 11 will be available as a reliable source of supply from 2015 through 2030.

² Assumes that the remaining three years of the five year contract of 100 AFY with OCS D will be utilized in 2014, 2015, and 2016.

3.1 Resource Maximization and Import Minimization

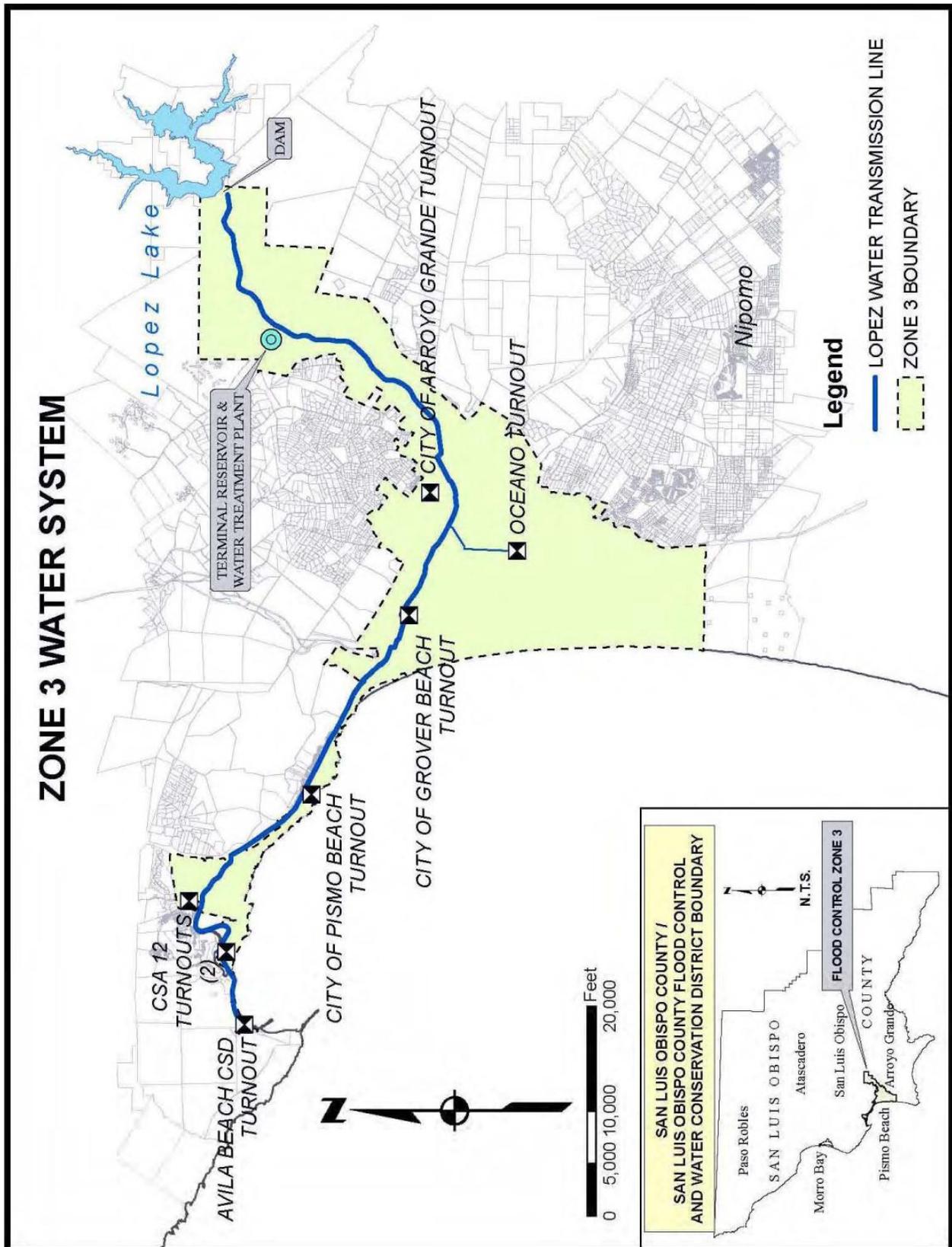
The City is committed to reducing the necessity to import water and maximize the available local resources. A big part of maximizing available resources is developing an effective water conservation program. The City has maintained a non-revenue water average of 4.9% of gross water use. Residents can participate in water efficiency programs, like the plumbing retrofit program, the Smart Irrigation Controller program, and the Cash for Grass program. In the plumbing retrofit program, residents can request high efficiency toilets, showerheads, faucet aerators, and pressure regulators funded by the City. Smart-irrigation controllers are also available to residents, which decrease the water use needed to irrigate the property. The City residents can also receive \$150 dollars by upgrading their current washing machine to a high-efficiency washing machine. Finally, the City offers 50 cents per square foot to replace lawn with native vegetation or artificial turf.

Along with water efficiency programs, the City has been operating a successful storm water recycling program at the Arroyo Grande Sports Complex. The City has reduced their water demand by about 100 AFY irrigating 45 acres of grass and field. Additionally, the City recently conducted a study to utilize recycled wastewater. The City uses no recycled wastewater; however the study outlined potential recycled water usage that would reduce potable water needs by 201 AFY. The same study also outlined a storm water reclamation program that would reduce water needs by an additional 43 AFY.

3.2 Surface Water- Lopez Reservoir

Lopez Dam and Reservoir were planned, designed, and constructed under the auspices of the San Luis Obispo County Flood Control and Water Conservation District (SLOFCWCD). The Dam and Reservoir were completed in 1970; the primary purpose of the reservoir is to provide water supply for contracting communities within the County Flood Control Zone No. 3, however there are many other important benefits of the project including recreation, flood control, and regulated release for Arroyo Grande Basin groundwater recharge. The Lopez Reservoir has a capacity of approximately 49,388 acre-feet. The Lopez Dam is 1,120 feet in length and has a vertical height of 166 feet. A steel transmission main, ranging in diameter from 20-inch to 30-inch, carries untreated water from the dam to the 844 acre-foot Lopez terminal reservoir at the 6 MGD¹ Lopez Water Treatment Plant (WTP). Treated water is conveyed from the Lopez WTP to water contractors in the Five Cities area (including Arroyo Grande, Grover Beach, Oceano, Pismo Beach, and Avila Beach) via the Lopez Pipeline (12).

¹ The Zone 3 2010 UWMP states that the capacity of the Lopez WTP is 6 MGD (12). According to Lopez WTP operators the maximum design capacity of the WTP is 6.7 MGD (38).



PC23.PDF Prepared 11/15/2005 by D.Riskin - SLO COUNTY PUBLIC WORKS DEPT.

Figure 3-1. Lopez Reservoir Water Distribution System

Safe Yield

The current safe yield of Lopez Reservoir is 8,730 AFY, which reflects the sustainable water supply during a drought. The safe yield is derived from two historical studies: Lopez Project Hydrology Review, conducted in June 1962, and the Hydrologic Balance of Arroyo Grande Groundwater Basin, conducted in November 1962. The reservoir is operated to stay within the safe yield. As previously noted, over half of the project's safe yield (4,530 AFY) has been apportioned by agreements to contract agencies (see Table 3-3). The remaining 4,200 AFY is reserved for downstream releases. The safe yield is currently being re-evaluated as part of an ongoing study to determine the feasibility of raising the dam spillway with an inflatable weir. If the Safe Yield is increased, the City will increase its entitlement.

Lopez WTP

Because of the bodily-contact recreation use, public health officials required the installation of a terminal reservoir between Lopez Dam and the Lopez WTP. This reservoir provides a theoretical detention time of over 30 days for 844 acre-feet of storage. Untreated water is drawn from the intake tower of the terminal dam and passed through an influent pipeline to the 6 MGD¹ treatment plant.

The Lopez WTP includes chemical pretreatment, dissolved air floatation, membrane microfiltration, chlorine dioxide disinfection, and chloramination for distribution system residual. The current average daily flow is approximately 4.0 MGD. Major infrastructure is designed with a maximum capacity of 6.7 MGD¹.

Lopez Distribution System

Water is distributed to the various agencies through the Lopez Distribution System, which extends from the treatment facility to Port San Luis. The distribution system conveys a blend of treated water from the Lopez Reservoir and the State Water Project to the communities of Arroyo Grande, Grover Beach, Pismo Beach, Oceano, and County Service Area (CSA) 12. The pipeline is approximately 17.6 miles long with various turnouts to the contracting agencies. The turnouts are sized to meet corresponding contract requirements. The distribution line consists of concrete mortar lined and coated steel pipe which is 33 inches in diameter from the Lopez Treatment Plant to Edna Road, 30 inches to Brisco Road, 18 inches from Grover Beach to Vista Del Mar, and 14 inches to El Portal.

The operation and maintenance of the dam, treatment plant, and water conveyance system are the responsibility of SLOFCWCD.

¹ The Zone 3 2010 UWMP states that the capacity of the Lopez WTP is 6 MGD (12). According to Lopez WTP operators the maximum design capacity of the WTP is 6.7 MGD.

Table 3-3. Lopez Treatment and Distribution System Contract Entitlements¹	
Water Contractor	Lopez WTP Water Supply Annual Entitlement (AFY)
Arroyo Grande	2,290
Oceano CSD	303
Grover Beach	800
Pismo Beach	896
Avila Valley MWC	12
San Miguelito MWC	0
Avila Beach CSD	68
Port San Luis	100
Other CSA 12 Customers	61
TOTAL	4,530

¹ Entitlements are based on the current estimated safe yield. Entitlements may change if the safe yield changes.

Operating Agreements

Several agreements establish policy for the operation of the Lopez system and actions of the member agencies. A brief description of the existing agreements follows:

1. Agreement for the construction and operation of the Lopez Reservoir, 1969, set forth the project's capital cost distribution to the member agencies.
2. Downstream water rights agreement, 1983, established water entitlements for adjacent and downstream water users (See Table 5-3).

Arroyo Grande Lopez Entitlement

The City is contracted to receive 2,290 acre-feet of water per year from the Lopez Reservoir. The City's allocation accounts for approximately 50.55 percent of the available water from Lopez.

Surplus Entitlement

During years when less than 4,200 AFY is required to be released for downstream flows, surplus supply is available. The surplus is offered to Contract Agencies including the City.

3.3 Groundwater

Prior to 1970, the City's water supply was derived solely from groundwater pumping from the Arroyo Grande Plain of the Tri-Cities Mesa (AGP-TCM) groundwater sub-basin of the Santa Maria Valley Groundwater Basin. In 1966, the City entered into an agreement with the SLOFCWCD to receive a yearly allocation of 2,290 acre-feet of additional water from the Lopez

Reservoir Project, as described above. Currently, the City pumps from two different groundwater basins: the Santa Maria Valley Groundwater Basin and the Pismo Formation outside of the NCMA boundary, which is referred to as the Pismo Formation throughout this UWMP. Table 3-4 and Table 3-5 show the historical and projected groundwater pumping for each groundwater source. Table 3-6 shows current groundwater supplies.

Table 3-4. Historical Groundwater Pumping (AFY)					
Basin Names	2006	2007	2008	2009	2010
Groundwater – Santa Maria Groundwater Basin	1,025	1,256	1,096	799	539
Groundwater – Pismo Formation	0	16	67	80	70
Total groundwater pumped	1,025	1,272	1,164	879	610
Percent of total water supply	31%	35%	33%	27%	21%

Table 3-5. Projected Groundwater Pumping (AFY)				
Basin Names	2015	2020	2025	2030
Groundwater – Santa Maria Groundwater Basin	798	497	599	686
Groundwater – Pismo Formation	200	200	200	200
Total groundwater pumped	998	697	799	886
Percent of total water supply	30%	23%	26%	28%

Table 3-6. Current (2010) Groundwater Supply	
Basin Name	AFY
Santa Maria Groundwater Basin	1,323
Pismo Formation	160
TOTAL	1,483

Water used for agriculture within the City limits is produced from privately-owned wells and from riparian diversions. The City does not have any agricultural connections. According to the 2002 DWR report on *Water Resources of the Arroyo Grande – Nipomo Mesa Area*, the owners of these private agricultural water wells produce approximately 40 percent of the water extracted from the AGP-TCM sub-basin. The major diversions of surface water occur during irrigation of lands adjacent to the Arroyo Grande Creek. The Lopez Project is obligated to discharge up to 4,200 acre-feet of untreated surface water into Arroyo Grande Creek during non-spill periods. The purpose of this release is to maintain groundwater levels in the wells downstream of the dam and to satisfy downstream vested water rights. Agricultural groundwater pumping rates are expected to remain relatively constant or decrease slightly with the use of advanced watering technology in the future.

3.3.1 Santa Maria Valley Groundwater Basin

Four urban agencies including the City, the City of Grover Beach, the City of Pismo Beach, and the Oceano Community Services District, known as the Northern Cities, currently extract water from the Santa Maria Valley Groundwater Basin. Additional basin uses include agriculture, local landowners, and subsurface flow to the Pacific Ocean.

The Northern Cities as well as local land owners, the County of San Luis Obispo, and the SLOFCWCD have worked together to manage local surface water and groundwater resources since the late 1970s. A yearly basin extraction was established based on a 1979 Groundwater Study performed by the Department of Water Resources. According to the 1979 Groundwater Study, the Safe Yield of the Arroyo Grande Groundwater Basin is 9,500 acre-feet per year. The above mentioned entities entered into an agreement in 1983 regarding safe well extractions from the basin. This agreement is often referred to as the “Gentleman’s Agreement”.

In 2002, an Agreement Regarding Management of the Arroyo Grande Groundwater Basin (Groundwater Management Agreement) was adopted by the Northern Cities and other parties (see Appendix B) that superseded the 1983 Gentlemen’s Agreement. The Groundwater Management Agreement specified division of safe yield of the basin. The City’s entitlement from the Arroyo Grande Groundwater Basin was established at 1,202 AFY by the Groundwater Management Agreement. Per the Groundwater Management Agreement, this entitlement has been increased to 1,323 AFY based on the conversion of irrigated agricultural lands to urban use (21).

In 2005, the Groundwater Management Agreement was incorporated in the the Santa Maria Valley Groundwater Basin Adjudication. The Superior Court of California, County of Santa Clara then adopted the Judgment in its *Judgment After Trial* on January 25, 2008. The Judgment is attached as Appendix A. The Judgment requires stipulating parties to comply with each and every term of the Judgment, which includes areas of continuing jurisdiction, groundwater monitoring, reporting, and the technical oversight committee. The management area of the Northern Cities is defined in the Judgment as the Northern Cities Management Area (NCMA). Figure 3-2 shows the location of the Santa Maria Groundwater Basin Adjudication boundary and management areas. The NCMA Technical Group (NCMA TG) is the technical oversight committee that oversees groundwater monitoring and reporting for the NCMA. The NCMA TG prepares an annual report to collect and analyze data relating to land and water uses within the basin, sources of supply, and groundwater conditions.

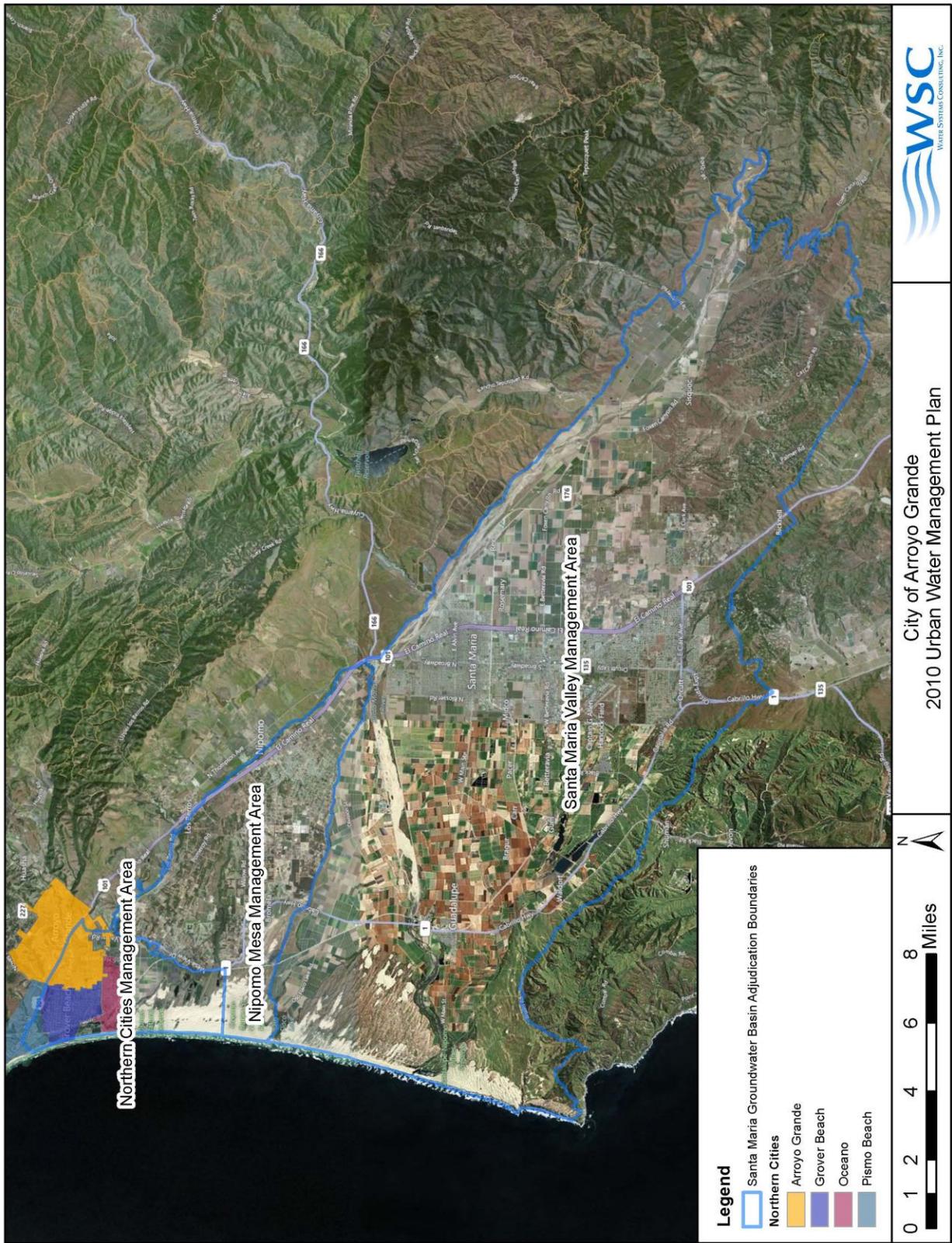


Figure 3-2. Santa Maria Groundwater Basin Adjudication Boundaries

Table 3-7. Santa Maria Groundwater Basin Division of Safe Yield¹	
Applied Irrigation	5,300
Subsurface flow to Ocean	200
City of Arroyo Grande	1,323 ¹
City of Grover Beach	1,407 ¹
City of Pismo Beach	700
Oceano CSD	900
TOTAL	9,830

¹ Source: Groundwater Management Agreement (see Appendix B) Per the Groundwater Management Agreement, the entitlement has been increased to 1,323 AFY from 1,202 AFY for the City and 1,407 AFY from 1,198 AFY for Grover Beach based on the conversion of irrigated agricultural lands to urban use (21).

Figure 3-3 shows the City's well system for pumping groundwater from the Arroyo Grande Groundwater Basin.



Figure 3-3. City well locations associated with the Arroyo Grande Groundwater Basin

3.3.2 Pismo Formation

The Pismo Formation is a distinct deep aquifer at the northeastern section of the City, identified in water wells along Oak Park Boulevard on the south, at Paseo Ladera Lane to the west, and along James Way to the east. Currently, the City pumps groundwater from Well No. 9 and Well No. 10, which are capable of extracting approximately 90 AFY each if operated 100% of the time, but are assumed to extract 80 AFY each assuming required operational downtime. Both wells receive treatment for iron, manganese and hydrogen sulfide prior to discharge into the system. Well No. 11 is assumed to be operational by 2015. Well No. 11 is capable of extracting approximately 45 AFY if operated 100% of the time, but is assumed to extract 40 AFY assuming required operational downtime. Water supply from the Pismo Formation is not subject to the Groundwater Management Agreement for the Arroyo Grande Groundwater Basin. The Pismo Formation is not adjudicated and has not been identified as overdrafted or projected to be overdrafted by DWR. In 2003, Cleath & Associates completed a groundwater source assessment for the Oak Park area, which covers the same aquifer as the Pismo Formation. The groundwater yield for the Oak Park area was estimated to be approximately 540 AFY (22). The City exercises an appropriative right to put the water supply from the Pismo Formation to reasonable and beneficial use. The City's appropriative right allows it to pump available groundwater surplus to the needs of all existing overlying rights in the basin.

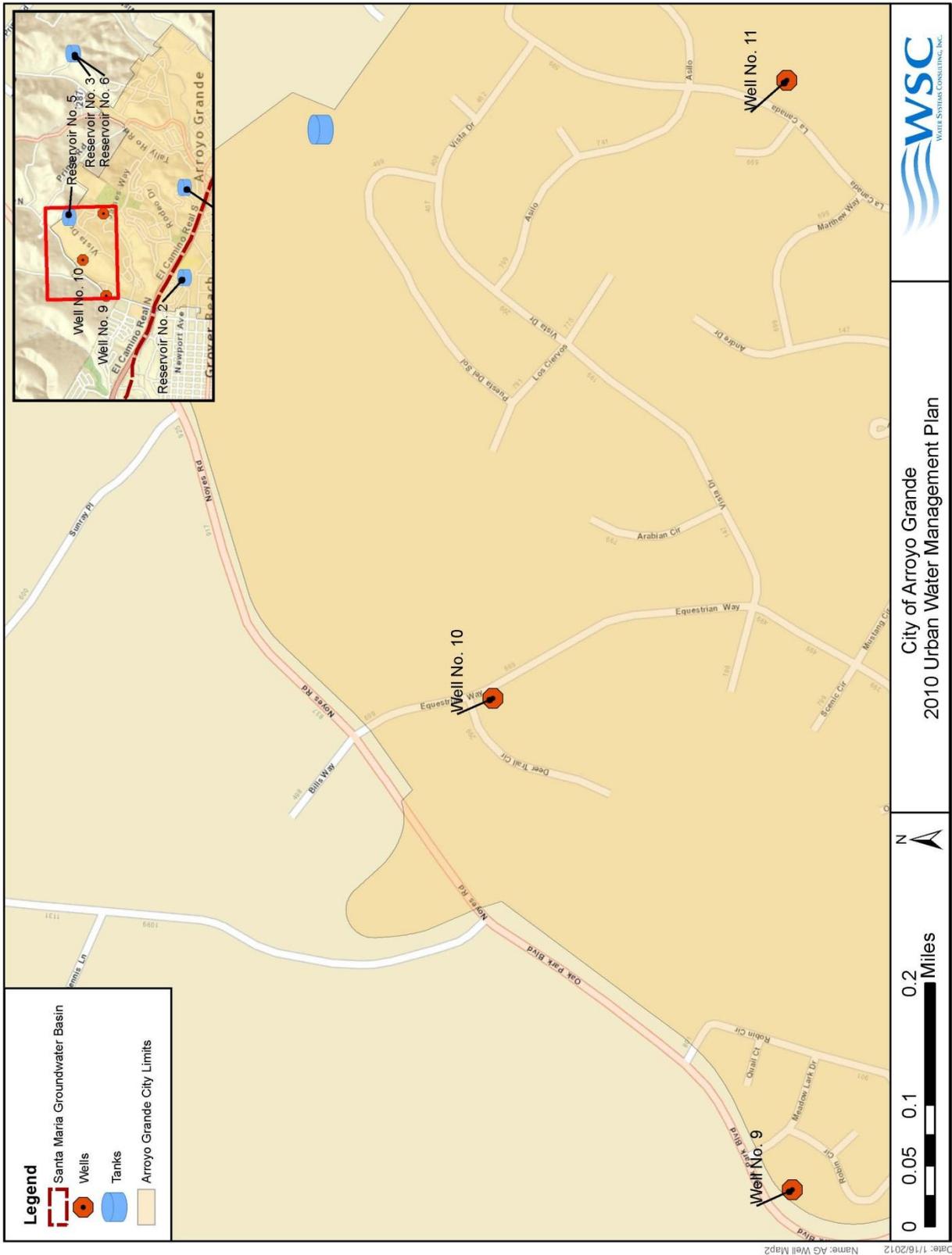


Figure 3-4. City Well Locations Associated with the Pismo Formation

3.4 Supplemental Water Supply Sources

Water Code Section 10631

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

(h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), 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.

The City has completed multiple studies of potential supplemental water supply sources including an extension of the Nacimiento Pipeline, desalination, and recycled water. Based on the results of these studies, an extension of the Nacimiento Pipeline and desalination are not feasible or cost-effective at this time or within the timeline of this UWMP. Based on the recycled water studies, the City determined recycled water is not currently cost-effective. The City plans to pursue grant funding to make recycled water cost-effective as described in Section 6.16. In order to meet total projected water use, as well as offset potential future water shortages due to drought or disaster, the City is considering the following supplemental water supplies.

3.4.1 Transfers/Exchanges

Oceano Community Service District (OCSD): In August 2005, the City entered into a two-year agreement with the OCSD to provide 100 AFY. The City never purchased water under this agreement. In January 2009, the City renewed the contract with OCSD for a 5-year period. The supply from OCSD is intended to provide sufficient time to develop other supplemental water supply alternatives. The City has submitted a proposal to OCSD to establish a permanent purchase agreement.

Surplus water from Lopez: Historically, the City and other contracted agencies have received surplus water from Lopez depending upon yearly requirements for downstream release. The SLOFCWCD - Zone 3 monitors the potential for surplus water availability consistent with the water supply agreement.

Lopez Reservoir Spillway Raising: In 2008/2009, the contract agencies of the Lopez Reservoir conducted a study and evaluation to consider raising the spillway elevation of Lopez Reservoir, as a means of increasing safe yield in the reservoir and thus increasing water supply entitlements to the contract agencies. By raising the spillway a few feet, the overall capacity of the reservoir increases significantly. The increased capacity will correlate to a greater entitlement of the water supply that can be distributed to the City and the surrounding contract agencies. The project study examines raising the spillway of Lopez Dam by 3 to 5 feet. This would increase gross reservoir storage capacity by a maximum of 2,850-4,750 acre-feet. Annual average yield is estimated to be increased from 671 to 1,371 acre-feet. However, based on evaluation of historic drought years (1986-1996), the average yield disbursed over 11 years would provide an estimated safe yield from 259-432 AFY (12). Table 3-8 shows the maximum

storage capacity, average yield, and safe yield for raising the spillway by 3, 4, and 5 feet. The next phase of this study is currently under way and is expected to be completed later this year.

Table 3-8. Lopez Reservoir Spillway Raise Capacities and Yields

	Raised Spillway Height		
	3 Feet	4 Feet	5 Feet
Maximum Storage Capacity (acre-feet)	2,850	3,800	4,750
Average Yield (acre-feet) ¹	671-916	834-1,166	974-1,371
Safe Yield (AFY)	259	346	432

¹ Ranges are based on three different scenarios analyzed over historical conditions from 1969-2004. *Source:* (23)

Supplemental State Project Water via the Coastal Branch and Lopez Pipelines: SLOFCWCD is in the process of completing a hydraulic study to determine if additional capacity exists in the Central Coast Water Authority (CCWA) State Water Pipeline for supplemental water deliveries to CCWA subscribers, including Contract Agencies (served via the Lopez Pipeline). The hydraulic study modeled the entire CCWA pipeline delivery system, plus the Lopez pipeline. The study has not been finalized, and is still under review (12), however it is anticipated that the results of this study will be used as a starting point for the SLOFCWCD and CCWA to enter into negotiations to consider utilization of the County's excess State Water Project entitlement, and could provide an opportunity for the City to purchase a temporary, permanent and/or drought buffer allocation from the project.

Additional Storm Water Reclamation: A detention basin currently exists at the Wal-Mart Site near the intersection of West Branch Street and Camino Mercado, which according to staff, holds water year-round due to storm water inflow. The year-round storage volume is currently unknown; however the approximate volume of the basin is 6.4 acre-feet (9). The *Recycled Water Distribution System Conceptual Plan Technical Memorandum* recommends conducting a feasibility study for the storm water reclamation project. If the storm water is deemed a viable source of water, it would potentially offset potable water demand by approximately 43 AFY (9).

3.4.2 Desalination

Water Code Section 10631

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

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

In January 2006 the report entitled *Water Supply Study: Desalination* (19) was prepared to evaluate the feasibility of obtaining an additional 750 AFY of potable water for the City from seawater desalination. The report was prepared with the assumption that two neighboring water agencies, the City of Grover Beach and the Oceano Community Services District, would collaborate to determine if a seawater desalination plant would suit the supplemental water needs of each community.

