



## Urban Water Management Plan



**Prepared for the City of Soledad by:**

**The City of Soledad, Public Works Department  
and**

**Schaaf & Wheeler**  
Consulting Civil Engineers

**June 28, 2011**

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# City of Soledad 2010 Urban Water Management Plan Contact Sheet

Plan submitted to the Department of Water Resources on **6/28/2011**

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The Water supplier is a: **Municipality**

Utility services provided by the water supplier include: **Water**

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

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

## **1.0 Urban Water Management Plan Preparation**

### **1.1 Introduction**

This Plan provides information and analyses specific to the City of Soledad (City), and describes the regional context in which it operates. The City's current and projected water demands are considered over the next 20 years to ensure there will be sufficient water supply to meet these demands. Water shortage contingencies are discussed, as well as reliability of the water supply against various unexpected situations. The ability to meet conservation goals by 2020 is detailed. Additionally, the Plan reviews proposed projects and programs that will aim to protect the water supply and increase conservation efforts throughout the City.

Water management is essential for maximizing resources and minimizing the need to import water. By analyzing current needs against future forecasting scenarios, the City is better able to gauge sufficiency of the water supply available to them, and plan for alternatives should a shortage occur. Utilizing their water reclamation facility, options are available for utilizing recycled water to offset potable demand and irrigation, limiting the amount of water pulled from the underlying aquifer. Utilizing population projections, water use rate structures, and water budgets for large landscaped areas, the City will have a good grasp on where their supply and demand numbers need to be. Having management tools will ensure these numbers are measured and checked, and that conservation measures for various scenarios are ready for employment.

This Plan meets all requirements of the Water Code as described in the Department of Water Resources (DWR) "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan".

This section describes the requirements, purpose and contents of the Urban Water Management Planning Act (Act). This section also outlines the development and review process for this document, both internally and interactively with affiliated regional agencies and the public.

### **1.2 The Urban Water Management Planning Act**

This Urban Water Management Plan (Plan) has been prepared in response to the Urban Water Management Planning Act (Act), Water Code Division 6, Part 2.6, Sections 10610 through 10656. This Act, which became effective in 1984 and has since had several amendments, requires that, "Every urban water supplier shall prepare and adopt an Urban Water Management Plan." An urban water supplier is defined by the Act as a, "Supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually."

The City of Soledad's (City) water system currently provides water to more than 3,000 customers. Having just met one of the two threshold criteria in 2005, the 2005 Plan was the City's first. This 2010 Updated Urban Water Management Plan updates the City's 2005 Plan. Updated Plans will continue to be submitted each year ending in a 5 or 0, or

every five years. It should be noted that no regional or basin-wide plan has been developed to date. The Salinas Valley Integrated Regional Water Management Functionally Equivalent Plan (IRWMP) was adopted by Monterey County Water Resources Agency in 2006. That plan assumes that mid-county will continue to supply water needs with groundwater, so this Plan is consistent with the IRWMP.

### **1.3 Plan Coordination**

#### **1.3.1 Public Participation**

**Law**

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

The City of Soledad has actively encouraged community participation in its urban water management planning efforts. Notice of a public hearing was posted on the public bulletin board at City Hall on April 8, 2011, and in local newspapers including the Soledad Bee (May 18, 2011 and May 25, 2011) and the Salinas Californian (May 20, 2011 and May 27, 2011). The draft Plan was posted to the City's website and made available at Public Works for advance review and consideration on May 19, 2011. A public hearing was held on June 1, 2011 to solicit comments and feedback from the community. No public comments on the Draft Report were received at the public hearing. City Council members asked questions regarding the methodology used to quantify landscape and unmetered water use. These questions were answered by the Public Works Director, and no changes to the document except the addition of this description were made as a result of the public hearing.

A second public hearing was held June 22<sup>nd</sup>, prior to adoption of the Plan. After adoption, the Final adopted Plan was reposted to the City's website.

#### **1.3.2 Agency Coordination**

**Law**

10620 (d) (2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

#### ***Coordination Within the City***

The City's Public Works Department has worked closely with the City's Finance and Planning Departments and City Manager in the preparation of this Urban Water Management Plan. Additional coordination with outside City representatives (consultants) who have prepared and/or are preparing affiliated plans and studies has also

been instrumental in preparing the Plan. In addition, City Council has heard and reviewed the necessary Plan components to ensure the Plan is consistent with the City's ultimate local and regional goals.

***Interagency Coordination***

Affiliated agencies contacted and utilized as resources for the preparation of this Plan include the Monterey County Water Resources Agency (MCWRA), the Regional Water Quality Control Board (RWQCB), the California Department of Public Health (DPH), and United States Geological Surveys (USGS). Each of these agencies was provided with a notice that this UWMP was being reviewed and updated on April 8, 2011. The notice included a schedule of public review and anticipated adoption dates. A copy of these letters is provided in Appendix A.

The MCWRA manages the groundwater basin serving the region, while the other agencies listed provided regional and/or general information utilized in developing the Plan. The MCWRA not only provided certain data for this Plan, but has also had the opportunity to review and provide comments on it. The Monterey County Integrated Regional Water Management Planning Committee, formed in December 2008, will utilize this Plan (among others) in preparing the regional Greater Monterey County Integrated Water Resources Management Plan (IWRMP), which will supersede the 2006 Salinas Valley Functionally Equivalent IWRMP. The publication date for the regional IWRMP is unknown. The regional IWRMP would ultimately be adopted by the Monterey County Board of Supervisors.

Additional agencies or public entities also notified of the UWMP update include the nearby cities of Gonzales and Greenfield, Pinnacles National Monument Park, and the California Department of Corrections.

**Table 1.1 Coordination With Appropriate Agencies**

<b>Coordination with appropriate agencies</b>							
<b>Coordinating Agencies</b>	Participated in developing the plan	Commented on the draft	Attended public meetings	Was contacted for assistance	Was sent a copy of the draft plan	Was sent a notice of intention to adopt	Not involved / No information
<b>Other water suppliers - none</b>							X
<b>Water mgmt agencies</b>							
-Monterey County Water Resources Agency					X	X	
-Regional Water Quality Control Board						X	
-Ca. Dept. of Public Health						X	
<b>Relevant public agencies</b>							
-County of Monterey						X	
-Ca. Dept. of Corrections - Soledad Prisons						X	
-City of Gonzales						X	
-City of Greenfield						X	
-Pinnacles National Monument						X	
-USGS						X	
<b>General public</b>						X	
<b>Other - none</b>							X

In addition to sending a Draft Plan to Monterey County Water Resources Agency for review and comment, after adoption, a Final Plan shall be sent to Monterey County Water Resources Agency and be submitted to the California State Library.

**1.4 Plan Adoption**

This Plan has been prepared by the City with the assistance of Schaaf & Wheeler Consulting Civil Engineers. A list of City contacts is included at the front of this document.

This Urban Water Management Plan was adopted by City Council on June 22, 2011 and submitted to the California Department of Water Resources on June 28, 2011. The adopted Resolution may be found in Appendix B of this Plan.

## **2.0 Water System Description**

### **Law**

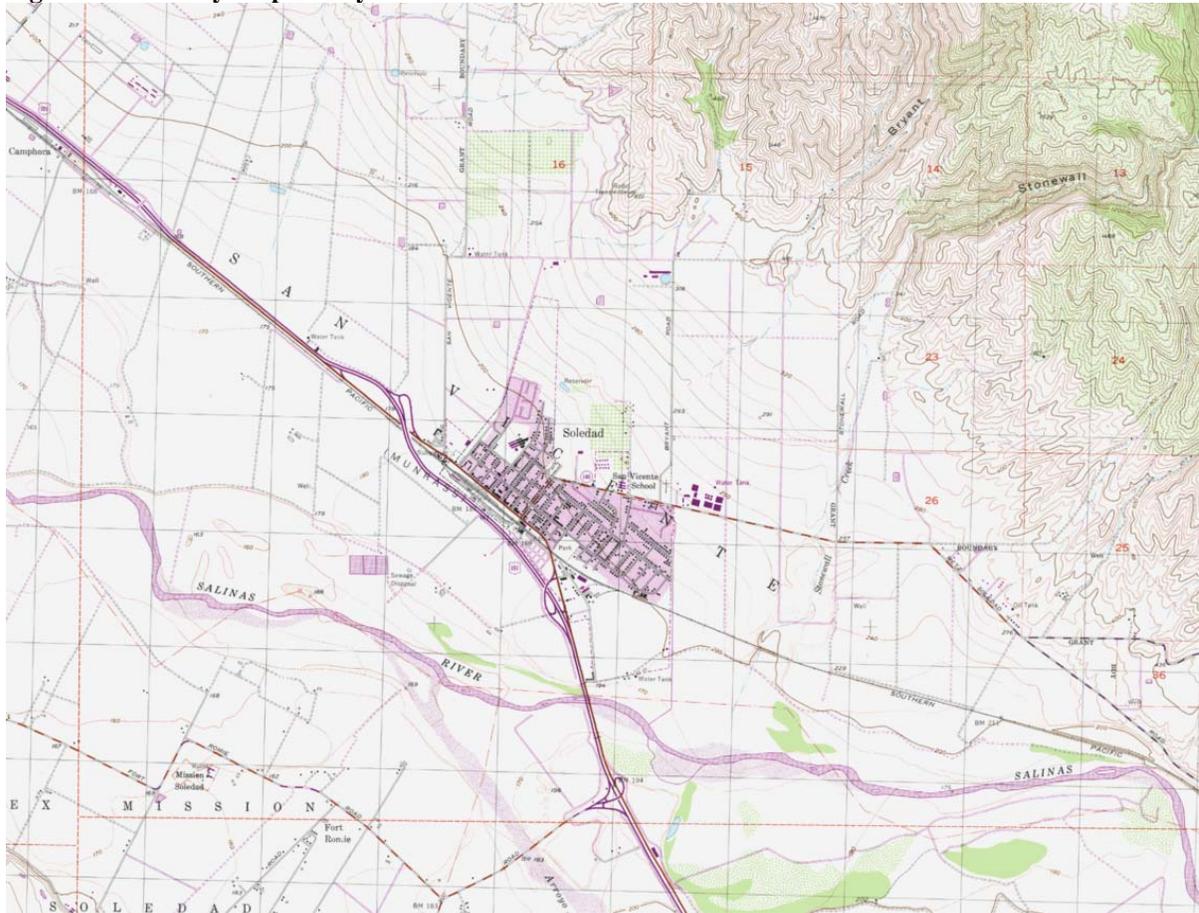
10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:

10631. (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.

### **2.1 Geography**

The City of Soledad is located in southern Monterey County approximately 25 miles south of Salinas in the highly agricultural Salinas Valley (see below). It has no common boundaries with other municipalities, and is surrounded completely by unincorporated areas of Monterey County. The City's nearest neighbors are Greenfield, approximately eight miles to the south, and Gonzales, approximately 8 miles to the north. Two California State Prisons are located within the City of Soledad, but are not served by the City's municipal water system. The main conduit of surface water within the region is the Salinas River, flowing to the northwest and discharging into Monterey Bay. The unconfined flow of water within the underlying groundwater basin exhibits the same general flow characteristics as the Salinas River, with flow primarily in the northwesterly direction.

Figure 1.1: Vicinity Map of City



## 2.2 Climate

Soledad has a Mediterranean climate, exhibiting dry, warm summers and cool, wet winters. Nearly all of its 12.3 inches of annual rainfall occur between October and April, with virtually no rainfall in the summer months. Average monthly values for rainfall, evapotranspiration (ET<sub>o</sub>), and temperature are shown in the tables below.

Table 2.1 Climate

Climate							
	Jan.	Feb.	March	April	May	June	
Average ET <sub>o</sub> (in)	1.83	2.20	3.42	4.84	5.61	6.26	
Average Rainfall (in)	2.35	2.65	2.49	0.74	0.24	0.07	
Average Temperature (°F)	63	66	69	75	78	83	
	July	August	Sept.	Oct.	Nov.	Dec.	Annual
Average ET <sub>o</sub> (in)	6.47	6.22	4.84	3.66	2.36	1.83	49.54
Average Rainfall (in)	0.01	0.05	0.25	0.55	1.23	1.67	12.3
Average Temperature (°F)	85	85	85	80	69	63	

Source: CIMIS Eto Data for Soledad, weather.com for City of Soledad Rainfall and Temperature Data

## **2.3 Regional Water System**

The water supply for the Central Salinas Valley is derived almost exclusively from groundwater, and the City's potable water supply is entirely groundwater. The City overlays the Salinas Valley Groundwater Basin, specifically, the forebay sub-area. Groundwater is discussed in detail in Section 4.2.

Infiltration in the Salinas River channel is the principal source of groundwater recharge for the Salinas Valley groundwater basin. The recharge area is generally believed to end at a point between Chualar and the City of Salinas. Both natural runoff and conservation releases from Nacimiento and San Antonio Reservoirs contribute to the flow in the Salinas River. Infiltration from other smaller tributaries that drain the highland areas also provides recharge to the groundwater basin. The down-valley movement of this subsurface water is essential to the containment of saltwater intrusion into the Pressure sub-area. Higher elevations tend to have little potential for groundwater recharge due to either shallow or non-existent soils and steep slopes. These same characteristics pose problems for septic suitability and limit water availability.

Groundwater consumption in the Salinas Valley has increased over time as the amount of croplands under irrigation has continued to increase annually. Continued residential, commercial and industrial development has also increased groundwater consumption. Agriculture continues to dominate, representing at least 90% of the area's water consumption. In some parts of the basin (although not the sub-area that the City is located in), agricultural and urban consumers are now using more water than is recharged annually, resulting in a groundwater overdraft.

## **2.4 Demographic Factors**

Through the early 20<sup>th</sup> century, Soledad was primarily an agricultural community. The landscape of Soledad changed substantially in the 1940's when the State of California Department of Corrections Training Facility was built approximately 3 miles north of the City. This facility was annexed by the City in 1992, and a state prison was added to the facility in 1996. The corrections facility continues to be an important component of the City, with a population of approximately 11,200 in comparison with a 2010 residential population of 16,729.<sup>1</sup> The City does not supply water to the corrections facility. As such, the prison population is not included in any population of water demand projection values presented herein.

In recent years, Soledad has been becoming a "bedroom" community in which residential development accounts for a disproportionately large portion of the local economy. Average annual residential (non-prison) population growth in the early and mid 1990's was approximately 4.7%. During the late 1990's and to mid-2000's, population increased dramatically, reaching a maximum annual growth rate of 8%. Since 2005 population growth has slowed considerably, averaging about 2% annually between 2005 and 2010. Residential (non-prison) population is expected to increase by about 13% total in the next

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<sup>1</sup> 2010 US Census Data with the estimated 11,200 prison population subtracted

5 years, and is projected to reach about 57,000 at buildout in the second half of this century.<sup>2</sup>

## 2.5 Population Projection

Residential, commercial, and industrial growth in the City has been affected by the recent economic downturn. Growth, particularly in the residential section, has been considerably slower than anticipated during the preparation of the 2005 Urban Water Management Plan (UWMP). Population growth during this period has generally followed the ‘Low Range’ curve identified in the City’s General Plan. As such, much of the development originally predicted to occur between 2005 and 2010 has not yet occurred. The Downtown revitalization project (anticipated in the 2005 Plan to be completed prior to 2010) is still underway, for example, with community planning workshops currently being conducted.

The City does not anticipate any significant development projects in the next 3-5 years. Upcoming development slated for long term construction includes the North Entryway (181–221 dwelling units), San Vicente West (679–784 dwelling units), Marrasou (1,653–1,867 dwelling units), and the Northwest Expansion Area (5,325–6,500 dwelling units). Based on current population trends, the City’s growth is expected to reach its maximum development / buildout population in 2085.

Current and projected population is shown in the table below. 2010 data is from the US Census. Projections are from the Department of Finance (which also match the Association of Monterey Bay Area Governments projections) minus the 11,200 anticipated prison population.

**Table 2.2 Population Projections**

<b>Population — current and projected</b>						
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>Data source</b>
<b>Service area population<sup>1</sup></b>	16,729	19,915	22,560	25,912	27,601	DOF, AMBAG 2008

<sup>1</sup> Service area population is defined as the population served by the distribution system.

<sup>2</sup> City of Soledad General Plan

### 3.0 Water System Demands

**Law**

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

10631 (e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors including, but not necessarily limited to, all of the following uses:

(A) Single-family residential; (B) Multi-family; (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; and (I) Agricultural.

(2) The water use projections shall be in the same 5-year increments to 20 years or as far as data is available.

This section describes the City’s water system demands, including its calculated baseline (base daily per capita) water use and interim and urban water use targets.

#### 3.1 Current Water Demands

Water deliveries by use sector for 2005 and 2010 are shown in Table 3.1 and Table 3.2, respectively.

**Table 3.1 Water Deliveries in 2005**

<b>Water deliveries — actual, 2005</b>					
<b>Water use sectors</b>	<b>2005</b>				
	<b>Metered</b>		<b>Not metered</b>		<b>Total</b>
	<b># of accounts</b>	<b>Volume</b>	<b># of accounts</b>	<b>Volume</b>	<b>Volume</b>
<b>Single family</b>	2,904	1,427			1,427
<b>Multi-family</b>	597	220			220
<b>Commercial</b>	303	128			128
<b>Industrial</b>	2	49			49
<b>Institutional/governmental</b>	95	109			109
<b>Landscape</b>			6	404	404
<b>Agriculture</b>	0	0			0
<b>Other</b>					0
<b>Total</b>	<b>3,901</b>	<b>1,933</b>	<b>6</b>	<b>404</b>	<b>2,337</b>

*Units : acre-feet per year Source: 2005 UWMP*

**Table 3.2 Water Deliveries in 2010**

Water deliveries — actual, 2010					
	2010				
	Metered		Not metered		Total
Water use sectors	# of accounts	Volume	# of accounts	Volume	Volume
<b>Single family</b>	3,549	1373			1,373
<b>Multi-family</b>	341	239			239
<b>Commercial</b>	138	192			192
<b>Industrial</b>	3	6			6
<b>Institutional/governmental</b>	36	51			51
<b>Landscape</b>	13	268	1	21	289
<b>Agriculture</b>	0	0			0
<b>Other</b>	14	5		200	205
<b>Total</b>	4,094	2,134	1	221	2,355
Units : acre-feet per year Source: DWR Water Statistics Note: Commercial and Institutional are combined in the statistics, so the separation is estimated					

### **3.2 Future Water Demand Projections**

Since the preparation of the 2005 UWMP, development within the City has slowed considerably. The 20-year demand projection in the 2005 UWMP was 8,458 ac-ft/yr. The 20-year projection in this plan is 3,762 ac-ft/yr, as discussed in the following sections. The reduction is due to the rapid decrease in the pace of development. Construction of developments projected for completion in 2010 has not yet begun or is still underway. As shown in the population projections in Table 2.2, the population projected for 2025 is 25,912; compared to the projection of 57,000 (complete City build out) by 2025 predicted in the 2005 UWMP.

#### **3.2.1 Demand Projection Methodology**

In the most recent AMBAG population projections (Table 2.2), the City will experience an annual increase in population of about 550 people per year. At this rate, the City will reach its maximum buildout population of 58,000 in 2085. It was therefore assumed that the City will reach its buildout development potential in 2085. The City General Plan<sup>3</sup> provides the existing (as of 2002) and future buildout values for residential (number of units), commercial (square footage), public/parks (acres), agricultural (acres) and industrial (square footage) land uses. A linear interpolation of these values between 2002 and 2085 is assumed. The reasonableness of this linear interpolation was verified with current population and water statistics data in 2010 wherever possible.

The City General Plan estimates that the actual buildout potential is 80% of the maximum development potential (due to market forces, size and shape of parcels, etc.). As such, the maximum buildout values presented in the General Plan for residential, commercial,

<sup>3</sup> City of Soledad General Plan, Table II-1

and industrial development were reduced by 20% for the 2085 buildout estimates used in projecting future growth trends.

### **3.2.2 Projected Water Demand by Sector**

#### ***Residential Sector***

The City water delivery statistics report residential water delivery in two categories: high density and single family / medium density. For future projections, therefore, single family and medium density units were combined. The average demand per unit was calculated (using 2010 data) for each of these use categories and multiplied times the number of units for future projections. For high-density residential development, it is likely that some units will in fact be combined to a single account, while other high-density development is expected to have one account per unit (such as privately owned condominiums). The assumption applied, that each high density dwelling unit will mimic the current use/account for high density development, is therefore a conservative one.

#### ***Industrial Sector***

As described above, the square footage of industrial area was projected based on a linear interpolation between existing 2002 values and buildout achieved by 2085. The 2010 water use statistics were applied to future projections.

#### ***Landscape / Recreational Sector***

According to the City of Soledad's Parks and Recreation Master Plan 2009-2029, the existing (2009) developed park area is 30.45 acres and the goal buildout in 2029 is 180 acres. Unimproved parks were not taken into account since they do not have a landscaping water demand. It is assumed that the growth is linear.

The existing usage per area of landscape is calculated using the City's water use statistics for 2010, and applied to future projections.

#### ***Commercial and Institutional / Government Sectors***

As described above, the City's General Plan combines Landscape/Recreational with Institutional/Government in one use category of Public/Parks. The Landscape/Recreational land area is estimated to be 45 acres, based on the General Plan map, leaving an Institutional/Government area of 233 acres, 84% of the total Public/Parks area. This trend is assumed to continue for future development, such that 84% (487 acres) of the total buildout Public/Parks designation (580 acres) is assumed to be Institutional/Government.

In the City water delivery records, commercial and institutional uses are combined. To estimate the division between these water uses, a water demand of 0.0002 acre-feet per year per square foot of commercial building area<sup>4</sup> was assumed to calculate the commercial demand alone. The remainder water use was assumed to be institutional/government, and a use per acre calculated based on the 2010 water delivery

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<sup>4</sup> Monterey Peninsula Water Management District Permit Office, Commercial High Use

statistics. The future demand projections applied these use per area values to future development.

**Unmetered Water Use**

It is assumed that approximately 200 acre feet per year is expended in unmetered water usage such as unmetered landscape irrigation, line flushing and hydrant usage. This is consistent with the difference seen in the County groundwater extraction records and the City’s water delivery statistics.

**Table 3.3 Projected Water Deliveries in 2015**

<b>Water deliveries — projected, 2015</b>					
<b>Water use sectors</b>	<b>2015</b>				
	<b>Metered</b>		<b>Not metered</b>		<b>Total</b>
	<b># of accounts</b>	<b>Volume</b>	<b># of accounts</b>	<b>Volume</b>	<b>Volume</b>
<b>Single family</b>	3,545	1,554			1,554
<b>Multi-family</b>	375	291			291
<b>Commercial</b>	115	216			216
<b>Industrial</b>	4	8			8
<b>Institutional/governmental</b>	38	54			54
<b>Landscape</b>	28	574			574
<b>Agriculture</b>	0	0			0
<b>Other</b>				200	200
<b>Total</b>	4,105	2,697	0	200	2,897

*Units : acre-feet per year*

**Table 3.4 Projected Water Deliveries in 2020**

<b>Water deliveries — projected, 2020</b>					
<b>Water use sectors</b>	<b>2020</b>				
	<b>Metered</b>		<b>Not metered</b>		<b>Total</b>
	<b># of accounts</b>	<b>Volume</b>	<b># of accounts</b>	<b>Volume</b>	<b>Volume</b>
<b>Single family</b>	3,957	1,735			1,735
<b>Multi-family</b>	443	343			343
<b>Commercial</b>	173	241			241
<b>Industrial</b>	4	9			9
<b>Institutional/governmental</b>	41	57			57
<b>Landscape</b>	42	859			859
<b>Agriculture</b>	0	0			0
<b>Other</b>				200	200
<b>Total</b>	4,660	3,244	0	200	3,444

*Units : acre-feet per year*

**Table 3.5 Projected Water Deliveries in 2025 and 2030**

<b>Water deliveries — projected, 2025 and 2030</b>				
	<b>2025</b>		<b>2030</b>	
	<b>Metered</b>		<b>Metered</b>	
<b>Water use sectors</b>	<b># of accounts</b>	<b>Volume</b>	<b># of accounts</b>	<b>Volume</b>
<b>Single family</b>	4,370	1,916	4,782	2,097
<b>Multi-family</b>	510	395	578	448
<b>Commercial</b>	191	265	208	290
<b>Industrial</b>	5	11	6	12
<b>Institutional/governmental</b>	43	60	45	63
<b>Landscape</b>	55	1,144	69	1,429
<b>Agriculture</b>	0	0	0	0
<b>Other</b>		200		200
<b>Total</b>	<b>5,174</b>	<b>3,991</b>	<b>5,688</b>	<b>4,539</b>

*Units : acre-feet per year*

**Table 3.6 Summary of Actual and Projected Water Deliveries**

<b>Total water use</b>						
<b>Water Use</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
<b>Total water deliveries</b>	2337	2355	2,897	3,444	3,991	4,539
<b>Sales to other water agencies</b>	0	0	0	0	0	0
<b>Additional water uses and losses</b>	0	0	0	0	0	0
<b>Total</b>	<b>2,337</b>	<b>2,355</b>	<b>2,897</b>	<b>3,444</b>	<b>3,991</b>	<b>4,539</b>

*Units: acre-feet per year*

***Lower Income Housing Demands***

The Water Code requires water suppliers to document water demand projections for lower income single family and multi-family housing within their UWMPs. City Code 17.42 requires new development to be 20% affordable (8% moderate, 6% low, 6% very low). Assuming that this ratio is in place for existing affordable housing units, 60% of the 546 existing affordable housing units indicated in the 2009 Housing Element should be low income. Adding 12% of all new development as indicated by AMBAG’s housing unit projections to this number provided total low income housing unit projection. The projected water use demand per land sector calculations indicated 0.77 ac-ft/yr per multi-family unit or account. The resulting total water demands are shown in the following table.

**Table 3.7 Low-Income Projected Water Demands**

Low-income projected water demands					
Low Income Water Demands	2015	2020	2025	2030	2035 - opt
Single-family residential	0	0	0	0	0
Multi-family residential	309	367	424	481	538
<b>Total</b>	<b>309</b>	<b>367</b>	<b>424</b>	<b>481</b>	<b>538</b>

Units: acre-feet per year

### 3.3 Baselines and Targets

The calculation and selection of water conservation targets for the 2010 Urban Water Management Plan is required by the Water Conservation Act of 2009<sup>5</sup>. Commonly called the 20x2020 (‘Twenty by Twenty-Twenty’) plan, this legislation established a statewide goal of reducing urban water per capita water demands by 20 percent by the year 2020.

An urban retail water supplier must set a 2020 water use target and a 2015 interim target using one of four methods. Three of these are defined in Section 10608.20(a)(1) of the Water Code, and the fourth was developed by the California Department of Water Resources (DWR). The 2020 water use target must be calculated using one of the following four methods:

- Method 1: Eighty percent of the water supplier’s *baseline per capita water use*.
- Method 2: Per capita daily water use estimated using the sum of performance standards applied to indoor residential use; landscaped area water use; and commercial, industrial, and institutional uses.
- Method 3: Ninety-five percent of the applicable state hydrologic region target as stated in the State’s April 30, 2009, draft 20x2020 Water Conservation Plan.
- Method 4: The provisional target method developed by DWR uses conservation Best Management Practices (BMP) to determine the potential water demand reductions in each water use sector. A Calculator spreadsheet was developed for this method, which requires detailed information on current water uses.

A maximum conservation target, regardless of method used, is also defined as discussed below.

Gross water use is calculated as the total water entering the system minus wholesale water deliveries leaving the system. The City does not purchase or provide wholesale water, so the gross water use is simply the total well pumping for the period. Water suppliers may deduct from this total (1) recycled water use, (2) industrial process water use, and (3) agricultural irrigation use. The City does not currently directly re-use recycled water (see Section 4.3), nor provide agricultural irrigation water. Industrial process water is not separately metered from general industrial water uses, and so none of these deductions were made for the City’s gross water use calculations.

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<sup>5</sup> Senate Bill 7-7

*Baseline per capita water use* is calculated as the gross water use for a year divided by the average population during that year. Years may be defined by the water supplier as calendar year, fiscal year, or another 12-month reporting period. The water supplier will submit future compliance reports using the same reporting year. The City currently uses the calendar year for all water use reporting, and that method is utilized herein. Annual population for the City’s service area is based on California Department of Finance estimates minus the prison population. A ten-year average water consumption rate must be calculated for a period ending not earlier than December 31, 2004 and not later than December 31, 2010. Table 3.8 shows the chosen time spans and Table 3.9 and Table 3.10 show the corresponding population, water use and resulting average demand rates for these periods. If the baseline demand is less than 100 gallons per capita per day (gpcd), no additional conservation reduction is required.

Conservation targets are established by choosing a representative baseline from the seven possible periods (ending in 2004-2010), and using one of the four methods. Prior to 1998, the available water data combines the water usage of the City and Prison. Therefore the 10-year periods ending years 2004-2006 are not representative of the City alone. The City has adopted the lowest value of the remaining 10-year periods of 143 gpcd as the City baseline, from the period ending December 31, 2007.

**Table 3.8 Base Period Ranges**

<b>Base period ranges</b>			
<b>Base</b>	<b>Parameter</b>	<b>Value</b>	<b>Units</b>
10- to 15-year base period	2008 total water deliveries	2,554	ac-ft/yr
	2008 total volume of delivered recycled water	0	ac-ft/yr
	2008 recycled water as a percent of total deliveries	0	percent
	Number of years in base period <sup>1</sup>	10	years
	Year beginning base period range	1998	
	Year ending base period range <sup>2</sup>	2007	
5-year base period	Number of years in base period	5	years
	Year beginning base period range	2003	
	Year ending base period range <sup>3</sup>	2007	

<sup>1</sup>If the 2008 recycled water percent is less than 10 percent, then the first base period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first base period is a continuous 10- to 15-year period.

<sup>2</sup>The ending year must be between December 31, 2004 and December 31, 2010.

<sup>3</sup>The ending year must be between December 31, 2007 and December 31, 2010.

**Table 3.9 10-Year Range Base Daily Per Capita Water Use**

<b>Base daily per capita water use — 10-year range</b>				
<b>Base period year</b>		<b>Distribution System Population</b>	<b>Daily system gross water use (mgd)</b>	<b>Annual daily per capita water use (gpcd)</b>
<b>Sequence Year</b>	<b>Calendar Year</b>			
Year 1	1998	10,417	1.3	129
Year 2	1999	11,011	1.4	128
Year 3	2000	11,479	1.5	134
Year 4	2001	11,498	1.6	138
Year 5	2002	12,715	1.9	148
Year 6	2003	13,369	1.9	146
Year 7	2004	14,789	2.2	152
Year 8	2005	15,902	2.4	152
Year 9	2006	16,717	2.8	167
Year 10	2007	16,640	2.3	137
<b>Base Daily Per Capita Water Use<sup>1</sup></b>				<b>143</b>

**Table 3.10 5-Year Range Base Daily Per Capita Water Use**

<b>Base daily per capita water use — 5-year range</b>				
<b>Base period year</b>		<b>Distribution System Population</b>	<b>Daily system gross water use (mgd)</b>	<b>Annual daily per capita water use (gpcd)</b>
<b>Sequence Year</b>	<b>Calendar Year</b>			
Year 1	2003	13,369	1.9	146
Year 2	2004	14,789	2.2	152
Year 3	2005	15,902	2.4	152
Year 4	2006	16,717	2.8	167
Year 5	2007	16,640	2.3	137
<b>Base Daily Per Capita Water Use<sup>1</sup></b>				<b>151</b>

After calculating targets using the four methods, the targets are compared to the minimum water conservation target required under Section 10608.22 of the Water Code.

Method 1: The 2020 water demand target is 80% of the baseline demand (143 gpcd). This method yields a target of **114.4 gpcd**.

Method 2: This method consists of establishing separate water demand targets for indoor water use, landscape water use and commercial, industrial and institutional (CII) water use. The indoor residential demand target is established in the legislation as 55 gpcd. Landscape water demand must meet the requirements of the Model Water Efficient Landscape Ordinance. CII water demand targets may be set at 10% below the baseline demand. In order to apply this method, detailed information is required for all irrigated landscapes (area, date installed, vegetation type, and metered or estimated water use). Because the City does not have this level of data available, this method was not used.

Method 3: The 2020 water demand target is 95% of the hydrologic region target. The City is in Region 3, Central Coast, which already has the lowest per capita water demand in the state. In the 20x2020 Water Conservation Plan, the baseline demand for the Region 3 was calculated as 154 gpcd, and the 2020 urban water use target is 123 gpcd. The Method 3 target is 95% of 123 gpcd, or **116.9 gpcd**.

Method 4: This method is still being developed by DWR. The proposed draft method is based upon estimating conservation savings using the CUWCC BMPs. The advantage of this method is that the CUWCC annual reports for 2015 and 2020 will serve as the interim and final compliance reports to DWR. A water savings calculator (workbook) is used to estimate the potential savings from programs targets at indoor, outdoor and commercial, industrial and institutional (CII) use sectors. As with Method 2, additional data will be required to use this method. Specifically, landscape irrigation demands must be segregated from residential and CII demands. Because this level of information is not available, targets were not calculated using this method.

Maximum Conservation Target: This method consists of calculating a five-year average water consumption rate for a period ending not earlier than December 31, 2007 and not later than December 31, 2010. The 2020 conservation target must be less than or equal to 95% of the 5-year base daily per capita usage, which, as shown in the table below, is 143.1 gpcd for the recommended baseline period ending December 31, 2007.

**Table 3.11 10- and 5-Year Baseline Demands**

<b>Year Ending Dec 31</b>	<b>10-year Average Demand</b>	<b>2020 Target = 80%</b>	<b>5-year Average Demand</b>	<b>Maximum 2020 Target</b>
	(gpcd)	(gpcd)	(gpcd)	(gpcd)
2007	143.0	114.4	150.6	143.1

Using Method 1, the City may select the 80% target, since this meets the minimum 5% reduction requirement of the Water Conservation Act. Using Method 3, the target of 116.9 gpcd is below the required 5% minimum reduction, so the minimum requirement is met with this method as well. Using Method 3 allows the City to take credit for its ongoing water conservation efforts, without imposing additional customer restrictions.

The result of this analysis is a baseline period ending December 31, 2007. Utilizing the Method 3 approach, the City has established a **2020 conservation target of 116.9 gpcd**, and a 2015 interim target of 130.0 gpcd (equals the midpoint between the 2007 10-year average and the 2020 target).

### **3.4 Water Use Reduction Plan**

To reduce per capita demands below the compliance targets, the City has three strategies, in addition to the on-going water conservation efforts. First, the City is in the process of implementing an urban recycled water project for landscape irrigation (see detailed discussion in Section 4.3). Once the recycled water line is installed, all projected landscaping demands are expected to be met through recycled water delivery for the purpose of irrigation. This alone would reduce the potable water demand per capita below the water conservation target for 2020 as shown in the following table. Additionally, the remaining non-metered customers will be metered and have a financial

incentive to reduce water use. The City will monitor annual water demand, and adjust incentive programs as needed to meet the conservation targets.

**Table 3.12 Projected Per Capita Water Demands**

	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Projected Demand (AFY)	2355	2,815	3,281	3,746	4,212
Projected Recycled Water (AFY)	0	574	859	1,144	1,429
Net Potable Demand (AFY)	2,355	2,241	2,422	2,602	2,783
Projected Population	16,729	19,915	22,560	25,192	27,601
Projected demand per person (gpcd)	125.6	100.4	95.8	92.1	89.9
Water Use Targets (gpcd)		130	116.9	116.9	116.9
Remainder to address (gpcd)		0	0	0	0

The use of recycled water to serve non-potable demands is a conservation measure recognized in the 20x2020 State Conservation Plan. As detailed in Section 4, the City plans to build a recycled water transmission line to carry recycled water from the water reclamation facility to the City once grant funding is attained.

## 4.0 Water System Supplies

### Law

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

10631 (b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments [to 20 years or as far as data is available.]

### 4.1 Water Supply Sources

The City currently utilizes groundwater from the Salinas Valley Groundwater Basin as its sole potable water supply source. Recycled water is a new water source available to the City, and is discussed in detail in section 4.3.

Currently, four groundwater wells containing line-shaft vertical turbine pumps remove groundwater and deliver it to the water system. Chlorine solution is injected into the pumped water at each well to provide residual disinfection. All existing City wells are shown in Table 4.1. Only wells 6, 7, 10 and 11 are currently operational.

**Table 4.1 Existing Wells**

Well #	Capacity (GPM)	Capacity (MGD)	Capacity (ac-ft/yr)
2	N/A	N/A	N/A
3	N/A	N/A	N/A
5	N/A	N/A	N/A
6	550	0.8	888
7	1,400	2.0	2,260
9	N/A	N/A	N/A
10	500	0.7	807
11	1,650	2.4	2,663
<b>TOTAL</b>	<b>4,100</b>	<b>5.9</b>	<b>6,618</b>

Source: 2005 Soledad Water Master Plan

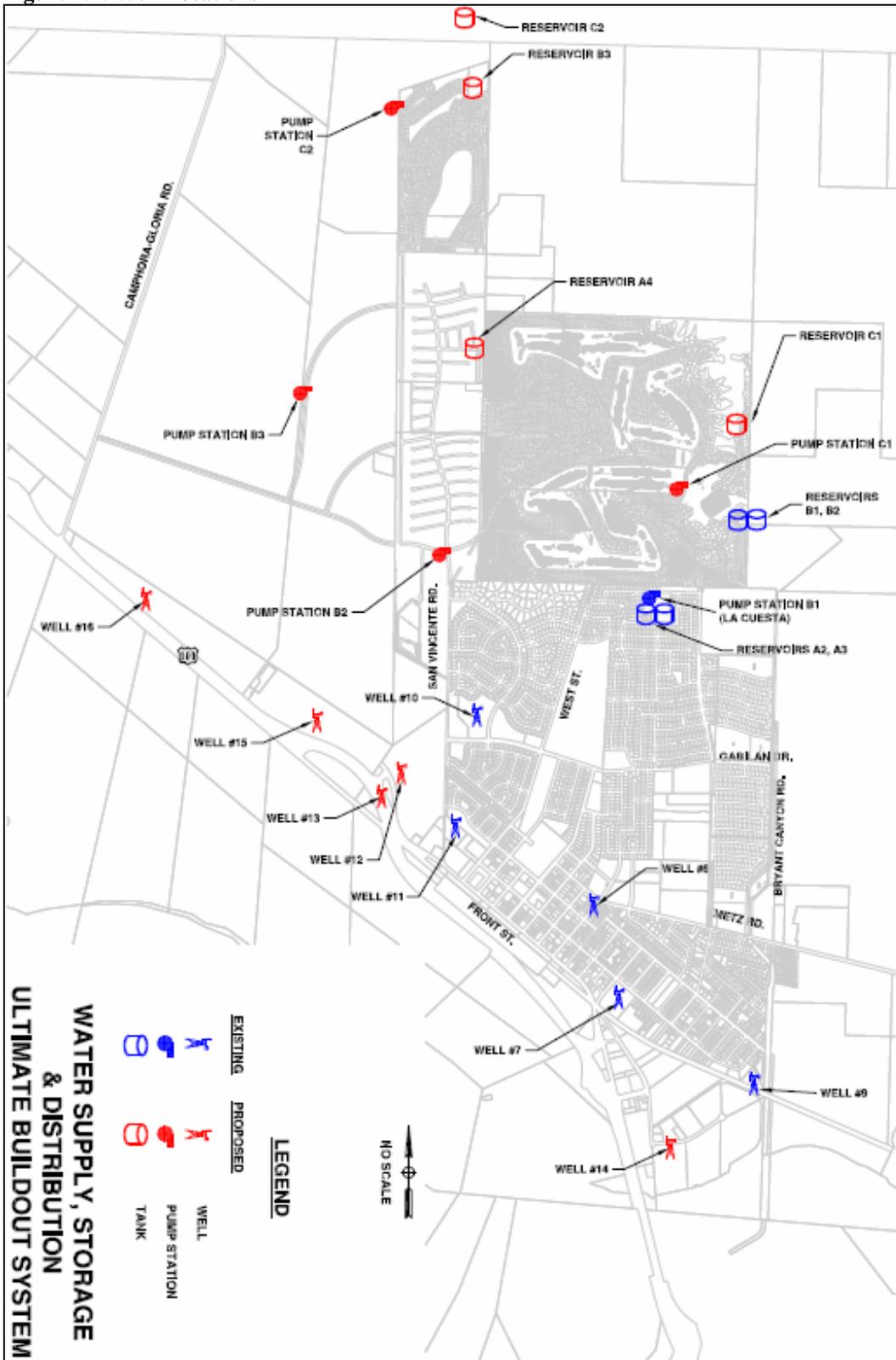
Wells #2 and #3 have not supplied water to the City for over 14 years, and are in the process of being decommissioned. Water from these wells has been high in nitrate and has shown low levels of bromobenzene, an unregulated chemical. Well #5 is currently inactive; it will either be abandoned or restored in the future. The construction of Well #11 was completed in 2007. Well #9 is currently out of service pending evaluation of the water quality on Iron and Manganese. Future wells (#12 & #14) are anticipated to be constructed within the next three to five years. Pilot holes have been constructed, and the projects are included in the City's current capital improvement program for future construction.