Based on the 20-year life cycle cost analysis, the cost per acre-foot of desalination water would be approximately \$2675/ Acre Foot. This value includes a 20% contingency, and all capital costs were multiplied by a factor of 1.4 to account for soft costs. While a desalination facility would involve a more complicated permitting process than other supplemental water sources, it is one of the few water supply sources that are completely drought-proof. A desalination facility has the benefit of being able to run continuously, twenty-four hours per day, seven days per week for constant supply regardless of water shortages throughout the area.

Based on the information presented in the study, the City does not plan on pursuing desalination immediately as a supply source. The City does not quantify any projected desalinated water supply in this UWMP. However, as technology becomes more affordable and as the process of implementing a desalination facility becomes more viable and cost-effective, the City may consider desalination as a potential supply source in the future.

4.0 Water Supply Reliability

Water Code Section 10631

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

- (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.

- (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.

4.1 Lopez Reservoir

The Lopez Reservoir is considered to be a very reliable source of water supply. The annual safe yield of the reservoir is 8,730 AFY as described in Section 3.2. 4,530 AFY of the reservoir’s safe yield is apportioned to contract agencies. The remaining 4,200 AFY of safe yield is reserved for downstream releases to maintain stream flows and groundwater recharge downstream. In years when less water is required to be released downstream in the Arroyo Grande Creek, additional water (known as surplus water) may be available for sale to contracting agencies. Table 4-1 outlines the annual safe yield based on this information.

Table 4-1. Lopez Reservoir Safe Yield

Demand from Reservoir:	
Downstream Release	4,200
Contract Agencies	4,530
Annual Safe Yield	8,730

During the longest drought years on record in the history of Lopez Reservoir operation, SLOFCWCD delivered full allocations to contract agencies (24). During multiple dry years SLOFCWCD anticipates, “based on historical experience... that it can meet its current contract obligation of 4,530 AFY” (12). Table 4-2 and Table 4-3 show the historic years and conditions for average, single dry, and multiple dry water years.

Table 4-2. Lopez Reservoir Average, Single Dry, and Multiple Dry Water Years ¹	
Water Year Type	Base Years
Average Water Year	1991/ 1992 ²
Single-Dry Water Year	1989/ 1990 ³
Multiple-Dry Water Years	1969/ 1970, 1970/1971, and 1971/1972 ⁴

¹ Table adapted from the Zone 3 2010 UWMP (24)

² Average precipitation between 1968/69 and 2009/10 is 19.1 inches. The water year that most closely matches the average is 1991/92 with 19.0 inches of rain.

³ The single driest year is 1989/90 with only 9.1 inches of rain.

⁴ Multiple dry water years is represented by 1969/70, 1970/71, and 1971/72, which had a combined rainfall of 33.1 inches.

Table 4-3. Lopez Reservoir Historic Conditions ¹				
Average/Normal Water Year 1991/1992	Single Dry Water Year 1989/ 1990	Multiple Dry Water Years ³		
		Year 1 1969/1970	Year 2 1970/1971	Year 3 1971/1972
4,530 AFY ²	4,530	4,530	4,530	4,530
Percent of Average/ Normal Year	100	100	100	100

¹ Table adapted from the Zone 3 2010 UWMP (24)

² The actual delivery for 1991/92 was 5,025 AFY. However, the contracted amount is 4,530 AFY.

³ As indicated earlier, in the history of operation of Lopez Reservoir, contract agencies have always received water demand requested up to full contract allocations.

Some other factors that result in inconsistency of Lopez Reservoir supply are shown in Table 4-4. SLOFCWCD must maintain adequate downstream releases for groundwater recharge, agricultural uses, and protection of steelhead, red-legged frogs, and other environmentally sensitive biota. SLOFCWCD has prepared a draft Habitat Conservation Plan (HCP) for the Lopez Dam project to comply with the Endangered Species Act. Zone 3 operations on the Lopez Reservoir require an incidental take authorization for covered activities while providing enhanced habitat conditions and protection for both red-legged frogs and steelhead.

In addition to the HCP, SLOFCWCD has prepared an Interim Downstream Release Schedule (IDRS), which includes a Low Reservoir Response Plan (LRRP). The LRRP describes a methodology to assess near-term reservoir levels and actions that could be taken to mitigate the impacts of low reservoir levels of 20,000 acre-feet or less.

Water Supply Sources	Specific Source Name	Limitation Quantification (AFY)	Legal (AFY)	Environmental (AFY)	Water Quality (AFY)	Climatic (AFY)
Zone 3	Lopez Reservoir	4,530	4,530	0	0	0
Additional Information		Based on historical records, the only limiting factor to the contract agencies' water supply is based on their contracted amounts, which are tied to the safe yield of Lopez Reservoir.				

¹ Table adapted from the Zone 3 2010 UWMP (24)

4.2 Groundwater

According to the Department of Water Resources report prepared in 2002, the Arroyo Grande Groundwater Basin is a stable and reliable supply. In 2007, the *Water Balance Study for Northern Cities Area* provided an updated analysis of the safe yield of the basin and suggested that no immediate adjustment to the urban allotment of 4,000 AFY was necessary (17).

In 2008, the groundwater level in the north-central portion of the NCMA was 10 feet below sea level (25). There was potential for seawater intrusion in the NCMA because the area below sea level appeared to extend to the coast (17). In 2009, elevated Chloride levels detected at sentry wells indicated evidence of seawater intrusion. According to the *NCMA 2010 Annual Monitoring Report*, the groundwater elevation has risen from 10 feet below sea level in the north-central portion of the NCMA in 2008, to five feet above sea level in October 2009 (26). Even though the groundwater elevation has risen since 2008, "there remains an apparent depression in the so-called 'pumping trough' " (26).

By implementing an integrated, regional approach to reduce groundwater pumping, the Northern Cities were able to decrease groundwater pumping by 2,300 AFY or 37% from 2008 to 2010, achieve increased groundwater levels, and observe the seawater wedge retreating offshore as evidenced by improved water quality in coastal sentry wells. The successful management strategies implemented included: 1) increased surface water use through delivery of surplus supplies; 2) expanded conservation programs and customer education; 3) negotiations to secure an emergency allocation of additional State Water Project supplies; 4) hydraulic evaluation and maintenance of the regional conveyance infrastructure; 5) increased groundwater monitoring; and 6) improved regional cooperation.

Building on this success, the Northern Cities have several ongoing and planned initiatives to ensure long-term sustainability of supplies. Ongoing and future initiatives include: 1) evaluation of a spillway raise project at Lopez dam to increase sustainable yield of local surface water supplies and provide flood control benefits; 2) development of a groundwater model for the Santa Maria Groundwater basin; 3) pursuit of additional permanent and emergency allocations of State Water Project supplies; 4) enhanced conjunctive use of the groundwater basin; 5) regional recycled water projects and potential seawater intrusion barrier; and 6) coordination with regional flood control projects to benefit from enhanced seasonal groundwater recharge.

The Pismo Formation utilized by the City is thought to be relatively large. In 2003, Cleath & Associates completed a groundwater source assessment for the Oak Park area, which covers the same aquifer as the Pismo Formation. The groundwater yield for the Oak Park area was estimated to be approximately 540 AFY (22). In over 15 years of production, there has been consistent delivery without impact to groundwater levels. However, as described in Section 4.2, water from Wells No. 9, 10, and 11 requires treatment in order to comply with Water Quality Standards. Section 7.0 discusses water quality impacts on the City’s system.

4.3 Water Supply Reliability Analysis

The City has relied on surface water and groundwater sources for the past 35-year period. Some factors that affect supply reliability are legal and climatic as shown in Table 4-5. The legal factors include the adjudication of the Santa Maria Groundwater Basin and the contractual obligations of the Lopez Reservoir Project and OCSD Agreement. Some environmental factors include the Endangered Species Act incidental take authorization requirements for steelhead and red-legged frogs downstream from the Lopez Reservoir. For more information, see Section 4.1. Some climatic factors include extended drought conditions that could affect availability of Lopez Reservoir water, OCSD water, and Santa Maria Groundwater Basin water. Table 4-6 shows the average, single dry, and multiple dry years supply availability based on historical hydrologic conditions.

The conjunctive use of the groundwater basins and surface water supplies provides an effective management strategy, which increases the overall reliability of all the resources to meet current and future water demands. Based on the information available at this time, it is calculated that the City currently has a safe yield estimate of 3,773 AFY. However, the addition of Well 11 by 2015 is projected to contribute at least an additional 40 AFY and the three years left on the contract with OCSD for 100 AFY will be used as needed (see Section 3.4 for more information). A breakdown of this value, along with a 20-year projected safe yield estimate can be found in Table 4-7.

Table 4-5. Other Factors Affecting Supply				
Water Supply Sources	Legal	Environmental	Water Quality	Climatic
Groundwater: Arroyo Grande Basin	X			X
Groundwater: Pismo Formation			X	X
Lopez Reservoir Water Entitlement	X	X		
OCSD Agreement	X			X
Surplus Lopez Water		X		X

Table 4-6. Average, Single Dry, and Multiple Dry Years					
Water Supply Sources¹	Average / Normal Water Year	Single Dry Water Year	Multiple Dry Water Years		
			Year 1	Year 2	Year 3
Groundwater: Arroyo Grande Basin	1,323	1,323	1,323	1,323	1,323
Groundwater: Pismo Formation	160	160	160	160	160
Lopez Reservoir Water Entitlement	2,290	2,290	2,290	2,290	2,290
OCSD Agreement ²	0	0	0	0	0
Surplus Lopez Water	0	0	0	0	0
Total Water Supply	3,773	3,773	3,773	3,773	3,773
% of Normal	100%	100%	100%	100%	100%

¹The basis of water supply for an average year is 1957. A single dry weather year occurred in 1989, where the total precipitation measured 5.5 inches. A multiple dry year period occurred from 1988 through 1990 (27).

²The City has a contract with OCSD for 100 AFY for five years. The City has not purchased water for three of those years. It is assumed that the remaining three years will be used during dry years; however there may be multiple dry years after the next three dry years when the OCSD supply is not available. Thus, the OCSD supply is not shown in this table.

Table 4-7. Arroyo Grande Projected Supply Reliability (AFY)					
Year	2010	2015	2020	2025	2030
Lopez Reservoir	2,290	2,290	2,290	2,290	2,290
Groundwater: Arroyo Grande Basin	1,323	1,323	1,323	1,323	1,323
Groundwater: Pismo Formation	80	200	200	200	200
OCSD Agreement ¹	100	100	0	0	0
Total²	3,793	3,913	3,813	3,813	3,813

¹ It is assumed the City will amend its five-year contract with OCSD to use its remaining 3 years of annual purchases of 100 AFY in 2014, 2015, and 2016.

² The basis of water supply for an average year is 1957. A single dry weather year occurred in 1989, where the total precipitation measured 5.5 inches. A multiple dry year period occurred from 1988 through 1990 (27).

4.3.1 Three-Year Worst Case Water Supply

During periods of extended drought, the City could conceivably receive a reduced surface water allocation from the Lopez Project. However, current reservoir levels will allow the normal allocation to be obtained over the next three years.

Table 4-8. Minimum Available Water Supply (AFY)			
Source	Three-Year Worst-Case Supply		
	2011	2012	2013
Groundwater: Arroyo Grande Basin	1,323	1,323	1,323
Groundwater: Pismo Formation ¹	160	160	160
Lopez Reservoir Water Entitlement	2,290	2,290	2,290
OCSD Agreement ²	100	100	100
Surplus Lopez Water	0	0	0
TOTAL	3,873	3,873	3,873

¹ Assumes that 80 AFY will be available by 2011 from Well No. 10.

² Assumes that the remaining three years of the five year contract of 100 AFY with OCSD will be utilized during the next three driest three years.

5.0 Water Use

Water Code Section 10631

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

- (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).

5.1 Historical Water Use

Table 5-1 outlines overall historical water use for the City from 1987 to 2010.

Table 5-1. Historical Water Demand							
YEAR	TOTAL PRODUCTION (AFY)	TOTAL METERED CONSUMPTION (AFY)	NRW (AFY)	NRW (%)	ESTIMATED POPULATION¹	PRODUCTION PER CAPITA (gpcd)	TOTAL RAINFALL (in)²
1987	2,891	2,830	61	2.1%	N/A	N/A	9.7
1988	3,027	2,997	30	1.0%	13,750	197	13.5
1989	2,938	2,785	153	5.2%	14,090	186	5.5
1990	2,922	2,755	167	5.7%	15,150	172	5.6
1991	2,665	2,484	181	6.8%	14,600	163	20.4
1992	2,662	2,533	129	4.8%	14,650	162	14.9
1993	2,747	2,600	147	5.4%	15,070	163	16.7
1994	2,702	2,487	215	8.0%	15,146	159	12.5
1995	2,628	2,585	43	1.6%	15,500	151	20.9
1996	2,795	2,739	56	2.0%	15,495	161	28.3
1997	3,087	3,021	66	2.1%	15,495	178	13.0
1998	2,766	2,567	199	7.2%	15,776	157	27.3
1999	3,173	2,983	190	6.0%	16,007	177	12.6
2000	3,384	3,231	153	4.5%	15,851	191	18.5
2001	3,303	3,210	93	2.8%	16,115	183	19.7
2002	3,503	3,353	150	4.3%	16,294	192	10.5
2003	3,517	3,458	59	1.7%	16,623	189	10.9
2004	3,594	3,490	104	2.9%	16,637	193	13.7
2005	3,415	3,204	210	6.2%	16,682	183	17.7
2006	3,324	3,037	287	8.6%	16,669	178	19.9
2007	3,590	3,272	317	8.8%	16,859	190	8.2
2008	3,513	3,373	140	4.0%	17,136	183	14.6
2009	3,256	3,063	193	5.9%	17,080	170	11.6
2010	2,956	2,782	174	5.9%	16,901	156	32.6

¹ Source: DWR Public Water System Statistics Reports (1994-2010) and the City's 2005 UWMP (1987-1993).

² Source: City of Arroyo Grande Corp Yard Gauge #177.1 (1987-2010)

After 1990, the City began tracking water use according to customer type. Table 5-2 and Table 5-3 outline the City's historical water use by specific category for 2005 and 2010.

Table 5-2. Historical Water Use by Category 2005 (AFY)					
	2005				
	Metered		Not Metered		Total
Water use sectors	# of Connections	Volume	# of Connections	Volume	Volume
Single family	5,577	2,308	0	0	2,308
Multi-family	107	288	0	0	288
Commercial	388	385	0	0	385
Industrial	0	0	0	0	0
Institutional/ governmental	105	32	0	0	32
Landscape	46	192	0	0	192
Agriculture	0	0	0	0	0
Other	0	0	0	0	0
Total	6,223	3,205	0	0	3,205

Table 5-3. Historical Water Use by Category 2010 (AFY)					
	2010				
	Metered		Not Metered		Total
Water use sectors	# of Connections	Volume	# of Connections	Volume	Volume
Single family	5,801	2,031	0	0	2,031
Multi-family	107	278	0	0	278
Commercial	398	278	0	0	278
Industrial	0	0	0	0	0
Institutional/ governmental	49	84	0	0	84
Landscape	118	111	0	0	111
Agriculture	0	0	0	0	0
Other	0	0	0	0	0
Total	6,473	2,782	0	0	2,782

5.2 Customer Types

The following is a brief description of the various water customer types found within the City.

5.2.1 Residential Sector

Residential water use accounts for 83% of the total water consumption in the City. In 2010, the average use for each single family residence was 312 gallons per day. The average residential (single and multiple family) per capita use, excluding other water use categories, has decreased by approximately 10% from 2000 to 2010.

In accordance with the City's General Plan Update, the population of the City is expected to increase to 20,000 over the next twenty to twenty five years. When compared to the existing residential areas, it is anticipated that future growth will be redistributed to the City's mixed-use and higher density residential areas. Based on project submittals over the past two years, as well as projected development, the recent and foreseeable trend for new residential development is in the form of higher density, mixed use infill and redevelopment, clustered subdivision, small-lot planned unit development and condominiums. As a result, conservation efforts are expected to reduce per capita usage. Projected residential water use can be found in Table 5-5, Table 5-6, and Table 5-7.

5.2.2 Commercial Sector

In 2001, the City re-designated a significant portion of the City's commercial corridors from general commercial to mixed use, allowing for the potential increase in multi-family and single family planned unit development density in these areas. The City has a variety of existing commercial and mixed use land uses including the following general areas:

- The Arroyo Grande Village – Village Core Downtown and Village Mixed Use districts. The Village area has a small-town, rustic nature and includes such commercial uses as antique and novelty shops, restaurants, coffee houses, professional offices, and other small retail operations and allows for residential use.
- Highway 101 and E. Grand Ave. Corridor - Gateway Mixed Use/Fair Oaks Mixed Use/Highway Mixed Use districts. This area includes larger retail installations for general shopping and commercial needs and allows for a variety of higher density residential uses.
- Halcyon Road – Office Mixed Use district. This area has predominantly medical-related businesses due to the proximity to Arroyo Grande Hospital and allows for a mix of office and residential use.
- Traffic Way – Traffic Way Mixed use district– This area has predominantly auto-related and service commercial uses.
- El Camino Real – Miscellaneous fabrication and small production facilities, and a hardware store.
- Five Cities Center – This area includes large retail operations for regional shopping.

5.2.3 Industrial Sector

There are currently no industrial water connections in the City system. The City does not have any vacant land zoned for industrial use.

5.2.4 Institutional/Government Sector

The City's institutional/government sector consists primarily of local government, elementary schools, a middle school and high school, and a performing arts center. Water use is not estimated to increase significantly for the institutional/government sector.

5.2.5 Agricultural Sector

All agricultural water within the City limits is provided by private wells. The City places a high value on maintaining agricultural land uses within and immediately adjacent to the City and as a result, it is expected that agricultural groundwater pumping within the City will remain fairly constant over the next 20 years. However, potential agricultural conversions outside the City as well as modified irrigation practices may cause a decrease in the amount of water pumped for irrigation.

5.2.6 Low-Income

Changes to the California Water Code section 10631.1 since 2005 require demand projections to include projected water use for single-family and multi-family residential housing needed for lower income households. Low-income households are defined as households making less than 80% of mean income within a given geographic area of the state adjusted for family size and revised annually.

The San Luis Obispo Council of Governments Regional Housing Needs Plan (10) identifies 141 low and very low income housing units needed for the City to meet its share of low income housing units from 2007 through 2015. The estimated residential per connection water demand in 2010 was 0.39 AFY. Using the 2010 residential per connection demand, 55.11 AFY will be needed to supply these projected lower income housing units. Water demands for these units are included in future water demand projections for single family and multi-family residential connections listed in the Section 5.2.

5.3 Per Capita Water Use

The calculation of SB7 base daily and target per capita water use is discussed in detail in Appendix E. Table 5-4 shows the base daily, compliance, interim target, and target per capita water use for the City. Figure 5-1 displays the base daily and targets as well as historical and projected per capita water use. Projections incorporate ongoing and future water conservation efforts to reflect a reduced per capita usage as required by SB7.

Table 5-4. Base daily, Compliance, Interim Target, and Target Water Use	
Parameter	Water Use (gpcd)
Base Daily Per Capita Water Use	186
2010 Daily Per Capita Water Use	156
2015 Interim Urban Water Use Target	167
2020 Urban Water Use Target	149

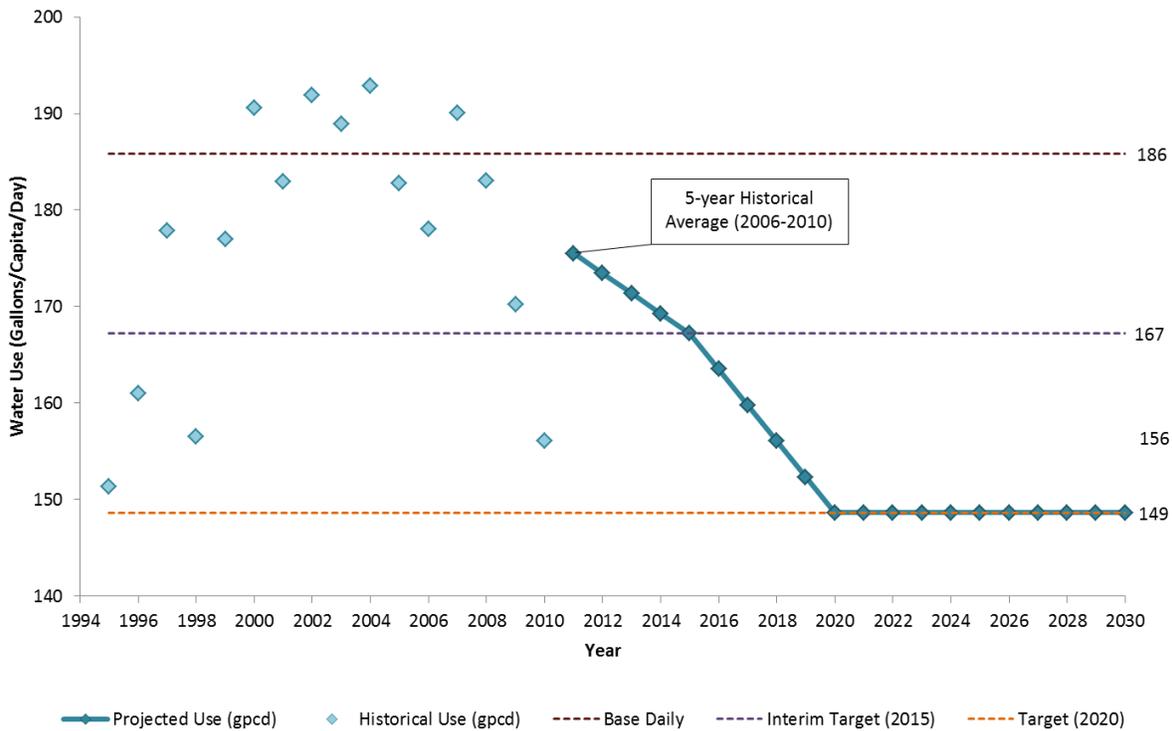


Figure 5-1. Historical, Current, and Projected Per Capita Water Use

5.4 Projected Water Use

According to the General Plan update (October 2001) and as amended by the Housing Element (2003 and 2005), the anticipated build-out population of the City is 20,000 residents as described in Section 2.2. In order to appropriately prepare for adequate water supplies for future residents of the City, the estimated projected water demands must be determined.

Demand projections were developed by applying the following methodology:

1. **Calculate SB7 Base daily and Targets.** The base daily, compliance, interim target, and target per capita water use for the City’s service area were calculated in compliance with SB7 requirements. Appendix E describes how these per capita numbers were calculated.
2. **Estimate population growth rates.** Population projections and annual growth rates were calculated based on SLOCOG’s population projections for the City through 2040 in its *San Luis Obispo County 2040 Population, Housing & Employment Forecast* (11).
3. **Estimate 2010 population.** The 2010 estimate is based upon 2010 census data. The Census population is adjusted by factoring in an allotment of 2.4 persons per residential connection located within City limits not served by the City and connections outside of City Limits that are served by the City.

4. **Develop population projections through 2030.** Annual growth rates calculated in step 2 are applied to the 2010 population to calculate annual population estimates through 2030.
5. **Develop total demand projections.** The Interim Target gpcd is applied to the projected population in 2015 to estimate demand. The Target gpcd is applied to the estimated projected population in 2020, 2025 and 2030 to estimate demand. It is assumed that the low gpcd experienced in 2010 is a result of multiple temporary factors, such as the economy, wet year hydrologic conditions, and others, in addition to successful conservation efforts by the City. To account for the temporary factors, it is assumed that the 2011 gpcd will be equal to the five-year historical average gpcd from 2006-2010. Per capita demands for the years 2012-2014 are then estimated based on a straight line interpolation to the 2015 interim target, and reflect ongoing water conservation efforts by the City.

Each water use sector is projected to grow at the same annual growth rate as the population, with consideration of the reductions in per capita demand through 2020 as described above. Projected water demand for 2015 to 2030 can be found in Table 5-5, Table 5-6, and Table 5-7.

Table 5-5. Projected Water Use by Category 2015 (AFY)					
	2015				
	Metered		Not Metered		Total
Water use sectors	# of Connections	Volume	# of Connections	Volume	Volume
Single family	6,025	2,280	0	0	2,280
Multi-family	111	312	0	0	312
Commercial	413	312	0	0	312
Industrial	0	0	0	0	0
Institutional/ governmental	51	94	0	0	94
Landscape	123	125	0	0	125
Agriculture	0	0	0	0	0
Other	0	0	0	0	0
Total	6,723	3,123	0	0	3,123

Table 5-6. Projected Water Use by Category 2020 (AFY)					
	2020				
	Metered		Not Metered		Total
Water use sectors	# of Connections	Volume	# of Connections	Volume	Volume
Single family	6,159	2,072	0	0	2,072
Multi-family	114	284	0	0	284
Commercial	423	284	0	0	284
Industrial	0	0	0	0	0
Institutional/ governmental	52	85	0	0	85
Landscape	125	113	0	0	113
Agriculture	0	0	0	0	0
Other	0	0	0	0	0
Total	6,872	2,838	0	0	2,838

Table 5-7. Projected Water Use by Category 2025 & 2030 (AFY)				
	2025		2030	
	Metered		Not Metered	
Water use sectors	# of Connections	Volume	# of Connections	Volume
Single family	6,368	2,142	6,548	2,203
Multi-family	117	294	121	302
Commercial	437	293	449	302
Industrial	0	0	0	0
Institutional/ governmental	54	88	55	91
Landscape	130	117	133	121
Agriculture	0	0	0	0
Other	0	0	0	0
Total	7,105	2,934	7,306	3,017

Figure 5-2 represents the division of water use by category in 2010.

2010 Water Use by Sector (%)

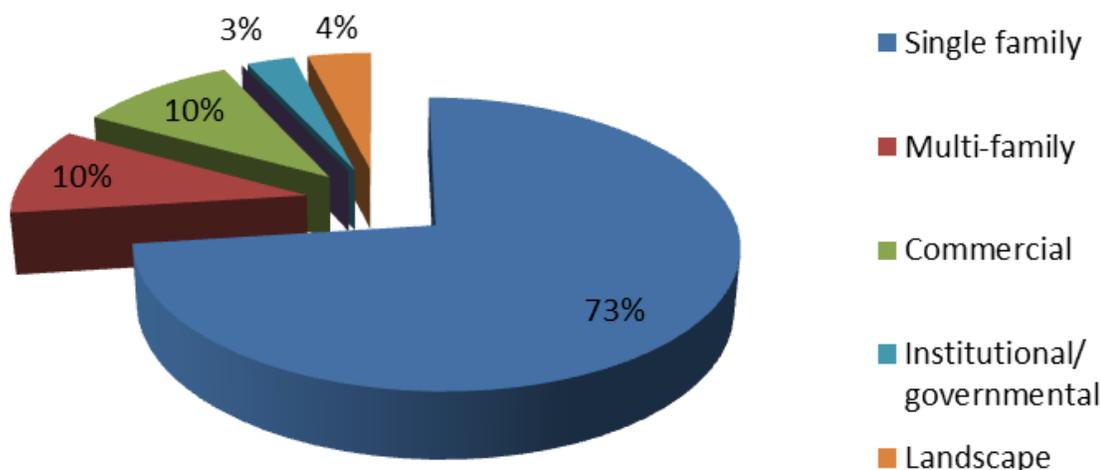


Figure 5-2. Water Use by Sector

5.5 Non-Revenue Water Use

Between the years 1994 and 2010, non-revenue water averaged 4.9%. It is assumed that the percentage of non-revenue water from 2010 through 2030 will be 5% of gross water use. Table 5-8 shows historical and projected non-revenue water use.

Table 5-8. Non-Revenue Water- AFY						
Water use	2005	2010	2015	2020	2025	2030
Non-revenue water (NRW)	210	173	164	149	154	159

5.6 Total Water Use

The historical and projected total water use including customer deliveries and NRW is shown in Table 5-9.