Since the 2005 UWMP, the City has completed construction of three new 1,000,000 gallon storage tanks, storage booster pumps have been installed in low pressure zones of the system, and construction of the new Orchard Lane water transmission main and

pressure regulating valve has been completed. The City now has a total of four 1,000,000 gallon tanks – two at La Questa and two in Section 16. The City operates its wells to meet system demands based on the water levels in these storage tanks; a recently installed SCADA system regulates pumping and filling of the tanks.

The SCADA system is programmed to use the water in the storage tanks down to fire protection levels before filling and only fill completely during periods of lowest use. The wells pump directly into the Base Pressure Zone of the distribution system. Water not used to meet demands goes to fill reservoirs. The primary wells are far enough apart that they do not influence each other when pumping simultaneously. Any well can be used to meet demand anywhere in the City and to fill the reservoirs. The City rotates the use of the wells, with Well #6 paired with Well #7. Wells #6, #7, #11 and La Questa pump station are each equipped with emergency engine generators to provide electrical power should the PG&E electrical system becomes inoperative (a frequent occurrence in Soledad).

Figure 4.1: Well Locations



The Monterey County Water Resources Agency manages the Salinas Valley Groundwater Basin, but the basin is not adjudicated. There are currently no restrictions on how much water the City of Soledad can pump, nor are any such restrictions expected in the future. The Salinas River Groundwater Basin (and all of the agencies within it), however, sat on the edge of adjudication in 1996-97 due to substantial saltwater intrusion near the coast. Ultimately local agencies were able to convince the State Water Resources Control Board that the local solution was the best option. This local solution eventually materialized as the Salinas Valley Water Project, discussed in more detail in Section 4.2

The existing and projected ground water supply system of the City of Soledad has been designed to produce water meeting the California Department of Public Health standards. The standards require that the groundwater well systems will be able to operate without the capacity of the largest well which allows the largest well to be out of service.

In addition to groundwater, the City of Soledad intends to utilize reclaimed wastewater for some uses. It is anticipated that once the recycled water line is installed, all projected landscaping demands will be met through recycled water delivery. The details of these plans can be found in the Recycled Water Section (4.3), and Table 4.2 summarizes the current and projected water supply quantity based on the existing and projected wells' capacity and recycled water use for the City of Soledad.

**Table 4.2 Current and Projected Water Supply**

<b>Water supplies — current and projected</b>						
<b>Water Supply Sources</b>		<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
<b>Water purchased from<sup>1</sup>:</b>	<b>Wholesaler supplied volume (yes/no)</b>					
	<b>Wholesaler</b>					
<b>Supplier-produced groundwater<sup>2</sup></b>		2,355	2,248	2,435	2,622	2,809
<b>Supplier-produced surface water</b>						
<b>Transfers in</b>						
<b>Exchanges In</b>						
<b>Recycled Water</b>			574	859	1,144	1,429
<b>Desalinated Water</b>						
<b>Other</b>						
<b>Total</b>		<b>2,355</b>	<b>2,897</b>	<b>3,444</b>	<b>3,991</b>	<b>4,539</b>

Units : acre-feet per year

## 4.2 Groundwater

Soledad falls within the Salinas Valley Groundwater Basin. The Basin follows the Salinas River, varying from 3 miles to 10 miles across and stretching through most of Monterey County. A map of the basin and its regions is shown in Figure 4.2. The basin is divided into four subareas: East Side, Pressure, Forebay, and Upper Valley. The City of

Soledad is in the Forebay Subarea, which has a total surface area of 94,000 acres. Soledad draws its water from the unconfined shallow aquifer zone, and overdraft has not historically been a problem in the Forebay Subarea. Groundwater production for the City has steadily increased over time, and is projected to further increase in coming years as a result of new developments.

Infiltration in the Salinas River channel is the principal source of groundwater for the Salinas Valley Groundwater Basin. Flows from the Salinas River channel and its tributaries percolate through alluvial materials and porous geological structures, recharging the local aquifers. Overdraft in the basin has caused saltwater intrusion in areas closer to the coast, but has never been identified as a problem in the Forebay Subarea. While seawater intrusion does not directly affect the City of Soledad, it is an issue for the Monterey County Water Resources Agency (MCWRA), which manages water resources throughout the county. The MCWRA Groundwater Management Plan was completed in May, 2006.

In the 2006 Salinas Valley Integrated Regional Water Management Functionally Equivalent Plan (IRWMP), it was estimated that the SVGB is in overdraft, with pumping exceeding recharge by up to 4% a year. This condition affects groundwater users in the Pressure Subarea along the coast, where seawater is intruding into the aquifer. The Salinas Valley Water Project, described below, will increase annual recharge and reduce well-pumping in the Pressure Subarea, and is expected to reduce or eliminate the overdraft condition. The overdraft condition does not affect groundwater users in the Forebay Subarea.

In order to best manage the groundwater basin, the MCWRA owns and operates the Nacimiento and San Antonio reservoirs, both on tributaries of the Salinas River upstream of Soledad. These reservoirs serve several purposes, one of which is to ensure that farms throughout the valley can have water year-round, particularly in the summertime when most crops are grown but rain is scarce. To do this, the reservoirs store excess winter flows and release them in the summer so that the Salinas River can recharge the groundwater basin throughout the year.

In addition to the City of Soledad, the City of Greenfield and local farmers also draw from the Forebay Subarea. Outside of the City's 2005 UWMP, there have been no attempts to quantify the total amount of water available to Soledad, and data on the subject is limited. In the 2005 UWMP, the total volume of groundwater available to the City was estimated to be 1,500,000 acre-feet based on a proportional percent of the total aquifer volume.

A more accurate way to analyze the water available to the City in any given year is to estimate the safe yield of the aquifer. The Salinas Valley Groundwater Basin (SVGB) is a regional resource that serves the majority of Monterey County. Annual usage varies with rainfall, but over the last decade groundwater use has ranged from 440,000 AFY to 527,000 AFY. Pumping from the Forebay Subarea accounts for 29% of the total groundwater use from the SVGB. Agricultural irrigation accounts for 91% of SVGB

water use, and 95% of the water use within the Forebay Sub-Area. Urban use accounts for the remaining five percent.

Total pumping from the Forebay Subarea over the last decade ranges from 124,000 AFY to 161,000 AFY, with an average annual pumping of 149,000 AFY. Even during severe drought conditions, drawdown of the aquifer in the Forebay Subarea has generally been limited to 15 to 20 feet (see Section 5.1). In the IRWMP, the total use of groundwater in the Salinas Valley is projected to decrease as agricultural land is converted to urban use, which has a lower per acre water demand. Additionally, agricultural water demand is declining due to implementation of conservation methods. Although a sustainable yield has not been estimated for the Forebay Subarea, for the purposes of this report we will use the average usage rate of 148,000 acre-feet per year. Given the storage available in the aquifer, and the relative lack of impact that drought conditions have on water availability, this number is conservative.

Table 4.3 and Table 4.4 illustrates the past and projected pumped groundwater, which is significantly smaller than the amount available using the 148,000 acre-feet per year sustainable yield value. As described previously, currently 100% of the City’s water supply is groundwater.

**Table 4.3 Past Groundwater Pumped**

<b>Groundwater — volume pumped</b>						
<b>Basin name(s)</b>	<b>Metered or Unmetered</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Forebay Subarea	Withdrawal metered	140,071	158,775	158,222	148,088	not avail
<b>City groundwater pumped</b>		3,122	2,549	2,554	2,410	2,355
<b>Groundwater as a percent of total water supply</b>		2.23%	1.61%	1.61%	1.63%	

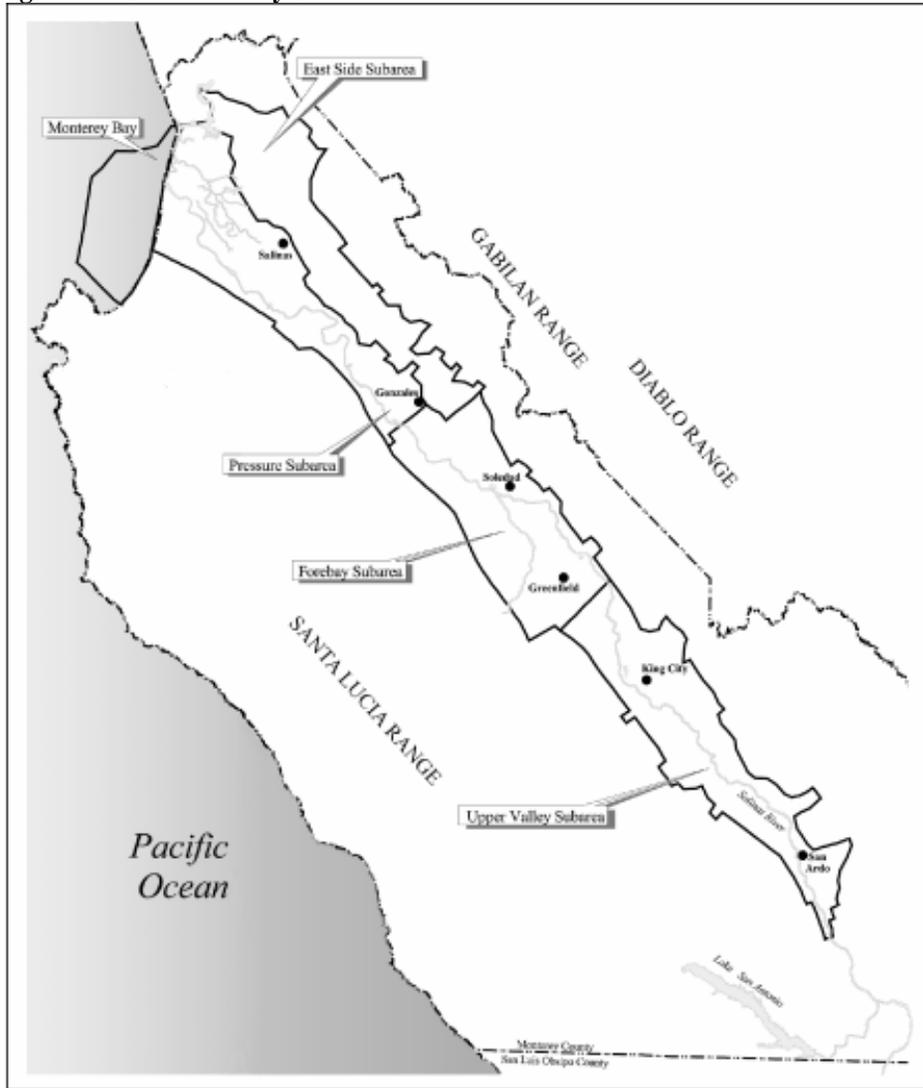
*Units : acre-feet per year*  
*Source: Public Works well data*

**Table 4.4 Projected Groundwater Pumped**

<b>Groundwater — volume projected to be pumped</b>				
<b>Basin name(s)</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Forebay Subarea (Sustainable Yield)	148,000	148,000	148,000	148,000
<b>City groundwater pumped</b>	2,897	3,444	3,991	4,539
<b>Percent of total water supply</b>	1.96%	2.33%	2.70%	3.07%

*Units : acre-feet per year*  
*Note: The values above do not consider the effect that recycled water use may have on amount of water pumped.*

**Figure 4.2: Salinas Valley Groundwater Basin**



Source: Monterey County Water Resources Agency, 1997.

Figure 3-2  
Salinas Valley Ground Water  
Basin SVIGSM Subareas

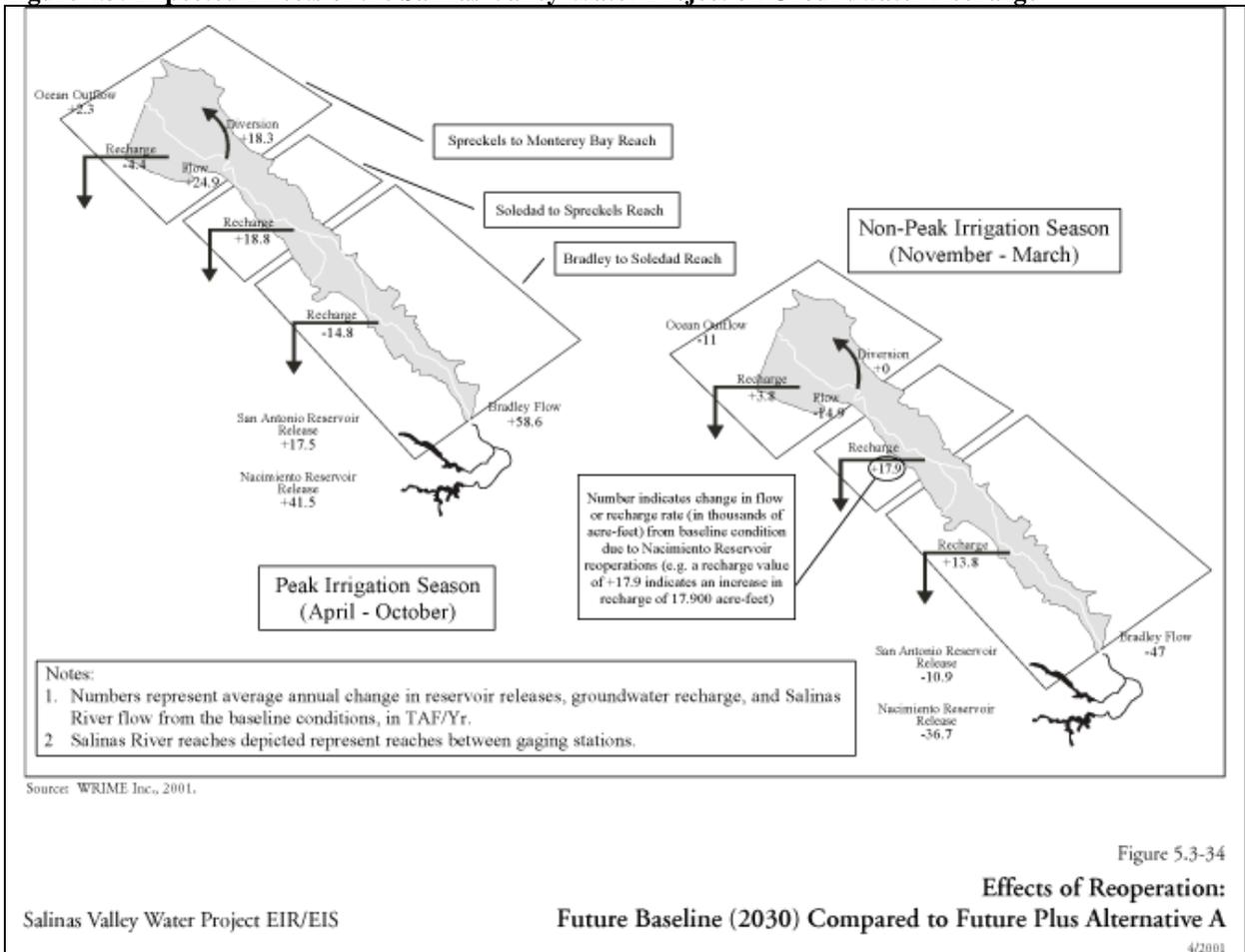
5/2001

Salinas Valley Water Project EIR/EIS

Source: Salinas Valley Water Project EIR/EIS

The Salinas Valley Water Project was completed in 2010 and is now operational. The project consisted of a modification of the Nacimiento spillway to allow for increased flow in the Salinas River throughout the summer. It also includes a rubber inflatable dam near the City of Marina that is operational during summer months to increase surface water diversions for irrigation as a means to mitigate saltwater intrusion. The inflatable dam is downstream from Soledad, however the altered reservoir releases are expected to increase recharge in the Forebay Subarea by approximately eighteen thousand acre-feet per year as shown in Figure 4.3.

**Figure 4.3: Expected Effects of the Salinas Valley Water Project on Groundwater Recharge**



## 4.3 Recycled Water

### 4.3.1 Wastewater System Description

#### Law

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. To the extent practicable, the preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies and shall include all of the following:

10633 (a) A description of the wastewater collection and treatment systems in the supplier's service area...

The City of Soledad operates one wastewater treatment plant, which treats the wastewater of the Prison as well as the City. The City Plant and the prison are linked by an 18-inch force main, allowing wastewater from the prison and City to be delivered to the City plant for treatment.

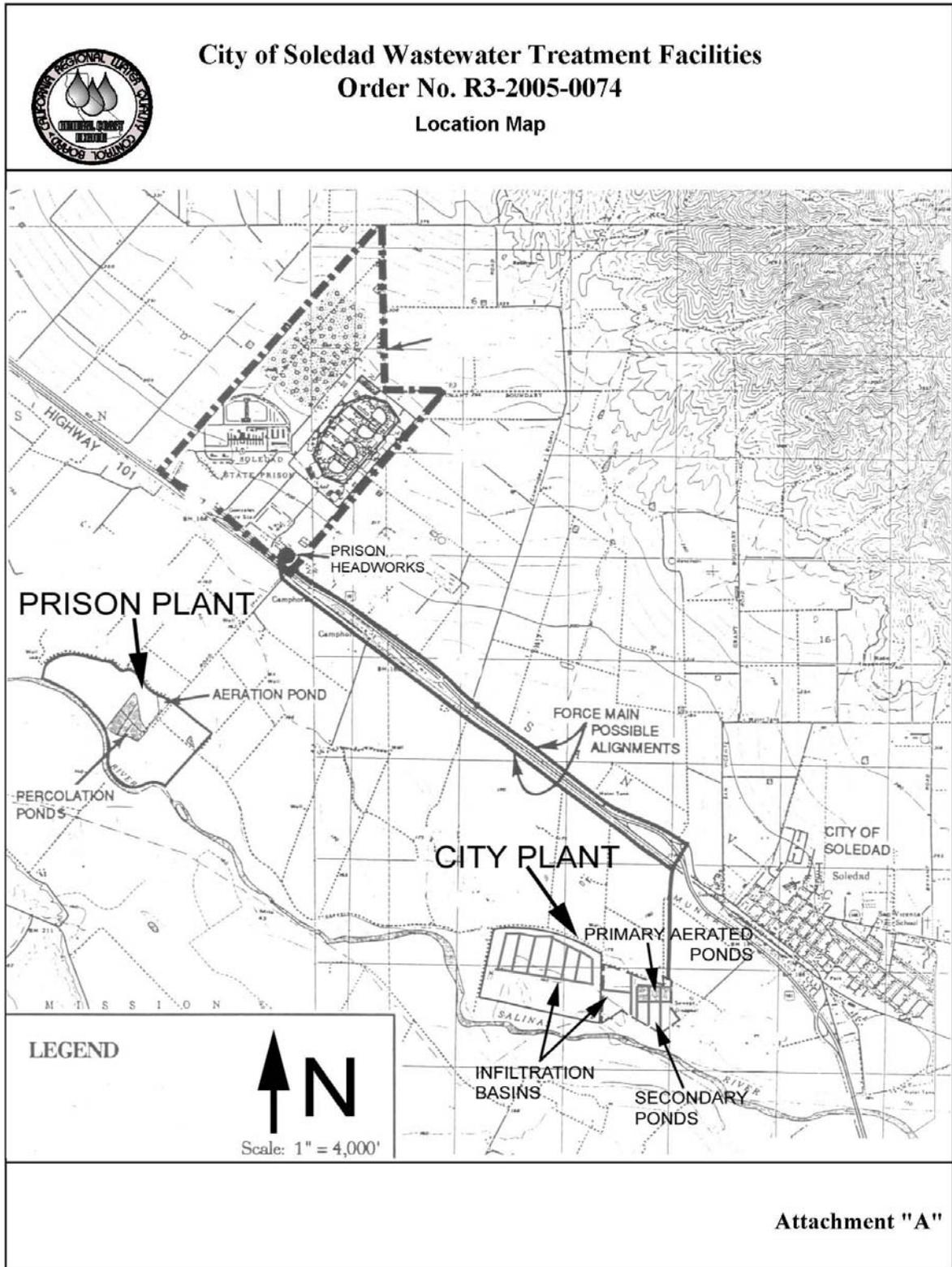
In 2010, the City completed its upgrade and expansion of the City Plant. The City Plant now has a treatment capacity of 5.5 million gallons per day (MGD), and meets the waste discharge requirement effluent limits adopted by the State Water Resources Control Board of California, as well as Title 22 Recycled Water standards. The current capacity is limited to 4.3 MGD by disposal capacity.