Table 5-9. Total Water Use- AFY						
Water use	2005	2010	2015	2020	2025	2030
Total Water Deliveries	3,205	2,782	3,123	2,838	2,934	3,017
Non-revenue water (NRW)	210	173	164	149	154	159
Total Water Use	3,416	2,956	3,288	2,987	3,089	3,176

5.7 Water Shortage Contingency Plan

Water Code Section 10632

10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which are within the authority of the urban water supplier:

- (a) 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.
- (b) 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.
- (c) 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.
- (d) 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.
- (e) 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.
- (f) Penalties or charges for excessive use, where applicable.
- (g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), 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.
- (h) A draft water shortage contingency resolution or ordinance.
- (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

Following the adoption of the May 2001 Urban Water Management Plan, the City adopted a water conservation program (see Appendix C) in May 2003, which directed preparation of a water shortage contingency analysis, in compliance with State Water Code Section 10632. The Mandatory Water Conservation Measures were updated and adopted in May 2011. The following is a description of the City's conservation program.

Water Supply Conditions

The City implements mandatory conservation measures at all times, except during critical water supply conditions. During critical supply conditions the City Council may adopt a resolution

declaring a critical water supply condition, which would determine additional mandatory conservation measures. A catastrophic loss of greater than 50 percent of the City’s water supply would result in a critical water supply condition and subsequent measures would be taken as described in Chapter 13.05.040 of the Municipal Code. The current water supply stages and conditions are shown in Table 5-10. Mandatory conservation measures can be viewed in Chapter 13.05 of the City’s Municipal Code posted at www.municode.com.

Table 5-10. Water Rationing Stages and Conditions		
Stage No.	Water Supply Conditions	% Shortage
1	Normal	0%
2	Critical	50%

The following water conservation requirements are effective at all times, except during critical water supply conditions as outlined in Section 13.05.040 of the City’s Municipal Code. Violations of the municipal code shown below are considered waste and an unreasonable use of water. Penalties for noncompliance are listed in Sections 13.05.050 and 13.05.060 of the City’s Municipal Code.

13.05.030 - Water conservation requirements

- A. Use of Water which results in excessive gutter runoff is prohibited.
- B. Outdoor Water Use- Except Irrigation.
 - 1. No water shall be used for cleaning driveways, patios, parking lots, sidewalks, streets or other such use except where necessary to protect public health and safety.
 - 2. Outdoor water use for washing vehicles shall be attended and have hand-controlled watering devices.
- C. Outdoor Irrigation.
 - 1. Outdoor irrigation is prohibited between the hours of ten a.m. and four p.m.
 - 2. Irrigation of private and public landscaping, turf areas and gardens is permitted at even-numbered addresses only on Mondays and Thursdays and at odd-numbered addresses only on Tuesdays and Fridays. No irrigation of private and public landscaping, turf areas and gardens is permitted on Wednesdays. Irrigation is permitted at all addresses on Saturdays and Sundays however, in all cases customers are directed to use no more water than necessary to maintain landscaping.
- D. Emptying and refilling swimming pools and commercial spas is prohibited except to prevent structural damage and/or to provide for the public health and safety.
- E. Use of potable water for soil compaction or dust control purposes in construction activities is prohibited unless specifically approved by the City.

13.05.040 – Critical water supply condition

- A. A critical water supply condition is defined as consuming one hundred (100) percent of the annually available water supply. The city council may adopt a resolution declaring a

critical water supply condition, which would determine additional mandatory water conservation measures in effect at any particular time within the city.

- B. The following water restrictions and measures shall be in effect during critical water supply conditions:
 1. Outdoor irrigation of private or public landscaping, turf areas and gardens using potable water is prohibited.
 2. Outdoor water use for washing vehicles is prohibited except at a public car wash facility.
 3. The city council may also impose any water-rationing requirements as it deems appropriate to protect public health, safety, welfare, comfort and convenience.
- C. Upon adoption of the required resolution, the restrictions and measures identified in the chapter shall take effect immediately.

Table 5-11. Consumption Reduction Methods for Critical Supply Stage

Consumption Reduction Methods	Stage when Method Takes Effect	Projected Reduction (%)
Outdoor Irrigation of Private or Public Landscaping, turf areas and gardens are prohibited.	2	48%
Outdoor water use for washing vehicles is prohibited except at a public car wash. Use of potable water for compaction or dust control purposes in construction activities is prohibited. Emptying and refilling swimming pools and commercial spas is prohibited except to prevent structural damage and/or to provide for the public health and safety. No water shall be used for cleaning driveways, patios, parking lots, sidewalks, streets or other such use except where necessary to protect the public health and safety. Use of water, which results in excessive gutter runoff, is prohibited	2	2%

Residential water use accounts for 83% of the City’s total water consumption. Based on sanitary sewer collection system flows, the City estimates that approximately 60% of residential water use is for outdoor/irrigation purposes. In the event of a water shortage, including up to a 50 percent reduction in water supply, the City would declare a Critical Water Supply Condition. Under this condition, water use for irrigation would be prohibited, which would result in approximately a 49.8 percent decrease in water consumption. Combined with the additional restrictions imposed during this condition, the City expects that the water consumption could be reduced by 50 percent while still providing for customer’s health and sanitary needs.

Minimum Available Water Supply

Section 5.7 discusses the analysis of the minimum available water supply projections for the next three years. As will be discussed in the next section, the City could receive a reduced Lopez surface water allocation in the event of a drought; however, current reservoir levels will allow for normal allocation for the next three years. Based on Lopez availability, and the reliability of groundwater supplies, the minimum available supply is estimated in Table 5-12.

Table 5-12. Minimum Available Water Supply			
Source	Three-Year Worst-Case Supply		
	2011	2012	2013
Groundwater: Arroyo Grande Basin	1,323	1,323	1,323
Groundwater: Pismo Formation ¹	160	160	160
Lopez Reservoir Water Entitlement	2,290	2,290	2,290
OCSD Agreement ²	100	100	100
Surplus Lopez Water	0	0	0
TOTAL	3,873	3,873	3,873

¹ Assumes that 80 AFY will be available by 2011 from Well No. 10.

² Assumes that the remaining three years of the five year contract of 100 AFY with OCSD will be utilized during the driest three years.

Catastrophic Water Supply Interruption

In the event of a sudden and catastrophic loss of water supply, the City has written an Emergency Response Plan (ERP) (28) to guide the City’s employees during disasters such as earthquakes, floods, wild land fires, dam failures, and terrorism. In addition to the emergency response guidelines established for City personnel, the Plan includes a Memorandum of Understanding between cities within San Luis Obispo County to offer assistance as available to neighboring cities during time of disaster.

The ERP contains detailed action items to the following list of events that might result in a drastic loss in supply.

1. Structural Damage from an Explosive Device
2. Power Outage
3. Natural Event (Flood)
4. Natural Event (Winter Storm)
5. Natural Event (Hurricane/Tropical Storm)
6. Natural Event (Earthquake)

In the event of a power outage, the City’s response strategy is to first determine if the reason for the outage is local to the plant or regional, then estimate the time to return power. This will provide the City with the significance of the situation and will help assess the need to secure additional fuel for generators. The treatment process would be operated to minimize the effects of the power loss. The problem should be remedied as quickly as possible, however, if the supply cannot be returned and an eventual loss of supply occurs, customers shall be notified of how to proceed.

The first response in the event of an earthquake is to perform a system audit to determine the extent of damage to utilities, piping, and processes. This audit will allow the City to concentrate staff and resources on issues that need to be addressed immediately. Additional staff will be required for sampling, analysis, equipment repair, manual equipment and process operation,

and communication. A report of the damage will be issued to the Incident Commander followed by a list of supplies that are necessary for repairs.

In the event of an emergency that interrupts use of a surface water source, the City will be able to provide an average flow of 300 gallons per capita per day from the City well water.

Penalties or Charges for Excessive Use

In March 2006, a tiered water rate structure was implemented to discourage excessive water use. Please refer to Section 6.11 for more information about the City's conservation rates.

Chapter 13.05 of the City's Municipal Code outlines penalties for noncompliance with excessive use during the four water supply conditions discussed previously. Violation of any provision of Chapter 13.05 may result in termination of water service until such violation is corrected, and until penalties are paid in full and will be subject to the following administrative procedure:

1. Written notice to the alleged offender, including the furnishing of informational material and advice where appropriate;
2. Recovery of all city staff costs, including overhead, for any second or greater offense within any one-year period;
3. Additional civil administrative penalties for any third or greater offense within any one-year period;
4. The right to appeal first to the utility billing adjustment committee and then to the city council

In addition to, and completely separate from, the civil enforcement provisions of the ordinance codified in Chapter 13.05, any person who knowingly and willfully violates the provisions of Chapter 13.05 shall be guilty of a criminal misdemeanor as provided in the general penalty provisions of this code. All previous attempts by the city to obtain compliance by the defendant may be introduced as evidence of the offender's knowledge and willfulness.

Revenue and Expenditure Impacts

The intent of the restrictions enforced under each of the Water Supply Conditions is to reduce water consumption. The City recognizes that as a result of the reduced water consumption under all conditions besides a Normal Water Supply Condition, revenue from water sales will decline. It is possible that during a Critical Water Supply Condition, revenues could be reduced by as much as 50 percent. While revenues may decline, operations and maintenance costs will not decline because of reduced water consumption.

The City's current rates are set to provide for a reserve fund as well as coverage of 60 days of operations and maintenance expense. In the case of a prolonged reduction of water revenues, the City could offset reduced revenues (up to a 50 percent reduction) with available fund balances, for a period of two years assuming no change in operating and capital expenditures. In the case of an extended Critical Water Supply Condition, the City could delay capital improvements (both routine and non-routine) to reduce expenses, enabling the offset of reduced revenues for a period of three years. Should a critical water shortage extend beyond three years, the consideration of a rate increase would be required.

Mechanism for Determining Water Use Reduction

Potable water production figures are recorded daily at the City Corporation Yard. The daily data is compiled into monthly reports and sent to the State Department of Public Health and annual

reports sent to the California Department of Water Resources and San Luis Obispo County. The City also maintains copies of all reports prepared. These reports can be used to compare monthly and annual water consumption to determine the efficiency of implemented water conservation measures. If the City determines that the desired level of water conservation is not being reached, additional conservation measures can be implemented with the direction of City Council.

6.0 Water Conservation

Water Code Section 10631

10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

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

(1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:

- (A) Water survey programs for single-family residential and multifamily residential customers.
- (B) Residential plumbing retrofit.
- (C) System water audits, leak detection, and repair.
- (D) Metering with commodity rates for all new connections and retrofit of existing connections.
- (E) Large landscape conservation programs and incentives.
- (F) High-efficiency washing machine rebate programs.
- (G) Public information programs.
- (H) School education programs.
- (I) Conservation programs for commercial, industrial, and institutional accounts.
- (J) Wholesale agency programs.
- (K) Conservation pricing.
- (L) Water conservation coordinator.
- (M) Water waste prohibition.
- (N) Residential ultra-low-flush toilet replacement programs.

(2) A schedule of implementation for all water demand management measures proposed or described in the plan.

(3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.

(4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.

The City implemented a phased water conservation program, including demand management measures (DMMs), in 2003. It is the goal of the City to reduce the per capita water use to 149 gpcd by 2020. In 2010, per capita water use was 156 gpcd. Continued implementation of DMMs will be monitored by City staff to determine future impacts on per capita water use.

The Water Conservation Program consists of plumbing retrofit, irrigation system assessment, enforcement of City water conservation regulations, washing machine rebates, public information and education programs, and irrigation system improvements or landscape modifications.

6.1 Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers

City staff provides leak detection information and assistance to residents. Staff monitors meter readings for discrepancies or variations in historic use and will inform and assist residents of potential leaks. Staff also routinely performs leak detection surveys upon request. The City's website includes up-to-date information on the City's water conservation programs and residents are encouraged to contact the City for questions regarding water use.

A service request database is maintained regarding the number of residents assisted and the number of surveys performed. It is estimated that twenty-five leaks are detected per year for residential connections.

The City does implement an irrigation water audit survey program, a turf replacement program, and a smart irrigation controller program which are discussed in further detail in Section 6.5.

6.2 Residential Plumbing Retrofit

The first phase of the City's Water Conservation Program includes the Plumbing Retrofit Program, which was implemented in 2004. Program marketing includes retrofit request forms sent to all single-family homes built prior to 1992. In addition, City staff door-tagged each property that did not respond to the survey. Furthermore, announcements were sent in the City's utility bills, on the City's website, and in the City's quarterly newsletter *the Stagecoach Express*.

The City has a contracted plumber to retrofit fixtures for residents. The City provides labor and materials for replacement of toilets, showerheads, faucet aerators, and pressure regulators that are installed or adjusted as required. The City currently has satisfied the 75% saturation requirement for single-family and multi-family housing units. Funding for the Plumbing Retrofit Program is derived from the City's Water Neutralization Fund, which has been developed to offset increased water use by allowing a developer to pay in lieu fees instead of performing plumbing retrofits for toilets. Table 6-1 includes statistics for the evaluation of the plumbing retrofit program.

Table 6-1. Cost and Savings of Water Saving Devices			
	2004-2011	Total Cost (\$)	Savings (AFY)
Number of showerheads Installed ¹	1,732	\$ 17,320	10.68
Number of Aerators Installed ²	3,790	\$ 18,950	6.37
Number of pressure regulators Installed ³	355	\$ 42,600	n/a
Number of Ultra Low Flow Toilets Installed ⁴	4,011	\$ 902,475	139.26
Program Costs, Staff Time, and Labor	N/A	\$ 53,735	N/A
TOTAL EXPENDITURES		\$ 1,035,080	
ACTUAL WATER SAVINGS			156

¹ Cost assumed to be \$10 per showerhead. Savings Assumed to be 5.5 gallons per day. *Source:* (29)

² Cost assumed to be \$5 per aerator. Savings Assumed to be 1.5 gallons per day. *Source:* (29)

³ Cost assumed to be \$120 per regulator. Savings are not estimated because regulators are only installed to support other water saving devices.

⁴ Cost assumed to be \$225 per toilet. Savings assumed to be 31 gallons per day. *Source:* (30)

In 2005 the City adopted an ordinance for a mandatory plumbing retrofit program applicable to the resale of property. These regulations can be found in Chapter 13.06 of the City's Municipal Code.

6.3 Distribution System Water Audits and Leak Detection Repair

The City accounts for water production and consumption and reports results to the California Department of Water Resources each year. The City maintains an on-going program of meter testing and replacement that tracks the age and testing frequency of each city meter. Water for flushing operations and other maintenance procedures is also estimated and recorded.

Between the years 1994 and 2010, non-revenue water has averaged 4.9%. Additionally, the City repairs all water main and service leaks upon notification or detection. The City also uses ultrasonic leak detectors to survey water mains and services. In conjunction with this DMM, the City has an ongoing funded Capital Improvement Program that replaces older water mains and services.

6.4 Metering with Commodity Rates and Retrofit of Existing Connections

All water service connections to the City are metered, and billing is proportional to volume of use. The City currently has 6,473 connections.

6.5 Large Landscape Water Conservation Programs and Incentives

This DMM was implemented in January 2009. The City has 118 dedicated irrigation water meters. Currently, these irrigation meters do not have water budgets. As a financial incentive to install an irrigation water meter, the meter is not subject to City sewer charges.

Large landscape users within the City include the Lucia Mar unified School District, seven parks, a sports complex, and the Arroyo Grande District Cemetery. Following the 1985 UWMP, the City identified the Soto Sports Complex as a significant irrigation water user and proceeded with a storm water reclamation project for irrigation of the site, as described in Section 6.17. This storm water project has resulted in a decrease in water use by 100 AFY. Currently, the Lucia Mar Unified School District is the largest irrigation customer with an average consumption of approximately 30 AFY.

As part of the City's Water Conservation Program, the City will provide assistance on improving water irrigation efficiency and modifications, such as the replacement of sprinkler irrigation with drip irrigation. Additionally, the City will provide financial incentives by supplying irrigation system assessments for the top water users. The City has provided irrigation audits and recommendations to the following high volume users: Wildwood Ranch Home Owners Association, Strother Park, Rancho Grande Park, Arroyo Grande Cemetery District, Saint Patrick's Church, Saint Patrick's School, Sunrise Terrace Home Owners Association, Lucia Mar Unified School District Paulding School and Ocean View School, Vista Del Mar Home Owners Association, the 5-Cities Center, and the K-Mart Shopping Center.

The City is currently finalizing a new landscape ordinance. Currently, all new development projects are required to mitigate for water impacts by providing native and drought resistant landscaping, installing irrigation systems that are automated, and including low flow head and drip irrigation, and limiting use of landscaping which uses high water demand.

The City currently implements a Smart Irrigation Controller Program and Cash for Grass Rebate Program. As part of the Smart Irrigation Controller Program, the City surveys and completes an irrigation audit report for each customer who requests a smart irrigation controller. Since inception of the Smart Irrigation Controller Program in 2009, the City has completed 48 residential and 11 commercial/institutional surveys. The City issues the appropriate type of irrigation controller based on the individual situation. The City also provides turf inspections and rebates for qualified customers. Since 2009, the City has inspected and issued rebates to 129 customers for 2,605,734 square feet of grass replaced. Based on an audit of the first 38 properties to complete the Cash for Grass Program, estimated water demand reduction equals 18 gallons per square foot per year. Based on the savings of 18 gallons/square foot the District estimates it saves approximately 8 AFY.

6.6 High-Efficiency Washing Machine Rebates Program

The City has implemented this DMM since January 2009. The City currently provides rebates for high-efficiency washing machines to its customers. Rebates are based on a tiered list of qualifying models and are set at \$100 for Tier 2 washing machines and \$150 for Tier 3 washing machines. The tiered rate system is concurrent with Pacific Gas and Electric's (PG&E) rating system (see www.waterenergysavings.com). In conjunction with this effort, PG&E and Southern Gas Company both currently offer rebates of up to \$75 for installation of a high-efficiency washing machine. Table 6-2 shows the number of rebates to date.

Table 6-2. Washing Machine Rebates			
Washing Machine Tier	Rebate Amount	# of Rebates	Total Rebates Distributed
2	\$ 100	9	\$900
3	\$ 150	62	\$9,300

Table 6-3 shows the estimated annual water savings for the washing machine rebates distributed to date.

Table 6-3. High-Efficiency Washing Machine Water Savings			
# of Rebates	Conventional Unit Annual Water Consumption (gal/year) ¹	Energy Star Unit Annual Water Consumption (gal/year) ¹	Annual Water Consumption Savings (gal/year)
71	12,179	5,637	464,482

¹ Source: Energy Star Clothes Washer Calculator (31). Note that Energy Star qualified washing machines do not always meet Tier 2 and Tier 3 specifications as required to qualify for a rebate. Thus, the estimated water savings for a Tier 2 or 3 could be greater.

6.7 Public Information

The City has a forum to promote water conservation in its newsletter entitled "*The Stage Coach Express*." The newsletter provides an opportunity to inform the public on conservation efforts, retrofit opportunities, and new City conservation policies. In 2004 and 2005, the City sent out informational brochures on water conservation with utility bills, shown below in Figure 6-1 and Figure 6-2.

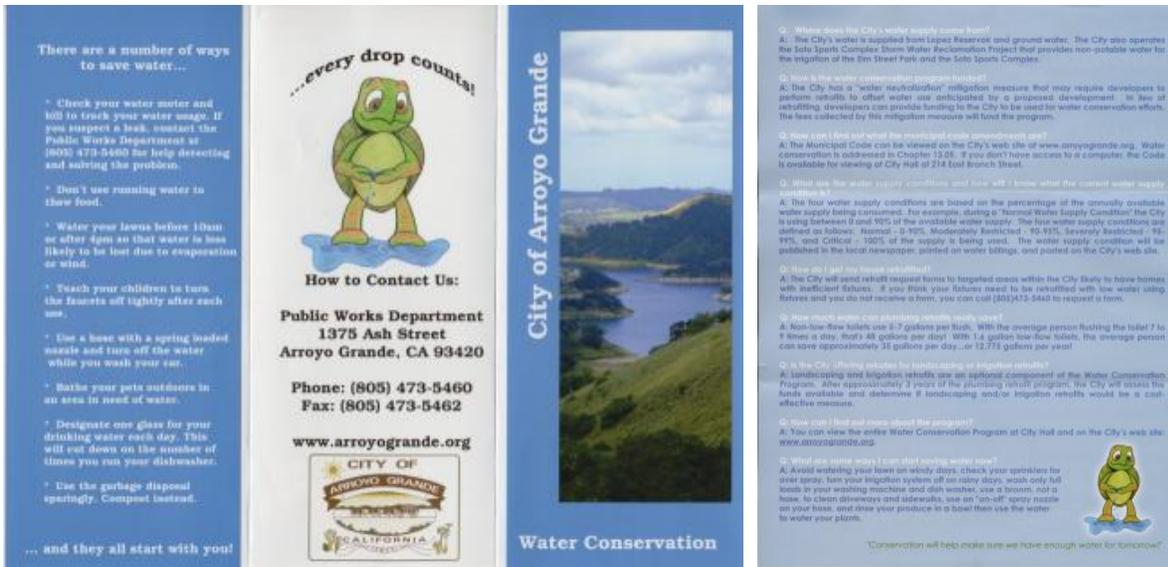


Figure 6-1. Water Conservation Brochure

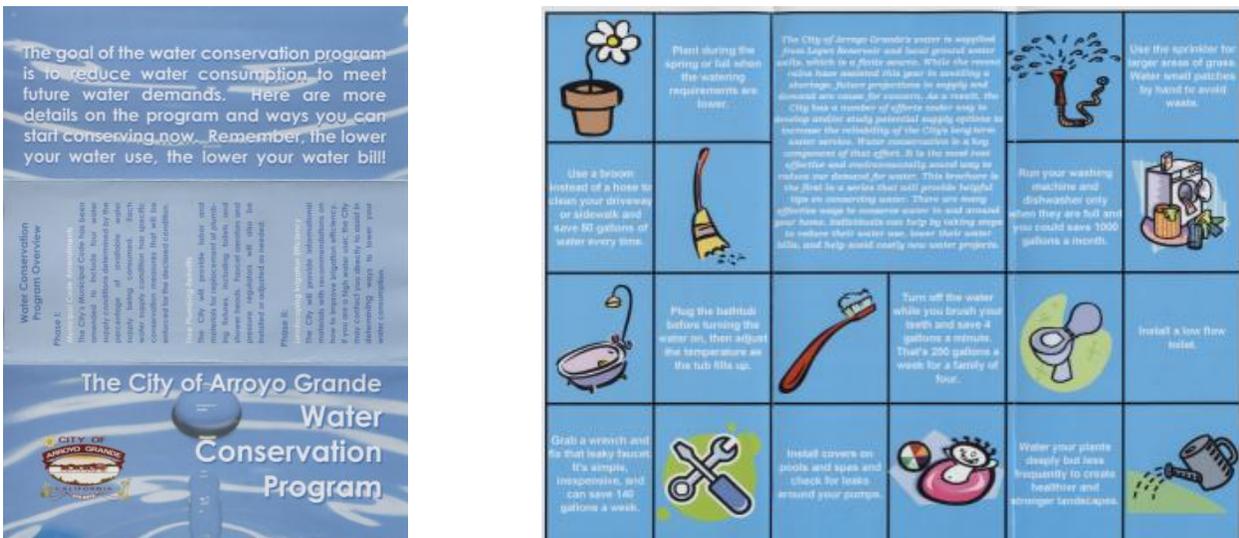


Figure 6-2. Water Conservation Brochure Continued

The City is developing a landscape design tool on its website using GardenSoft software, which will allow customers to design their landscapes using water conserving plants.

The City put on a Sustainable Landscape Seminar Series (2009), which focused on sustainable landscape principles and water conservation. These seminars were repeated on the local public access channel and are still available at the library.

All water bills show water usage in comparison to the previous year's usage. The City's website includes up-to-date information on the City's public outreach efforts. Other opportunities for public involvement will occur as an integral part of this Plan. The City will continue to implement this demand management measure to keep the public aware of the importance of conservation.

6.8 School Education

The City has budgeted \$5,000 to implement a school education program for the 2011-2012 and 2012-2013 fiscal year.

Implementation shall consist of at least the following actions:

- Implement a school education program to promote water conservation and water conservation related benefits.
- Programs include working with school districts and private schools in the City's service area to provide instructional assistance, educational materials, and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. Education materials shall meet the state education framework requirements and grade appropriate materials shall be distributed to grade levels K-3, 4-6, 7-8 and high school.
- Document number of school presentations made during reporting period.
- Document number and type of curriculum materials developed and/or provided by the City, including confirmation that curriculum materials meet state education framework requirements and are grade-level appropriate.
- Document number of students reached/session.
- Document number of in-service presentations or teacher's workshops conducted during reporting period.
- Develop annual budget for school education programs related to conservation.

6.9 Conservation Programs for Commercial, Industrial and Institutional Accounts

Currently, the City has 447 commercial and institutional accounts that represent approximately 13% of the City's total water use. Retrofitting is performed by developers in order to offset water use anticipated with new commercial or residential construction. This process is applied as a mitigation measure during the planning process. In June 1997, the City was able to further its efforts toward implementation of this demand management measure as a result of water neutralization for a 44-acre commercial development. The mitigation measure for the project indicated that the developer should implement a retrofit program to offset 48 AFY of water use. As part of this effort, the City identified the top 20% of water users in the residential and commercial sectors. This identification process was facilitated by a computer database containing categorized metered use data. Retrofitting efforts continue as a priority as new development continues. The capabilities of the water use data will allow the City to update the list of top water users in conjunction with the retrofit process. Since most of the commercial and institutional water accounts have now been retrofitted, the City allows developers to pay an in lieu fee to offset water impacts. This fee has provided revenue for the City's water neutralization fund. The City will continue to implement this demand management measure for all new developments.

6.10 Wholesale Agency Programs

The City is not a wholesaler provider, and hence wholesale agency programs are not applicable.

6.11 Conservation Pricing

The City is implementing a conservation water rate structure based upon the *Water and Wastewater Financial Plan and Rate Study* (16). The intent of the conservation rate structure is to reduce residential water consumption per account. The tiered (inclining block) structure is designed to allow single-family and multi-family residential customers to continue to use the average consumption at nearly the same price but encourage those customers that use water above the average to conserve water through higher price signals. Table 6-4, Table 6-5, and Table 6-6 include the rate structure and the billing rates for different levels of water use.

Table 6-4. Water Rates and Service Charges

Meter Size	Inside City					Outside City				
	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14
Inches	\$ /month	\$ /month	\$ /month	\$ /month	\$ /month	\$ /month	\$ /month	\$ /month	\$ /month	\$ /month
5/8	\$5.35	\$5.45	\$5.55	\$5.65	\$5.75	\$6.69	\$6.81	\$6.94	\$7.06	\$7.19
3/4	\$5.35	\$5.45	\$5.55	\$5.65	\$5.75	\$6.69	\$6.81	\$6.94	\$7.06	\$7.19
1	\$6.35	\$6.50	\$6.65	\$6.75	\$6.90	\$7.94	\$8.13	\$8.31	\$8.44	\$8.63
1-1/2	\$7.60	\$7.80	\$8.05	\$8.30	\$8.55	\$9.50	\$9.75	\$10.06	\$10.38	\$10.69
2	\$11.10	\$11.55	\$12.00	\$12.50	\$13.00	\$13.88	\$14.44	\$15.00	\$15.63	\$16.25
3	\$36.95	\$38.95	\$41.05	\$43.30	\$45.65	\$46.19	\$48.69	\$51.31	\$54.13	\$57.06
4	\$46.45	\$49.05	\$51.80	\$54.70	\$57.75	\$58.06	\$61.31	\$64.75	\$68.38	\$72.19
6	\$68.80	\$72.75	\$76.90	\$81.30	\$85.95	\$86.00	\$90.94	\$96.13	\$101.63	\$107.44
8	\$95.40	\$100.55	\$106.00	\$111.70	\$117.75	\$119.25	\$125.69	\$132.50	\$139.63	\$147.19

Table 6-5. Volume Charges

Customer Class	Inside City					Outside City				
	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14
	\$/Ccf	\$/Ccf	\$/Ccf	\$/Ccf	\$/Ccf	\$/Ccf	\$/Ccf	\$/Ccf	\$/Ccf	\$/Ccf
Single Family										
First 12 Ccf / bi-month	\$1.44	\$1.78	\$2.21	\$2.72	\$3.37	\$1.80	\$2.23	\$2.76	\$3.40	\$4.21
Next 20 Ccf / bi-month	\$1.60	\$1.98	\$2.45	\$3.02	\$3.74	\$2.00	\$2.48	\$3.06	\$3.78	\$4.68
Next 32 Ccf / bi-month	\$1.81	\$2.24	\$2.77	\$3.41	\$4.23	\$2.26	\$2.80	\$3.46	\$4.26	\$5.29
Over 64 Ccf / bi-month	\$2.19	\$2.71	\$3.36	\$4.14	\$5.12	\$2.74	\$3.39	\$4.20	\$5.18	\$6.40
Multi-Family										
First 12 Ccf / bi-month	\$1.44	\$1.78	\$2.21	\$2.72	\$3.37	\$1.80	\$2.23	\$2.76	\$3.40	\$4.21
Next 6 Ccf / bi-month	\$1.60	\$1.98	\$2.45	\$3.02	\$3.74	\$2.00	\$2.48	\$3.06	\$3.78	\$4.68
Next 12 Ccf / bi-month	\$1.81	\$2.24	\$2.77	\$3.41	\$4.23	\$2.26	\$2.80	\$3.46	\$4.26	\$5.29
Over 30 Ccf / bi-month	\$2.19	\$2.71	\$3.36	\$4.14	\$5.12	\$2.74	\$3.39	\$4.20	\$5.18	\$6.40
Business	\$1.60	\$1.98	\$2.45	\$3.02	\$3.74	\$2.00	\$2.48	\$3.06	\$3.78	\$4.68
Church	\$1.60	\$1.98	\$2.45	\$3.02	\$3.74	\$2.00	\$2.48	\$3.06	\$3.78	\$4.68
School	\$1.60	\$1.98	\$2.45	\$3.02	\$3.74	\$2.00	\$2.48	\$3.06	\$3.78	\$4.68
Hospital	\$1.60	\$1.98	\$2.45	\$3.02	\$3.74	\$2.00	\$2.48	\$3.06	\$3.78	\$4.68
Irrigation	\$1.76	\$2.18	\$2.70	\$3.32	\$4.11	\$2.20	\$2.73	\$3.38	\$4.15	\$5.14
Motel	\$1.60	\$1.98	\$2.45	\$3.02	\$3.74	\$2.00	\$2.48	\$3.06	\$3.78	\$4.68
Convalescent Homes	\$1.60	\$1.98	\$2.45	\$3.02	\$3.74	\$2.00	\$2.48	\$3.06	\$3.78	\$4.68
Other	\$1.60	\$1.98	\$2.45	\$3.02	\$3.74	\$2.00	\$2.48	\$3.06	\$3.78	\$4.68
Water Wheeling	\$1.29	\$1.29	\$1.29	\$1.29	\$1.29					
Hydrant	\$11.27	\$13.52	\$16.22	\$19.46	\$23.35					

Table 6-6. Fire Protection Charges

Hydrant Size Inches	FY 09-10 \$/month	FY 10-11 \$/month	FY 11-12 \$/month	FY 12-13 \$/month	FY 13-14 \$/month
1-½	\$2.20	\$2.25	\$2.30	\$2.35	\$2.40
2	\$2.20	\$2.25	\$2.30	\$2.35	\$2.40
3	\$6.55	\$6.70	\$6.85	\$7.00	\$7.15
4	\$13.15	\$13.40	\$13.65	\$13.95	\$14.25
6	\$36.55	\$37.30	\$38.05	\$38.80	\$39.60
8	\$76.75	\$78.30	\$79.90	\$81.50	\$83.15
10	\$131.55	\$134.20	\$136.90	\$139.70	\$142.50

In addition to the tiered water rate structure, the City has been billing sewer charges according to volume of water used as shown below.

Table 6-7. Sewer Rates and Service Charges

Customer Class	FY 09-10		FY 10-11		FY 11-12		FY 12-13		FY 13-14	
	Inside City	Outside City								
All Customers	\$2.20	\$2.75	\$2.25	\$2.81	\$2.30	\$2.88	\$2.35	\$2.94	\$2.40	\$3.00
Volume Charge - \$ per hundred cubic feet										
Single Family	\$0.43	\$0.54	\$0.47	\$0.59	\$0.52	\$0.65	\$0.59	\$0.74	\$0.67	\$0.84
Multi Family	\$0.58	\$0.73	\$0.62	\$0.78	\$0.71	\$0.89	\$0.82	\$1.03	\$0.94	\$1.18
Business	\$0.77	\$0.96	\$0.98	\$1.23	\$1.08	\$1.35	\$1.19	\$1.49	\$1.32	\$1.65
Church	\$0.77	\$0.96	\$0.98	\$1.23	\$1.08	\$1.35	\$1.19	\$1.49	\$1.32	\$1.65
School	\$0.77	\$0.96	\$0.98	\$1.23	\$1.08	\$1.35	\$1.19	\$1.49	\$1.32	\$1.65
Hospital	\$0.77	\$0.96	\$0.98	\$1.23	\$1.08	\$1.35	\$1.19	\$1.49	\$1.32	\$1.65
Motel	\$0.77	\$0.96	\$0.98	\$1.23	\$1.08	\$1.35	\$1.19	\$1.49	\$1.32	\$1.65
Convalescent Homes	\$0.77	\$0.96	\$0.98	\$1.23	\$1.08	\$1.35	\$1.19	\$1.49	\$1.32	\$1.65
Other	\$0.77	\$0.96	\$0.98	\$1.23	\$1.08	\$1.35	\$1.19	\$1.49	\$1.32	\$1.65

City staff will measure the effectiveness of the water and sewer rate programs by comparing usage data annually.

6.12 Water Conservation Coordinator

The City has implemented this DMM since August 2008. The City currently employs a part-time conservation coordinator. The responsibilities of the conservation coordinator include organizing public outreach events; informing the public of water news through pamphlets, brochures, bill inserts, and newspaper articles; keeping the City's water conservation web page up-to-date; and implementing the conservation programs discussed throughout Section 6.0. The City plans to continue implementing this DMM.

6.13 Water Waste Prohibition

Currently, Title 13 of the City's Municipal Code makes it unlawful for any person to willfully or negligently waste water (please refer to Section 5.7).

6.14 Residential Ultra-Low Flush Toilet Replacement Programs

The City administers this DMM as part of the residential plumbing retrofit program described in Section 6.2.

6.15 Evaluation of Demand Management Measures

Water Code Section 10631

(g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:

- (1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.
- (2) Include a cost-benefit analysis, identifying total benefits and total costs.
- (3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.
- (4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

Method Used to Evaluate Effectiveness

The City will evaluate the implemented DMM's or Best Management Practices (BMPs) using the California Urban Water Conservation Council's procedures outlined in their Memorandum of Understanding.

The City has estimated the savings from the plumbing retrofit program by analyzing the water usage for an entire year before and post-retrofit. Based on the 200 homes surveyed, the City estimates that an average 10,000 gallons are saved each year per customer account. The

overall goal of the city is to reduce the per capita water use to 149 gpcd, a 4.5% reduction goal from 156 gpcd in 2010. In addition to the use of methods to evaluate effectiveness discussed with each DMM described previously, the City will measure the effectiveness of each implemented DMM by measuring the overall reduction in per capita water use.

Estimates of Water Savings

The City plans to estimate water savings from the implemented DMMs in accordance with accepted practices. Each individual DMM section contains descriptions and estimates of water savings to the extent practicable.

6.15.1 Demand Management Measures Implementation

The City has implemented or is planning to implement all applicable demand management measures as part of the Water Conservation Program. Additional staffing for a Water Conservation Coordinator may be required to fully implement DMMs as described in the City's Water Conservation Program.

6.16 Recycled Water Plan

Water Code Section 10633

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, and shall include all of the following:

- (a) A description of 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.
- (b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.
- (c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.
- (d) A description and quantification of 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.
- (e) 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.
- (f) A description of 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.
- (g) 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.

6.16.1 Wastewater Collection and Treatment

The South San Luis Obispo County Sanitation District (SSLOCS D) collects, treats, and disposes of wastewater for the communities of Arroyo Grande, Oceano, and Grover Beach. The total population served by the SSLOCS D is approximately 38,424 persons, producing an average daily flow of 2.9 million gallons of wastewater per day (32). Table 6-8 summarizes the volume of wastewater collected in 2005, 2010, and the amount projected to be collected through 2030. Projected wastewater volumes are based on historical per capita wastewater generation of 64 gallons per capita per day (33).

Table 6-8. Wastewater collected and treated in the service area (AFY)						
Type of Wastewater	2005	2010	2015	2020	2025	2030
Wastewater collected & treated in service area	1,197	1,213	1,255	1,295	1,338	1,376
Volume that meets recycled water standard ¹	1,197	1,213	1,255	1,295	1,338	1,376

¹ SSLOCSD currently produces secondary recycled water that is defined by Title 22 as “Disinfected Secondary-23 Recycled Water.” However, all effluent is discharged to the Pacific Ocean.

As of 2008, SSLOCSD received on average 2.88 mgd, and a little less than half of the total flows were from the City. Wastewater influent is first passed through an in-channel screen to remove large debris. After debris removal, wastewater flows through two clarifiers and then into a single fixed film reactor for secondary treatment. Wastewater effluent from the fixed film reactor then flows to secondary clarification to remove any sloughed off bacterial film. Finally, the treated wastewater is disinfected with sodium hypochlorite before being discharged to the Ocean. Table 6-9 quantifies all treated wastewater that is discharged to the ocean.

Table 6-9. Wastewater disposal methods and treatment level (AFY)						
Method of Disposal	Treatment Level	2010	2015	2020	2025	2030
Ocean Outfall	Secondary	1,213	1,255	1,295	1,338	1,376

6.16.2 Potential Recycled Water Demands

The City is currently considering a recycled water program and plans to pursue recycled water in the future. The following recycled water studies have been completed with the goal of identifying potential recycled water projects, which would benefit the City:

- *Water Recycling Progress Report*, Prepared for South San Luis Obispo County Sanitation District, Prepared by John L. Wallace & Associates, February 2001
- *Recycled Water Distribution System Conceptual Plan- South San Luis Obispo County Sanitation District WWTP Technical Memorandum*, Prepared by the Wallace Group, June 2010
- *Recycled Water Distribution System Conceptual Plan- City of Pismo Beach WWTP Technical Memorandum*, Prepared by the Wallace Group, June 2010
- *Water Recycling Update report*, Prepared for South San Luis Obispo Sanitation District, Prepared by the Wallace Group, January 2009

South San Luis Obispo County Sanitation District (SSLOCSD) Opportunities

The June 2010 SSLOCSD WWTP Technical Memorandum listed previously identified and evaluated recycled water opportunities for the City. One near-term opportunity outlined in the report was to use Disinfected Secondary-23 Recycled Water (Secondary-23) effluent to irrigate the Arroyo Grande Cemetery and Caltrans median along Highway 101. The amount of water that could be saved annually from using Secondary-23 effluent on the Cemetery and Caltrans

median is 41.9 AFY and 15.7 AFY respectively. However, while Caltrans prefers to use non-potable water for landscaping, current policy allows only tertiary treated water for irrigation. Future negotiations will commence to determine if Caltrans can accept SSLOCS D Secondary-23 water.

Also discussed in the study was the potential for future recycled water use if the SSLOCS D WWTP were upgraded to provide tertiary treatment. By providing tertiary treatment, recycled water use would no longer be limited to cemeteries, restricted access golf courses, freeway landscaping and other uses with limited human interaction. Tertiary treated recycled water that complies with Title 22 requirements could be applied to public parks, playgrounds, schoolyards, direct use on food crops, and other uses. The potential demand for tertiary treated recycled water within the City's water service area is 189.7 AFY. The potential sites would include parks, schools, a sports complex, and a K-Mart Center (8).

The City could collaborate with the SSLOCS D and other interested NCMA agencies to use secondary effluent for median and cemetery irrigation as described above, and/or participate in a broader recycled water program if SSLOCS D were to upgrade to tertiary treatment. If SSLOCS D were to upgrade its facility to provide tertiary treatment, the timing and extent of the treatment requirements should be considered concurrently with the development of a recycled water program.

City of Pismo Beach Wastewater Treatment Plant Opportunities

The City of Pismo Beach UWMP states that the City of Pismo Beach is "committed to employ recycled water as a beneficial resource to protect and reduce consumption of its potable water resources" and that "the City may begin regional planning efforts regarding recycled water within the next five years" (34). The City of Pismo Beach plans to upgrade its WWTP to provide an anticipated recycled water supply of 1,558 AFY in 2015 (34). This supply is an estimate and has not been finalized, but provides an idea of the amount of recycled water that could be available. The City of Pismo Beach UWMP describes that the recycled water not used for irrigation near the WWTP and in the Price Canyon development area "may be applied towards groundwater recharge operations" (34). The Pismo Beach WWTP outfall pipeline passes relatively close by the City. If the City of Pismo Beach were to produce excess recycled water, the City could utilize the recycled water for irrigation demand, and/or work with interested NCMA agencies to apply the recycled water for groundwater recharge within the NCMA.

Summary of Potential and Projected Recycled Water Uses and Quantities

Table 6-10 provides a summary of potential recycled water including the estimated tertiary demand discussed in the SSLOCS D Opportunities section as well as an estimated potential from the City of Pismo Beach. Potential recycled water from SSLOCS D is assumed to equal a maximum amount of recycled water use based on average annual demands from 2007-2009 for potable water from customer use types that can accept recycled water. Potential sources of recycled water from the City of Pismo Beach are assumed to equal the amount of recycled water identified in the Groundwater Recharge line item of Table 4.12 of the City of Pismo Beach 2010 UWMP.

Table 6-10. Potential Uses and Quantities of Recycled Water (AFY)						
User Type	Treatment Level	2010	2015	2020	2025	2030
Agriculture	N/A	0	0	0	0	0
Landscape ¹	Tertiary	0	189.7	189.7	189.7	189.7
Wildlife Habitat	N/A	0	0	0	0	0
Wetlands	N/A	0	0	0	0	0
Industrial	N/A	0	0	0	0	0
Groundwater Recharge ²	N/A	0	764	901	987	1,129
Other	N/A	0	0	0	0	0

¹ Assumes a maximum amount of recycled water from SSLOCSD based on average annual demands from 2007-2009 for potable water from customer use types that can accept recycled water.

² Assumes the entire amount of the Groundwater Recharge line item of Table 4.12 of the City of Pismo Beach 2010 UWMP could be potentially used by the City.

The City's 2005 UWMP did not project any recycled water use for 2010, as shown in Table 6-11. The actual recycled water use in 2010 was also zero for all use types.

Table 6-11. 2005 UWMP projections of recycled water use in 2010 and actual recycled water use in 2010 (AFY)		
User Type	2005 projection for 2010	2010 actual use
Agriculture	0	0
Landscape	0	0
Wildlife Habitat	0	0
Wetlands	0	0
Industrial	0	0
Groundwater Recharge	0	0
Other	0	0

Although there are opportunities for recycled water use in the future, a specific recycled water project has not been selected or analyzed in enough detail to provide a quantifiable projected supply estimate at the time of the preparation of this UWMP. Table 6-12 shows the City's projected recycled water use through 2030.

Table 6-12. Projected Recycled Water Use				
	2015	2020	2025	2030
Recycled Water Use	0	0	0	0

Participation in a Regional Recycled Water Program

The City is committed to participating in a regional effort to utilize recycled water, and will continue to participate in a dialogue between regional agencies interested in a recycled water program (including but not necessarily limited to the NCMA agencies). Ultimately, the City envisions working with those agencies to conceptualize, prioritize, fund and implement a preferred set of regional recycled water projects that benefit the City, as well as the NCMA as a whole.

6.17 Storm Water Reclamation

Since 1990, the City has operated the Soto Sports Complex Storm Water Reclamation Project. This project includes a forty-acre joint use facility, which serves as a collection point for drainage from a third of the City's area. Storm water is collected for the subsequent irrigation of a park and seven athletic fields. The estimated offset of potable water demand is approximately 100 AFY. The system includes drainage water sumps, an irrigation well, two booster pump stations, an irrigation system, and a construction water fill station.

There is an existing detention basin on the Wal-Mart site near the intersection of West Branch Street and Camino Mercado. It is estimated that the basin has an approximate size of 6.4 acre feet (9). The potential estimated irrigation demand for the Wal-Mart site is 42.7 AFY. This potential project has not been fully developed and would require a detailed hydrologic study.

7.0 Water Quality Impacts and Water Service Reliability

Water Code Sections 10634 & 10635

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.

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.

(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.

(c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

(d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

7.1 Water Quality Impact on Water Reliability

At the present time, one well exceeds the maximum contaminant level for manganese. This well is treated prior to distribution. Given the City's use of both surface and groundwater, and the capability of the water treatment system, the City anticipates meeting SDWA requirements in the future and that supplies will remain unaffected by water quality impacts.

7.2 Water Service Reliability

The UWMP Act requires that every urban supplier include an assessment of the reliability of its future water service to its customers during normal, dry, and multiple-dry water years. This assessment compares the impact of varied dry year conditions on total water supply sources available to the City with the total projected water supply over the next twenty years in five-year increments. Projections include data from Table 3-2, Table 3-3, Table 3-5, Table 3-7, Section 4.0, and Table 5-5 through Table 5-7, including historical dry-year rainfall and water demand.

A comparison of projected normal water year demands compared to normal water year supply is shown on Table 7-1.

Table 7-1. Supply and Demand- Normal Year (AFY)				
	2015	2020	2025	2030
Supply Totals	3,913	3,813	3,813	3,813
Demand Totals	3,288	2,987	3,089	3,176
Difference	625	826	724	637
Difference as % of Supply	16%	22%	19%	17%
Difference as % of Demand	19%	28%	23%	20%

For projected single-dry year supply and demand comparisons, no significant change is anticipated as shown in Table 7-2. This data assumes demand reductions based on SB7 requirements.

Table 7-2. Supply and Demand- Single Dry Year (AFY)				
	2015	2020	2025	2030
Supply Totals	3,913	3,813	3,813	3,813
Demand Totals	3,288	2,987	3,089	3,176
Difference	625	826	724	637
Difference as % of Supply	16%	22%	19%	17%
Difference as % of Demand	19%	28%	23%	20%

Multiple-dry year projections are shown in Table 7-3. This data assumes demand reductions based on SB7 requirements.

Table 7-3. Supply and Demand- Multiple Dry Years (AFY)					
		2015	2020	2025	2030
Multiple-dry year first year supply	Supply totals	3,913	3,813	3,813	3,813
	Demand totals	3,288	2,987	3,089	3,176
	Difference	625	826	724	637
	Difference as % of Supply	16%	22%	19%	17%
	Difference as % of Demand	19%	28%	23%	20%
Multiple-dry year second year supply	Supply totals	3,913	3,813	3,813	3,813
	Demand totals	3,288	2,987	3,089	3,176
	Difference	625	826	724	637
	Difference as % of Supply	16%	22%	19%	17%
	Difference as % of Demand	19%	28%	23%	20%
Multiple-dry year third year supply	Supply totals	3,913	3,813	3,813	3,813
	Demand totals	3,288	2,987	3,089	3,176
	Difference	625	826	724	637
	Difference as % of Supply	16%	22%	19%	17%
	Difference as % of Demand	19%	28%	23%	20%

8.0 Adoption and Implementation

Water Code Section 10640-10645

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

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. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. 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. 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. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

10643. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

10644.

(a) 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. 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.

(b) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part. The report prepared by the department shall identify the exemplary elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

(c)

(1) For the purpose of identifying the exemplary elements of the individual plans, the department shall identify in the report those water demand management measures adopted and implemented by specific urban water suppliers, and identified pursuant to Section 10631, that achieve water savings significantly above the levels established by the department to meet the requirements of Section 10631.5.

(2) The department shall distribute to the panel convened pursuant to Section 10631.7 the results achieved by the implementation of those water demand management measures described in paragraph (1).

(3) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

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.

8.1 Public Meeting Notice



**CITY OF ARROYO GRANDE
CITY COUNCIL
NOTICE OF PUBLIC HEARING**

On **TUESDAY, JANUARY 10, 2012**, the Arroyo Grande City Council will conduct a public hearing at **7:00 P.M.** in the **COUNCIL CHAMBERS** at **215 E. BRANCH STREET, ARROYO GRANDE** to consider the following item:

- 1. 2010 URBAN WATER MANAGEMENT PLAN UPDATE.** The City Council will consider adoption of the 2010 Urban Water Management Plan (UWMP). The UWMP describes and evaluates sources of supply, reasonable and practical efficient uses and demand management activities; it includes a description of the City's water facilities, projected water supply, projected water use, water conservation programs, water shortage contingency analysis and recycled water opportunities. In compliance with the California Environmental Quality Act (CEQA), the Community Development Department has determined that this action is exempt pursuant to Section 15282(v) of the CEQA Guidelines. If the City Council does not feel that this determination is appropriate, project approval will not be considered.

The City Council may also discuss other hearings or business items before or after the item listed above. If you challenge the proposed action in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City Council at, or prior to, the public hearing. Comments may be either: (1) mailed to or hand delivered to the Community Development Department, 300 East Branch Street, Arroyo Grande, CA 93420; or (2) provided in person at the public hearing. Failure of any person to receive the notice shall not constitute grounds for any court to invalidate the action of the legislative body for which the notice was given.

Documents are available in the Community Development Department for public review. Staff reports are posted online at www.arroyogrande.org seventy two (72) hours prior to the meeting. Please call (805) 473-5420 for more information. The City Council meeting will be televised live on Charter Cable Channel 20.



Kelly Wetmore, City Clerk

Publish 2T, The Tribune, Tuesday, December 27, 2011 & Tuesday, January 3, 2012

8.2 Adoption Resolution

RESOLUTION NO. 4419

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
ARROYO GRANDE, ADOPTING AND DIRECTING THE
FILING AND IMPLEMENTATION OF THE CITY OF ARROYO
GRANDE 2010 URBAN WATER MANAGEMENT PLAN
REVISION**

WHEREAS, the California Legislature enacted Assembly Bill 797 during the 1983-1984 Regular Session of the California Legislature (Water Code Sections 10610 et. seq.), known as the Urban Water Management Planning Act, which mandates that every urban supplier of water providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan, the primary objective of which is to plan for the conservation and efficient use of water; and

WHEREAS, AB 797 required that an initial plan be adopted by December 31, 1985, after public review and hearing, and filed with the California Department of Water Resources within thirty days of adoption; and

WHEREAS, the City of Arroyo Grande (City) did prepare and file an Urban Water Management Plan with the California Department of Water Resources after adoption in December, 1985 and last updated in 2005; and

WHEREAS, AB 797 requires that a plan be periodically reviewed at least once every five years, and that the urban water supplier shall make any amendments or changes to its plan which are indicated by the review and ensure adequate water supply to meet demands, even during single and multiple dry-year events; and

WHEREAS, the City is an urban supplier of water providing water to more than 5,600 customers, and has therefore prepared and advertised for public review a draft Urban Water Management Plan Update, in compliance with the requirements of AB 797, and a properly noticed public hearing regarding said Draft Plan Update was held by the City Council on January 10, 2012; and

WHEREAS, the City has completed the revisions requested by the Department of Water Resources.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Arroyo Grande as follows:

1. The 2010 Urban Water Management Plan Update (Plan), a copy of which is on file in the Community Development Department, and incorporated herein by this reference as though set forth in full, is hereby adopted and ordered filed with the City Clerk;

RESOLUTION NO. 4419
PAGE 2

2. The City Manager is hereby authorized and directed to file with the Plan with the California Department of Water Resources within 30 days after this date, in accordance with AB 797;
3. The City Manager is hereby authorized and directed to implement the programs as detailed in the adopted 2010 Urban Water Management Plan Update, including development of recommendations to the City Council regarding necessary procedures, rules, and regulations to carry out effective and equitable water conservation programs;

On motion of Council Member Guthrie, seconded by Council Member Ray, and on the following roll call vote, to wit:

AYES: Council Members Guthrie, Ray, Costello, Brown, and Mayor Ferrara
NOES: None
ABSENT: None

the foregoing Resolution was passed and adopted this 10th day of January, 2012.

RESOLUTION NO. 4419
PAGE 3


TONY FERRARA, MAYOR

ATTEST:


KELLY WETMORE, CITY CLERK

APPROVED AS TO CONTENT:


STEVEN ADAMS, CITY MANAGER

APPROVED AS TO FORM:


TIMOTHY J. CARMEL, CITY ATTORNEY

OFFICIAL CERTIFICATION

I, KELLY WETMORE, City Clerk of the City of Arroyo Grande, County of San Luis Obispo, State of California, do hereby certify under penalty of perjury, that Resolution No. 4419 is a true, full, and correct copy of said Resolution passed and adopted at a regular meeting of the City Council/Redevelopment Agency of the City of Arroyo Grande on the 10th day of January 2011.

WITNESS my hand and the Seal of the City of Arroyo Grande affixed this 12th day of January 2011.



KELLY WETMORE, CITY CLERK

9.0 References

1. **City of Arroyo Grande Public Works Department.** *City of Arroyo Grande Water Supply Alternatives Study.* August 24, 2004.
2. **Water Systems Consulting, Inc.** *CAPACITY EVALUATION OF THE LOPEZ PIPELINE FOR DELIVERY OF ADDITIONAL STATE WATER PROJECT SUPPLIES TO THE NORTHERN CITIES TECHNICAL MEMORANDUM.* September 9, 2010.
3. **City of Arroyo Grande Community Development Department.** *City of Arroyo Grande Housing Element.* November 25, 2003.
4. **City of Arroyo Grande.** *Fringe and Urban Area Land Use Element.* 2001.
5. **City of Arroyo Grande in Association with Water Systems Consulting, Inc.** *Water System Master Plan.* 2011.
6. **California Department of Water Resources.** *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan.* March 2011.
7. —. *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use.* February 2011.
8. **Steve Tanaka, PE & Valerie Huff, PE.** *Recycled Water Distribution System Conceptual Plan- South San Luis Obispo County Sanitation District WWTP.* s.l. : Wallace Group, April 2010.
9. **City of Arroyo Grande.** *Recycled Water Distribution System Conceptual Plan Technical Memorandum.* April 2010.
10. **San Luis Obispo Council of Governments.** *Regional Housing Needs Plan.* August 2008.
11. **Prepared for San Luis Obispo Council of Governments by AECOM Technical Services.** *San Luis Obispo County 2040 Population, Housing & Employment Forecast.* June 24, 2011.
12. **Wallace Group.** *Zone 3 Urban Water Management Plan 2010 Update.* s.l. : San Luis Obispo County Flood Control and Water Conservation District, June 2011.
13. **Carollo Engineers.** *Draft San Luis Obispo County Flood Control and Water Conservation District San Luis Obispo County Master Water Plan.* 2011.
14. **District, San Luis Obispo County Flood Control and Water Conservation.** *San Luis Region Integrated Regional Water Management Plan.* July 2007.
15. **Wallace Group.** *Supplemental Water Supply Study Nacimiento Pipeline Extension City of Arroyo Grande, City of Grover Beach, Oceano Community Services District.* January 2006.
16. **Tuckfield & Associates.** *Water and Wastewater Financial Plan and Rate Study.* March 2009.
17. **Todd Engineers.** *Water Balance Study for the Northern Cities Area.* April 2007.
18. **Wallace Group.** *Water Recycling Update Report Prepared for the South San Luis Obispo County Sanitation District.* January 2009.
19. —. *Water Supply Study: Desalination Oceano Community Services District, City of Arroyo Grande, City of Grover Beach.* January 2006.
20. **California Irrigation Management Information System.** *Monthly Average ETo Report.* [Online] July 14, 2011. <http://www.cimis.water.ca.gov/cimis/monthlyEToReport.do>.
21. **Water Systems Consulting, Inc.** *Agricultural Conversion Credits for Two Parcels Located in Arroyo Grande Technical Memorandum.* March 5, 2010.
22. **Cleath & Associates.** *Ground Water Source Assessment Los Robles Del Mar Project Pismo Beach.* August 2003.
23. **URS.** *Preliminary Program-Level Budget and Schedule for Lopez Reservoir Expansion Memorandum.* November 11, 2008.
24. **Wallace Group.** *Urban Water Management Plan 2010 Update.* s.l. : San Luis Obispo County Flood Control and Water Conservation District, June 2011.