**Table 4.5 Recycled Water – Wastewater Collection and Treatment**

<b>Recycled water — wastewater collection and treatment</b>						
<b>Type of Wastewater</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Wastewater collected & treated in service area	1,232	1,680	2,016	2,352	2,800	3,136
Volume that meets recycled water standard	1,232	1,680	2,016	2,352	2,800	3,136
<i>Units : acre-feet per year</i>						

Source: Long-Term Waste Management Plan (assuming medium growth)

Figure 4.4: Wastewater Treatment Facilities Location Map



***Wastewater Treatment Processes***

Pretreatment occurs at the City headworks and consists perforated plate screening and vortex grit removal. For safety and security concerns the prisons have their own headworks also consisting of screens and comminutors. Treatment at the City Water Reclamation Facility consists of primary, secondary, tertiary and residual treatments. The primary treatment process involves the pretreatment of perforated plate screening and vortex grit removal. The secondary treatment comprises four-phase biological nutrient removal processes and clarification. Tertiary treatment includes flocculation, filtration and ultra-violet disinfection. Residual treatment involves the treatment of sludge stabilization and screw press sludge dewatering. Treated wastewater not reused flows to rapid infiltration basins for disposal.

The City water reclamation facility is located on relatively level topography consisting of sandy alluvial soils. Depth to shallow groundwater beneath the disposal areas of the City water reclamation facility generally exceeds 10 feet but is often reduced during the winter season due to elevated river flows and a mounding effect at the wastewater/groundwater interface.

**4.3.2 Recycled Water**

**Law**

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. To the extent practicable, the preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies and shall include all of the following:

10633 (a) A description of the [...] methods of wastewater disposal.

10633 (b) 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.

10633 (c) 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, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

10633 (d) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years.

The City of Soledad very recently completed an upgrade of the City Plant which, in addition to increasing plant treatment capacity to 5.5 MGD with a disposal capacity of 4.3 MGD, also treats wastewater to meet the waste discharge requirement effluent limits adopted by the State Water Resources Control Board of California as well as Title 22 standards for recycled water use.

### 4.3.3 Recycled Water Currently Being Used

Additional infrastructure is required to deliver recycled water to potential users. Currently, all effluent from the City water reclamation facility is disposed of via rapid infiltration basins. This water then percolates back into the aquifer. The city does not currently directly re-use any of its treated wastewater.

### 4.3.4 Potential Uses of Recycled Water

On May 9, 2008, the Regional Water Quality Control Board (RWQCB) issued order number WRR R3-2008-0042, Master Water Reclamation Requirements for the City of Soledad. This order upgraded the plant requirements to meet Title 22 of the California code regarding the production of recycled water. The order required treatment plant effluents to meet tertiary treatment standards by January 2010. These requirements are shown below. The Salt Management Program and Long-Term Waste Water Management Programs required under the previous WDR R3-2005-0074 were completed and implemented in May, 2006<sup>6</sup>.

**Table 4.6 Secondary Treatment Standards**

Constituent	Units	Maximum
BOD <sub>5</sub>	mg/l	10
TSS	mg/l	10
Ammonia (as N)	mg/l	5
Nitrate	mg/l	5
Total Dissolved Solids	mg/l	990
Sodium	mg/l	175
Chloride	mg/l	250
Boron	mg/L	0.5
Sulfate	mg/l	205

*Source: Waste Discharge Requirements Order No R3-2008-0042*

As of 2010, the City has completed the upgrade of its water reclamation facility to meet the tertiary treatment requirements outlined in WRR R3-2008-0042. The Recycled Water Ordinance adopted by the City in June, 2007, requires ongoing monitoring of wastewater effluent quality. The ordinance also requires all future development outside of infill and the Redevelopment Areas of the City to install dual systems for use of recycle water on all landscaping up to and including the front yards of single family residences. The City has a CDPH approved Recycle Water Users Manual.

The City has applied for Proposition 84 Integrated Regional Water Management grant to fund completion of design of a recycled water delivery system to both agricultural and recreational areas in and near the City, as well as fund research into the feasibility and conceptual design of providing treatment of the wastewater of the City's of Gonzales and Greenfield. The project, if funded, will construct a recycled water pump station and design and construct the final transmission pipes needed to connect the recycled water

<sup>6</sup> Long-Term Waste Management Plan Workplan

transmission mains already constructed to the new pump station, as shown in Figure 4.5. Design of the new pump station is complete. Completion of the project will enable delivery of recycled water to multiple landscape areas in the City currently being irrigated with potable water.

**Figure 4.5: Recycled Water Transmission Project**



The slower than anticipated development of the City and recycled water infrastructure explains the difference in volumes from the 2005 UWMP projections for 2010 and what was actually seen, as shown in Table 4.7. The recycled water distribution infrastructure has been partially constructed, as described above.

**Table 4.7 Recycled Water – 2005 UWMP Use Projection Compared to 2010 Actual**

<b>Recycled water — 2005 UWMP use projection compared to 2010 actual</b>		
<b>Use type</b>	<b>2010 actual use</b>	<b>2005 Projection for 2010<sup>1</sup></b>
Agricultural irrigation	0	480
Landscape irrigation <sup>2</sup>		
Commercial irrigation <sup>3</sup>		
Golf course irrigation		
Wildlife habitat		
Wetlands		
Industrial reuse		
Groundwater recharge	1,680	4,290
Seawater barrier		
Geothermal/Energy		
Indirect potable reuse		
Other (user type)		
Other (user type)		
<b>Total</b>	<b>1,680</b>	<b>4,770</b>

Units: acre-feet per year  
<sup>1</sup>From the 2005 UWMP. There has been some modification of use types. Data from the 2005 UWMP can be left in the existing categories or modified to the new categories, at the discretion of the water supplier.  
<sup>2</sup>Includes parks, schools, cemeteries, churches, residential, or other public facilities)  
<sup>3</sup>Includes commercial building use such as landscaping, toilets, HVAC, etc) and commercial uses (car washes, laundries, nurseries, etc)

The amount of wastewater projected to be disposed of (i.e. infiltrated) in the City of Soledad is illustrated in Table 4.8. Table 4.9, on the other hand, projects the amount of recycled water that is projected to be treated and used in Soledad. It is anticipated that once the recycled water line is installed, all projected landscaping demands will be met through recycled water delivery. This is the minimum amount of recycled water that may be required since it may be feasible and desirable to use recycled water for residential and commercial landscaping as well. However, a complete analysis of potential recycled water use demands is not available at this time.

**Table 4.8 Recycled Water – Non-Recycled Wastewater Disposal**

<b>Recycled water — non-recycled wastewater disposal</b>						
<b>Method of disposal</b>	<b>Treatment Level</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Rapid Infiltration Basins (percolation)	Tertiary	1,680	1,442	1,493	1,656	1,707
	<b>Total</b>	<b>1,680</b>	<b>1,442</b>	<b>1,493</b>	<b>1,656</b>	<b>1,707</b>

Units : acre-feet per year Note: Assumes recycled water line is completed by 2015

**Table 4.9 Projected Recycled Water Use**

Recycled water — potential future use						
User type	Description	Feasibility <sup>1</sup>	2015	2020	2025	2030
<b>Agricultural irrigation</b>						
<b>Landscape irrigation<sup>2</sup></b>		Feasible	574	859	1,144	1,429
<b>Commercial irrigation<sup>3</sup></b>						
<b>Golf course irrigation</b>						
<b>Wildlife habitat</b>						
<b>Wetlands</b>						
<b>Industrial reuse</b>						
<b>Groundwater recharge</b>						
<b>Seawater barrier</b>						
<b>Getothermal/Energy</b>						
<b>Indirect potable reuse</b>						
<b>Other (user type)</b>						
<b>Other (user type)</b>						
<b>Total</b>			<b>574</b>	<b>859</b>	<b>1,144</b>	<b>1,429</b>

Units : acre-feet per year

<sup>1</sup>Technical and economic feasibility.

<sup>2</sup>Includes parks, schools, cemeteries, churches, residential, or other public facilities)

<sup>3</sup>Includes commercial building use such as landscaping, toilets, HVAC, etc) and commercial uses (car washes, laundries, nurseries, etc)

Source: Long-Term Waste Management Plan

### 4.3.5 Encouraging Use of Recycled Water

#### Law

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. To the extent practicable, the preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies and shall include all of the following:

10633 (e) 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.

As described above, the City is actively pursuing funding to complete the infrastructure required to provide recycled water to existing residential, agricultural, and recreational uses. In addition, the City of Soledad intends to promote recycled water use by installing a reclaimed water distribution system in new residential developments (excluding infill). The use of recycled water through this “purple pipe” will be encouraged for outdoor water uses within the development, ensuring that the reclaimed water will be used.

There is more uncertainty concerning the reclaimed water that will be distributed for agricultural purposes from the existing treatment facilities. To encourage the use of recycled water for local agriculture, the City intends to offer the water at a negotiated cost, resulting in a discounted rate for the landowner relative to the cost of direct pumping. The future response of the agricultural community to the opportunity to receive recycled water for irrigation is unknown; as such, agricultural water re-use has not been included in future water use projections.

The City adopted a recycled water ordinance in June, 2007. The ordinance sets forth the following City policies:

- Recycled water shall be encouraged for any and all purposes approved by State regulations for recycled water use.
- Recycled water will be the primary source of supply for commercial and industrial uses, whenever the City determines that such use is available and/or feasible.
- Recycled water shall be used within the jurisdiction of the City whenever and wherever there is not an alternative higher or better use for the recycled water and its use is consistent with legal requirements, preservation of public health, the safety and welfare of the public, and protection of the environment.

**Table 4.10 Methods to Encourage Recycled Water Use**

<b>Methods</b>	<b>Methods Used</b>
Subsidized costs	✓
Grants	✓
Dual Plumbing Standards	
Regulatory Relief	✓
Regional Planning	✓
Incentive Program	
Long-Term Contracts (Price/Reliability)	✓
Rate Discounts	✓
Prohibit specific fresh water uses	
Low interest loans	
Public education	
Other (“guarantee” recycled water supply reliability)	

### **4.3.6 Recycled Water Optimization Plan**

**Law**

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. To the extent practicable, the preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies and shall include all of the following:

10633 (f) 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 and to promote recirculating uses.

The City's plans for optimizing recycled water use are included in their Long-Term Waste Management Plan Workplan, adopted in May, 2006.

#### **4.4 Future Water Projects**

##### **Law**

10631 (h) Include a description of all 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 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 does not plan to develop any new sources of water, but it does intend to continue making upgrades and expansions to its current system to keep up with current and future development. As described in Section 4.1, since the 2005 UWMP the City has completed construction of new storage tanks, booster pumps, main and valves, and installation of a SCADA system. In the near term, the City anticipates construction of two additional wells (#12 and #14). Pilot holes have been dug for these wells, and construction is anticipated to pace development projects in the City. Additionally, the City anticipates constructing of a pump station and transmission pipe for reclaimed water within the next five years, as described in Section 4.3.4.

#### **4.5 Other Water Supply Opportunities**

##### **4.5.1 Transfer or Exchange Opportunities**

##### **Law**

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

10631 (d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

The City does not currently buy or sell water to other agencies. The City has the potential to provide recycled water on a wholesale or retail basis to the state prison, local farms or nearby communities in the future. It is too early within the recycled water project to forecast external sales.

#### 4.5.2 Desalination

There are currently no opportunities for development of desalinated water. The City is over 30-miles from the ocean and does not overlie a brackish groundwater source. Since the City has an abundant source of groundwater the transport of desalinated water is not expected to be necessary.

#### 4.6 Water Quality

##### Law

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.

City water quality data can be seen in Table 4.11 below. Contaminants of local concern are pesticides and Total Dissolved Solids (TDS). The City also recognizes that pollutants of concern in common urban runoff may include sediments, non-sediment solids, nutrients, pathogens, BOD, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, pesticides and herbicides.

**Table 4.11 Water Quality Data**

<b>Constituent</b>	<b>City Water Supply (ppm)</b>	<b>Year Sampled</b>
Total Dissolved Solids	615	2006
Chloride	60	2006
Sulfate	115.5	2008
Boron	.185	2003

\*Annual Water Quality Report 2009

The City routinely tests all its wells to ensure that the groundwater pumped meets EPA and CDPH drinking water standards. The water quality of the primary wells is good and meets all standards. As previously stated, Wells 2 and 3 have elevated nitrate concentrations and some organic chemical contamination. These wells are not used, and are in the process of being decommissioned.

## 5.0 Water Supply Reliability and Water Shortage Contingency Planning

### Law

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

10631 (c) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable.

10631 (c) 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 replace that source with alternative sources or water demand management measures, to the extent practicable.

10631 (c) Provide data for each of the following:

(1) An average water year, (2) A single dry water year, (3) Multiple dry water years.

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:

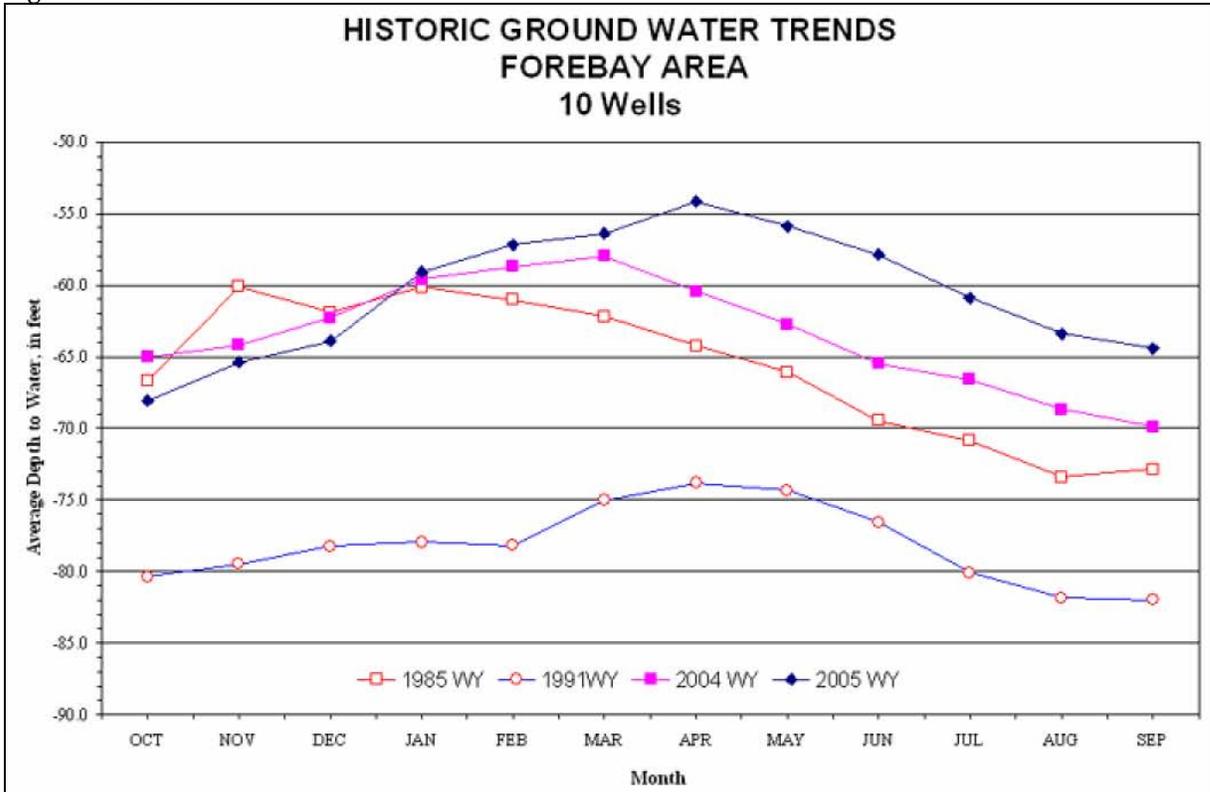
10632 (b) An estimate of the minimum water supply available during each of the next three-water years based on the driest three-year historic sequence for the agency's water supply.

### 5.1 Water Supply Reliability

Soledad falls in the Forebay Subarea of the Salinas Valley Groundwater Basin. The MCWRA reports that in all its years of measurement (since the 1950's), there has never been an instance of overdraft in the Forebay Subarea. Because Soledad falls just downstream of the confluence of the Salinas River and Arroyo Seco, its groundwater levels are particularly high and no overdraft is expected in the future. In fact, due to the above, no safe yield number has ever been calculated for the Forebay Subarea.

Figure 5.1 shows average depth to groundwater throughout the Forebay Subarea, where 1985 represents an average year and 1991 represents the final year of a three-year drought. While the groundwater table dropped between 90 and 100 feet in the areas near the coast, drawdown in the Forebay Subarea was generally limited to 15 to 20 feet. Since there is very little rainfall in the summer months, the groundwater table is generally ten feet lower during the summer than during the winter as can be seen in Figure 5.1. Regardless, Soledad's water supply has not proven vulnerable to seasonal changes.

Figure 5.1: Groundwater Trends



Source: [MCWRA Website](#)

There are several factors that could yield an inconsistency of supply. Earthquakes are common in coastal California, and could potentially disrupt water supply. Contamination is also possible. The City’s responses to the above are discussed in the City’s Emergency Response Plan (November 7, 2007). There are currently no legal threats to Soledad’s access to its water supply.

Table 5.1 Factors That Could Affect/Impact Consistency of Supply

Factors resulting in inconsistency of supply						
Water supply sources	Specific source name	Limitation quantification	Legal	Environmental	Water quality	Climatic
Groundwater	Forebay Area	N/A	None	Earthquake	Contamination	Drought

As described previously (Section 4.2), there are a variety of ways to classify the City’s water supply availability - there is the water supply available in the aquifer itself (i.e. the 2005 Plan method), the sustainable yield of the aquifer (discussed above; assumed herein to be equal to the historic annual average pumped), the water supply that the City has the capacity to pump, and the supply that it in fact pumps. The total water volume available to the City was estimated in the 2005 Plan as 1,500,000 acre-feet, and for the purposes of this report, the annual sustainable yield for the forebay aquifer is estimated as 148,000 AFY.