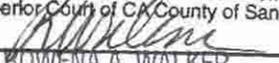
25. **Todd Engineers.** *2009 Annual Monitoring Report, Northern Cities Management Area.* April 2010.
26. **GEI Consultants, Inc.** *2010 Annual Monitoring Report for the Northern Cities Management Area.* April 2011.
27. **City of Arroyo Grande.** NOAA Pismo Beach Station & Arroyo Grande Corp Yard Gauge #177.1. 1949-1986, 1987-2010.
28. —. *Emergency Response Plan.*
29. **A & N Technical Services, Inc.** *Draft Revision BMP Cost & Savings Study.* March 2005.
30. **California Urban Water Conservation Council.** Resource Center. *California Urban Water Conservation Council.* [Online] 2011. [Cited: September 28, 2011.] <http://cuwcc.org/smart-rebate-commercial-high-efficiency-toilet.aspx>.
31. **Energy Star.** Clothes Washer Calculator.xls. [Online] http://webcache.googleusercontent.com/search?q=cache:Slz_LrWpp1EJ:www.energystar.gov/ia/business/bulk_purchasing/bpsavings_calc/CalculatorConsumerClothesWasher.xls+department+of+energy+washing+machine+2009+annual+water+consumption&cd=2&hl=en&ct=clnk&gl=us.
32. **South San Luis Obispo County Sanitation District.** sslocsd.org. *South San Luis Obispo County Sanitation District.* [Online] October 27, 2008. http://sslocsd.org/index.php?option=com_content&view=article&id=30&Itemid=130.
33. **City of Arroyo Grande.** *Wastewater System Master Plan.* November 13, 2001.
34. **Carollo Engineers, Inc.** *City of Pismo Beach 2010 Urban Water Management Plan.* September 2011.
35. **Economics Research Associates, an AECOM company (ERA).** *Project Report Update to Long Range Socio-Economic Projections.* August 2, 2010.
36. **Unites States Census Bureau.** *DP-1 Arroyo Grande City 2010 Demographic Profile.* 2011.
37. **Watts Water Technologies.** www.watts.com. *Water Safety & Flow Control/ Support.* [Online] 2011. [Cited: August 9, 2011.] <http://www.watts.com/pages/faq.asp?catId=64&faqId=7>.
38. **Kesler, Craig.** Chief Operator of the Lopez Water Treatment Plant. *Email Correspondence.* July 29, 2011.

Appendix A. Judgment

A. Judgment, Santa Maria Valley Water Conservation District v. City of Santa Maria et al.,
May 15, 2004

FILED

JAN 25 2008

KIRI TORRE
Chief Executive Officer/Clerk
Superior Court of CA County of Santa Clara
BY  DEPUTY
ROWENA A. WALKER

**SUPERIOR COURT OF CALIFORNIA
COUNTY OF SANTA CLARA**

SANTA MARIA VALLEY WATER
CONSERVATION DISTRICT,

Plaintiff,

vs.

CITY OF SANTA MARIA, ET AL.,

Defendants.

AND RELATED CROSS-ACTIONS AND
ACTIONS CONSOLIDATED FOR ALL
PURPOSES

**SANTA MARIA GROUNDWATER
LITIGATION
Lead Case No. 1-97-CV-770214**

(CONSOLIDATED FOR ALL
PURPOSES)

[Consolidated With Case Numbers:
CV 784900; CV 785509; CV 785522;
CV 787150; CV 784921; CV 785511;
CV 785936; CV 787151; CV 784926;
CV 785515; CV 786791; CV 787152;
1-05-CV-036410]

San Luis Obispo County Superior
Court Case Nos. 990738 and 990739

JUDGMENT AFTER TRIAL

This matter came on for trial in five separate phases. Following the third phase of trial, a large number of parties entered into a written stipulation dated June 30, 2005 to resolve their differences and requested that the court approve the settlement and make its terms binding on them as a part of any final judgment entered in this case. Subsequent to the execution of the stipulation by the original settling parties, a number of additional parties have agreed to be bound by the stipulation – their signatures are included in the attachments to this judgment.

1 The June 30, 2005 Stipulation is attached as Exhibit "1;" and all exhibits to the
2 Stipulation are separately attached as Exhibits "1A" through "1H". The Stipulating Parties are
3 identified on Exhibit "1A." The court approves the Stipulation, orders the Stipulating Parties
4 only to comply with each and every term thereof, and incorporates the same herein as though
5 set forth in full. No non-stipulating party is bound in any way by the stipulation except as the
6 court may otherwise independently adopt as its independent judgment a term or terms that are
7 the same or similar to such term or provision of the stipulation.

8 As to all remaining parties, including those who failed to answer or otherwise appear,
9 the court heard the testimony of witnesses, considered the evidence found to be admissible by
10 the court, and heard the arguments of counsel. Good cause appearing, the court finds and
11 orders judgment as follows.

12 As used in this Judgment, the following terms shall have the meanings herein set forth:

13 Basin – The groundwater basin described in the Phase I and II orders of the court, as
14 modified, with attachments and presented in Exhibit "1B".

15 Defaulting Parties – All persons or entities listed on Exhibit "3".

16 Imported Water – Water within the Basin received from the State Water Project,
17 originating outside the Basin, that absent human intervention would not recharge or be used in
18 the Basin.

19 LOG Parties – All persons or entities listed on Exhibit "2," listed under the subheading
20 "LOG Parties".

21 Non-Stipulating Parties – All Parties who did not sign the Stipulation, including the
22 Defaulting Parties and the LOG and Wineman Parties.

23 Parties – All parties to the above-referenced action, including Stipulating Parties, Non-
24 Stipulating Parties, and Defaulting Parties.

25 Public Water Producers – City of Santa Maria, Golden State Water Company, Rural
26 Water Company, the "Northern Cities" (collectively the Cities of Arroyo Grande, Pismo
27 Beach, and Grover Beach, and Oceano Community Services District), and the Nipomo
28 Community Services District.

1 Return Flows – All water which recharges the Basin after initial use, through the use of
2 percolation ponds and others means, derived from the use and recharge of imported water
3 delivered through State Water Project facilities.

4 Stipulating Parties – All Parties who are signatories to the Stipulation.

5 Stipulation – The Stipulation dated June 30, 2005 and incorporated herein as Exhibit
6 “1,” with each of its Exhibits separately identified and incorporated herein as Exhibits “1A”
7 through “1H”.

8 Storage Space – The portion of the Basin capable of holding water for subsequent
9 reasonable and beneficial uses.

10 Wineman Parties – All persons or entities listed on Exhibit “2,” under the subheading
11 “Wineman Parties”.

12 The following Exhibits are attached to this Judgment:

13 1. *Exhibit “1,”* June 30, 2005 Stipulation and the following exhibits thereto:

14 a. *Exhibit “1A,”* list identifying the Stipulating Parties and the parcels of
15 land bound by the Stipulation.

16 b. *Exhibit “1B,”* Phase I and II Orders, as modified, with attachments.

17 c. *Exhibit “1C,”* map of the Basin and boundaries of the three
18 Management Areas.

19 d. *Exhibit “1D,”* map identifying those lands as of January 1, 2005: 1)
20 within the boundaries of a municipality or its sphere of influence, or within the process of
21 inclusion in its sphere of influence; or 2) within the certificated service area of a publicly
22 regulated utility; and a list of selected parcels that are nearby these boundaries which are
23 excluded from within these areas.

24 e. *Exhibit “1E,”* 2002 Settlement Agreement between the Northern Cities
25 and Northern Landowners.

26 f. *Exhibit “1F,”* the agreement among Santa Maria, Golden State and
27 Guadalupe regarding Twitchell Project and the Twitchell Management Authority.

28 g. *Exhibit “1G,”* the court’s Order Concerning Electronic Service of

1 Pleadings and Electronic Posting of Discovery Documents dated June 27, 2000.

2 h. *Exhibit "1H,"* the form of memorandum of agreement to be recorded.

3 2. *Exhibit "2,"* List of Non-Stipulating LOG and Wineman Parties and recorded
4 deed numbers of property they owned at the time of trial.

5 3. *Exhibit "3,"* List of Defaulting parties.

6 **A declaratory judgment and physical solution are hereby adjudged and decreed**
7 **as follows:**

8 1. As of the time of trial, LOG and Wineman Parties owned the real property,
9 listed by assessor's parcel numbers, as presented in Exhibit 2.

10 2. The City of Santa Maria and Golden State Water Company are awarded
11 prescriptive rights to ground water against the non-stipulating parties, which rights shall be
12 measured and enforced as described below.

13 3. The City of Santa Maria and Golden State Water Company have a right to use
14 the Basin for temporary storage and subsequent recapture of the Return Flows generated from
15 their importation of State Water Project water, to the extent that such water adds to the supply
16 of water in the aquifer and if there is storage space in the aquifer for such return flows,
17 including all other native sources of water in the aquifer. The City of Santa Maria's Return
18 Flows represent 65 percent of the amount of imported water used by the City. Golden State
19 Water Company's Return Flows represent 45 percent of the amount of imported water used by
20 Golden State in the basin.

21 4. (a) The Northern Cities have a prior and paramount right to produce 7,300 acre-
22 feet of water per year from the Northern Cities Area of the Basin; and (b) the Non-Stipulating
23 Parties have no overlying, appropriative, or other right to produce any water supplies in the
24 Northern Cities Area of the Basin.

25 5. The Groundwater Monitoring Provisions and Management Area Monitoring
26 Programs contained in the Stipulation, including Sections IV(D) (All Management Areas);
27 V(B) (Santa Maria Management Area), VI(C) (Nipomo Mesa Management Area), and VII (1)
28 (Northern Cities Management Area), inclusive, are independently adopted by the court as

1 necessary to manage water production in the basin and are incorporated herein and made terms
2 of this Judgment. The Non-Stipulating Parties shall participate in, and be bound by, the
3 applicable Management Area Monitoring Program. Each Non-Stipulating Party also shall
4 monitor their water production, maintain records thereof, and make the data available to the
5 court or its designee as may be required by subsequent order of the court.

6 6. No Party established a pre-Stipulation priority right to any portion of that
7 increment of augmented groundwater supply within the Basin that derives from the Twitchell
8 Project's operation.

9 7. The court determines that there is a reasonable likelihood that drought and
10 overdraft conditions will occur in the Basin in the foreseeable future that will require the
11 exercise of the court's equity powers. The court therefore retains jurisdiction to make orders
12 enforcing the rights of the parties hereto in accordance with the terms of this judgment.

13 a. Groundwater

14 i. The overlying rights of the LOG and Wineman Parties shall be
15 adjusted by amounts lost to the City of Santa Maria and Golden State Water Company by
16 prescription. The prescriptive rights of the City of Santa Maria and Golden State Water
17 Company must be measured against the rights of all overlying water producers pumping in the
18 aquifer as a whole and not just against the LOG and Wineman Parties because adverse
19 pumping by the said water producers was from the aquifer as a whole and not just against the
20 non-stipulating parties. The City of Santa Maria established total adverse appropriation of
21 5100 acre feet per year and Golden State Water Company established adverse appropriation of
22 1900 acre feet a year, measured against all usufructuary rights within the Santa Maria Basin.
23 The City of Santa Maria and Golden State Water Company having waived the right to seek
24 prescription against the other stipulating parties, may only assert such rights against the non
25 stipulating parties in a proportionate quantity. To demonstrate the limited right acquired by
26 the City of Santa Maria and Golden State Water Company, by way of example, if the
27 cumulative usufructuary rights of the LOG and Wineman Parties were 1,000 acre-feet and the
28 cumulative usufructuary rights of all other overlying groundwater right holders within the

1 Basin were 100,000 acre-feet, the City of Santa Maria and Golden State Water Company
2 would each be entitled to enforce 1% of their total prescriptive right against the LOG and
3 Wineman Parties. That is, Golden State Water Company could assert a prescriptive right of
4 19 annual acre-feet, and the City of Santa Maria 51 annual acre-feet, cumulatively against the
5 LOG and Wineman Parties, each on a proportionate basis as to each LOG and Wineman
6 Party's individual use.

7 ii. The Defaulting Parties failed to appear at trial and prove any
8 usufructuary water rights. The rights of the Defaulting Parties, if any, are subject to the
9 prescriptive rights of the City of Santa Maria and Golden State Water Company, as well as the
10 other rights of said parties as established herein.

11 b. Imported Water

12 The City of Santa Maria and Golden State Water Company shall have rights to Return
13 Flows in the amount provided above.

14 c. Northern Cities

15 The rights of all Parties in the Northern Cities Management Area shall be governed as
16 described above on page 4, lines 21 to 24.

17 8. The LOG and Wineman Parties have failed to sustain the burden of proof in
18 their action to quiet title to the quantity of their ground water rights as overlying owners. All
19 other LOG and Wineman party causes of action having been dismissed, judgment is hereby
20 entered in favor of the Public Water Producers as to the quiet title causes of action brought by
21 the LOG and the Wineman Parties. Legal title to said real property is vested in the Log and
22 Wineman Parties and was not in dispute in this action.

23 9. Each and every Party, their officers, agents, employees, successors and assigns,
24 are enjoined and restrained from exercising the rights and obligations provided through this
25 Judgment in a manner inconsistent with the express provisions of this Judgment.

26 10. Except upon further order of the court, each and every Party and its officers,
27 agents, employees, successors and assigns, is enjoined and restrained from transporting
28 groundwater to areas outside the Basin, except for those uses in existence as of the date of this

1 Judgment; provided, however, that groundwater may be delivered for use outside the Basin as
2 long as the wastewater generated by that use of water is discharged within the Basin, or
3 agricultural return flows resulting from that use return to the Basin.

4 11. Jurisdiction, power and authority over the Stipulating Parties as between one
5 another are governed exclusively by the Stipulation. The court retains and reserves
6 jurisdiction as set forth in this Paragraph over all parties hereto. The court shall make such
7 further or supplemental orders as may be necessary or appropriate regarding interpretation and
8 enforcement of all aspects of this Judgment, as well as clarifications or amendments to the
9 Judgment consistent with the law.

10 12. Any party that seeks the court's exercise of reserved jurisdiction shall file a
11 noticed motion with the court. Any noticed motion shall be made pursuant to the court's
12 Order Concerning Electronic Service of Pleadings and Electronic Posting of Discovery
13 Documents dated June 27, 2000.

14 13. The court shall exercise *de novo* review in all proceedings. The actions or
15 decisions of any Party, the Monitoring Parties, the TMA, or the Management Area Engineer
16 shall have no heightened evidentiary weight in any proceedings before the court.

17 14. As long as the court's electronic filing system remains available, all court
18 filings shall be made pursuant to court's Order Concerning Electronic Service of Pleadings
19 and Electronic Posting of Discovery Documents dated June 27, 2000, or any subsequent
20 superseding order. If the court's electronic filing system is eliminated and not replaced, the
21 Parties shall promptly establish a substitute electronic filing system and abide by the same
22 rules as contained in the court's Order.

23 15. Nothing in this Judgment shall be interpreted as relieving any Party of its
24 responsibilities to comply with state or federal laws for the protection of water quality or the
25 provisions of any permits, standards, requirements, or order promulgated thereunder.

26 16. Each Party shall designate the name, address and e-mail address, if any, to be
27 used for purposes of all subsequent notices and service by a designation to be filed within
28 thirty days after entry of this Judgment. This designation may be changed from time to time

1 by filing a written notice with the court. Any Party desiring to be relieved of receiving notices
2 may file a waiver of notice on a form approved by the court. The court shall maintain at all
3 times a current list of Parties to whom notices are to be sent and their addresses for purposes
4 of service. The court shall also maintain a full current list of names, addresses, and e-mail
5 addresses of all Parties or their successors, as filed herein. Copies of such lists shall be
6 available to any Person. If no designation is made, a Party's designee shall be deemed to be, in
7 order of priority: i) the Party's attorney of record; ii) if the Party does not have an attorney of
8 record, the Party itself at the address specified.

9 17. All real property owned by the Parties within the Basin is subject to this
10 Judgment. The Judgment will be binding upon and inure to the benefit of each Party and their
11 respective heirs, executors, administrators, trustees, successors, assigns, and agents. Any
12 party, or executor of a deceased party, who transfers property that is subject to this judgment
13 shall notify any transferee thereof of this judgment and shall ensure that the judgment is
14 recorded in the line of title of said property. This Judgment shall not bind the Parties that
15 cease to own property within the Basin, and cease to use groundwater. Within sixty days
16 following entry of this Judgment, the City of Santa Maria, in cooperation with the San Luis
17 Obispo entities and Golden State, shall record in the Office of the County Reporter in Santa
18 Barbara and San Luis Obispo Counties, a notice of entry of Judgment.

19 The Clerk shall enter this Judgment.

20
21 SO ORDERED, ADJUDGED, AND DECREED.

22
23 Dated: January 25, 2008

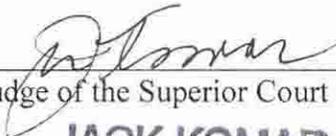
24 
25 _____
26 Judge of the Superior Court
27 **JACK KOMAR**
28

Exhibit 1E

Settlement Agreement Between Northern Cities, Northern Cities Landowners, and Other Parties

The original signature pages of this agreement were hand-delivered to the Court prior to the August 2002 hearing, at which the Court approved this agreement.

1 NOSSAMAN, GUTHNER, KNOX & ELLIOTT, LLP
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9 Attorneys for Defendants City of Arroyo Grande,
10 City of Grover Beach, City of Pismo Beach,
11 Oceano Community Services District

12 SUPERIOR COURT OF THE STATE OF CALIFORNIA
13 FOR THE COUNTY OF SANTA CLARA

14 SANTA MARIA VALLEY WATER
15 CONSERVATION DISTRICT, a public
16 entity,

17 Plaintiff,

18 v.

19 CITY OF SANTA MARIA, et al.,
20 Defendants.

21 SANTA MARIA GROUNDWATER
22 LITIGATION, LEAD CASE No. CV 770214
23 (Consolidated with CV 784900, 784921,
24 784926, 785509, 785511, 785515, 785522,
25 785936, 786971, 787150, 787151, 787152,
26 990738, 990739)

27 SETTLEMENT AGREEMENT BETWEEN
28 NORTHERN CITIES, NORTHERN
LANDOWNERS, AND OTHER PARTIES

29 AND ALL RELATED ACTIONS.

30 PARTIES AND EFFECTIVE DATE

31 This Agreement is entered into among the Cities of Arroyo Grande, Pismo
32 Beach, Grover Beach and the Oceano Community Services District (collectively "Northern
33 Cities"), owners/lessors of land located in the Northern Cities Area ("Northern Landowners"),
34 and other parties who execute this Agreement. This Agreement is entered into as of April 30,
35 2002.

36 STIPULATIONS OF FACT

37 A. In 1997, the Santa Maria Valley Water Conservation District initiated this
38 action, Santa Clara Superior Court Case Number CV 770214, consolidated with Case

1 Numbers 784900, 784921, 784926, 785509, 785511, 785515, 785522, 785936, 786971,
2 787150, 787151, 787152, 990738, and 990739 (the "Action"), to adjudicate groundwater rights
3 in the Santa Maria Groundwater Basin;

4 B. Numerous parties have filed complaints and/or cross-complaints in the
5 Action with respect to rights to produce water in the Santa Maria Groundwater Basin;

6 C. By Order dated December 21, 2001, the Court determined the geographic
7 area constituting the Santa Maria Groundwater Basin ("Basin") and ruled that the Northern
8 Cities Area (identified on the map attached hereto as Exhibit A) is within the Basin;

9 D. Under current water supply and demand conditions, the groundwater
10 basin in the Northern Cities Area is in rough equilibrium, and groundwater pumping in the
11 Northern Cities Area does not negatively affect water supplies in the remainder of the Basin;

12 E. For more than 30 years, there have been separate funding, management
13 and usage of groundwater in the Northern Cities Area from groundwater in the Santa Maria
14 Valley. For example, the Northern Cities and Northern Landowners have paid and are paying
15 tens of millions of dollars for the construction and retrofit of the Lopez Reservoir, which
16 benefits the Northern Cities Area; whereas the Twitchell Reservoir has been paid for by parties
17 in the Santa Maria Valley who benefit from it.

18 F. The Northern Cities and Northern Landowners have agreed among
19 themselves and do hereby reaffirm their agreement to cooperatively share and manage
20 groundwater resources in the Northern Cities Area in accordance with a "Gentlemen's
21 Agreement" that was originally developed in 1983 and amended thereafter. Said Agreement
22 confers no rights on any third parties;

23 G. It is in the interest of all of the parties to this litigation that the parties settle
24 their claims and potential claims on the basis of the continued separate funding, management,
25 and usage of the waters conserved by the Lopez Reservoir in the Northern Cities Area and by
26 the Twitchell Reservoir in the remainder of the Basin, to preserve and protect water resources
27 in those separate management areas.

28 H. This Settlement Agreement is also intended to provide the parties with

1 advance notice of changes in the groundwater conditions in the Northern Cities Area and
2 Nipomo Mesa, as water supplies and demands may change with time. (The Nipomo Mesa is
3 southeast of the Zone 3 Line, and north of the Santa Maria River.); and

4 I. The parties to this Settlement Agreement have agreed to settle and
5 resolve their cross-claims and potential cross-claims on the conditions set forth below:

6 **NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS**

7 1. Separate Management Areas. Subject to the conditions set forth below,
8 water resources and water production facilities in the Northern Cities Area shall continue to be
9 independently managed by the Northern Cities, the San Luis Obispo County Flood Control and
10 Water Conservation District, and the Northern Landowners, with the intention of preserving the
11 long-term integrity of water supplies in the Northern Cities Area. For example, the Northern
12 Cities and Northern Landowners will not be responsible to pay for any of the costs of the
13 Twitchell Reservoir; and the parties outside of the Northern Cities Area (Zone 3) shall not be
14 responsible to pay any of the costs relating to the Lopez Reservoir.

15 2. Effects on Litigation. Except as provided below, the parties in the
16 Northern Cities Area, on the one hand, and the other parties hereto, on the other hand, agree
17 not to pursue or assert any claims against one another relating to water rights in the Santa
18 Maria Groundwater Basin. Each of the Northern Landowners who execute this Agreement will
19 be deemed to have been served by each of the water purveyor parties in this action who have
20 signed this Agreement with cross-complaints seeking declaratory and other relief in the form of
21 the cross-complaints previously filed by the City of Santa Maria; and each of the Northern
22 Landowners who execute this Agreement shall be deemed to have served and filed answers to
23 said cross-complaints denying all of their material allegations and asserting all available
24 affirmative defenses. The Northern Cities and Landowners shall continue to be subject to
25 reasonable discovery requests that are relevant to the remaining issues in the case.

26 3. Court Approval. This Settlement Agreement shall be submitted to the
27 Court for approval. If approved, this Settlement Agreement shall be included in and attached
28 as an exhibit to the final judgment in this Action, and the Northern Cities Area shall be treated

1 separately under the judgment in accordance with the provisions set forth herein. Paragraphs
2 4 and 7-20 of this Agreement shall take effect only upon Court approval of this Agreement.

3 4. Consent to Continuing Jurisdiction. Prior to this Agreement, there has
4 been no adjudication of the water rights of the Northern Cities, Northern Landowners, or any
5 other party, other than the determination of the boundaries of the Basin. Except ¶ 5 below,
6 nothing in this Agreement authorizes the Court to restrict or affect the right of any party to
7 pump, divert, use, or store groundwater or surface water without first according that party all of
8 its substantive, procedural, and due process rights under constitutional, statutory, and common
9 law requirements. Subject to the above and to the limitations of paragraphs 5-6 below, the
10 parties hereto agree that the Court reserves and retains full jurisdiction, power, and authority
11 over the Northern Cities Area, the Northern Cities, and the Northern Landowners, to enable the
12 Court, upon motion of any party, to make such further orders or directions (1) to interpret,
13 enforce, amend, or amplify any of the provisions of this Agreement; (2) to enforce, protect, or
14 preserve the rights of the respective parties, consistent with the rights herein decreed; or (3) to
15 issue such additional orders and/or injunctions to prevent injury to any party that might result
16 from any material adverse change in the availability or quality of the water supplies in the
17 Northern Cities Area, or the Nipomo Mesa Area, or any part of the Basin.

18 5. Reaffirmation of Gentlemen's Agreement. The Northern Cities and
19 Northern Landowners hereby reaffirm their Agreement to cooperatively share and manage
20 groundwater resources in the Northern Cities' Area in accordance with their AGREEMENT
21 REGARDING MANAGEMENT OF THE ARROYO GRANDE GROUNDWATER BASIN, aka
22 the "Gentlemen's Agreement." (A copy of the current version of this Agreement is attached
23 hereto as Exhibit B.) In particular, the Northern Cities and the Northern Landowners agree
24 with each other to continue to divide the safe yield of groundwater in the Northern Cities' Area,
25 including any increases or decreases of the safe yield, in accordance with ¶ 1 of Exhibit B
26 hereto. Said water-sharing Agreement and this paragraph 5 shall only be binding on and
27 enforceable by the Northern Cities and Northern Landowners.

28 6. No Effect on Water Rights. Except as provided in ¶ 5 above, nothing in

1 this Agreement shall be construed to create, eliminate, increase, or reduce any substantive
2 right of any party to pump, divert, use, or store groundwater or surface water; and nothing in
3 this Agreement shall be construed to prove or disprove, directly or indirectly, any element of
4 prescriptive rights to groundwater.

5 **TECHNICAL OVERSIGHT COMMITTEE**

6 7. Formation. A Technical Oversight Committee (TOC) shall be established
7 to carry out the ongoing monitoring and analysis program ("MAP," see below).

8 8. Composition. The TOC shall be comprised of two voting representatives
9 of the Northern Cities and two voting representatives of parties providing public water service
10 on the Nipomo Mesa ("Mesa Parties," which include the Nipomo Community Services District,
11 Rural Water Company and Southern California Water Company, and their successors or
12 assigns). At least one of the two representatives from the Northern Cities and the Mesa
13 Parties shall be technically qualified to carry out the MAP duties described below. The other
14 TOC representatives may be technical, policy, managerial, or legal in nature. The voting
15 representatives shall attempt to operate by consensus. However, if consensus cannot be
16 achieved, TOC decisions may be made by majority vote of the voting representatives.

17 9. Responsibility. The TOC shall implement and carry out the MAP.

18 10. Meetings. The TOC shall meet at least semi-annually for the first five (5)
19 years of implementing the MAP, and at least annually thereafter.

20 11. Procedures of the TOC. The TOC shall establish procedures for the
21 fulfillment of its responsibilities under this Agreement.

22 **MONITORING AND ANALYSIS PROGRAM**

23 12. Purpose and Legal Effect. A monitoring and analysis program (MAP) shall
24 be established to provide ongoing data collection and analysis of water supplies and demands
25 in the Northern Cities Area and the Nipomo Mesa. The purpose of the MAP is to regularly
26 assess the potential impact on the water supplies on either side of the Zone 3 boundary line
27 resulting from changing conditions regarding the water supplies and demands in the Northern
28 Cities Area and the Nipomo Mesa, and the resulting changes in the surface and groundwater

1 flow conditions adjacent to and across the Zone 3 boundary line.

2 13. The Water Management Plans and the Annual Reports (collectively
3 "Plans") prepared pursuant to this Agreement are for information purposes only. They shall
4 not independently create in the party(ies) preparing them any affirmative obligation to act, or
5 implement any part of the Plans, nor shall they independently provide any other party or the
6 Court any right to compel Action or enforce any obligation. However, any party may challenge
7 the sufficiency of any Plan produced pursuant to this Agreement by showing that it has not
8 been completed in substantial compliance with the requirements of this Agreement, except that
9 any challenge to a Water Management Plan created pursuant to Paragraph 15 below may only
10 be undertaken in a proceeding and under the standards set forth under Water Code sections
11 10650, *et seq.*

12 14. The Parties shall be excused from the preparation of the Plans required in
13 this Agreement when the Court enters a final judgment in this litigation.

14 15. Water Supply Planning and Reports. Within two years after Court
15 approval of this Settlement, each of the Northern Cities and the Mesa Parties shall evaluate
16 their current and future water supplies and prepare a Water Management Plan. The Water
17 Management Plan shall generally include the content and analysis described in Water Code
18 sections 10630 through 10635, and shall also include an analysis of the ongoing availability of
19 groundwater in the Northern Cities Area given the changing urban and agricultural water
20 demands in the Northern Cities Area. Each of the Northern Cities and the Mesa Parties shall
21 update and revise their previously prepared Water Management Plans prior to December 31,
22 2006, and every five years thereafter; provided however, that this requirement to prepare a
23 Water Management Plan is not intended to expand or impose upon any party rights or
24 obligations with respect to such Water Management Plans, other than those specifically stated
25 in this Section. Copies of the Water Management Plans shall be provided to the Northern
26 Cities, the Mesa Parties, the Santa Maria Valley Water Conservation District and the City of
27 Santa Maria.

28 16. Monitoring and Data Collection. The TOC shall implement a MAP that

1 shall include the data collection and analysis elements described below, and any other
2 monitoring and analysis, if the TOC deems them appropriate and cost-effective to fulfill the
3 purpose of this Agreement. The data collection and database development shall be created so
4 that the data can be shared and transferred between the TOC members for review and
5 evaluation in electronic format. The MAP shall include the following elements.

6 a. Design. Within six months after Court approval of this Agreement,
7 the TOC shall review existing data to select existing wells to include in the MAP. The TOC
8 shall define the list of wells to be monitored and specific information to be obtained from each
9 well, such as groundwater levels and groundwater quality constituents. The MAP shall also
10 include data collection to provide for early detection of seawater intrusion and collection of
11 other related data (e.g., deliveries of supplemental water, precipitation, discharge of treated
12 waste water, etc.) as are necessary for preparation of the analyses and reports required by this
13 Agreement. To the extent practical to adequately meet the purpose of this Agreement, the
14 TOC shall use existing facilities, rather than new facilities, in the design of the MAP.

15 b. Data Collection. As soon as the design of the MAP is complete, the
16 TOC shall commence collection of groundwater monitoring data, with data collection to occur
17 at intervals determined by the TOC.

18 c. Changing Groundwater Use Patterns. The TOC may also monitor
19 the groundwater pumping patterns in the Northern Cities Area and the Nipomo Mesa. The
20 monitoring shall be based on either observed changes (municipal pumping) or estimated
21 changes (private or agricultural pumping). The TOC may review the changes in pumping to
22 assess the potential impacts on groundwater flow conditions along the Zone 3 boundary line
23 and include its findings in the Annual Report, described below.

24 d. MAP Assessment. Within two years of Court approval of this
25 Agreement, and annually thereafter, the TOC shall evaluate data from the monitoring program,
26 assess data gaps, and make recommendations to revise the monitoring program, including the
27 use of other wells or installation of new monitoring wells, as appropriate. The TOC may
28 recommend to the Northern Cities and the Mesa Parties or to the Court any additional

1 monitoring of hydrologic characteristics that may be prudent and cost-effective to meet the
2 goals of this Agreement, to provide a higher level of confidence in the data and analyses than
3 that which is based on existing wells, stream gages, etc.

4 17. Annual Report. Based upon the MAP and other relevant information, the
5 TOC shall annually prepare a Report on Water Supply and Groundwater Conditions (Annual
6 Report) for the Northern Cities Area and Nipomo Mesa. The Annual Report shall be filed with
7 the Court, posted on the Court's website, and served on the Northern Cities, the Mesa Parties,
8 the Santa Maria Valley Water Conservation District, and the City of Santa Maria. The first
9 Annual Report shall be completed, filed and served, as described in the previous sentence, on
10 or before the second (2nd) anniversary of this Court's approval of this Agreement, and
11 annually thereafter. The Annual Report shall assess the adequacy of the water supplies in
12 each area in comparison to the corresponding demands, and shall include an analysis and
13 discussion of the estimates of the volume of groundwater in storage, an updated water budget
14 assessment, and anticipated water supply constraints, if any.

15 18. Cost Sharing. Unless otherwise agreed, each of the Northern Cities and
16 the Mesa Parties shall bear their own costs in participating in the TOC, gathering and
17 analyzing data, and producing any written documents as may be required by this Agreement.
18 To the extent the construction of new facilities may be required to implement this Agreement,
19 the Northern Cities and the Mesa Parties shall develop an equitable cost sharing agreement.
20 The parties will use their best efforts to minimize the costs of compliance in undertaking the
21 obligations of this Agreement.

22 19. Cooperation of all Parties. All parties to this litigation and this Agreement
23 shall provide any documents, information, access to wells, and well data, and take any other
24 actions reasonably requested to implement the MAP, subject to prior protective orders and
25 reasonable confidentiality restrictions.

26 **ADVANCE NOTICE OF INCREASED WATER PRODUCTION**

27 20. The Mesa Parties, the Northern Cities, and the Northern Landowners shall
28 provide prior written notice to each other of their intent to drill new wells, materially increase

1 the production capacity of existing wells or take over the use of an existing well, if the well is to
2 be used for water production (not monitoring). The notice must be served prior to or
3 concurrent with the initiation of environmental review under the California Environmental
4 Quality Act (CEQA), if required, or at least ninety (90) days prior to the construction of a new
5 well or the takeover or increase in capacity of an existing well. This ninety (90) day notice
6 requirement shall not apply in the event of emergencies, such as replacement of a collapsed
7 well, in which case notice will be provided as promptly as possible. The notice should provide
8 a description of the location, intended capacity and use of the well.

9 GENERAL PROVISIONS

10 21. No Third Party Beneficiary. Nothing in this Agreement, whether express
11 or implied, shall confer any rights or remedies under this Agreement on any persons other than
12 the Parties to it and their respective successors and assigns. Nothing in this Agreement shall
13 relieve or discharge the obligation or liability of any third parties to any Party to this Agreement.

14 22. Legal Capacity. The Parties warrant that all necessary approvals and
15 authorizations have been obtained to bind them to all terms of this Agreement, and further
16 warrant that the persons signing have authority to sign on behalf of their respective Parties.

17 23. Amendment. No amendment to this Agreement will be binding unless it
18 is either signed by an authorized representative of all of the Parties or approved by the Court.

19 24. Governing Law. This Agreement will be construed in accordance with,
20 and governed by, the laws of the State of California as applied to contracts that are executed
21 and performed entirely in California.

22 25. Severability. If any provision of this Agreement is held invalid or
23 unenforceable by any court, it is the intent of the Parties that all other provisions of this
24 Agreement be construed so as to remain fully valid, enforceable, and binding on the Parties.

25 26. Counterparts. This Agreement may be executed in one or more
26 counterparts, each of which will be considered an original, but all of which together will
27 constitute one and the same instrument. Any party that is currently a party to this Action and
28 any Northern Landowner may become a party to this Agreement by agreeing in writing to be

1 bound by its terms at any time prior to the entry of judgment in this Action. Future signatories
2 to this Agreement shall sign the signature pages attached hereto as Exhibits C (for Northern
3 Landowners) or D (for other parties to this litigation) to confirm their acceptance of its terms.

4 27. Merger Clause. This Agreement supersedes and replaces all prior
5 settlement negotiations and agreements, written or oral. It is the complete, final, and exclusive
6 statement of the parties' agreement. The parties hereto acknowledge that no party, agent or
7 attorney of any party has made any promise, representation or warranty whatsoever, express
8 or implied, not contained herein, to induce them to execute this Agreement. Each party has
9 executed this Agreement in reliance on the advice of his/her or its own attorney.

10 Dated: April __, 2002

CITY OF ARROYO GRANDE

11
12 By: _____
13 Title: _____

14 Dated: April __, 2002

CITY OF GROVER BEACH

15
16 By: _____
17 Title: _____

18 Dated: April __, 2002

CITY OF PISMO BEACH

19 By: *Rudy Natali*
20 Title: MAYOR

21 Dated: April __, 2002

OCEANO COMMUNITY SERVICES DISTRICT

22
23 By: _____
24 Title: _____

25
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27
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5 settlement negotiations and agreements, written or oral. It is the complete, final, and exclusive
6 statement of the parties' agreement. The parties hereto acknowledge that no party, agent or
7 attorney of any party has made any promise, representation or warranty whatsoever, express
8 or implied, not contained herein, to induce them to execute this Agreement. Each party has
9 executed this Agreement in reliance on the advice of his/her or its own attorney.

10 Dated: April __, 2002

CITY OF ARROYO GRANDE

11 By: _____
12 Title: _____

13
14 Dated: ~~April~~ _____, 2002
May 24, 2002

CITY OF GROVER BEACH

15 Attest: Donna L. McMahon
16 Donna L. McMahon
17 City Clerk

By: Stephen C. Lieberman (Stephen C. Lieberman)
18 Title: MAYOR

19
20
21 Dated: April __, 2002

CITY OF PISMO BEACH

By: _____
22 Title: _____

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28 Dated: April __, 2002

OCEANO COMMUNITY SERVICES DISTRICT

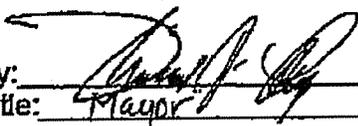
By: _____
Title: _____

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6 statement of the parties' agreement. The parties hereto acknowledge that no party, agent or
7 attorney of any party has made any promise, representation or warranty whatsoever, express
8 or implied, not contained herein, to induce them to execute this Agreement. Each party has
9 executed this Agreement in reliance on the advice of his/her or its own attorney.

10 Dated: ~~April~~ ^{May} 28, 2002

CITY OF ARROYO GRANDE

11 By: 
12 Title: Mayor

14 Dated: April __, 2002

CITY OF GROVER BEACH

16 By: _____
17 Title: _____

18 Dated: April __, 2002

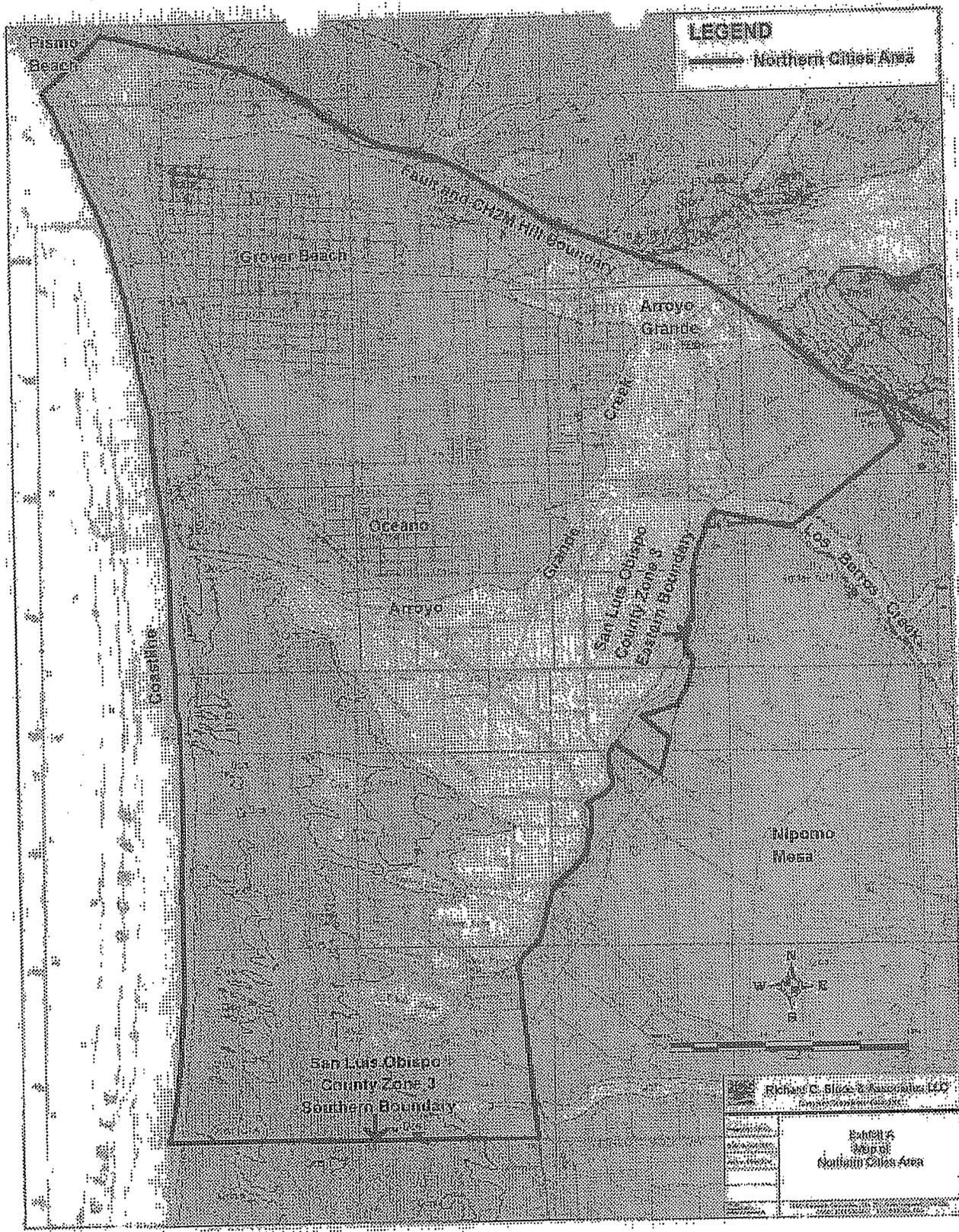
CITY OF PISMO BEACH

20 By: _____
21 Title: _____

21 Dated: April __, 2002

OCEANO COMMUNITY SERVICES DISTRICT

23 By: _____
24 Title: _____



**AGREEMENT REGARDING
MANAGEMENT OF THE
ARROYO GRANDE GROUNDWATER BASIN**

A. Parties

This Agreement is entered into among the Cities of Arroyo Grande, Pismo Beach, Grover Beach and the Oceano Community Services District (collectively referred to hereinafter as "Parties" or "Urban Parties").

B. Recitals

WHEREAS, in January 1983, a Technical Advisory Committee consisting of representatives of Arroyo Grande, Grover City, Pismo Beach, Oceano Community Services District, Port San Luis Harbor District, the Farm Bureau, Avila Beach County Water District and the County of San Luis Obispo ("Committee") determined in reliance on the 1979 Report of the Department of Water Resources entitled Ground Water in the Arroyo Grande Area that the safe yield of the Arroyo Grande Groundwater Basin ("Basin") is 9,500 acre feet per year;

WHEREAS, in or about February 1983, the Parties agreed to enter into a voluntary groundwater management plan to provide for effective management of groundwater resources in the Basin through which each party was given sufficient water to meet its needs as then projected; such needs being met in part by the City of Arroyo Grande foregoing 358 acre feet per year of its historical use and the City of Pismo Beach foregoing 20 acre feet per year of its historical use;

WHEREAS, this management plan provided a reasonable division of the safe yield of the Basin without court imposed groundwater basin adjudication;

WHEREAS, on February 9, 1983, the terms of the management plan were incorporated into Resolution No. 83-1 of the South San Luis Obispo County Water Association Approving the Recommendations of the Committee relating to the Basin (the "Resolution");

WHEREAS, each of the Parties have adopted individual resolutions endorsing the provisions of the Resolution;

WHEREAS, the Parties have generally complied with the terms and conditions of the Resolution; and

WHEREAS, general compliance with the Resolution has proven to be a fair and efficient means of managing and protecting groundwater resources in the Basin as confirmed by the revised final draft report prepared by the Department of Water Resources entitled, Water Resources of Arroyo Grande and Nipomo Mesa, January 2000.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. Division of Safe Yield.

a. The Parties agree to a division of the safe yield of the Basin as follows:

Applied Irrigation 5,300 acre feet

Subsurface flow to ocean 200 acre feet

Urban Use:

City of Arroyo Grande 1,202 acre feet

City of Grover Beach 1,198 acre feet

City of Pismo Beach 700 acre feet

Oceano Community Services District 900 acre feet

b. Any increase or decrease in the safe yield of the Basin attributable to changed operation of the Lopez Reservoir, or any other cause, shall first be divided between the Urban Parties and applied irrigation on a pro rata basis using the formula from the 1983 Gentlemen's Agreement, fifty-seven percent (57%) to applied irrigation and forty-three percent (43%) to the Urban Parties. Thereafter, the first 378 acre feet per year of any increase of safe yield allocated to the Urban Parties shall be divided between the City of Arroyo Grande and the City of Pismo Beach on a pro rata basis (95% to Arroyo Grande and 5% to Pismo Beach).

c. The entitlements of each respective Urban Party may be increased based upon the conversion of irrigated agricultural lands to urban use. An Urban Party to this Agreement may increase its entitlement for urban use by a factor of three (3) acre feet per acre per year minus the calculated urban usage per acre per year upon the conversion of irrigated agricultural land to urban usage. "Irrigated agricultural land" shall be that land within the corporate limits of the party that was identified as irrigated agricultural land in the 1979 Department of Water Resources Report entitled Ground Water in the Arroyo Grande Area. This agricultural conversion factor may be applied to all acreage converted to urban use from January 1, 1983, throughout the life of this Agreement. Such an agricultural conversion factor is in the best interests of the overall Basin in that it will not result in any decline in the groundwater service over time. The Parties agree that no water should be converted to urban use within the Basin without establishing that it was irrigated agricultural land as defined in the 1979 Department of Water Resources Report, Groundwater in the Arroyo Grande Area.

d. The Parties agree and understand that the safe yield figures utilized in this Agreement are a product of the 1979 Department of Water Resources Report regarding the Arroyo Grande Basin as adjusted by the 1983 ad hoc Technical Advisory Committee and that the division of the resources is based upon the historical use of each party and a practical accommodation of each Party's needs as they existed at the time of the adoption of the 1983

agreement. It is agreed that the Parties will meet and confer on issues related to safe yield and division of existing water resources upon the final adoption of the new Arroyo Grande Basin study performed by the Department of Water Resources, which is currently in draft.

2. Shared Information and Monitoring: The Urban Parties to this Agreement shall freely share information with each other regarding each of their respective uses of groundwater in the Basin, including all pumping data such as amounts of water extracted, well static water levels, and water quality. The Urban Parties to this Agreement shall meet on a quarterly basis to share this information and to discuss water usage and impacts upon the Basin. The Parties shall conduct a review of water usage and the impacts on Basin hydrology in 2010 and 2020.

3. Term:

a. This Agreement shall bind the Parties indefinitely absent a significant change of circumstances as to available water, water quality, or hydrogeology of the Arroyo Grande Basin. A significant change of circumstances shall allow any Party to opt out of this Agreement if the significant change of circumstances put that Party at risk of not being able to meet its potable water needs.

b. Significant changed circumstances shall include changes within the Basin or outside of the Basin, including but not restricted to, a change in the Lopez Reservoir safe yield or an increase in Lopez Reservoir discharges for conservation purposes that threatens the ability of the Urban Parties to obtain their contractual allotments under their Lopez agreements, or a significant change in groundwater yields or quality, or a reduction in foreign water imported by any Urban Party. The Parties recognize that rainfall within the watershed is the most significant factor affecting the yield of Lopez Reservoir and the Basin.

c. The Parties shall revisit the issue of the allocation of groundwater resources within the Arroyo Grande Basin in 2010 and 2020 in the context of the review provided for in section 2 of this Agreement. The Parties shall make new allocations of groundwater resources at that time if circumstances justify it and if no harm will result to other groundwater users. Priority shall be given to reallocation of historical use of groundwater to Arroyo Grande and Pismo Beach that those agencies chose not to pursue in the entering into of the original Gentlemen's Agreement in 1983 should such new allocations be made.

d. A Party may opt out of this Agreement if significant changed circumstances arise as defined in this section. Such a party shall give all other parties to the agreement not less than six months written notice of its intention to opt out. The written notice shall describe in detail the significant changed circumstances upon which the Party bases its election to opt out of the Agreement.

4. Mediation Agreement: The Parties agree to mediate any disputes that arise out of the Parties' performance under this Agreement, or the interpretation of the terms of this Agreement, prior to instituting any litigation against or between any other Party to this Agreement. Should a Party institute litigation without first offering in good faith to mediate any such dispute, any Party may move for an order compelling mediation and staying the proceedings in the litigation until

after mediation has been completed. The prevailing party on a motion to compel mediation shall be entitled to recover its attorney's fees against any resisting party or any party who filed litigation without first making a good faith attempt to mediate the dispute. This mediation requirement shall not apply where the health and safety of any of the Parties, or any of the Parties' residents, is threatened and they must seek, and have obtained, preliminary relief for the purposes of preserving health and safety.

5. No Third Party Beneficiaries: The Parties are entering into this Agreement in order to reasonably allocate existing groundwater resources between themselves and not to benefit any third parties. This agreement shall only be enforceable between the Parties themselves. This Agreement does not create any right enforceable by any person or entity that is not a party to this Agreement.

6. General Provisions:

a. The Parties warrant that all necessary approvals and authorizations have been obtained to bind them to all terms of this Agreement, and further warrant that the persons signing have authority to sign on behalf of their respective Parties.

b. Written notice under this Agreement shall be given by placing such notice in the first class mail, postage prepaid, or by hand delivery to the current address of the office of any Party to this Agreement.

c. No amendment to this Agreement will be binding on any of the Parties unless it is in writing and signed by an authorized representative of all of the Parties.

d. This Agreement will be construed in accordance with, and governed by, the laws of the State of California as applied to contracts that are executed and performed entirely in California.

e. If any provision of this Agreement is held invalid or unenforceable by any final judgment, it is the intent of the Parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the Parties.

f. This Agreement may be executed simultaneously in one or more counterparts, each of which will be considered an original, but all of which together will constitute one and the same instrument.

g. The Parties represent that prior to the execution of this Agreement, they consulted independent legal counsel of their own selection regarding the substance of this Agreement.

WHEREFORE, the Parties publicly consent to the terms and conditions of this Agreement by executing the same as set forth below.

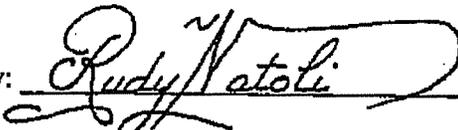
Dated: MAY 30, 2002.

City of Arroyo Grande

By: 
Print Name and Title: MICHAELA A. LADY, MAYOR

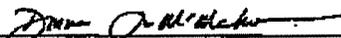
Dated: June 10, 2002.

City of Pismo Beach

By: 
Print Name and Title: MAYOR RUDY NATOLI

Dated: May 21, 2002.

City of Grover Beach

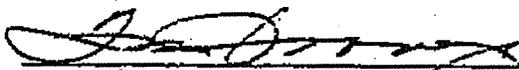
Attest: 
Donna L. McMahon
City Clerk

By: 
Print Name and Title: MAYOR

Dated: April 24, 2002.

Oceano Community Services District

Attest:


Francis M. Cooney, Board Secretary

By: 
Print Name and Title: Board President

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**EXHIBIT C – NORTHERN LANDOWNER SIGNATURE PAGE FOR
SETTLEMENT AGREEMENT**

1. I am the owner and/or lessor (*circle one or both*) of at least ten acres of agricultural land in the Northern Cities Area (the area so designated on Exhibit A to this Settlement Agreement).

2. Describe the parcel(s) of agricultural land that you own or lease:

- (a) Address(es): _____
- (b) Assessor's Parcel Number(s): _____
- (c) Number of acres of agricultural land that you own or lease: _____
- (d) Approximate number of acre-feet of water pumped annually: _____

3. I have read this Settlement Agreement. I have obtained such legal advice or other counsel regarding its terms as I deem appropriate. I understand and agree to its terms.

Dated: _____, 2002

Print Name of Owner/Lessor: _____

Title of Signer: _____

Signature: _____ *Signature Page Filed with Court*

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**EXHIBIT D – SIGNATURE PAGE FOR OTHER PARTIES – WATER PURVEYORS
AND LANDOWNERS OUTSIDE NORTHERN CITIES AREA**

1. I am a party to the Santa Maria Groundwater Litigation, or the legal representative of such a party.

2. I have read this Settlement Agreement. I have obtained such legal advice or other counsel regarding its terms as I deem appropriate. I understand and agree to its terms.

Dated: _____, 2002

Print Name of Party(ies): _____

Title of Signer: _____

Signature: Signature Page Filed with Court

Appendix B. Management Agreement

B. Management Agreement, City of Arroyo Grande, Pismo Beach, Grover Beach, 2002

AGREEMENT REGARDING
MANAGEMENT OF THE
ARROYO GRANDE GROUNDWATER BASIN

A. Parties

This Agreement is entered into among the Cities of Arroyo Grande, Pismo Beach, Grover Beach and the Oceano Community Services District (collectively referred to hereinafter as "Parties" or "Urban Parties").

B. Recitals

WHEREAS, in January 1983, a Technical Advisory Committee consisting of representatives of Arroyo Grande, Grover City, Pismo Beach, Oceano Community Services District, Port San Luis Harbor District, the Farm Bureau, Avila Beach County Water District and the County of San Luis Obispo ("Committee") determined in reliance on the 1979 Report of the Department of Water Resources entitled Ground Water in the Arroyo Grande Area that the safe yield of the Arroyo Grande Groundwater Basin ("Basin") is 9,500 acre feet per year;

WHEREAS, in or about February 1983, the Parties agreed to enter into a voluntary groundwater management plan to provide for effective management of groundwater resources in the Basin through which each party was given sufficient water to meet its needs as then projected; such needs being met in part by the City of Arroyo Grande foregoing 358 acre feet per year of its historical use and the City of Pismo Beach foregoing 20 acre feet per year of its historical use;

WHEREAS, this management plan provided a reasonable division of the safe yield of the Basin without court imposed groundwater basin adjudication;

WHEREAS, on February 9, 1983, the terms of the management plan were incorporated into Resolution No. 83-1 of the South San Luis Obispo County Water Association Approving the Recommendations of the Committee relating to the Basin (the "Resolution");

WHEREAS, each of the Parties have adopted individual resolutions endorsing the provisions of the Resolution;

WHEREAS, the Parties have generally complied with the terms and conditions of the Resolution; and

WHEREAS, general compliance with the Resolution has proven to be a fair and efficient means of managing and protecting groundwater resources in the Basin as confirmed by the revised final draft report prepared by the Department of Water Resources entitled, Water Resources of Arroyo Grande and Nipomo Mesa, January 2000.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. Division of Safe Yield.

a. The Parties agree to a division of the safe yield of the Basin as follows:

Applied Irrigation 5,300 acre feet

Subsurface flow to ocean 200 acre feet

Urban Use:

City of Arroyo Grande 1,202 acre feet

City of Grover Beach 1,198 acre feet

City of Pismo Beach 700 acre feet

Oceano Community Services District 900 acre feet

b. Any increase or decrease in the safe yield of the Basin attributable to changed operation of the Lopez Reservoir, or any other cause, shall first be divided between the Urban Parties and applied irrigation on a pro rata basis using the formula from the 1983 Gentlemen's Agreement, fifty-seven percent (57%) to applied irrigation and forty-three percent (43%) to the Urban Parties. Thereafter, the first 378 acre feet per year of any increase of safe yield allocated to the Urban Parties shall be divided between the City of Arroyo Grande and the City of Pismo Beach on a pro rata basis (95% to Arroyo Grande and 5% to Pismo Beach).

c. The entitlements of each respective Urban Party may be increased based upon the conversion of irrigated agricultural lands to urban use. An Urban Party to this Agreement may increase its entitlement for urban use by a factor of three (3) acre feet per acre per year minus the calculated urban usage per acre per year upon the conversion of irrigated agricultural land to urban usage. "Irrigated agricultural land" shall be that land within the corporate limits of the party that was identified as irrigated agricultural land in the 1979 Department of Water Resources Report entitled Ground Water in the Arroyo Grande Area. This agricultural conversion factor may be applied to all acreage converted to urban use from January 1, 1983, throughout the life of this Agreement. Such an agricultural conversion factor is in the best interests of the overall Basin in that it will not result in any decline in the groundwater service over time. The Parties agree that no water should be converted to urban use within the Basin without establishing that it was irrigated agricultural land as defined in the 1979 Department of Water Resources Report, Groundwater in the Arroyo Grande Area.

d. The Parties agree and understand that the safe yield figures utilized in this Agreement are a product of the 1979 Department of Water Resources Report regarding the Arroyo Grande Basin as adjusted by the 1983 ad hoc Technical Advisory Committee and that the division of the resources is based upon the historical use of each party and a practical accommodation of each Party's needs as they existed at the time of the adoption of the 1983

agreement. It is agreed that the Parties will meet and confer on issues related to safe yield and division of existing water resources upon the final adoption of the new Arroyo Grande Basin study performed by the Department of Water Resources, which is currently in draft.

2. Shared Information and Monitoring: The Urban Parties to this Agreement shall freely share information with each other regarding each of their respective uses of groundwater in the Basin, including all pumping data such as amounts of water extracted, well static water levels, and water quality. The Urban Parties to this Agreement shall meet on a quarterly basis to share this information and to discuss water usage and impacts upon the Basin. The Parties shall conduct a review of water usage and the impacts on Basin hydrology in 2010 and 2020.