As the culmination of a three-year drought, 1991 is the driest year on record, with the groundwater table lowered by about 15 feet. The period of 1989-1991 was thus considered representative of three subsequent dry years, with the water table dropping five feet per year. To determine the total quantity lost in a dry year, the fall in groundwater was multiplied by the surface area in question (24,600 acres) and then by a porosity value of 0.4. The following tables illustrate the aquifer supply reliability, and confirm the abundance of water supply available to the City far into the future, including during drought scenarios. Within the last decade, rainfall and pumping records are inversely proportional. Since the majority of water use in the forebay area is agricultural, this is logical. Despite this increased pumping during dry years, the ability to pump in subsequent years is unaffected, and drawdown levels of the aquifer have not been significant. For these reasons, the sustainable yield estimated for this report (an average value) is assumed to be unaffected by a multi-year drought.

**Table 5.2 Basis of Water Year Data**

<b>Basis of water year data</b>	
<b>Water Year Type</b>	<b>Base Year(s)</b>
<b>Average Water Year</b>	1985
<b>Single-Dry Water Year</b>	1991
<b>Multiple-Dry Water Years</b>	1989-1991

Source: *MCWRA Website*:

**Table 5.3 Aquifer Supply Reliability – Historic Conditions**

<b>Supply reliability — historic conditions</b>					
<b>Average / Normal Water Year</b>	<b>Single Dry Water Year</b>	<b>Multiple Dry Water Years</b>			
		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>
Aquifer Volume = 1,500,000	1,450,800	1,450,800	1,401,600	1,352,400	1,303,200
Sustainable Yield = 148,000	148,000	148,000	148,000	148,000	148,000
Percent of Average/Normal Year (sustainable yield):	100.0%	100.0%	100.0%	100.0%	100.0%

**Table 5.4 Aquifer Supply Reliability – Current Water Sources**

<b>Supply reliability — current water sources</b>				
<b>Water supply sources</b>	<b>Average / Normal Water Year Supply</b>	<b>Multiple Dry Water Year Supply</b>		
		<b>Year 2011</b>	<b>Year 2012</b>	<b>Year 2013</b>
Forebay Subarea (sustainable yield)	148,000	148,000	148,000	148,000
Percent of normal year:	100.0%			

Units : *acre-feet per year*

**Table 5.5 Supply and Demand Comparison – Normal Year**

<b>Supply and demand comparison — normal year</b>				
	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
<b>Supply totals</b>				
<b>Available in Aquifer</b>	1,500,000	1,500,000	1,500,000	1,500,000
<b>Sustainable Yield</b>	148,000	148,000	148,000	148,000
<b>Pumping Capacity</b>	6,618	6,618	6,618	6,618
<b>Demand totals</b>	2,897	3,444	3,991	4,539
<b>Difference (Sustainable Yield - Demand)</b>	145,103	144,556	144,009	143,461
<b>Difference (Pumping Capacity - Demand)</b>	3,721	3,174	2,627	2,079
Difference as % of Supply (Sustainable Yield)	9.7%	9.6%	9.6%	9.6%
Difference as % of Supply (Pumping capacity)	56.2%	48.0%	39.7%	31.4%
Difference as % of Demand (Sustainable Yield)	90.3%	90.4%	90.4%	90.4%
Difference as % of Demand (Pumping capacity)	43.8%	52.0%	60.3%	68.6%

*Units: acre-feet per year*

**Table 5.6 Supply and Demand Comparison – Single Dry Year**

<b>Supply and demand comparison — single dry year</b>				
	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
<b>Supply totals</b>				
<b>Available in aquifer</b>	1,450,800	1,450,800	1,450,800	1,450,800
<b>Sustainable yield</b>	148,000	148,000	148,000	148,000
<b>Pumping capacity</b>	6,618	6,618	6,618	6,618
<b>Demand totals</b>	2,897	3,444	3,991	4,539
<b>Difference (Sustainable Yield - Demand)</b>	145,103	144,556	144,009	143,461
<b>Difference (Pumping Capacity - Demand)</b>	3,721	3,174	2,627	2,079
Difference as % of Supply (Sustainable Yield)	10.0%	10.0%	9.9%	9.9%
Difference as % of Supply (Pumping capacity)	56.2%	48.0%	39.7%	31.4%
Difference as % of Demand (Sustainable Yield)	90.0%	90.0%	90.1%	90.1%
Difference as % of Demand (Pumping capacity)	43.8%	52.0%	60.3%	68.6%

*Units: acre-feet per year*

**Table 5.7 Supply and Demand Comparison – Multiple Dry-Year Events**

<b>Supply and demand comparison — multiple dry-year events</b>					
		<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
<b>Multiple-dry year first year supply</b>	<b>Supply totals (Sustainable Yield)</b>	148,000	148,000	148,000	148,000
	<b>Demand totals</b>	2,897	3,444	3,991	4,539
	<b>Difference</b>	145,103	144,556	144,009	143,461
	Difference as % of Supply	98.0%	97.7%	97.3%	96.9%
	Difference as % of Demand	5008.7%	4197.3%	3608.3%	3160.6%
<b>Multiple-dry year second year supply</b>	<b>Supply totals (Sustainable Yield)</b>	148,000	148,000	148,000	148,000
	<b>Demand totals</b>	2,897	3,444	3,991	4,539
	<b>Difference</b>	145,103	144,556	144,009	143,461
	Difference as % of Supply	98.0%	97.7%	97.3%	96.9%
	Difference as % of Demand	5008.7%	4197.3%	3608.3%	3160.6%
<b>Multiple-dry year third year supply</b>	<b>Supply totals (Sustainable Yield)</b>	148,000	148,000	148,000	148,000
	<b>Demand totals</b>	2,897	3,444	3,991	4,539
	<b>Difference</b>	145,103	144,556	144,009	143,461
	Difference as % of Supply	98.0%	97.7%	97.3%	96.9%
	Difference as % of Demand	5008.7%	4197.3%	3608.3%	3160.6%

*Units: acre-feet per year*

**Table 5.8 Water Quality – Current and Projected Water Supply Impacts**

<b>Water quality — current and projected water supply impacts</b>						
<b>Water source</b>	<b>Description of condition</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Forebay Subarea	none	none	none	none	none	none

## 5.2 Water Shortage Contingency Plan

### 5.2.1 Preparation for Catastrophic Water Supply Interruption

#### Law

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:

10632 (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.

The City of Soledad has prepared a Water System Emergency Response Plan (ERP). The purpose of the ERP is to provide the City of Soledad with a standardized response and recovery protocol to prevent, minimize, and mitigate injury and damage resulting from emergencies or disasters of natural or man-made origin.

The goals of the ERP are:

- Rapidly restore water service after an emergency.
- Ensure adequate water supply for fire suppression.
- Minimize water system damage.
- Minimize impacts and loss to customers.
- Minimize negative impacts on public health and employee safety.
- Provide emergency public information concerning customer service.

The City of Soledad has considered the threats posed by natural events and weather related phenomena. Specific action plans (AP(s)) have been developed to guide a timely and prudent response should such threats be realized. The most relevant of these detailed APs are found in Appendix C. See Table 5.9 for considered catastrophes.

**Table 5.9 Preparation Actions for Catastrophe**

<i>Preparation Actions for Catastrophe</i>			
<b>Possible Catastrophe</b>	<b>Check if Discussed</b>	<b>Primary AP No.</b>	<b>Secondary AP No.</b>
<i>Natural Disasters</i>			
Earthquake	✓	8D	
Floods	✓	8A	
Winter Storm	✓	8B	
Hurricane	✓	8C	
Power Outage	✓	7	

The City of Soledad has developed specific AP documents to respond to the following man-made threats that were identified in the City’s vulnerability analysis. These AP documents are not included in Appendix C due to the sensitive and confidential nature of the information. They can be found in Appendix A of the City of Soledad’s Water System Emergency Response Plan, a confidential document kept at City offices.

<b>Continued Preparation Actions for Catastrophe</b>			
<b>Possible Catastrophe</b>	<b>Check if Discussed</b>	<b>Primary AP No.</b>	<b>Secondary AP No.</b>
<b><i>Man-made Threats</i></b>			
Threat of contamination to water system	✓	1A	1B
Confirmed contamination to water system	✓	1C	1B
Structural Damage from explosive device	✓	2	1A
Employee Assaulted with weapon	✓	3	
SCADA System Intrusion	✓	4	5
IT System Intrusion	✓	5	4
Chemical Release	✓	6	
Water Supply Interruption	✓	9	
Bomb Threat	✓	10A	10B, 10C

**5.2.2 Supplemental Water Supplies**

The City of Soledad’s Water System ERP identifies alternate water resources, emergency water supply calculations and emergency equipment and supplies. The City of Soledad has two alternate and independent raw water sources in the event of the failure of all four City wells, which is highly unlikely:

- Water Source 1: Braga Well off San Vicente Street
- Water Source 2: Salinas River

Each of these raw water services can supplement the water supply if the other sources are compromised. For additional information please refer to the City of Soledad’s Water System ERP.

**5.2.3 Water Shortage Contingency Ordinance/Resolution**

**Law**

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:

10632 (h) A draft water shortage contingency resolution or ordinance.

The City adopted Mandatory Water Conservation Regulations in 1993, which can be found in Chapter 13.09 of the City of Soledad’s Municipal Code and are attached as

Appendix D. The City of Soledad has not developed a formal water-rationing plan, except for that described herein. Additionally a model resolution is included as Appendix E that will be adopted in the case of an impending water shortage.

**5.2.4 Stages of Action**

**Law**

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:

10632 (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.

The City of Soledad utilizes a five-stage rationing plan to invoke during declared water shortages. The rationing plan includes voluntary and mandatory rationing, depending on the causes, severity, and anticipated duration of the water supply shortage.

**Table 5.10 Rationing Stages**

<b>Water shortage contingency — rationing stages to address water supply shortages</b>		
<b>Stage No.</b>	<b>Water Supply Conditions</b>	<b>% Shortage</b>
1	Levels in wells reach 220-235 feet below surface	5-10%
2	Levels in wells reach 235-250 feet below surface	10-20%
3	Levels in wells reach 250-265 feet below surface	20-30%
4	Levels in wells reach 265-280 feet below surface	30-40%
5	Levels in wells reach 280-300 feet below surface	40-50%

Levels in wells are recorded by the Distribution III Operator on a semi-annual basis. In case of a water shortage (Stages 3 and higher), the levels will be recorded weekly.

**Stage 1**

Soledad maintains an ongoing public information campaign consisting of distribution of literature, speaking engagements, monthly bill inserts, and conservation messages printed in the city’s local newspaper the “Soledad Bee”. The City of Soledad’s Mandatory Water Conservation Regulations are in place.

In June of 2009, a conservation measure regarding recommended residential landscape irrigation was published. During the following two months, residential water use decreased up to 40% compared to previous years usage. Therefore, these types of efforts have been shown to be extremely effective.

**Stage 2**

This stage is voluntary for high commercial and industrial uses of water and mandatory for water use within the City’s control, wherein a 50% reduction of potable water use is

required in all parks, medians, and public landscaped areas. In addition, the public will be encouraged to participate in water conservation practices by changing their water use habits and installing water efficient devices in their homes. Outreach will primarily be through informational means including news media and water conservation literature. Per the residential health and safety water quantity calculations found below, habit changes alone result in a 26% reduction of total water consumption, while replacement of standard fixtures with conserving fixtures within the home can result in a 43% reduction. Therefore, expected reduction due to these efforts far exceeds the required reduction at this level.

**Table 5.11 Residential Health and Safety Water Quantity Calculation**

<b>Fixture</b>	<b>Non-Conserving</b>	<b>Habit Changes</b>	<b>Conserving Fixtures</b>
Toilets	4 flushes x 6gpf 24 gpcd	3 flushes x 6gpf 18 gpcd	4 flushes x 1.5gpf 6.0 gpcd
Shower	6 min. x 4gpm 24 gpcd	4 min. x 4gpm 16 gpcd	6 min. x 2.5gpm 15 gpcd
Laundry	11 gpcd	9 gpcd	10 gpcd
Kitchen	9 gpcd	7 gpcd	8 gpcd
<b>Total gcd</b>	<b>68</b>	<b>50</b>	<b>39</b>

Source: *Wastewater Rate Study and Municipal Code Chapter 13.09 (Conserving Fixture gpf/gpm data.)*

### Stage 3

At this level, the City would eliminate its public potable water uses (City landscaping) entirely. The City would also notify schools, developers, and industrial water users of a water shortage, encouraging them to conserve. With continued public outreach, habit changes and fixture replacements, the demand reduction at this level will again far exceed the amount required.

### Stage 4

In order to supplement actions taken at the previous level, the City may temporarily increase water rates. Water rate increases will discourage use of water and prevent or defer installation of new landscaping. Additionally, further water use prohibitions will be required.

### Stage 5

This level would represent a true critical water shortage. The City would pass their model resolution prescribing additional rate increases, prohibiting unmetered usage including fire hydrants, and placing a ban on water use for any and all irrigation.

Stages 1-5 are summarized in Table 5.12.

**Table 5.12 Water Shortage Contingency – Consumption Reduction Methods**

<b>Water shortage contingency — consumption reduction methods</b>		
<b>Consumption Reduction Methods</b>	<b>Stage When Method Takes Effect</b>	<b>Projected Reduction (%)</b>
Additional rate increases, prohibition of unmetered usage including fire hydrants, and ban on water use for any and all irrigation.	1	10%
Industrial and commercial - voluntary reduction. City - mandatory 50% reduction in all parks, medians, and public landscaped areas. Public - encouraged to participate in water conservation practices by changing their water use habits and installing water efficient devices in their homes.	2	20%
City will eliminate public landscaping water use entirely and notify schools, developers, and industrial water users of a water shortage, encouraging them to conserve.	3	30%
City may temporarily raise water rates to discourage water use.	4	40%
Additional rate increases, prohibition of unmetered usage including fire hydrants, and ban on water use for any and all irrigation.	5	50%

**5.2.5 Prohibitions, Consumption Reduction Methods and Penalties**

**Law**

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:

10632 (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.

10632 (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.

10632 (f) Penalties or charges for excessive use, where applicable.

The City of Soledad’s Mandatory Water Conservation Regulations (see Appendix D) includes **current and ongoing** restrictions and prohibitions on various wasteful water uses such as:

- Repair of Plumbing, Sprinkler and Irrigation Systems
- Washing of Vehicles

- Cleaning of Structures
- Cleaning of Surfaces
- Water Spillage
- Swimming Pools and Spas
- Fountains
- Visitor Serving Facilities
- Public & Quasi-Public Entities
- Commercial Car Washes
- Construction Activities
- Use of Hydrants
- Leakage and Repair Program
- New Construction
- Retrofitting Existing Hotels and Motels

**Table 5.13 Mandatory Prohibitions by Stage**

<b>Water shortage contingency — mandatory prohibitions</b>	
<b>Examples of Prohibitions</b>	<b>Stage When Prohibition Becomes Mandatory</b>
Using potable water for street washing	Stage 1
50% reduction required in all parks, medians and public landscaped areas	Stage 2
All public landscaping water use	Stage 3
Unmetered usage such a fire hydrants	Stage 5

***Current & Ongoing Procedures***

- 1) In order to encourage cooperative efforts to achieve water conservation, it is the policy of the City of Soledad to issue a written warning notice when an alleged violation is first noted. Such warning shall include an explanation of the alleged violation. Any individual provided with such notice will then be given an opportunity to correct the identified problem.
- 2) Any violation that occurs or continues from one day to the next shall be deemed a separate violation, for each day during which such violation occurs or continues to occur.
- 3) The fine for the first violation of this chapter shall be fifty dollars.
- 4) The fine for second violation and each subsequent violation of Municipal Code Chapter 13.09 within a period of twelve months, regardless of the specific section or subsection violated shall be one hundred dollars.

***Shortage Stage Procedures***

- 1) Issue a written warning notice when an alleged violation is first noted. Such warning shall include an explanation of the alleged violation. Any individual provided with such notice will then be given an opportunity to correct the identified problem.
- 2) If the violation is not corrected after one written warning notice, the City shall

- install a flow restrictive device on the service line of any customer observed by Soledad’s personnel to be using water for any non-essential or unauthorized use.
- 3) Repeated violations of unauthorized water use will result in discontinuance of water service.

These procedures are summarized in Table 5.14.

**Table 5.14 Water Shortage Contingency – Penalties and Charges**

<b>Water shortage contingency — penalties and charges</b>	
<b>Penalties or Charges</b>	<b>Stage When Penalty Takes Effect</b>
Penalty for excess use	Stage 1
Charge for excess use	Stage 1
\$50 fine for first violation of Muni Code 13.09	Stage 1
\$100 fine for subsequent violations of Muni Code 13.09	Stage 1
If violation is not corrected after one written warning notice, the City shall install a flow restrictive device on the customer's service line	Stage 1
Repeated violations will result in discontinuance of service	Stage 1

### **5.2.6 Revenue and Expenditure Impacts and Measures to Overcome Impacts**

#### **Law**

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:

10632 (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...

10632 (g) [An analysis of the impacts of each of the] proposed measures to overcome those [revenue and expenditure] impacts, such as the development of reserves and rate adjustments.

Imposing water restrictions on customers would have an impact on City revenues. The following table shows the estimated impacts on revenues resulting from implementing various levels of restrictions.

**Table 5.15 Revenue Impacts From Water Restrictions**

<b>Revenue Impacts From Water Restrictions</b>		
<b>Rationing Stage</b>	<b>Revenue Reduction</b>	<b>Percent of Total Annual Revenue</b>
<b>Stage 1 ( 5-10%)</b>	\$40,781	3.33%
<b>Stage 2 ( 10-20%)</b>	\$81,562	6.66%
<b>Stage 3 ( 20-30%)</b>	\$122,343	9.99%
<b>Stage 4 ( 30-40%)</b>	\$163,125	13.33%
<b>Stage 5 ( 40-50%)</b>	\$203,906	16.66%

Revenue reduction = percent decrease times projected normal revenue for usage for June, July, August & September. Average normal revenue (for the specified time period) over the past three fiscal years was used.

Source: Finance Department

The City currently maintains an operating reserve amounting to \$400,000 in its water capital budget in case of emergencies.

Under long-term drought conditions, it may be necessary to institute temporary increases to rates to cover increased operating expenses. One option that the City could utilize would be to adopt a surcharge or flat rate increase over a specific time period to cover increased operating expenses while under water shortage. This measure would allow the City to implement various levels of rate increases after City Council, by resolution, has declared a threatened shortage of funds due to water shortage or other emergency.

Conditions of drought and the implementation of water restrictions would also impact expenditures. Reduced availability of groundwater would produce higher energy bills. The difference in groundwater elevation would lengthen the pumping time required to produce the same amount of groundwater. A detailed study on how a drought would impact City expenditures has not been completed at this time.

### **5.2.7 Reduction Measuring Mechanism**

**Law**

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:

10632 (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

Under normal water supply conditions, potable water production figures are recorded daily. Totals are reported weekly to the Water treatment Facility Supervisor. Totals are reported monthly to the Water Department Manager and incorporated into the water supply report.

During a Stage I or Stage II water shortage, daily production figures read from wellhead meters will be reported to the Utilities Department. The Supervisor compares the weekly production to the target weekly production to verify that the reduction goal is being met.

Monthly reports will be sent to the City Council. If reduction goals are not met, the manager will notify the City Council so that corrective action can be taken. During a Stage III or Stage IV water shortage, the procedure listed above will be followed, with the addition of monitoring production figures by sector and furthermore by consumer.

During emergency shortages Stage V, production figures will be reported to the Supervisor hourly and to the Manager and the Water Shortage Response Team daily. Daily reports will also be provided to the City Council and the Monterey County Office of Emergency Services.

### **5.3 Drought Planning**

As previously described (Section 5.1), the City water supply (i.e. water available in the aquifer) is significantly greater than the anticipated demand even during a multi-year drought scenario. As such, the City does not have specific drought planning measures other than what has been described in the mandatory water conservation and planning measures described above. That said, the City does employ several ongoing water conservation measures and is working towards utilizing significant amount of recycled water, as described elsewhere in this report.

## 6.0 Demand Management Measures

### Law

10631 (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:.....