3. Term:

a. This Agreement shall bind the Parties indefinitely absent a significant change of circumstances as to available water, water quality, or hydrogeology of the Arroyo Grande Basin. A significant change of circumstances shall allow any Party to opt out of this Agreement if the significant change of circumstances put that Party at risk of not being able to meet its potable water needs.

b. Significant changed circumstances shall include changes within the Basin or outside of the Basin, including but not restricted to, a change in the Lopez Reservoir safe yield or an increase in Lopez Reservoir discharges for conservation purposes that threatens the ability of the Urban Parties to obtain their contractual allotments under their Lopez agreements, or a significant change in groundwater yields or quality, or a reduction in foreign water imported by any Urban Party. The Parties recognize that rainfall within the watershed is the most significant factor affecting the yield of Lopez Reservoir and the Basin.

c. The Parties shall revisit the issue of the allocation of groundwater resources within the Arroyo Grande Basin in 2010 and 2020 in the context of the review provided for in section 2 of this Agreement. The Parties shall make new allocations of groundwater resources at that time if circumstances justify it and if no harm will result to other groundwater users. Priority shall be given to reallocation of historical use of groundwater to Arroyo Grande and Pismo Beach that those agencies chose not to pursue in the entering into of the original Gentlemen's Agreement in 1983 should such new allocations be made.

d. A Party may opt out of this Agreement if significant changed circumstances arise as defined in this section. Such a party shall give all other parties to the agreement not less than six months written notice of its intention to opt out. The written notice shall describe in detail the significant changed circumstances upon which the Party bases its election to opt out of the Agreement.

4. Mediation Agreement: The Parties agree to mediate any disputes that arise out of the Parties' performance under this Agreement, or the interpretation of the terms of this Agreement, prior to instituting any litigation against or between any other Party to this Agreement. Should a Party institute litigation without first offering in good faith to mediate any such dispute, any Party may move for an order compelling mediation and staying the proceedings in the litigation until

after mediation has been completed. The prevailing party on a motion to compel mediation shall be entitled to recover its attorney's fees against any resisting party or any party who filed litigation without first making a good faith attempt to mediate the dispute. This mediation requirement shall not apply where the health and safety of any of the Parties, or any of the Parties' residents, is threatened and they must seek, and have obtained, preliminary relief for the purposes of preserving health and safety.

5. No Third Party Beneficiaries: The Parties are entering into this Agreement in order to reasonably allocate existing groundwater resources between themselves and not to benefit any third parties. This agreement shall only be enforceable between the Parties themselves. This Agreement does not create any right enforceable by any person or entity that is not a party to this Agreement.

6. General Provisions:

a. The Parties warrant that all necessary approvals and authorizations have been obtained to bind them to all terms of this Agreement, and further warrant that the persons signing have authority to sign on behalf of their respective Parties.

b. Written notice under this Agreement shall be given by placing such notice in the first class mail, postage prepaid, or by hand delivery to the current address of the office of any Party to this Agreement.

c. No amendment to this Agreement will be binding on any of the Parties unless it is in writing and signed by an authorized representative of all of the Parties.

d. This Agreement will be construed in accordance with, and governed by, the laws of the State of California as applied to contracts that are executed and performed entirely in California.

e. If any provision of this Agreement is held invalid or unenforceable by any final judgment, it is the intent of the Parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the Parties.

f. This Agreement may be executed simultaneously in one or more counterparts, each of which will be considered an original, but all of which together will constitute one and the same instrument.

g. The Parties represent that prior to the execution of this Agreement, they consulted independent legal counsel of their own selection regarding the substance of this Agreement.

WHEREFORE, the Parties publicly consent to the terms and conditions of this Agreement by executing the same as set forth below.

Dated: MAY 30, 2002.

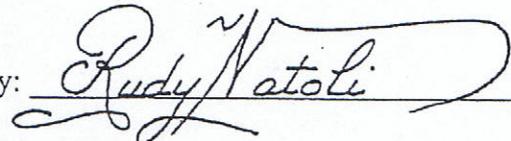
City of Arroyo Grande

By: 

Print Name and Title: MICHAEL A. LADY, MAYOR

Dated: June 10, 2002.

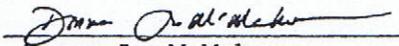
City of Pismo Beach

By: 

Print Name and Title: MAYOR RUDY NATOLI

Dated: May 21, 2002.

City of Grover Beach

Attest: 
Donna L. McMahon
City Clerk

By: 

Print Name and Title: MAYOR

Dated: April 24, 2002.

Oceano Community Services District

Attest:

By: 

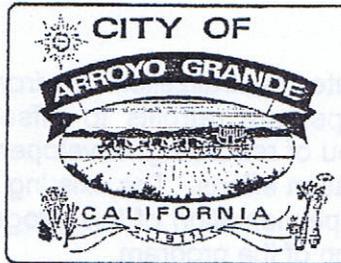
Print Name and Title: Board President


Francis M. Cooney, Board Secretary

Appendix C. Water Conservation Program

C. City of Arroyo Grande, Municipal Code Chapter 13.05, Water Conservation Program, Adopted May 13, 2003, Amended 2005

City of Arroyo Grande



Water Conservation Program

Adopted May 13, 2003

Purpose

Currently, Section V of Arroyo Grande's Urban Water Management Plan includes 16 Best Management Practices (BMPs) identifying measures currently in place for overall water conservation. The intent of the Water Conservation Program is to supplement the BMPs already provided by the City and further reduce the per capita water usage.

Goals

To continue to meet water supply needs up to the City's General Plan build-out requirements, the long-term goal of the program is to reduce per capita water use. The intent is to establish a program that will meet this goal via voluntary conservation measures.

Discussion

The City currently has a water conservation program in place. The program is divided into two phases, the first focusing on building retrofitting and the latter focusing on irrigation efficiency. Phasing the program in this order will result in the following benefits:

- Replacement of plumbing fixtures provides highly reliable water savings and does not require behavioral changes on behalf of the customer.
- Plumbing fixture replacement is relatively inexpensive in comparison to replacement of landscaping or irrigation systems.
- Ability to monitor the effectiveness of each measure independently of one another.

As previously discussed, the City's water conservation program has been successful. In June 1997, the measure resulted in the retrofit of 600 units to provide water neutralization for the Five Oaks Town Center commercial development. Unit values were determined based on a percentage of water use as compared to a single-family residential toilet. For example, replacement of one residential toilet may equal eight units because of higher frequency of use. Because the unit value system has promoted developers to focus retrofits on commercial buildings, most commercial customers already have water efficient plumbing fixtures. Therefore, this retrofit program will focus on single family residential customers.

Purpose

Currently, Section V of Arroyo Grande's Urban Water Management Plan includes 16 Best Management Practices (BMPs) identifying measures currently in place for overall water conservation. The intent of this Water Conservation Program is to supplement the BMPs already practiced by the City in an effort to further reduce the per capita water usage.

Goals

To continue to meet water supply needs up to the City's General Plan buildout requirements, the long-term goal of the program is to reduce per capita water use. The intent is to establish a program that will meet this goal via voluntary conservation measures.

Discussion

The City currently has a "water neutralization" environmental mitigation measure that may require developers to perform retrofits to offset water use anticipated by the proposed development. In lieu of retrofitting, developers can provide funding to the City to be used for water conservation efforts. The existing funds provided by this mitigation measure will allow for the implementation of this program. Future funds collected will allow for long-term continuation of the program.

The program is divided into two phases, the first focusing on building retrofitting and the latter focusing on irrigation efficiency. Phasing the program in this order will result in the following benefits:

- Because the estimated plumbing retrofit effort can be quantified, partial completion of Phase I will trigger the commencement of Phase II
- Replacement of plumbing fixtures provides highly reliable water savings and does not require behavioral changes on behalf of the customer
- Plumbing fixture replacement is relatively inexpensive in comparison to replacement of landscaping or irrigation systems
- Ability to monitor the effectiveness of each measure independently of one another.

As previously discussed, the City's water neutralization environmental mitigation measure has contributed to the plumbing retrofit effort in the City. In June 1997, the measure resulted in the retrofit of 900 units to provide water neutralization for the Five Cities Town Center commercial development. Unit values were determined based on a percentage of water use as compared to a single-family residential toilet. For example, replacement of one restaurant toilet may equal eight units because of higher frequency of use. Because this unit value system has promoted developers to focus retrofits on commercial buildings, most commercial customers already have water efficient plumbing fixtures. Therefore, this retrofit program will focus on single family residential customers.

Concurrent with Phase I, the City will prepare a water shortage contingency analysis consistent with the requirements of State Water Code Section 10632. Specifically, to comply with the Water Code, the analysis must incorporate the following items:

- (a) *Stages of action to be undertaken by the City 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.*
- (b) *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.*
- (c) *Actions to be undertaken by the City 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.*
- (d) *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.*
- (e) *Consumption reduction methods in the most restrictive stages. The City may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for the area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.*
- (f) *Penalties or charges for excessive use, where applicable.*
- (g) *An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), 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.*
- (h) *A draft water shortage contingency resolution or ordinance.*
- (i) *A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.*

Elements (b) and (d) above are currently addressed by the Urban Water Management Plan. The proposed amendments to the Municipal will address elements (a), (e), (f), and (h). Elements (c), (g), and (i) will be addressed through studies performed during Phase I.

Although it is much more difficult to estimate possible water savings from irrigation efficiency measures, it remains a critical element that must be addressed in the City's Water Conservation Program. As discussed in the Urban Water Management Plan, residential use accounts for 80% of the City's total water consumption. Based on the portion of this water that later enters the wastewater system, the City estimates that approximately 60% of the residential water use is for landscaping purposes.

Because of the variety of irrigation systems available and problems that can be present within a system, wide-scale administration of irrigation improvements would require resources currently unavailable to the City. To address this critical component of water use with resources available, the City will focus on providing the public with general information and education while directing specific efforts at the highest water users.

Program Components

Although the water conservation effort will primarily revolve around the phases previously mentioned, concurrent processes will occur to evaluate the effectiveness of the program and address all elements of State Water Code Section 10632. Additionally, the City will continually research methods employed by other water suppliers to maintain a successful water conservation program. Some of these methods have been included as optional measures in this program and may be incorporated at any time at the request of City Council. If deemed appropriate, additional conservation measures will be recommended and implemented by resolution. This program classifies current measures as follows:

Main Components

- Plumbing Retrofit
- Water Shortage Contingency Analysis
- Public Information and Education
- Information System Assessment for Top Water Users
- Enforcement of City's Water Conservation Codes

Optional Components

- Washing Machine Rebates
- Informational Materials

Alternative Components

- Irrigation System or Landscaping Rebates
- Retrofit Cemetery with Non-Potable Water

The steps required to implement each of the current proposed and optional water conservation components are detailed in this section.

Main Components

Phase I

Plumbing Retrofit:

- The City will issue a Notice Inviting Bids from qualified plumbers for an ongoing contract consisting of materials and installation of the following plumbing fixtures: 1.6 gallon ultra-low-flow toilets, 2.0 gallon per minute (gpm) indoor faucet aerators, 2.5 gpm showerheads. The contract will also include checking and adjusting or installing pressure regulators in homes with water pressure of 80 pounds per square inch (psi) or greater. The bid invitation will request a unit price per type of fixture installed. The unit price will include materials and labor as well as proper disposal of replaced fixtures. The City has obtained cost

estimates for the retrofit fixtures to be used as a basis of comparison for bids received.

- Based on the California State Plumbing Code requirement that all houses built since 1985 have water efficient plumbing fixtures, the City has estimated the location and number of houses that will be targeted for the retrofit program. Mailers will be sent to these locations in phases with each mailing targeting approximately 300 to 500 homes. Mailings will occur in intervals appropriate for maintaining an adequate, not excessive, log of homes to be retrofit. The mailer will inform water customers of the retrofit program and provide contact information for requesting a retrofit. The City will maintain records of how many houses targeted with each mailing have been retrofitted and how many are scheduled for retrofits. When 90 percent of the targeted homes in the current mailing have been retrofitted, or an insufficient log of homes awaiting retrofit exists, another group of homes will be targeted. Once each of the target areas has received mailers and the majority of the retrofits have been performed, a final mailing will be sent to all homes estimated to need retrofits that did not respond to initial mailings.
- Retrofit requests will be directed to the City's Corporation Yard. The request will then be faxed to the plumber awarded the contract who will be responsible for scheduling an appointment with the customer to perform the retrofit. Should a requesting customer's home be equipped with low flow fixtures comparable to those being provided, no retrofit will be performed.
- Upon completion of a retrofit, the plumber will notify the City Corporation Yard via a faxed or mailed notice of such work signed by the plumber and the homeowner. The Code Enforcement Officer will then randomly verify that such work has been completed. On average, approximately ten-percent of the retrofits performed will be verified by the City. Forms to be used for notices of completed work should be in a format agreed upon by the plumber and the City.
- Format and frequency of invoicing should be agreed upon by the City and the plumber prior to commencement of work.

Water Shortage Contingency Analysis:

To address the requirements of State Water Code Section 10632, the City will perform a fiscal analysis to identify the impacts of a water shortage up to a 50% reduction in water supply. The analysis will also identify solutions to such a shortage. City staff will direct appropriate personnel to carry out such analysis. The City expects to complete the analysis within the 2003 calendar year. The analysis will be formally incorporated into the City's 2005 Urban Water Management Plan update.

Phase II

It is anticipated that Phase II will begin three years after the implementation of the plumbing retrofit program.

Public Information and Education:

This measure will consist primarily of direct mailings to areas within the City requiring the greatest amount of landscape maintenance. Because of the larger lots prevalent on the east side of the City, the mailing effort will be focused in that area. However, mailings will incorporate certain western neighborhoods in less densely populated areas and eliminate eastern neighborhoods where irrigation is minimal.

Mailing materials may include lawn watering guides, troubleshooting handbooks, water efficient landscaping brochures, and general water saving tips. In addition to direct mailing, these materials may also be available to the public at the City Public Works Department. Information may also be published in the City's Stagecoach Express newsletter and on the City's website. Based on experiences of other local Cities, mailings sent with regular water billings have been least effective. Therefore, any mailings should be independent of water billings unless such measures are cost prohibitive.

Irrigation System Assessment for Top Water Users:

By querying data contained in the City's water billing program, the top water users can be identified. With this information, the City can direct technical assistance efforts at reducing water use among that particular group. Assistance may include mailing suggestions on improving irrigation efficiency or direct contact with Public Works staff. Direct contact with Public Works staff would require proper training of staff on issues relating to irrigation efficiency. If deemed a cost-effective method of achieving the City's water conservation goal, the City may request assistance of landscape maintenance professionals to supplement in advising top water users on possible irrigation improvements. The percentage of top water users targeted would depend on funding available and the effort required to water use among these customers.

Enforcement of City's Water Conservation Codes:

With the addition of a specific Water Conservation Chapter to the City's Municipal Code, City Staff will be able to easily identify any water conservation violations. Staff will actively issue warnings for water conservation violations and impose appropriate penalties where necessary. Warnings will consist of door knob hung notifications informing the occupant of the Municipal Code and the nature of the violation. Record of such notifications, including violation type, date of violation, and address of violation will be maintained by the City, which will allow for the identification and penalization of repeat violators.

Optional Components**Washing Machine Rebates:**

LightWash is a program funded by the California Public Utilities Commission (CPUC) and participating water agencies (administered by Energy Solutions), that offers rebates for the replacement of washing machines in common use areas including laundromats and multi-family residential laundry facilities. Energy Solutions provides marketing, rebate application and review processing, payment processing, quality control and site inspection services free of charge to the City. The City's involvement in the program

consists of providing a portion of the rebate amount to be combined with a rebate contribution provided by the CPUC. The CPUC contributes \$100 towards rebates on multi-family residential laundry facility washing machines and \$150 towards rebates on laundromat washing machines.

Implementation of the LightWash program involves the following steps:

- City will enter into a Memorandum of Understanding (MOU) with Energy Solutions.
- City will deposit funds with Energy Solution equaling the amount of expected rebates.

Informational Materials:

Although informational materials were discussed as a component of Phase II, they may be incorporated at any stage of the program. In addition to printed materials listed in the Public Information and Education section of this program, the City may provide information to the public through the City web site, public service announcements, and paid advertising.

Alternative Components

Irrigation System or Landscaping Rebates:

The City may issue rebates for irrigation system improvements or landscape modifications such as replacement of sprinkler irrigation with drip irrigation, installation of rain or moisture sensors, or planting water efficient landscaping. Because of the diverse nature of irrigation systems and water efficient landscaping, such a rebate program would involve an extensive effort in determining allowable rebates and administering the rebate program. The effort required to implement such a measure exceeds current available resources.

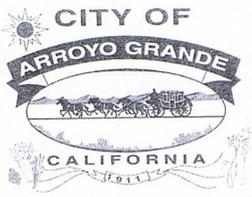
Retrofit Cemetery with Non-Potable Water:

As identified in BMP 5 of the Urban Water Management Plan, the Arroyo Grande District Cemetery is the largest irrigation water user in the City at 42 acre-feet per year 2002. Providing the cemetery with non-potable water from the Soto Sports Complex has been considered as a possible water conservation measure. Implementation of this component would require labor and materials associated with installing 3,200 linear feet of eight-inch piping along Halcyon Road. At an estimated project cost of \$275,000, such a measure would greatly reduce neutralization funds available for the implementation of other measures.

Success Measurement

Since the program will be implemented in two, nearly consecutive phases, reduction in water use will be easily attributable to a specific measure. Prior to implementation of Phase II, the City will assess per capita water use relative to the overall goal and in comparison to historical data. Depending on the success resulting from Phase I, the City will determine if additional measures should be employed during Phase II.

Appendix D. Agency Notification and Coordination



CITY OF
ARROYO GRANDE
CALIFORNIA

July 20, 2011

Paavo Ogren
County of San Luis Obispo Director of Public Works
1050 Monterey Street
Room 207
San Luis Obispo, CA 93408

Subject: City of Arroyo Grande 2010 Urban Water Management Plan Update

Mr. Ogren,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The Act requires the City to notify cities and counties within its service area that it is preparing its 2010 UWMP 60 days prior to holding a public hearing thereby encouraging public involvement and agency coordination. The City will notify you of the specific date, time, and location of this public hearing when finalized.

This letter serves as your official notice of preparation and intent to adopt the UWMP. A draft of the UWMP will be available for review in late September 2011. Until that time, if you have any questions or comments regarding the City of Arroyo Grande 2010 UWMP Update please contact Water Systems Consulting, Inc., the consultant responsible for the preparation of the UWMP at:

Spencer Waterman
Staff Planner
Water Systems Consulting, Inc.
3765 South Higuera St. Suite 102
San Luis Obispo California 93401
(805) 457-8833 ext. 102
(408) 705-3213
Swaterman@wsc-inc.com

Sincerely,

Teresa McClish, AICP
Community Development Director

cc: City Manager
Assistant City Engineer
Greg Ray, Director Public Works, City of Grover Beach
Dwayne Chisam, Director Public Works, City of Pismo Beach
Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

Avila Beach CSD
Mr. John Wallace
191 San Miguel
Avila Beach CA 93424

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Wallace,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

This letter serves as your official notice of preparation and intent to adopt the UWMP. A draft of the UWMP is available for review at Arroyo Grande City Hall located at 300 East Branch Street, Arroyo Grande, CA 93420 between the hours of 9:00 a.m. and 5:00 p.m. Monday through Friday and on the City's website at www.arroyogrande.org. *However, please note that due to the holidays and City mandated furloughs, City Hall will be closed from Friday, December 23rd through Monday, January 2nd.*

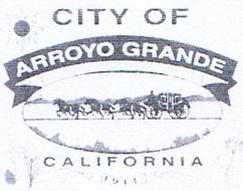
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Spencer Waterman
Staff Planner
Water Systems Consulting, Inc.
3765 South Higuera St. Suite 102
San Luis Obispo California 93401
(805) 457-8833 ext. 102
(408) 705-3213
Swaterman@wsc-inc.com

Sincerely,

Teresa McClish
Community Development Director

cc: ✓ Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

Avila Valley Mutual Water Co.
Manager
233 Granada Drive Suite D
San Luis Obispo CA 93401-7342

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Sir or Madam,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

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If you have any questions or comments regarding the City of Arroyo Grande 2010 UWMP Update, please contact Water Systems Consulting, Inc., the consultant responsible for the preparation of the UWMP at:

Spencer Waterman
Staff Planner
Water Systems Consulting, Inc.
3765 South Higuera St. Suite 102
San Luis Obispo California 93401
(805) 457-8833 ext. 102
(408) 705-3213
Swaterman@wsc-inc.com

Sincerely,

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

City of Grover Beach
Mr. Greg Ray
154 S. 8th Street
Grover Beach CA 93433

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Ray,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

This letter serves as your official notice of preparation and intent to adopt the UWMP. A draft of the UWMP is available for review at Arroyo Grande City Hall located at 300 East Branch Street, Arroyo Grande, CA 93420 between the hours of 9:00 a.m. and 5:00 p.m. Monday through Friday and on the City's website at www.arroyogrande.org. *However, please note that due to the holidays and City mandated furloughs, City Hall will be closed from Friday, December 23rd through Monday, January 2nd.*

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Spencer Waterman
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3765 South Higuera St. Suite 102
San Luis Obispo California 93401
(805) 457-8833 ext. 102
(408) 705-3213
Swaterman@wsc-inc.com

Sincerely,

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

City of Pismo Beach
Mr. Dwayne Chiasm
760 Mattie Road
Pismo Beach CA 93449

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Chiasm,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

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Spencer Waterman
Staff Planner
Water Systems Consulting, Inc.
3765 South Higuera St. Suite 102
San Luis Obispo California 93401
(805) 457-8833 ext. 102
(408) 705-3213
Swaterman@wsc-inc.com

Sincerely,

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

City of Santa Maria
Mr. Richard Sweet
110 S. Pine Street
Santa Maria CA 93458

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Sweet,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

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Spencer Waterman
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3765 South Higuera St. Suite 102
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Swaterman@wsc-inc.com

Sincerely,

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

County of San Luis Obispo
Mr. Paavo Ogren
1050 Monterey St, Rm 207
San Luis Obispo CA 93408

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Ogren,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

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Swaterman@wsc-inc.com

Sincerely,


Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

County Service Area 12
Mr. Paavo Ogren
1050 Monterey Street Rm 207
San Luis Obispo CA 93408

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Ogren,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

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If you have any questions or comments regarding the City of Arroyo Grande 2010 UWMP Update, please contact Water Systems Consulting, Inc., the consultant responsible for the preparation of the UWMP at:

Spencer Waterman
Staff Planner
Water Systems Consulting, Inc.
3765 South Higuera St. Suite 102
San Luis Obispo California 93401
(805) 457-8833 ext. 102
(408) 705-3213
Swaterman@wsc-inc.com

Sincerely,

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

Nipomo Mesa Management Are Techncial Group
Mr. Robert Miller
612 Clarion Court
San Luis Obispo CA 93401

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Miller,

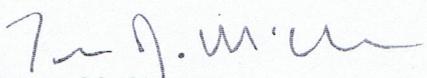
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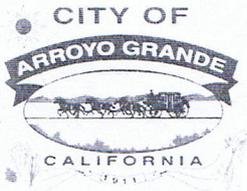
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Swaterman@wsc-inc.com

Sincerely,


Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

Northern Cities Mgmt Area
Mr. Jeff Szytel
3765 S. Higuera Street
San Luis Obispo CA 93401

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Szytel,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

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San Luis Obispo California 93401
(805) 457-8833 ext. 102
(408) 705-3213
Swaterman@wsc-inc.com

Sincerely,

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

Oceano CSD
Mr. Thomas Geaslan
1655 Front Street
Oceano CA 93445

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Geaslan,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

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Swaterman@wsc-inc.com

Sincerely,

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

Port San Luis Harbor District
Mr. Steve McGrath
PO Box 249, Pier #3
Avila Beach CA 93424

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. McGrath,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

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(805) 457-8833 ext. 102
(408) 705-3213
Swaterman@wsc-inc.com

Sincerely,

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

SLOCOG
Mr. Steve Devencenzi
1114 Marsh Street
San Luis Obispo CA 93401

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Devencenzi,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

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Swaterman@wsc-inc.com

Sincerely,

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

SLO County (Zone 3)
Mr. Jim Garing
141 S. Elm Street
Arroyo Grande CA 93420

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Garing,

The City of Arroyo Grande (City) is in the process of preparing its 2010 Urban Water Management Plan Update (UWMP) as required by the Urban Water Management Planning Act (Act). The City Council intends to consider adoption of the UWMP at its City Council Meeting on January 10, 2012. The meeting will be held at 7:00 P.M. at the City Council Chambers located at 215 East Branch Street, Arroyo Grande, CA 93420.

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Sincerely,

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011.

San Miguelito Mutual Water Co.
Manager
6680 Bay Laurel Place
Avila Beach CA 93424

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Sir or Madam, ^{Rick}

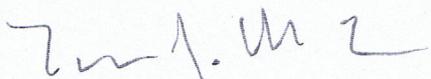
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Sincerely,


Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

Santa Maria Valley Water Conservation District
Manager
110 S. Lincoln Street
Santa Maria CA 93458

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Sir or Madam,

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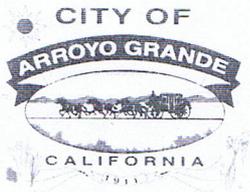
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San Luis Obispo California 93401
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(408) 705-3213
Swaterman@wsc-inc.com

Sincerely,

A handwritten signature in blue ink, appearing to read "Teresa McClish".

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

SSLOSCD
Mr. John Wallace
PO Box 339
Oceano CA 93475

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

Dear Mr. Wallace,

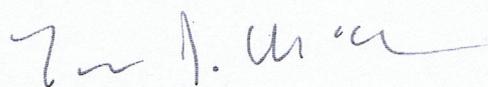
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Sincerely,



Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)



CITY OF
ARROYO GRANDE
CALIFORNIA

December 22, 2011

South County Library
Branch Librarian
800 W. Branch Street
Arroyo Grande CA 93420

SUBJECT: City of Arroyo Grande 2010 Urban Water Management Plan Update

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Sincerely,

Teresa McClish
Community Development Director

cc: Spencer Waterman (Water Systems Consulting, Inc.)

Appendix E. Per Capita Water Use Memo

Date: 1/10/2012

To: Thomas Korman, P.E.
City of Arroyo Grande
PO Box 550
1375 Ash Street
Arroyo Grande, CA 93421

Phone: (805) 473-5464

CC: Michael Linn; Teresa McClish; Shane Taylor

Prepared by: Spencer Waterman

Reviewed by: Joshua Reynolds, P.E., Jeffery Szytel, P.E.

Project: City of Arroyo Grande 2010 Urban Water Management Plan Update

SUBJECT: BASELINE DAILY PER CAPITA WATER USE AND TARGET WATER USE - DRAFT

This memorandum presents the procedure used by the City of Arroyo Grande (City) to meet the requirements of Senate Bill x 7-7 (SB7) as defined in the Water Conservation Act of 2009 and incorporated into Division 6 of the California Water Code, commencing with Section 10608 of Part 2.55.

Background

On November 10, 2009, Governor Arnold Schwarzenegger signed Senate Bill x 7-7 into law. The legislation requires all water suppliers to achieve a reduction in per capita water use of 20% by December 31, 2020, with an interim target of 10% reduction by December 31, 2015. The legislation requires each urban water supplier to develop, and include in its Urban Water Management Plans (UWMPs), estimates of: 1) *baseline* daily per capita water use; 2) daily per capita water use *target*; 3) daily per capita water use *interim target*; 4) *compliance* daily per capita water use; and 5) confirmation that the target meets the minimum water use reduction requirement. The UWMP must also include bases for determining the estimates, with references to supporting data. However, SB 7 did not include a detailed description of the allowable methodologies for determining the required values. Instead, it required California Department of Water Resources (DWR) to develop appropriate methodologies and criteria, and to make them available to water suppliers no later than October 1, 2010. In consideration of this delay, the bill extended the deadline for adoption of the 2010 UWMP to July 1, 2011.

In connection with preparation of the 2010 UWMP update, the City hired Water Systems Consulting, Inc. (WSC) to develop the required estimates described by SB 7. WSC applied methodologies consistent with those described in the *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* guidebook (Methodologies Guidebook). The procedure used to develop the required SB7 estimates includes the following basic steps:

1. Calculate baseline water use, which is the average gross daily water use per capita, reported in gallons per capita per day, based on gross water use and service area population for a continuous 10-year period ending no earlier than December 31, 2004.
2. Calculate the urban water use target using one of the four methods described below
3. Check and confirm targets using a selected five-year running average ending no earlier than December 31, 2007 and no later than December 31, 2010.
4. Calculate the interim urban water use target (equal to the average of the baseline and confirmed urban water use target)
5. Calculate the compliance daily per capita water use (equal to the gross daily water use per capita during the final year of the reporting period (i.e. 2010))

DWR allows the urban water supplier to choose one of four different methods to calculate the urban water use target in Step 2 above.