The City became a member of the California Urban Water Conservation Council (CUWCC) in 2011. The annual AB 1420 Self-Certification Statement Tables 1 & 2 were sent to the California Department of Water Resources on March 1, 2011. Because the City is such a recent member of the CUWCC, they have not yet completed an annual report. As such, for the 2010 UWMP, the each required Demand Management Measure (DMM) is discussed in detail below. A copy of the Self-Certification Tables is included in Appendix F. It is anticipated that in future Plan updates, the City will submit a copy of their CUWCC annual report in lieu of describing DMMs within the Plan. Further, each DMM is discussed following the table.

**Table 6.1 Demand Management Measures and Implementation Schedule**

DMM #	DMM Name	Scheduled Implementation Start Date	Fully Implemented By Date
1.	Water Survey Program	September, 2010	July, 2012
2.	Plumbing Retrofit	July, 2011	July, 2012
3.	Water System Audits	January, 2008	December, 2011
4.	Metering w/ Commodity Rates	October, 2010	December, 2011
5.	Large Landscape Program	October, 2010	September, 2011
6.	Washing Machine Program	July, 2011	July, 2012
7.	Public Information Program	September, 2009	December, 2011
8.	School Education Program	January, 2008	December, 2011
9.	Commercial, Industrial, Institutional Program	October, 2010	September, 2011
10.	Wholesaler Assistance	N/A	N/A
11.	Conservation Pricing	January, 1996	January, 1997
12.	Conservation Coordinator	December, 2010	December, 2011
13.	Water Waste Prohibition	December, 1993	December, 1994
14.	Residential ULFT Program	July, 2011	July, 2012

### 6.1 DMM 1 - Water Survey Program

The City is in the process of developing and conducting an indoor and outdoor water survey for single/multi-family residential customers. This effort began in September, 2010, and is anticipated to be complete by July, 2012. The effort is currently approximately 10% complete. The survey questionnaire is still in development, and shall include solicitation of information such as:

- Type and age of residence
- Number of connections to the water system
- Number of household individuals
- Specific to landscaping, description of area(s) broken down by grass, hardscape, landscape, and garden, approximate slope, type of irrigation and sprinkler heads used, and amount of shade.
- Description of in-home toilets, faucets, showers (including flow rate and leaks)
- Quantification of frequency and duration of showers, baths, washer and dishwasher loads, and car washes.
- Description of pool or spa.
- Amount of utility bills for past 12 months
- Whether or not the residence is a working home such as a day care.

The questionnaire will be posted to the City website by August, 2011, with participation encouraged through announcements included in two consecutive utility billings. Also by August 2011 a procedure for reviewing and following-up on the responses will be developed.

Based on the existing conditions of the City, it is projected that approximately 40% of returned surveys will belong to single and multi family homes that were built before 1980, and 60% of surveys will belong to those homes built after 1980. The intended goal is to have 15% of each residential category return their surveys by December, 2011, and the City is projecting that at least 5% of returned surveys will retrofit their homes. Ultimately the surveys will be used to target households for outreach to receive conservation tips and suggestions specific to their household, resulting in lower overall water consumption. Effectiveness will be measured by comparing historic use with current use for those customers targeted. The following table represents water savings that may be achieved through this program:

**Table 6.2 Typical Water Savings**

	<b>Pre-1980 Construction</b>	<b>Post-1980 Construction</b>
Low-flow showerhead retrofit	7.2 gcd	2.9 gcd
Toilet retrofit (five year life)	1.3 gcd	0.0 gcd
Leak repair	0.5 gcd	0.5 gcd
Landscape survey (outdoor use reduction)	10%	10%

**Table 6.3 Projected Water Survey Program Savings**

<b>Planned Measures</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Number Single Family Surveys	4,004	-	-
Number Multifamily Surveys	2,449	-	-
Projected Expenditures (\$)	\$5,334	\$1,800	\$1,000
Projected Water Savings(AFY)	-	0.2	1.7

**6.2 DMM 2 - Plumbing Retrofit**

The City began developing their plumbing retrofit program in 1994 under Chapter 13.09 Municipal Code Requirements. Under code regulations, retrofitting of toilets and showerheads is required upon change of ownership or use for existing residential structures, while retrofitting of toilets is required upon change of ownership or use for existing commercial and industrial structures. Additionally, the City is currently beginning implementation of an ULFT program as described under DMM 14 – Residential ULFT.

Utilizing DMM 1, the City will be able to track which homes are lacking water saving devices so that it is flagged during the transfer of ownership and/or change of use process. Each year the number of homes without conserving fixtures will decrease. This program may go into effect immediately once returned water surveys are processed, or no later than beginning July 2011.

Based on the existing conditions of the City, it is projected that approximately 35% of returned surveys will belong to single multi family homes that were built before 1994, and 65% of surveys will belong to those homes built after 1994. Of the 15% of each residential category that return their surveys by December, 2009 (same survey as described in DMM 1), the City is projecting that at least 5% of returned surveys will have their homes sold in the year 2009, and again in 2010 of the Pre- and Post-1994 construction. Of those homes sold, 80% of the Pre-1994 construction require retrofits, while only 40% of the Post-1994 construction require retrofits.

Utilizing internal resources (community development housing data), the City may determine the number of pre- and post-‘94 homes (consistent with construction stipulations per the City’s Municipal Code Section 13.09) so that the City may additionally target 5% of the pre-1994 single family homes and multi-family homes every two years for showerheads and ultra-low flush toilet replacements. Of the 2.5% targeted each year, the City is assuming that half will require retrofit. Typical water savings from Table 14A is used in this analysis.

The City has not tracked the number of Pre-1992 single and multi family residential accounts thus far; as described above, a distinction will be determined (albeit for the year 1994 used as the cutoff since this is consistent with when the City’s retrofit ordinance went into effect) and utilized in the future for this DMM.

**Table 6.4 Projected Plumbing Retrofit Savings**

<b>Planned Measures</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Number Single Family Devices	-	133	142
Number Multifamily Devices	-	81	96
Projected Expenditures (\$)	\$5,300	\$1,841	\$1,891
Projected Water Savings(AFY)	0.0	1.5	1.7

**6.3 DMM 3 – System Water Audits, Leak Detection and Repair**

Per the requirements stipulated in the City Municipal Code Chapter 13.09, the Public Works Director shall maintain in effect a distribution system leakage detection and repair program. The City initiated this program in January 2008, and the System Audit is currently underway, and anticipated to be completed in December, 2011.

As part of this program, the City has installed SCADA and radio read meter software which tracks water use and flags users with significant increases in their water usage. The City is in the process of developing a program of investigating and communicating with the owners of these flagged accounts to detect if a leak is occurring and initiate repair measures.

Additionally, the City has appointed the Public Works Department to handle and schedule physical audits and repairs. The Public Works Department is currently developing a system for implementing testing agents within the distribution pipelines to determine where specifically a leak exists when the physical audit indicates a substantial (greater than 6%) loss. Discovered leaks will then be slated for repairs, although thus far the audit has not discovered any significant leaks within the system.

Documentation of each incidence and/or detected leak will be kept along with the date repairs are made. Once a repair is made, a minimum of two month’s follow up of well production versus use data will be tracked to determine the total amount of water savings through said repair.

The auditing system is now automated for efficient tracking via the SCADA installed in 2008 and the radio read meter system completed in 2010. Annual reviews shall be conducted. Effectiveness will be evaluated by seeing a marked decrease in losses each year until losses fall below the threshold 6% value. The Public Works Director will submit annual reports to the City Council, per Code requirements. Ultimately the City will see an estimated savings of 150 AFY once the 6% threshold is reached.

In order to project system needs without having formal audit information to work off of, the City anticipates that for each of the planned implementation years, the primary (and necessary) focus will be on the 4” lines located mainly in the older part of town that exhibit the most deterioration of the system. It is anticipated that 10% of all 4” lines will be surveyed each year, and 50% of those lines will require replacement until the 6% threshold is achieved (approximated to occur by 2013 per table below).

**Table 6.5 Projected Water Audits, Leak Detection and Repair Savings**

<b>Planned</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
% of unaccounted water	13%	9%	4%	4%
Miles of main surveyed	0.39	0.39	0.39	0.39
Miles of lines repaired	0.19	0.19	-	-
Projected Expenditures (\$)*	\$2,632	\$2,709	\$2,785	\$2,862
Projected Water Savings (AFY)	18.2	21.5	25.6	25.6

\*Does not include costs of labor or materials associated with construction.

Table 6.5 does not include the costs of design or construction of system repairs. The City has expended over \$500,000 to date in implementation of DMM 3.

**6.4 DMM 4 – Metering with Commodity Rates**

The City is fully metered for all customer sectors, including separate meters for single-family residential, commercial, large landscapes, and all institutional/governmental facilities. Implementation of DMM 4 began in October 2010 with a physical reading of all operational meters for water auditing purposes. Initial results of this ongoing water audit reveal that the metering of multi-family residential is inconsistent – although completely metered, the number of meters per unit varies.

The City requires meters for all new connections. Water billing is based on volume of use with a minimum monthly fee of \$11.73 assessed to each user regardless of which category the customer fits into. As meter size increases, so does the monthly fee. See the table below for breakdown.

**Table 6.6 Water Rate Structure Breakdown by Meter Sizes**

<b>Meter Size (Inches)</b>	<b>Minimum Monthly Fee</b>
5/8	11.73
¾	11.73
1	20.55
1-1/2	26.45
2	35.27
3	70.50
4	91.10
6	158.66
8	235.07
10	282.09

Most existing City parks have meters; only one park does not have meters, and this park will have a meter installed by 2012. The City has completed a program for installing and/or retrofitting existing unmetered connections, including City parks. Further, the City will work to install or have the property owners install separate meters in those areas where a single meter currently serves multiple units, as stipulated under Chapter 13.40 Utility Charges of the Municipal Code.

The City assumes that 20% water savings will be achieved through the end-user now that the new meters are installed in unmetered locations, and 15% water savings will be achieved due to completed retrofits of existing meters and code implementation where single meters serving multiple units will be replaced with be separate meters for each unit.

Total current number of accounts: 4095

Total current number of accounts w/o commodity rates: 0

**Table 6.7 Projected Metering with Commodity Rate Water Savings**

<b>Planned</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Number Unmetered Accounts -Single Family	0	0	0	0	0
Number Unmetered Accounts - Parks	1	0	0	0	0
Projected Meters to be Retrofit					
Number of Accounts without Commodity Rate	0	0	0	0	0
Projected Expenditures (\$)	See Below				
Projected Water Savings(AFY)	48.2	52.7	54.6	56.0	57.3

The City has expended \$1,600,000 to date on the implementation of this DMM. Estimates on future expenditures are not currently available, as coordination with individual property owners is required.

**6.5 DMM 5 – Large Landscape Water Audits and Incentives**

A large landscape water auditing and incentive program will be developed by the City that includes irrigation surveys solicited of the City’s large landscape customers (to be defined as three acres or greater). The program will incorporate calculations of water budgets for the site based on the size of the landscape and the climate, and compared against the water allotment for that site. Any water use which exceeds the water budget will be billed at a higher rate. On-site follow-up evaluations will be recommended for customers whose annual water use exceeds their water budget.

This program was initiated in October of 2010 and will be implemented over the next five years. Ordinance Number 672 was introduced and read at a meeting of the Soledad City Council on October 6, 2010, and passed and adopted on November 3, 2010. The ordinance included an adoption of the 2010 California Green Building Standards Code Par 11, which implements the same standards as the State Water Efficient landscape Ordinance. Additionally, the City’s Municipal Code reference the California State Water Efficient Landscape Ordinance as the code to be followed for appropriate landscape areas.

The City projects they’ll conduct 12 surveys for developing site-specific budgets in the year of 2011. The follow up inspections will start in 2012. It is projected that the landscape areas maintained by the Landscape Assessment District will be part of this DMM. Several parks and landscape strips are included in the landscape Assessment District, accounting for approximately 12 acres of land. Another possible landscape customer will be the School District that currently has seven schools in Soledad. It is

projected that 80% of each area will have lawn areas and will use a sprinkler system as an irrigation tool, with the remaining 20% assumed to have vegetation consuming a relatively insignificant amount of water. Computer programs such as AutoCAD and GIS were used to project the areas covered by the large landscape customers within the City limits.

It is expected that large sized landscapes upgraded based on survey recommendations could result in a 15% reduction in water demand.<sup>7</sup>

**Table 6.8 Projected Large Landscape Conservation Program & Incentive Water Savings**

<b>Planned</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Number of Surveys Completed	12	0	0	0	0
Number of Budgets Developed	12	0	0	0	0
Number of Follow-up Visits	0	12	12	12	12
Projected Expenditures (\$)	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
Projected Water Savings(AFY)	24.0	28.3	32.6	35.9	37.1

With construction of the infrastructure necessary to connect existing ‘purple pipe’ to the Water Reclamation Facility, the City anticipates replacing potable water with recycled water for all of the City owned landscape area, and many of the private landscaped areas as well. These water reductions have not been included in Table 6.8, since they are captured in the Recycled Water (Section 4.1) discussion herein.

The City will also investigate the existence of a nearby California Irrigation Management Information System (CIMIS) weather station where daily climatological data (temperatures, relative humidity, wind velocity, and precipitation) are documented. This data may ultimately be used to develop irrigation schedules that will help to maximize water use by adjusting timing, quantity, and frequency of watering.

**6.6 DMM 6 – Washing Machine Rebate**

The City is evaluating developing their washing machine rebate program. The City recognizes that high-efficiency washers use approximately 25 gallons per load, versus 40 to 50 gallons per load for top loader machines. The washing machine is the second biggest water-user in most households; only the toilet will use more water (see below table). The next washing machine you buy will have an enormous effect on the amount of water you'll use over the next 10 years. The City proposes to provide customers with a **\$100 rebate** on their water bill when a customer purchases a qualifying high-efficiency washing machine. Similar to the toilet rebate, a customer must complete a rebate form.

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<sup>7</sup> CUWCC Memorandum

**Table 6.9 Typical Municipal Water Use in USA**

Device	Percentage
Shower	21.20%
Faucet	11.70%
Toilet	28.40%
Clothes- Washer	21.20%
Toilets Leaks	5.50%
Baths	8.95%
Dishwashers	3.10%

The City proposes to develop the rebate form and a list of washing machines that qualify under this program. The program should be developed by July 2011, pending Council approval. At this time, the City anticipates offering 50 rebates per year to its customers depending upon each year’s budgets. As a starting point, 95% of single family homes are assumed to own washing machines; of those it is expected that 30% are energy-efficient. Likewise for multi-family homes, 65% are assumed to own washing machines; of those it is expected that 5% are energy-efficient.

**Table 6.10 Projected High-Efficiency Washing Machine Rebate Programs Water Savings**

Planned	2011	2012	2013	2014	2015
\$ per Rebate	\$100	\$100	\$100	\$100	\$100
Projected Number of Rebates to be Paid	5	10	15	20	25
Projected Expenditures (\$)	\$500	\$1,000	\$1,500	\$2,000	\$2,500
Projected Water Savings(AFY)	0.1	0.3	0.7	1.1	1.7

**6.7 DMM 7 – Public Information**

The City is currently implementing a public information program newly developed as an element of the City’s Water Reclamation Facility upgrade. It is anticipated that through education on water usage and saving tips that there would be a reduction in water used and influent to the water reclamation facility. Public outreach includes the following:

Utility Bills

Monthly utility bills are sent to each customer in the City. Included as part of the billing process is the ability to include a short notice (less than 32 characters) on each bill. The City utilizes this space to include water conservation messages on each of the utility bills in both English and Spanish. Below is a listing of past and potential future messages:

1. We need your help to conserve
2. Help conserve, use less water
3. Fix toilet leaks & save water
4. Less flushes reduces flow
5. Wash full loads of clothes
6. Install low flow devices
7. Quick showers, flush less

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8. Don't waste, conserve water
9. Don't throw trash in toilets
10. Fix dripping water/shower faucets
11. Capture tap water/ reuse on plants

Public Outreach

Varied methods to inform the public on water conservation efforts and tips are conducted, including:

1. A power point presentation on the City efforts and outreach. City Staff present to different non-profit organizations, businesses and schools.
2. Door hangers have been made with information on the City's situation and tips on how citizens can help reduce flow to the water reclamation facility.
3. Tips are continuously posted to reduce flow to water reclamation facility on Soledad's Local Channel.
4. Information will be placed on the City's website with links on conservation measures.
5. Direct mailings to all citizens on conservation measures are initiated during drought conditions.

Projected costs shown in the below table are based upon approximate amount of time required of Staff as well as associated materials and expenditures.

**Table 6.11 Projected Public Information Program Expenditures**

<b>Planned Outreach</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Public Service Announcement - Local TV Channel (ea)	26 \$404	26 \$416	26 \$428	26 \$440	26 \$405
Utility Bills Announcements (ea)	6 \$128	6 \$131	6 \$135	6 \$139	6 \$143
Door Hangers with information & Tips (ea)	0.5 \$296	0.5 \$305	0.5 \$314	0.5 \$323	0.5 \$332
Presentations at Business & Non-profit organizations (ea)	6 \$768	6 \$791	6 \$814	6 \$837	6 \$860
Brochures (ea)	0.5 \$163	0.5 \$168	0.5 \$173	0.5 \$178	0.5 \$183
Direct Information send to customers (ea)	1 \$5,000	1 \$5,000	1 \$5,000	1 \$5,000	1 \$5,000
Web Information (ea)	2 \$467	2 \$481	2 \$495	2 \$509	2 \$523
<b>Projected Expenditures \$</b>	<b>\$7,226</b>	<b>\$7,292</b>	<b>\$7,359</b>	<b>\$7,426</b>	<b>\$7,446</b>

**6.8 DMM 8 – School Education**

The City will develop educational materials such as water conservation posters and classroom presentations. Although the City has combined water conservation presentations with other school education programs in the past, the City plans to put on specific water conservation programs for elementary school children beginning in 2011. They plan to visit 3<sup>rd</sup> to 5<sup>th</sup> grade classrooms on a bi-annual basis. Once an elementary school water conservation program is established, additional water conservation programs will be developed to include grade appropriate materials for middle and high school students. The City plans to have a complete school education program in place by the 2012 school year.

All materials prepared for distribution or presentation to the students will be from an approved source, such as from the California Environmental Protection Agency’s website or other.

**Table 6.12 Projected School Education Program Expenditures**

<b>Projected</b>	<b># Classes/Year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Grades 3<sup>rd</sup> – 5<sup>th</sup></b>	<b>45</b>	2	2	2	2	2
<b>Grades 6<sup>th</sup> – High School</b>	<b>26</b>	-	-	1	1	1
<b>Projected Expenditures \$</b>		<b>\$1,500</b>	<b>\$1,530</b>	<b>\$1,560</b>	<b>\$1,591</b>	<b>\$1,622</b>

In order to evaluate the effectiveness of this program the City will survey the institutions and educators on the number of programs, materials and attendance at water conservation activities.

The City has no method to quantify the water savings associated with this DMM but believes that this program is in the public’s interest, and that awareness alone will result in significant savings.

**6.9 DMM 9 – Commercial, Industrial, and Institutional Water Conservation**

The City is fully metered for all customer sectors, including commercial, industrial and institutional accounts. (The reader is directed to Table 3.2 for a breakdown of accounts by sector.) The City began developing their plumbing retrofit program in 1994 under Chapter 13.09 Municipal Code Requirements (Included in Appendix D). Under code regulations, retrofitting of toilets is required upon change of ownership or use for existing commercial and industrial structures. In order to accelerate this process the City will implement an Accelerated Fixture Replacement Program (AFRP).

The City will utilize the survey results from DMM 1 to identify and rank commercial, industrial, and institutional accounts that will be targeted to participate in the AFRP. It is projected that 15% of commercial, industrial, and institutional accounts will return their surveys, and at least 5% of the owners of those returned surveys will retrofit. Incentive

Programs will be evaluated once water saving success is measured with those DMMs targeting rebate programs for fixture replacements.

The AFRP will accelerate replacement of existing high water using toilets with ultra low flush (1.6 gallons or less). The number of commercial, industrial and institutional accounts with water conserving fixtures is expected to increase annually. The City began implementing this DMM in 2010 with an annual target rate of 5% increase in use of water conserving fixtures for at least the next five years.