- Method 1 involves calculating the target based on 80% of baseline daily per capita water use and the interim target based on 90% of the baseline daily per capita water use.
- Method 2 involves calculating the per capita daily water use by using the sum of performance standards applied to indoor residential use, landscaped area water use, and commercial, industrial, and institutional uses.
- Method 3 calculates the water use target as 95% of the applicable state hydrologic region target as stated in the *20x2020 Water Conservation Plan*. The City's service area is located in the Central Coast hydrologic region number 3 as defined in the State's *20x2020 Water Conservation Plan*.
- Method 4 is an approach developed by DWR to estimate water savings factors associated with implementation of various conservation measures. The water savings factors are used to calculate water use targets. Appendix A and Appendix B show the input and calculation spreadsheets for Method 4.

Gross Water Use

SB 7 defines gross water use as:

"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."

Groundwater and surface water are the only sources of water for the City. From 1995 through present, the City has not stored any water long-term or sold any water to other agencies. Therefore, gross water use is calculated as the sum of the City's total surface water purchases and groundwater production.

Population

The first step in determining the service area population involves establishing the service area boundary and the customers served within that boundary. WSC worked with City Staff to establish the location of customer connections outside of City limits served by the City and connections within the City limits not served by the City. WSC then plotted these connections as points in a map using Geographical Information Systems (GIS) software. The points contain spatial data linked to a geodatabase with information about each connection. Figure 1 shows the connections located within City limits served by Oceano Community Services District (OCSD), connections located outside of City limits served by the City, and connections that will be served by the City in the future.

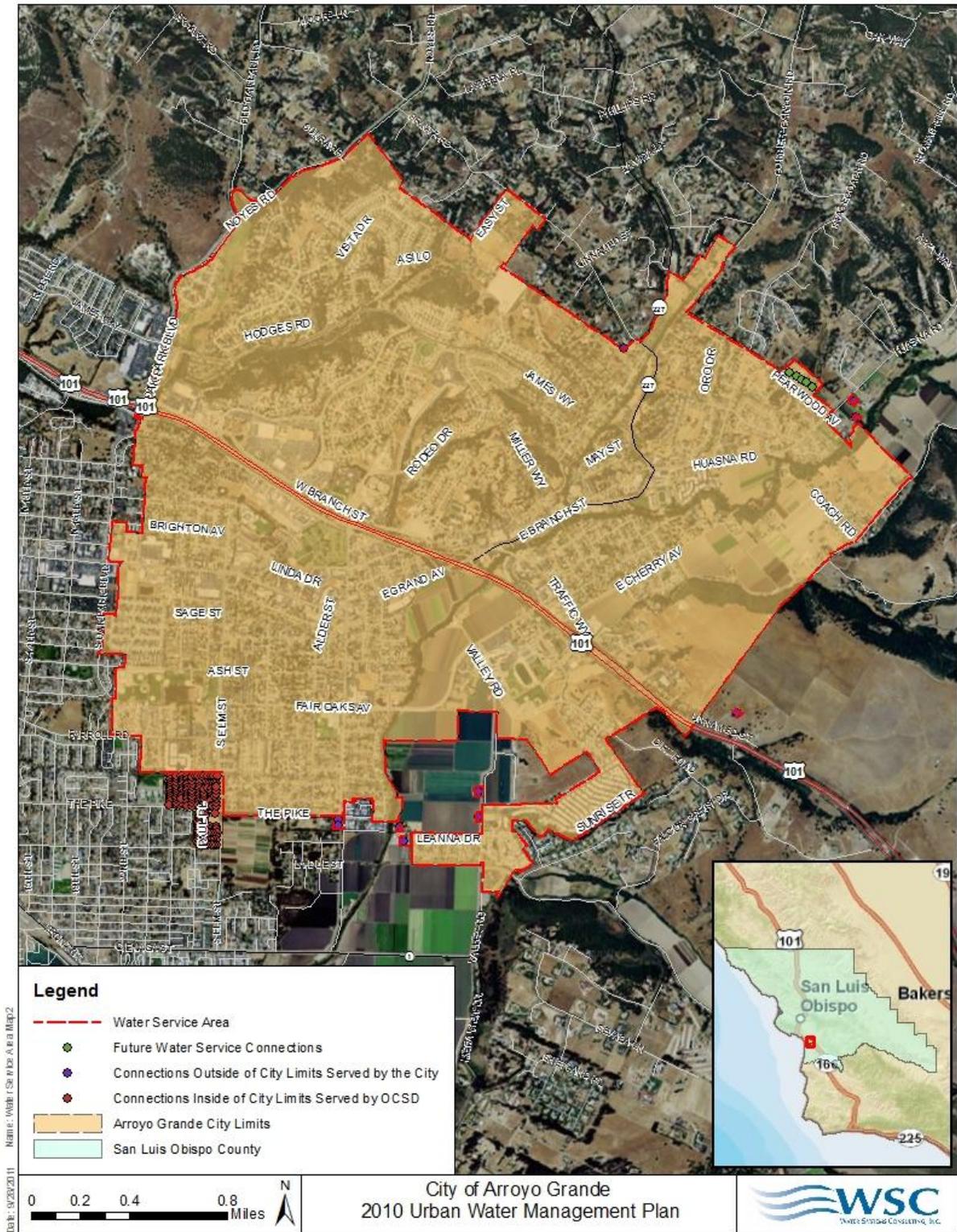


Figure 1. City of Arroyo Grande Water Service Area

To estimate the total population served by the City, WSC subtracted the population within City limits served by OCSD and added the population outside of City limits served by the City to the 2010 Census population.

Table 1. Water Service Area Population

Population Area	Source	2010 Connections	2010 Population
City Limits	Census	n/a	17,252
Inside City Limits Served by OCSD Water	City Staff & Land Use Element	137 ¹	329 ²
Inside City Limits Served by City Water	Calculation (City Limits Census Pop. minus Pop. Served by OCSD)	n/a	16,923
Outside City Limits Served by City Water	City Staff & Land Use Element	9 ¹	22 ²
Total Water Service Area	Calculation (Inside City Limits Pop. plus Outside City Limits Pop.)	n/a	16,945
¹ The connections were identified and provided by City Staff.			
² Assumes a persons per residential connection factor of 2.4.			

City Staff estimate the service area population each year for the Department of Water Resources Public Water System Statistics report (DWR reports). The methodology used by City staff to calculate service area population is very similar to the methodology WSC used to develop its 2010 population estimate. City Staff calculate the service area population by applying 2.4 persons per household to the number of residential connections served by OCSD in each year and subtracting that population from the City limits population. The population estimated in the 2010 DWR report is 16,901, a difference of 0.3% from WSC’s estimate of 16,945.

Historical Population

Since census data is not available for interim years between 2000 and 2010, historical population is assumed to be the same as the estimated service area population presented in the DWR reports for 1994-2010. Using the DWR report population estimates allows for consistency between documents and eliminates conflicting historical records of connection conditions for each year from 1994 through 2010. Figure 2 shows the historical population as reported in the DWR reports.

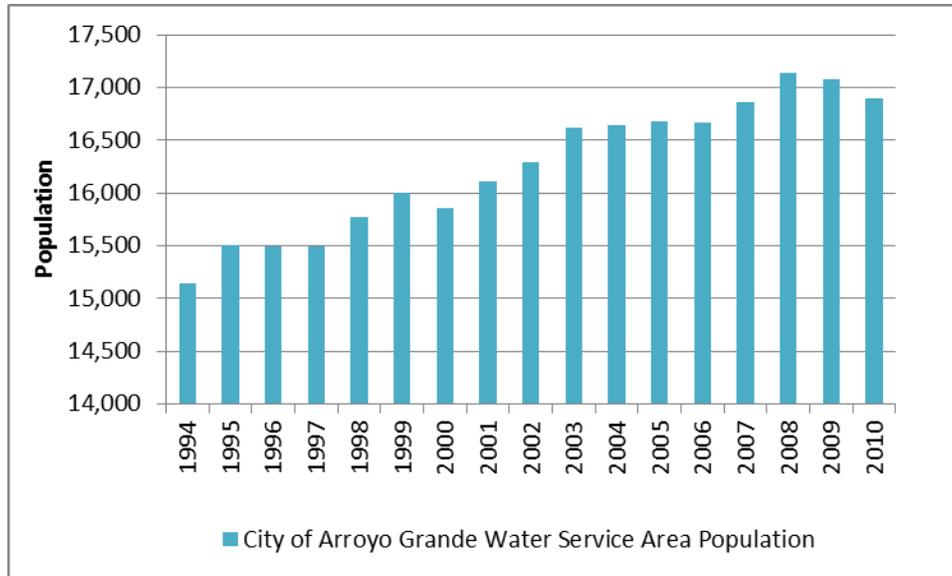


Figure 2. Historical Population

Projected Population

The San Luis Obispo Council of Governments (SLOCOG) develops population projections for San Luis Obispo County and the cities and communities within the County. SLOCOG projects the population for the City through 2040 in its *San Luis Obispo County 2040 Population, Housing & Employment Forecast* (1). The projections are based on a comprehensive study of historical population trends for California and the County, short-term and long-term population reports, economic conditions, and consultation with planners from the County. The report presents three growth scenarios: low, mid, and high. For the purposes of projecting population, WSC used the mid growth scenario population projections from SLOCOG’s report to develop annual growth rates through 2030. The annual growth rates are applied to the 2010 population to yield the projected populations shown in Table 2. The build-out population, defined as the maximum population that can occur considering the zoning and land use designations of the current General Plan, is established at 20,000 persons based on the City’s General Plan Housing Element.

Table 2. Service Area Population Projections

	2010	2015	2020	2025	2030
Population	16,901	17,553	17,943	18,552	19,077
Annual Growth Rate %	n/a	0.76%	0.44%	0.67%	0.56%

Baseline Per Capita Water Use

WSC calculated per capita water use using gross water use values and the population estimates shown in Table 3. The annual per capita water use value was averaged across 10-year periods ranging from 1995-2004 through 2001-2010. Figure 3 shows the historical population estimates, along with the annual per capita water use for the years 1995 through 2010

Table 3. Baseline Daily Per Capita Water Use

Calendar Year	Distribution System Population	Daily System Gross Water Use (mgd)	Annual Daily Per Capita Water Use (gpcd)	10 year running average (gpcd)
1995	15,500	2	151	
1996	15,495	2	161	
1997	15,495	3	178	
1998	15,776	2	157	
1999	16,007	3	177	
2000	15,851	3	191	
2001	16,115	3	183	
2002	16,294	3	192	
2003	16,623	3	189	
2004	16,637	3	193	177
2005	16,682	3	183	180
2006	16,669	3	178	182
2007	16,859	3	190	183
2008	17,136	3	183	186
2009	17,080	3	170	185
2010	16,901	3	156	182
Baseline Daily Per Capita Water Use				186

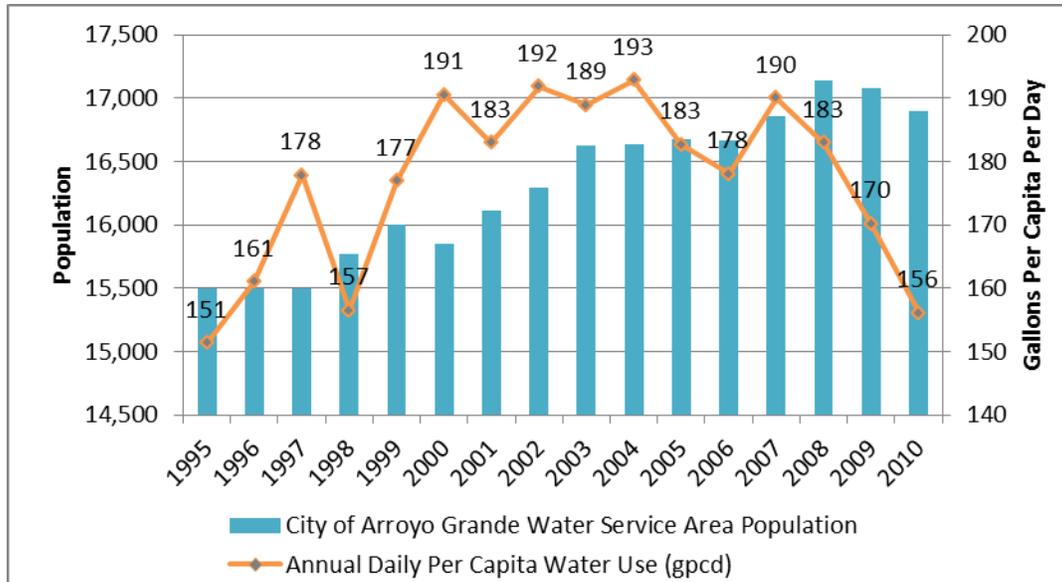


Figure 3. Population and Historical Per Capita Water Use

Water Use Targets

The baseline daily per capita water use is used to calculate the urban water use target and the interim urban water use target. The per capita water use target and interim target estimates are calculated using Method 1, Method 3, and Method 4 from the Methodologies Guidebook. Method 2 was not used due to a lack of available data. Table 4 shows the estimated daily per capita water use targets for each method analyzed.

Table 4. Daily Per Capita Water Use Targets

Calculation Method	Water Use Target (gpcd)
Method 1: 80% of Baseline Per Capita Water Use	149
Method 2: Performance Standards	Not calculated
Method 3: 95% of Regional Target	117
Method 4: DWR Approach	148
Selected Urban Water Use Target	149

Minimum Water Use Reduction Requirements

The selected target must be less than 95% of a selected five-year running average ending no earlier than December 31, 2007 and ending no later than December 31, 2010 per the requirements of California Water Code Section 10608.22. Table 5 shows the minimum water use reduction based on five-year running averages. Table

6 shows the confirmation that the selected target meets the minimum water use reduction. Table 7 shows the final baseline, compliance, interim target, and target per capita water use. Table 8 shows the status of meeting the interim target and target based on current compliance per capita water use. Figure 4 shows the past, current and projected per capita water use for the Los Angeles County District.

The projected gpcd for interim years between 2010 and 2015 was calculated uniquely. It is assumed that the low gpcd experienced in 2010 is a result of multiple temporary factors, such as the economy, wet year hydrologic conditions, and others. To account for this artificially low gpcd it is assumed that the 2011 gpcd will be equal to the five-year historical average gpcd from 2006-2010. The interim years between 2011 and 2015 were calculated through linear interpolation between the five-year historical average gpcd and the interim target water use. Lastly, the interim years between 2015 and 2020 were calculated through linear interpolation between the interim target water use and target water use. The values shown will be reported in the City’s 2010 UWMP.

Table 5. Minimum Water Use Reduction

Calendar Year	Distribution System Population	Daily System Gross Water Use (mgd)	Annual Daily Per Capita Water Use (gpcd)	5 year running average
2003	16,623	3	189	
2004	16,637	3	193	
2005	16,682	3	183	
2006	16,669	3	178	
2007	16,859	3	190	187
2008	17,136	3	183	185
2009	17,080	3	170	181
2010	16,901	3	156	175
5-yr Baseline Daily Per Capita Water Use				187

Table 6. Target Confirmation

Selected Urban Water Use Target (gpcd)	149
95% of 5-year Base Daily Per Capita Water Use (gpcd)	177
Selected Urban Water Use Target < 95% of 5-year Base GPCD	Yes
Confirmed Urban Water Use Target, 2020 (gpcd)	149

Table 7. Baseline, Compliance, Interim Target, and Target Water Use

Parameter	Water Use (gpcd)
Baseline Daily Per Capita Water Use	186
2010 Daily Per Capita Water Use	156
2015 Interim Urban Water Use Target	167
2020 Urban Water Use Target	149

Table 8. Water Use Reduction Status

Water Use Reduction (on gpcd basis)	% Reduction ¹
Achieved by 2010	16.0%
Needed to meet 2015 target	-6.0%
Needed to meet 2020 target	4.0%

¹ A negative % means the compliance is currently lower than the target.

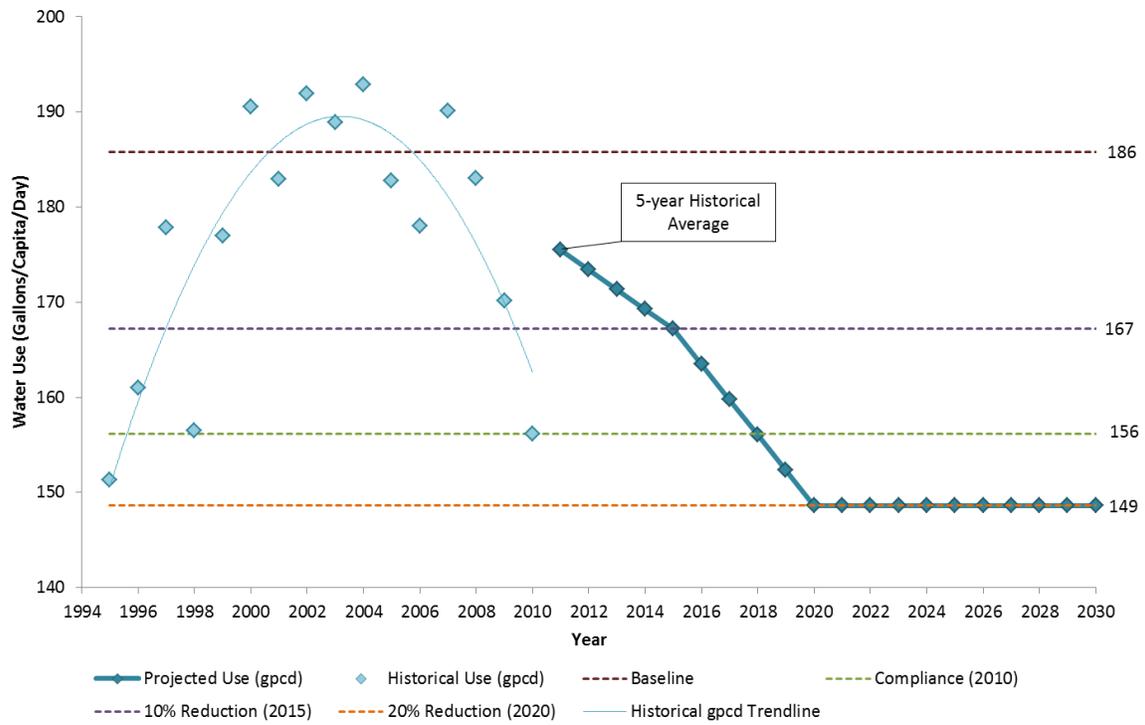


Figure 4. Historical, Current, and Project Per Capita Water Use

Appendix A. User Input- Method 4

User Input -- Provisional Method 4 Target	
Target Calculation Option (select one): *	<input type="text" value="Calculate Targets Using Default Indoor Residential Savings"/> * = Required Data
Water Supplier Name: *	<input type="text" value="City of Arroyo Grande"/>
10-15 Year Baseline Water Use Information	
Baseline Period: *	<input type="text" value="1999-2008"/> Midpoint of Baseline Period: <input type="text" value="2003"/>
Baseline Water Use GPCD: *	<input type="text" value="185.8"/> Population in Midpoint Year: * <input type="text" value="16,623"/>
5 Year Baseline Water Use Information	
Baseline Period: *	<input type="text" value="2003-2007"/>
Baseline Water Use GPCD: *	<input type="text" value="186.5"/> 95% of 5-Year Baseline GPCD: <input type="text" value="177.2"/>
Unmetered Connections	
Number of Unmetered Connections in 2003: *	<input type="text" value="0"/>
Water Use By Unmetered Connections In 2003: *	<input type="text" value="0"/> Acre-Feet
Baseline CII Water Use¹	
CII Water Use in 2003: *	<input type="text" value="380"/> Acre-Feet
Per Capita Use:	<input type="text" value="20.4"/> GPCD
¹ CII = Commercial, Industrial, Institutional.	
If you have chosen to calculate targets using the Default Indoor Residential Savings, you do not need to complete the remaining tables. Go to the "Calculated Targets" worksheet.	

Appendix B. Calculator-Method 4

Target Calculation -- Provisional Method 4 Target

Step 1. Calculation of Landscape Water Use and System Water Loss

Urban Supplier	1999-2008 Baseline GPCD	Assumed Indoor Residential per Capita Water Use GPCD	CII per Capita Water Use GPCD	Estimated Landscape Water Use and System Water Loss GPCD
City of Arroyo Grande	185.8	70.0	20.4	95.4

Step 2. Calculation of Savings Using BMP Calculators

(Alternate) STEP 2 BEING USED TO CALCULATE TARGET

Urban Supplier	Indoor Residential Savings Calculators					Metering Savings BMP 1.3	CII Savings BMP 4	Landscape + Water Loss Savings 21.6	Total Savings GPCD
	Single Family Toilets	Multi Family Toilets	Residential Washers	Residential Showers	Total IR Savings				
City of Arroyo Grande	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	

(Alternate) Step 2. Calculation of Savings Using Default Indoor Residential Savings

Urban Supplier	Default Residential Indoor Savings	Metering Savings BMP 1.3	CII Savings BMP 4	Landscape + Water Loss Savings 21.6	(alt) Total Savings GPCD
City of Arroyo Grande	15.0	0.0	2.0	20.6	37.6

Step 3. Calculation of Urban Water Use Targets

Urban Supplier	1999-2008 Baseline GPCD	Total Savings GPCD	Computed 2020 Target GPCD	Less Than 95% of 5-Year Baseline	Final 2020 Target	Final 2015 Target
City of Arroyo Grande	185.8	37.6	148.2	TRUE	148.2	167.0

Appendix F. DWR Review Checklist

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
PLAN PREPARATION				
4	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.	10620(d)(2)		Section 1.2.1
6	Notify, at least 60 days prior to the public hearing on the plan required by Section 10642, 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. Any city or county receiving the notice may be consulted and provide comments.	10621(b)		Section 1.2; Appendix D
7	Provide supporting documentation that the UWMP or any amendments to, or changes in, have been adopted as described in Section 10640 et seq.	10621(c)		Section 1.2.3; Section 8.0
54	Provide supporting documentation that the urban water management 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 this urban water management plan.	10635(b)		Section 1.2
55	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.	10642		Section 1.2.2; Section 8.1
56	Provide supporting documentation that the urban water supplier made the plan available for public inspection and held a public hearing about the plan. For public agencies, the hearing notice is to be provided pursuant to Section 6066 of the Government Code. The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. Privately-owned water suppliers shall provide an equivalent notice within its service area.	10642		Section 8.2; Section 1.2; Section 1.2.2
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		Section 1.2.3; Section 8.2
58	Provide supporting documentation as to how the water supplier plans to implement its plan.	10643		Section 8.0

2010 Urban Water Management Plan
9.0 References

Final

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
59	Provide supporting documentation that, in addition to submittal to DWR, the urban water supplier has submitted this UWMP to 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. This also includes amendments or changes.	10644(a)		Section 1.2; Section 8.0
60	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the urban water supplier has or will make the plan available for public review during normal business hours	10645		Section 1.2; Section 1.2.2
SYSTEM DESCRIPTION				
8	Describe the water supplier service area.	10631(a)		Section 2.1
9	Describe the climate and other demographic factors of the service area of the supplier	10631(a)		Section 2.2
10	Indicate the current population of the service area	10631(a)	Provide the most recent population data possible. Use the method described in "Baseline Daily Per Capita Water Use." See Section M.	Section 2.2
11	Provide population projections for 2015, 2020, 2025, and 2030, based on data from State, regional, or local service area population projections.	10631(a)	2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents.	Section 2.2
12	Describe other demographic factors affecting the supplier's water management planning.	10631(a)		Section 2.2
SYSTEM DEMANDS				
1	Provide baseline daily per 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.	10608.20(e)		Section 5.3; Section Appendix E
2	<i>Wholesalers:</i> Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions. <i>Retailers:</i> Conduct at least one public hearing that includes general discussion of the urban retail water supplier's implementation plan for complying with the Water Conservation Bill of 2009.	10608.36 10608.26(a)	Retailers and wholesalers have slightly different requirements	Section 1.2; Section 8.1

9.0 References

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
3	Report progress in meeting urban water use targets using the standardized form.	10608.40		N/A
25	Quantify past, current, and projected water use, identifying the uses among water use sectors, for the following: (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, conjunctive use, and (I) agriculture.	10631(e)(1)	Consider 'past' to be 2005, present to be 2010, and projected to be 2015, 2020, 2025, and 2030. Provide numbers for each category for each of these years.	Section 5.1; Section 5.4
33	Provide documentation that either the retail agency provided the wholesale agency with water use projections for at least 20 years, if the UWMP agency is a retail agency, OR, if a wholesale agency, it provided its urban retail customers with future planned and existing water source available to it from the wholesale agency during the required water-year types	10631(k)	Average year, single dry year, multiple dry years for 2015, 2020, 2025, and 2030.	Section 1.2.1; Appendix D
34	Include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.	10631.1(a)		Section 5.2.6
SYSTEM SUPPLIES				
13	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, and 2030.	10631(b)	The 'existing' water sources should be for the same year as the "current population" in line 10. 2035 and 2040 can also be provided.	Section 3.0
14	Indicate whether groundwater is an existing or planned source of water available to the supplier. If yes, then complete 15 through 21 of the UWMP Checklist. If no, then indicate "not applicable" in lines 15 through 21 under the UWMP location column.	10631(b)	Source classifications are: surface water, groundwater, recycled water, storm water, desalinated sea water, desalinated brackish groundwater, and other.	Section 3.3
15	Indicate whether a groundwater management plan 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.	10631(b)(1)		Section 3.3
16	Describe the groundwater basin.	10631(b)(2)		Section 3.3
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		Section 3.3; Appendix A

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
18	Describe the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. If the basin is not adjudicated, indicate “not applicable” in the UWMP location column.	10631(b)(2)		Section 3.3
19	For groundwater basins that are not adjudicated, provide information as to whether DWR 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. If the basin is adjudicated, indicate “not applicable” in the UWMP location column.	10631(b)(2)		Section 3.3.2
20	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	10631(b)(3)		Section 3.3
21	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	10631(b)(4)	Provide projections for 2015, 2020, 2025, and 2030.	Section 3.3
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		Section 3.4.1
30	Include a detailed description of all 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, excluding demand management programs addressed in (f)(1). Include specific projects, describe water supply impacts, and provide a timeline for each project.	10631(h)		Section 3.4; Section 3.4.1
31	Describe desalinated water project opportunities for long-term supply, including, but not limited to, ocean water, brackish water, and groundwater.	10631(i)		Section 3.4.2
44	Provide information on recycled water and its potential for use as a water source in the service area of the urban water supplier. Coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	10633		Section 6.16
45	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.	10633(a)		Section 0

9.0 References

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
46	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.	10633(b)		Section 6.16
47	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.	10633(c)		Section 6.16
48	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.	10633(d)		Section 6.16.2
49	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.	10633(e)		Section 6.16.2
50	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.	10633(f)		Section 6.16
51	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.	10633(g)		Section 6.16
WATER SHORTAGE RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING ^b				
5	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	10620(f)		Section 3.13.1
22	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage and provide data for (A) an average water year, (B) a single dry water year, and (C) multiple dry water years.	10631(c)(1)		Section 4.0
23	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.	10631(c)(2)		Section 4.0
35	Provide an urban water shortage contingency analysis that specifies stages of action, including up to a 50-percent water supply reduction, and an outline of specific water supply conditions at each stage	10632(a)		Section 5.7

9.0 References

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
36	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's water supply.	10632(b)		Section 4.3.1; Section 5.7
37	Identify 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.	10632(c)		Section 5.7
38	Identify 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.	10632(d)		Section 5.7
39	Specify 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.	10632(e)		Section 5.7
40	Indicated penalties or charges for excessive use, where applicable.	10632(f)		Section 5.7
41	Provide an analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), 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.	10632(g)		Section 5.7
42	Provide a draft water shortage contingency resolution or ordinance.	10632(h)		Section 5.7
43	Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)		Section 5.7
52	Provide information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments, and the manner in which water quality affects water management strategies and supply reliability	10634	For years 2010, 2015, 2020, 2025, and 2030	Section 7.0

9.0 References

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
53	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, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. Base the assessment on the information compiled under Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.	10635(a)		Section 5.7
DEMAND MANAGEMENT MEASURES				
26	Describe how each water demand management measures is being implemented or scheduled for implementation. Use the list provided.	10631(f)(1)	Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules.	Section 6.15
27	Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.	10631(f)(3)		Section 6.15
28	Provide an estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the ability to further reduce demand.	10631(f)(4)		Section 6.15
29	Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. The evaluation should include economic and non-economic factors, cost-benefit analysis, available funding, and the water suppliers' legal authority to implement the work.	10631(g)	See 10631(g) for additional wording.	Section 6.15
32	Include the annual reports submitted to meet the Section 6.2 requirements, if a member of the CUWCC and signer of the December 10, 2008 MOU.	10631(j)	Signers of the MOU that submit the annual reports are deemed compliant with Items 28 and 29.	N/A



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