The City will evaluate the effectiveness of this DMM by annual review of customers' water use, and by offering on-site follow-up evaluations to customers whose total water use exceeds their total annual water budget. Projected expenditures for DMM 9 are illustrated at Table 6.13.

**Table 6.13 Projected Commercial, Industrial, and Institutional Water Conservation Program Savings**

<b>Planned Measures</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Number of Surveys Completed	27	23	19	16	14
Projected Incentives?*	No	No	No	No	No
Number of Follow-up Visits	-	27	23	19	16
Projected Expenditures (\$)	\$524	\$539	\$554	\$569	\$585
Projected Water Savings(AFY)	-	1.7	3.5	7.0	10.5

\*City will evaluate water saving success of DMM 6 & DMM 14 in considering appropriate incentive options. Incentive/Rebate Costs have not been included in Project Expenditures in Table 6.13

### **6.10 DMM 11 - Conservation Pricing**

The City is fully metered for all customer sectors, including separate meters for single-family residential, commercial, large landscapes, and all institutional/governmental facilities.

The City has a tiered water use rate structure put into effect in 1996, with a minimum monthly fee of \$11.73 assessed to every use category. More information is found under DMM 4. The structure is shown in the table below. Appendix G shows the complete breakdown for water rates.

**Table 6.14 Typical Water Rates**

<b>METERED USAGE</b>	<b>RATE</b>
2,000	\$.63/100 CF
2,000 – 3,000	\$.95/100 CF
3,000 – 5,000	\$1.10/100 CF
Over 5,000	\$1.44/100 CF

Source: Finance Department

Water savings effectiveness is measured through periodic review of customer water use, comparing current water use per capita with historic data. It is estimated that metered accounts may result in a 20% reduction in demand compared to non-metered accounts.

A new wastewater service rate charge for the City of Soledad was implemented on April 2006. An updated rate schedule was adopted in 2008 with incremental increases over a four year period. The new monthly rate for single family is \$39.75 and multi family dwelling units is \$28.39. Appendix H shows the breakdown for other commercial categories, and the future wastewater rate increases that the City may implement in the future fiscal years.

**6.11 DMM 12 – Conservation Coordinator**

Conservation Coordination efforts will be overseen by the Public Works Department. The City has designated the Public Works Director as the Water Conservation Coordinator. The Director is currently Clifton Price. Duties for the Conservation Coordinator position include, but are not limited to, the following:

- Coordination and oversight of conservation programs, DMMs and BMP implementation.
- Keeping a log of conservation practices conducted throughout the City and point person(s) assigned to each area.
- Acting as the point of contact to the Public for general inquiries and requests for information.
- Preparation and submittal of the Council BMP Implementation Report
- Communication and promotion of water conservation issues to City senior management; coordination of City conservation programs with operations and planning staff; preparation of annual conservation budget; participation in the Council, including regular attendance at Council Meetings.

It is projected that the Conservation Coordinator will spend 0.2 FTE working in this said capacity. The City is anticipating that only one Conservation Coordinator will manage and enforce the water demand management measures.

**Table 6.15 Projected Water Conservation Coordinator Expenditures**

<b>Projected</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Number of Full Time Positions</b>	0	0	0	0	0
<b>Number of Part Time Positions</b>	1	1	1	1	1
<b>Projected Expenditures \$</b>	\$38,069	\$39,211	\$40,387	\$41,599	\$42,847

**6.12 DMM 13 – Water Waste Prohibition**

The City established mandatory restrictions on water waste in 1994 that require repair of plumbing, sprinkler, and irrigation systems within seventy-two hours after such the property owner first learns of the problem in their Municipal Code Chapter 13.09 (Appendix D). The regulations stipulated therein are actively enforced through issuance of warnings and penalties.

The City has not formally tracked expenditures for administering to their waste ordinance to this point. The City has budgeting an annual staff cost of \$5,000 for expenditures for administering the existing waste ordinance. See table below.

**Table 6.16 Projected Waste Water Prohibition Expenditures**

Projected	2011	2012	2013	2014	2015
<b>Waste Ordinance in effect?</b>	Yes	Yes	Yes	Yes	Yes
<b>Projected Number of On-Site Visits</b>	12	12	12	12	12
<b>Projected Expenditures \$</b>	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000

**6.13 DMM 14 – Residential Ultra-Low Flush Toilet Replacement**

Please see DMM 2 discussing the regulations in place for replacing toilets to ULFT’s upon change of ownership or use. In addition, the City plans to develop a residential ultra-low flush toilet replacement program wherein single family and multifamily owners are eligible to receive a rebate on their water bills, for replacement of a 3.0 gpf toilet with a ULFT (1.6 gpf), in an established amount per toilet. – To be eligible for a rebate the property owner is solely responsible for purchase of toilet, installation arrangements, and payment. A Rebate certification form must be completed and returned to the City by the proposed expiration date to be valid. As a condition of the rebate, customer agrees not to alter the toilets and/or showerheads in order to increase the flow of water through the fixtures. Customer must agree to allow City inspector access to verify installation if selected for random inspection. Lastly, customer agrees that rebate(s) will be through credit(s) on his/her water bill over a two billing cycle. In all cases, customer should ensure funds are available for a rebate by calling City Hall Public Works Department before replacing toilet(s).

The program will be initialized by July 2011, and fully implemented by July 2012. The City is projecting that 50 rebates will be available for the customers pending Council approval. Half of the rebates will be available for single family and the other half for multi family customers. Information on the program will be advertised in the local newspaper, public access television, and the quarterly newsletter provided to all residences of the City. Table 6.17 projects the future water savings that will be achieved by the replacement of a 3.0 gpf toilet with a ULFT.

**Table 6.17 Projected Ultra-Low-Flush Toilet Replacement Program Expenditures**

Planned Measures	2011	2012		2013		2014		2015	
		Single Family	Multi Family						
Number of ULF Rebates	-	38	12	38	12	38	12	38	12
Number of ULF Customer Installs	-	38	12	38	12	38	12	38	12
Number of ULF CBO Installs	0	0	0	0	0	0	0	0	0
Projected Expenditures (\$)	\$5,000	\$10,123		\$10,418		\$10,713		\$11,007	
Projected Water Savings(AFY)	-	2.4	0.8	2.4	0.8	2.4	0.8	2.4	0.8

## 7.0 Completed UWMP Checklist

This Plan meets all requirements of the Water Code as described in the Department of Water Resources (DWR) “Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan”.

**Table 7.1 Urban Water Management Plan Checklist**

No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location
<b>PLAN PREPARATION</b>				
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)		1.3.2
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)		1.3.2 Appendix A
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)		1.4 Appendix B
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)		1.3
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		1.3.1
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		1.3.1
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		1.4 Appendix B
58	Provide supporting documentation as to how the water supplier plans to implement its plan.	10643		4.3, 4.4, 6.0

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No.	UWMP requirement <sup>a</sup>	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)		1.3
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		1.3
<b>SYSTEM DESCRIPTION</b>				
8	Describe the water supplier service area.	10631(a)		2.1
9	Describe the climate and other demographic factors of the service area of the supplier	10631(a)		2.2 2.4
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.	2.5
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.	2.5
12	Describe other demographic factors affecting the supplier's water management planning.	10631(a)		2.3 2.4
<b>SYSTEM DEMANDS</b>				
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)		3.3
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	N/A

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No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location
3	Report progress in meeting urban water use targets using the standardized form.	10608.40		3.2, 3.4
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.	3.1 3.2
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.	N/A
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)		3.2.2
<b>SYSTEM SUPPLIES</b>				
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.	4.1
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.	Yes

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No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location
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)		N/A, see 4.2
16	Describe the groundwater basin.	10631(b)(2)		4.2
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		4.1
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)		N/A
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)		4.1
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)		4.2
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.	4.2
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		4.5.1
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)		4.3 5.1
31	Describe desalinated water project opportunities for long-term supply, including, but not limited to, ocean water, brackish water, and groundwater.	10631(i)		4.5.2
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		4.3.4
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)		4.3.1 4.3.2

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No.	UWMP requirement <sup>a</sup>	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)		4.3.1
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)		4.3.3
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)		4.3.4
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)		4.3.4
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)		4.3.5
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)		4.3.6
<b>WATER SHORTAGE RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING <sup>b</sup></b>				
5	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	10620(f)		4.4 4.5
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)		5.1
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)		5.2
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)		5.2.4
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)		5.1

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No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location
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)		5.2.1
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)		5.2.5
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)		5.2.4
40	Indicated penalties or charges for excessive use, where applicable.	10632(f)		5.2.5
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)		5.2.6
42	Provide a draft water shortage contingency resolution or ordinance.	10632(h)		5.2.3, Appendix E
43	Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)		5.2.7
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	5.1
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)		5.1
<b>DEMAND MANAGEMENT MEASURES</b>				

City of Soledad 2010 Urban Water Management Plan

No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location
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.	6.0
27	Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.	10631(f)(3)		6.0
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)		6.0
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.	6.0
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.	6.0

a The UWMP Requirement descriptions are general summaries of what is provided in the legislation. Urban water suppliers should review the exact legislative wording prior to submitting its UWMP.

b The Subject classification is provided for clarification only. It is aligned with the organization presented in Part I of this guidebook. A water supplier is free to address the UWMP Requirement anywhere with its UWMP, but is urged to provide clarification to DWR to facilitate review.

## 8.0 References

(ALPHABETIZED PER TITLE)

City of Soledad Annual Water Quality Report, 2009.

City of Soledad Website: <http://www.cityofsoledad.com>

City of Soledad General Plan, September 21, 2005.

California's Groundwater Bulletin 118, Central Coast Hydrologic Region, Salinas Valley Groundwater Basin, February 27, 2004.

Monterey County Water Resources Agency (MCWRA) Groundwater Summary Reports, 1995 – 2009.

State of California, Department of Water Resources, Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan, March 2011.

City of Soledad Long-Term Waste Management Plan Workplan, prepared by Black and Veatch, March, 2006.

Monterey County Water Resources Agency (MCWRA) Draft Environmental Impact Report (EIR)/Environmental Impact Statement for the Salinas Valley Water Project, June 2001.

Monterey County Water Resources Agency (MCWRA) Website:  
<http://www.mcwra.co.monterey.ca.us/>

City of Soledad, Urban Water Management Plan, June 2006.

City of Soledad Wastewater Rate Study, Final Report, prepared by Parsons & Associates, October 2005

City of Soledad Water Conservation Plan, 2005.

City of Soledad Water Impact Fee Study, December 1999.

City of Soledad Water Master Plan, prepared by Schaaf and Wheeler, December, 2005.

City of Soledad Water System Emergency Response Plan, 2005.

## **Appendix A: 60-day Notice Letters / Public Notice**



# SOLEDAD

CALIFORNIA

April 8, 2011

Mr. Jim Cook  
County of Monterey  
Resource Management Agency, Redevelopment and Housing  
168 West Alisal St., 3rd Floor  
Salinas, CA 93901

Re: City of Soledad Urban Water Management Plan Update

Mr. Cook:

The City of Soledad is preparing an updated Urban Water Management Plan (UWMP) for submittal to the California Department of Water Resources, pursuant to the Urban Water Management Planning Act, as codified in the California Water Code Sections 10610-10656. The last UWMP was adopted in 2006.

The updated plan is currently being drafted. Our anticipated schedule for public review and plan adoption is:

May 19, 2011	Publish Public Review Draft of the UWMP
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The public draft plan will be available for review at the City Hall, and a pdf version of the draft plan will be posted on the City's website by May 20<sup>th</sup>. We invite your input and comments on the UWMP. Please provide input to our consultant, Schaaf & Wheeler Consulting Civil Engineers, Attn: Liza McNulty, 870 Market Street, Suite 1278, San Francisco, CA, 94102. Liza may be contacted by phone at (415) 433-4848, or by e-mail at [lmcnulty@swhsv.com](mailto:lmcnulty@swhsv.com). You may contact me by direct phone at (831) 223-5173, or e-mail [Cliff.Price@cityofsoledad.com](mailto:Cliff.Price@cityofsoledad.com).

Sincerely,

Clifton W. Price  
Public Works Director  
City of Soledad



# SOLEDAD

CALIFORNIA

April 8, 2011

USGS Western Region Offices  
Menlo Park Campus, Bldg. 3  
345 Middlefield Road  
Menlo Park, CA 94025

Re: City of Soledad Urban Water Management Plan Update

To Whom It May Concern:

The City of Soledad is preparing an updated Urban Water Management Plan (UWMP) for submittal to the California Department of Water Resources, pursuant to the Urban Water Management Planning Act, as codified in the California Water Code Sections 10610-10656. The last UWMP was adopted in 2006.

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Sincerely,

Clifton W. Price  
Public Works Director  
City of Soledad



# SOLEDAD

CALIFORNIA

April 8, 2011

Karen Beppler-Dorn, Park Superintendent  
Department of the Interior – Pinnacles National Monument Park Headquarters  
5000 Hwy 146  
Paicines, CA 95043

Re: City of Soledad Urban Water Management Plan Update

Ms. Beppler-Dorn:

The City of Soledad is preparing an updated Urban Water Management Plan (UWMP) for submittal to the California Department of Water Resources, pursuant to the Urban Water Management Planning Act, as codified in the California Water Code Sections 10610-10656. The last UWMP was adopted in 2006.

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Sincerely,

Clifton W. Price  
Public Works Director  
City of Soledad



# SOLEDAD

CALIFORNIA

April 8, 2011

Carlos Lopez, Public Works Director  
City of Gonzales  
147 Fourth Street  
Gonzales, CA 93926

Re: City of Soledad Urban Water Management Plan Update

Mr. Lopez:

The City of Soledad is preparing an updated Urban Water Management Plan (UWMP) for submittal to the California Department of Water Resources, pursuant to the Urban Water Management Planning Act, as codified in the California Water Code Sections 10610-10656. The last UWMP was adopted in 2006.

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Sincerely,

Clifton W. Price  
Public Works Director  
City of Soledad



April 8, 2011

Dale Lipp, Public Works Director  
City of Greenfield  
45 El Camino Real, P.O. Box 127  
Greenfield, CA 93927

Re: City of Soledad Urban Water Management Plan Update

Mr. Lipp:

The City of Soledad is preparing an updated Urban Water Management Plan (UWMP) for submittal to the California Department of Water Resources, pursuant to the Urban Water Management Planning Act, as codified in the California Water Code Sections 10610-10656. The last UWMP was adopted in 2006.

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Sincerely,

Clifton W. Price  
Public Works Director  
City of Soledad



# SOLEDAD

CALIFORNIA

April 8, 2011

Mr. Curtis Weeks, General Manager  
Monterey County Water Resources Agency  
893 Blanco Circle  
Salinas, CA 93901

Re: City of Soledad Urban Water Management Plan Update

Mr. Weeks:

The City of Soledad is preparing an updated Urban Water Management Plan (UWMP) for submittal to the California Department of Water Resources, pursuant to the Urban Water Management Planning Act, as codified in the California Water Code Sections 10610-10656. The last UWMP was adopted in 2006.

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Sincerely,

Clifton W. Price  
Public Works Director  
City of Soledad



April 8, 2011

Ms. Deborah Hysen  
Chief Deputy Secretary, Facility Planning, Construction and Management  
California Department of Corrections and Rehabilitation  
P.O. Box 942883  
Sacramento, CA 94283-0001

Re: City of Soledad Urban Water Management Plan Update

Dear Ms. Hysen:

The City of Soledad is preparing an updated Urban Water Management Plan (UWMP) for submittal to the California Department of Water Resources, pursuant to the Urban Water Management Planning Act, as codified in the California Water Code Sections 10610-10656. The last UWMP was adopted in 2006.

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Sincerely,

Clifton W. Price  
Public Works Director  
City of Soledad



# SOLEDAD

CALIFORNIA

April 8, 2011

Mr. Tom Kukol  
Regional Water Quality Control Board  
Central Coast Region  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401

Re: City of Soledad Urban Water Management Plan Update

Dear Mr. Kukol:

The City of Soledad is preparing an updated Urban Water Management Plan (UWMP) for submittal to the California Department of Water Resources, pursuant to the Urban Water Management Planning Act, as codified in the California Water Code Sections 10610-10656. The last UWMP was adopted in 2006.

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Sincerely,

Clifton W. Price  
Public Works Director  
City of Soledad



# SOLEDAD

CALIFORNIA

April 8, 2011

Ms. Jan R. Sweigert, P.E.  
District Engineer – Monterey District  
California Department of Public Health  
1 Lower Ragsdale Drive, Building 1, Suite 120  
Monterey, CA 93940

Re: City of Soledad Urban Water Management Plan Update

Dear Ms. Sweigert:

The City of Soledad is preparing an updated Urban Water Management Plan (UWMP) for submittal to the California Department of Water Resources, pursuant to the Urban Water Management Planning Act, as codified in the California Water Code Sections 10610-10656. The last UWMP was adopted in 2006.

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Sincerely,

Clifton W. Price  
Public Works Director  
City of Soledad

**Proof of Publication**

(2015.5 C.C.P.)

**Salinas Newspapers, Inc.**

123 W. Alisal St.

Salinas, CA 93901

831-754-4138/Fax: 831-754-7156

**State Of California ss:**

**County of Monterey**

**Advertiser:** SCHAAF & WHEELER  
100 N WINCHESTER BLVD STE 200  
SANTA CLARA , CA 95050

*Stephanie Conran, P.E.*

**RE:** ~ PUBLIC NOTICE ~ The City of Soledad i  
Soledad/UWMP

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I hereby certify that the attached advertisement appeared in said newspaper on the following dates:

**Newspaper:** Salinas Californian

**5/20/2011**

I acknowledge that I am a principal clerk of the printer of said paper, which is published in the City of Salinas, County of Monterey, State of California. The Salinas Californian is printed and published daily, except Sunday and has been adjudged a newspaper of general circulation by the Superior Court of the County of Monterey, State of California. El Sol is printed and published weekly on Saturday and has been adjudged a newspaper of general circulation by the Superior Court of Monterey, State of California.

I certify (or declare) under penalty of perjury that the foregoing is true and correct. Executed on this 20  
day of May, 2011 at Salinas, California.

*C. Clark*

**Declarant**

**~ PUBLIC NOTICE ~**

The City of Soledad is preparing an updated Urban Water Management Plan (UWMP) for submittal to the California Department of Water Resources, pursuant to the Urban Water Management Planning Act, as codified in the California Water Code Sections 10610-10656. The last UWMP was adopted in 2006.

The updated plan is currently being drafted. Affiliated agencies have been contacted for review and input on the development and water demand projections for the planning period, which runs to the year 2030. Our anticipated schedule for public review and plan adoption is:

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The draft plan will be available for review at the City Hall, and a pdf version of the draft plan will be posted on the City's website by May 20th. We invite your input and comments on the UWMP.

For further information on the above projects, contact Clifton W. Price, Public Works Director, at 831/223-5173, City Hall, 248 Main Street, Post Office Box 156, Soledad, California 93960 or Liza McNulty, Schaaf & Wheeler, Consulting Civil Engineers, 415/433-4848.

En caso que usted necesite ayuda en leer o en entender este aviso de Audiencia Publica, usted puede ponerse en contacto con la oficina del Edificio Municipal en 248 Calle Main o llamar al número 223-5000, y el aviso será traducido para usted.

/s/ ADELA P. GONZALEZ  
CITY MANAGER/CITY CLERK

May 20, 2011 (182223)

# Proof of Publication

(2015.5 C.C.P.)

## Salinas Newspapers, Inc.

123 W. Alisal St.  
Salinas, CA 93901  
831-754-4138/Fax: 831-754-7156

State Of California ss:  
County of Monterey

**Advertiser:** SCHAAF & WHEELER  
100 N WINCHESTER BLVD STE 200  
SANTA CLARA , CA 95050

*Stephanie Coman P.E.*

**RE:** ~ PUBLIC NOTICE ~ The City of Soledad i  
UWMP Soledad

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I hereby certify that the attached advertisement appeared in said newspaper on the following dates:

**Newspaper:** Salinas Californian

**5/27/2011**

I acknowledge that I am a principal clerk of the printer of said paper, which is published in the City of Salinas, County of Monterey, State of California. The Salinas Californian is printed and published daily, except Sunday and has been adjudged a newspaper of general circulation by the Superior Court of the County of Monterey, State of California. El Sol is printed and published weekly on Saturday and has been adjudged a newspaper of general circulation by the Superior Court of Monterey, State of California.

I certify (or declare) under penalty of perjury that the foregoing is true and correct. Executed on this 27  
day of may, 2011 at Salinas, California.

*C. Clark*

**Declarant**

### ~ PUBLIC NOTICE ~

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/s/ ADELA P. GONZALEZ  
CITY MANAGER/CITY CLERK

May 27, 2011 (182980)

## **Appendix B: 2010 UWMP Adoption Resolution**

**RESOLUTION NO. 4666**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOLEDAD ADOPTING  
THE 2010 URBAN WATER MANAGEMENT PLAN**

**WHEREAS**, the California Legislature enacted Assembly Bill 797 (Water Code Section 10612 et seq., known as the Urban Water Management Planning Act) during the 1983-1984 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 acre-feet of water annually must prepare an Urban Water Management Plan, the primary objective of which is to plan for the conservation and efficient use of water; and

**WHEREAS**, the 2010 Soledad Urban Water Management Plan (“UWMP”) is the second plan developed by the City; and

**WHEREAS**, the UWMP shall be periodically reviewed at least once every five years, and the City shall make any amendments or changes to the UWMP which are indicated by the review; and

**WHEREAS**, the UWMP must be adopted, after public review and hearing, and filed with the California Department of Water Resources by July 1, 2011 in order to comply with State requirements; and

**WHEREAS**, the City has therefore prepared and circulated for public review a draft UWMP, and a properly noticed public hearings regarding the UWMP was held by the City Council on June 1, 2011 and June 22, 2011; and

**WHEREAS**, the subject report was reviewed and determined to be statutorily exempt pursuant to Sec. 15282 (w) of the California Environmental Quality Act (CEQA) guidelines; and

**WHEREAS**, the City of Soledad did prepare and shall file said UWMP with the California Department of Water Resources by July 1, 2011.

**NOW, THEREFORE, BE IT HEREBY RESOLVED** by the City Council of the City of Soledad as follows:

**SECTION 1:** The 2010 Urban Water Management Plan is hereby adopted and ordered filed with the City Clerk.

**SECTION 2:** The City Manager is hereby authorized and directed to file the 2011 Urban Water Management Plan with the California Department of Water Resources by July 1, 2011.

**SECTION 3:** The City Manager is hereby authorized and directed to implement the Water Conservation Program as set forth in the 2010 Urban Water Management Plan, which includes water shortage contingency analysis and recommendations to the

City Council regarding necessary procedures, rules, and regulations to carry out effective and equitable water conservation and water recycling programs.

**SECTION 4:** In a water shortage, the City Manager is hereby authorized to declare a Water Shortage Emergency according to the Water Shortage Stages and Triggers indicated in the Plan, and implements necessary elements of the Plan.

**SECTION 5:** The City Manager shall recommend to the City Council additional regulations to carry out effective and equitable allocation of water resources.

**PASSED AND ADOPTED** by the City Council of the City of Soledad at a special meeting duly held on the 22<sup>nd</sup> day of June 2011, by the following vote:

AYES, and in favor thereof, Councilmembers: Christopher Bourke, Alejandro Chavez, Richard Perez, Mayor Pro Tem Patricia Stephens and Mayor Fred J. Ledesma.

NOES, Councilmembers: None.

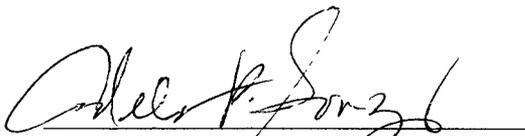
ABSENT, Councilmembers: None.

ABSTAIN, Councilmembers: None.



FRED J. LEDESMA, Mayor

ATTEST:



ADELA P. GONZALEZ, City Clerk

## **Appendix C: Emergency Action Plans**

<b>AP 7 - Power Outage</b>		
<b>AP Summary:</b>	<p>This Action Plan applies to events that result in power outages. Note that this Action Plan may need to be implemented in conjunction with other Action Plans (for example, severe weather) as necessary.</p> <p>Consider agreement with the power company to determine the priority of drinking water and wastewater systems for recovery prior to the emergency.</p>	
<b>Initiation and Notification:</b>	<p>Initiate this AP upon a loss of offsite power</p> <p>Notify:</p> <ul style="list-style-type: none"> <li>• [WUERM]</li> <li>• [Alternate WUERM]</li> </ul> <p>Others as appropriate, examples include:</p> <ul style="list-style-type: none"> <li>• Fuel supplier (back up generator)</li> <li>• Critical Care Customers</li> <li>• Large Water Users</li> </ul>	<p><i>Notify the [WUERM] by whatever means of communication may be available.</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Equipment Identified:</b>	<p style="text-align: center;"><b>Equipment</b></p> <p style="text-align: center;"><b>Location</b></p> <p>Mobile battery-powered radios</p> <p>Mobile/cellular phones</p> <p>Flashlights</p> <p>Spare batteries</p> <p>Accessory requirements (cables for generators, transformers, load banks, bus bars, distribution</p>	<p><i>Radios should have access to a frequency compatible with the local fire dept, sheriff, public health officials, other government departments, utilities, services, or consultants.</i></p> <p><i>Cell phones may not be available during power outages.</i></p>

<b>AP 7 - Power Outage</b>		
	panels, feeder panels, fuses, outlets, load centers, etc)  Emergency kits	
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<ol style="list-style-type: none"> <li>1. Call local hydro-electric supply company - request information on the estimated down time.</li> <li>2. <b>IF</b> backup generation is available, <b>THEN</b> assess the ability to supply fuel for extended periods.</li> <li>3. Assess ability for HVAC or alternate to provide proper temperatures for SCADA, computer, and control systems.</li> <li>4. Estimate potable water requirements under the emergency condition and determine if the utility can still meet requirements.</li> <li>5. <b>IF</b> telephone is also down, <b>THEN</b> SCADA communications may be blocked.</li> <li>6. Loss of power could affect utility access gates, CCTV, intrusion alarms and other remote monitoring abilities. Loss of power may be a diversionary tactic for other terrorist activity. Be alert.</li> </ol>	<p><i>Consider agreements with fuel supply company to supply fuel automatically upon a power loss if the capability to store fuel on site is not practical. A fuel tank with capacity for at least 24 hours of run time is advisable.</i></p> <p><i>If on-staff personnel are not experienced with power-generation equipment, it is necessary to arrange for professional assistance to install and operate the mobile units.</i></p> <p><i>Evaluate back-up power with controllers that sense problems with purchased power and come up automatically.</i></p> <p><i>Complete assessment as quickly as possible.</i></p>
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>7. Turn off unnecessary electrical equipment.</li> <li>8. Start back up generators as necessary for key components: Note: Uninterruptible Power Supply (UPS) for SCADA and computers, battery back-up for Remote</li> </ol>	<p><i>This can prevent injuries and damage from unexpected equipment startups, power surges to the equipment and possible fires. If power goes out, an Uninterruptible Power Supply (UPS) provides battery power at a constant rate for several minutes, allowing you</i></p>

<b>AP 7 - Power Outage</b>		
	Terminal Unit (RTU) may only supply power for a few hours.	<p><i>to safely turn off equipment with minimal risk or loss.</i></p> <p><i>If you permanently connect a backup electrical generator, the connection may have to meet certain technical standards required by law. Some states also require you to notify your electric utility. If you do not, utility personnel working nearby could be seriously injured.</i></p>
<b>II. Isolate and Fix the Problem</b>	<p>9. Increase disinfectant residual as a precaution to potential contamination.</p> <p>10. <b>IF</b> not able to meet community requirements for water <b>THEN</b> arrange for water to be supplied by another source. See Mutual aid agreements Section II B. of ERP and Section III.G of ERP for Alternate Water Sources.</p> <p>11. Notify priority customers</p> <p>12. Notify users of interruption of service if backup pump(s) is/are not capable of maintaining supply.</p> <p>13. Issue "Boil Water", "Do not Drink", or "Do not Use" orders and Press Releases as appropriate. See Section VIII.A.1 of ERP for <b>Press Release Forms</b>.</p> <p>14. Initiate back up plan for retrieval of current information from outside sources.</p>	<p><i>A temporary portable generator should not be connected to building wiring unless the building meets the same technical standards legally required for a permanent generator. Most buildings are not so equipped. As an alternative, use properly rated extension cords to connect electrical loads directly to the generator receptacles.</i></p> <p><i>This is an analysis of all available sources of water, not just those used under conditions of normal operation. These sources might include both new intakes or wells, public or private ponds, reservoirs, swimming pools, interconnections with other water utilities, water stored within building water systems, water provided in bottles or tank trucks from outside sources of potable water, local dairies or bottling plants, etc.</i></p> <p><i>Since computers may be down, access to Water ISAC, police, government, etc. could be compromised.</i></p>
<b>II. Isolate and Fix the Problem</b>	<p>15. Consider initiating back-up portable pumping and generating capability to serve areas with limited storage, critical wastewater collection and treatment operations.</p> <p>16. Facilities with freezing temperatures should turn off and drain the following lines in the event of a long term power loss:</p> <ol style="list-style-type: none"> <li>a. Fire sprinkler system</li> <li>b. Standpipes</li> </ol>	

<b>AP 7 - Power Outage</b>		
	<p>c. Potable Water Lines</p> <p>d. Toilets</p>	
<b>III. Monitoring</b>	<p>17. <b>IF</b> damage to equipment occurs, <b>THEN</b> contact vendor/mutual aid companies to replace/repair damaged equipment.</p> <p>18. Monitor the status of the backup power supply and regularly test whether battery levels are adequate and the backup generators are functional.</p>	<p><i>Ask your vendors about specific limitations of your equipment. Find out how long it would take to repair or replace damaged equipment.</i></p>
<b>IV. Recovery and Return to Safety</b>	<p>19. Conduct disinfection, flushing, and bacteriological sampling after repairs of equipment lost.</p> <p>20. <b>IF</b> power outage occurs during freezing conditions <b>THEN</b> allow electronic equipment to reach ambient temperatures before energizing to prevent condensate from forming on circuitry.</p> <p>21. Fire and potable water piping should be checked for leaks from freeze damage after the heat has been restored to the facility and water turned back on.</p> <p>22. Notify public/customers when it is safe to use the drinking water again.</p>	
<b>V. Report of Findings</b>	<p>23. All the components of the incident should be correlated and established in writing. This would include how the response was managed and suggestions to improve the facility / community response in the future. The report should incorporate all relevant data from the incident and suggested changes in the emergency response plans and procedures.</p> <p>24. Suggestions from the report should be submitted to the governing board/individuals for evaluation and actions to be taken.</p>	<p><i>To learn from the incident and reduce the likelihood of future such events, a Report of Findings should be provided to the decision makers for the Utility so consideration can be given for changes in facility structure, security, procedures or personnel.</i></p>

## AP 7 - Power Outage

<b>VI. AP-7 Revision Dates</b>										

## AP 8A - Natural Event (Flood)

<b>AP Summary:</b>	<p>This Action Plan applies to flooding events. In general, these events occur with reasonable lead times, and it is possible to take proactive measures, as outlined below. Response and recovery can be time consuming during flood events, as they can involve loss of electrical power supply, damage of structures and equipment, disruptions of service, and injuries to utility personnel.</p>	
<b>Initiation and Notification:</b>	<p>This AP should be initiated upon official notification of either a flood “watch” (a flood is possible in your area), or a flood “warning” (flooding is already occurring or will occur soon in your area). Such information will almost certainly be issued in the form of forecasts from the National Weather Service (NWS) and other governmental agencies. Also initiate if actual flooding is discovered.</p> <p>Notify</p> <ul style="list-style-type: none"> <li>• [WUERM]</li> <li>• [Alternate WUERM]</li> </ul> <p>The [WUERM] will make the decision to contact local response authorities to request possible assistance.</p>	<p><i>Links to specific RFCs can be found at the following website: <a href="http://www.nws.noaa.gov/oh/hic/rfc.html">http://www.nws.noaa.gov/oh/hic/rfc.html</a></i></p> <p><i>The NWS maintains 13 regional River Forecast Centers (RFC) that are responsible for issuing flood forecasts synthesized from hydro-meteorological data. These centers offer current river conditions and observations, as well as forecast and guidance for both major river and flash floods, hydrographs for gauging stations, and flood outlook potentials. Be aware that floods often occur without local precipitation as a result of precipitation upstream.</i></p> <p><i>Flash flood guidance values can also typically be obtained via your local RFC. These values show data suggesting the amount of rain necessary over 1-, 3-, and 6-hour periods that could cause flash floods.</i></p> <p><i>While major floods can take several hours to days to develop, flash floods can take only a few minutes to a few hours to develop.</i></p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>

<b>AP 8A - Natural Event (Flood)</b>		
<b>Equipment Identified:</b>	<b>Equipment Location</b>  Binoculars	<i>This equipment is available to assist in the execution of this AP.</i>
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<p><b>If a Flood Watch or Warning is received:</b></p> <ol style="list-style-type: none"> <li>1. Contact local representative of NWS for additional information on exact location and probable extent (stage) of flooding, relative to utility facilities.</li> <li>2. Use site maps or other available information to assess location of all facilities for location in flood plain.</li> <li>3. Prioritize pre-flooding activities on basis of flooding potential (in part, based on location).</li> <li>4. If flooding has already occurred: <ul style="list-style-type: none"> <li>• Conduct site assessment from nearest safe location.</li> <li>• Based on peak flood stage, predict and build inventory of equipment likely to be most affected.</li> <li>• List equipment needed to restore water service when flood waters recede.</li> </ul> </li> </ol>	<i>Flood damage is proportional to the to the volume and the velocity of the water. Floods are extremely dangerous because they destroy through inundation and soaking as well as the incredible force of moving water. High volumes of water can move heavy objects and undermine roads and bridges. Flooding can also facilitate other hazards such as landslides, or cause other hazards such as material hazard events</i>
<b>II. Isolate and Fix the</b>	The following steps should be taken in preparation for the event:	<i>Steps in advance of flooding obviously will be different than steps in reaction to flooding. Both may be needed for any one flooding</i>

<b>AP 8A - Natural Event (Flood)</b>		
<b>Problem</b>	<ol style="list-style-type: none"> <li>1. Activate Emergency Operations Center (EOC).</li> <li>2. Assemble essential personnel and designate duties, such as: <ul style="list-style-type: none"> <li>• Elevate in-place or remove water-sensitive equipment within structures to prevent flood damage.</li> <li>• Anchor fuel tanks.</li> <li>• Elevate electrical system components.</li> <li>• Take appropriate flood-proofing steps (sandbags or other).</li> <li>• Install sewer backflow valves.</li> <li>• Flood-proof or elevate heating, cooling, and ventilating equipment.</li> <li>• Assemble and stage mobile stand-by generators and auxiliary water pumps.</li> </ul> </li> </ol>	<i>event.</i>
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>3. Notify neighboring utilities or other sources of emergency response support if manpower or equipment will be needed.</li> <li>4. The [IO] is to notify customers, media, and state and local authorities that service may be disrupted and/or that demand reductions may be necessary.</li> <li>5. Pre-test and/or initiate emergency communications plan</li> <li>6. Consider shut-down if flooding appears imminent.</li> </ol>	<p><i>Flood water may have to be pumped out of facilities before utility equipment can be restored.</i></p> <p><i>Decision to shutdown must balance protection of utility equipment and maintenance of fire flows.</i></p>
<b>III. Monitoring</b>	<p>Observe the following recommended practices during the flood event:</p> <ul style="list-style-type: none"> <li>• Take pictures of the damage, both of buildings and their contents, for insurance claims.</li> </ul>	<p><i>If it is moving swiftly, even water six inches deep can knock an individual off their feet. Many people are swept away wading through floodwaters, resulting in injury or death. Floodwaters may still be rising. Staff may not be able to see on the surface how fast floodwater is moving or see holes and</i></p>

## AP 8A - Natural Event (Flood)

	<ul style="list-style-type: none"> <li>• Instruct Utility personnel to avoid floodwaters whenever possible.</li> <li>• If a vehicle stalls in rapidly rising waters, abandon it immediately and climb to higher ground. Vehicles can be swept away in two feet of water.</li> <li>• Stay out of any building if floodwaters remain around the building.</li> <li>• Avoid smoking inside buildings. Smoking in confined areas can cause fires.</li> <li>• Wear sturdy shoes. The most common injury following a disaster is cut feet.</li> <li>• Use battery-powered lanterns or flashlights when examining buildings. Battery-powered lighting is the safest and easiest, preventing fire hazard for the user, occupants, and building.</li> <li>• Look for fire hazards. There may be broken or leaking gas lines, flooded electrical circuits, or submerged furnaces or electrical appliances. Flammable or explosive materials may travel from upstream. Fire is the most frequent hazard following floods.</li> <li>• The [WUERM] or [IO] is to communicate with customers and the Local Emergency Planning Committee (LEPC) as to current conditions.</li> </ul>	<p><i>submerged debris.</i></p> <p><i>Floodwaters often undermine foundations, causing sinking, floors can crack or break and buildings can collapse. Buildings may have hidden damage that makes them unsafe such as gas leaks or electric hazards.</i></p>
<p><b>IV. Recovery</b></p> <p><b>And Return to Safety</b></p>	<p>Once floodwaters recede, the following may be of relevance:</p> <ul style="list-style-type: none"> <li>• Check insurance policy for procedures to recover losses, including the national Flood Insurance Program.</li> <li>• Inspect foundations for cracks or other damage.</li> <li>• Check power lines for damages</li> <li>• Arrange for alternate source of electrical power or fuel for diesel generators, sufficient for period of</li> </ul>	<p><i>More information can be found here:</i></p> <p><a href="http://www.fema.gov/nfip">http://www.fema.gov/nfip</a></p> <p><i>Cracks and damage to a foundation can render a building uninhabitable.</i></p> <p><i>See AP-7 Power Outage</i></p> <p><i>Contaminated floodwater contains bacteria and germs. Eating foods exposed to flood waters can make personnel very sick.</i></p> <p><i>In the longer-term, mitigation against loss of life and property caused by flood events is principally accomplished before the events,</i></p>

<b>AP 8A - Natural Event (Flood)</b>		
	<p>outage following flood. See AP-7 Power Outage.</p> <ul style="list-style-type: none"> <li>• Throw away all food that has come into contact with floodwaters.</li> <li>• Inspect, clean, rebuild, replace all affected equipment as necessary</li> <li>• Contact state and local authorities to determine if there are any restrictions on disposal of materials and debris removed from the site or if a temporary discharge permit (NPDES or other) is needed for the water pumped from tanks and other flooded structures.</li> </ul>	<p><i>through sensible floodplain management and regulation. This involves strategies to modify flooding and to modify infrastructure to reduce likelihood of damage.</i></p> <p><i>Guidelines to a variety of flood-proofing and elevation methods are available from FEMA and NOAA.</i></p>
<b>V. Report of Findings</b>	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
<b>VI. AP-8A Revision Dates</b>		

<b>AP 8B - Natural Event (Winter Storm)</b>	
<b>AP Summary:</b>	This Action Plan applies to winter storm events. In general, these events occur with reasonable lead times, and it is possible to take proactive measures, as outlined below. Response and recovery can be time consuming during such events, and they can involve loss of electrical power supply, damage of structures and equipment, disruptions of service, and injuries to utility personnel.
<b>Initiation and Notification:</b>	<p>When hazardous winter weather conditions are expected to affect the region, the National Weather Service (NWS) issues public advisories. This AP should be initiated upon official notification of a “winter storm watch” or more elevated status. In order of increasing severity, the standard terminology is as follows:</p> <p><b>Winter Storm Outlook:</b> Issued prior to a Winter Storm Watch. The Outlook is given when forecasters believe winter storm conditions are possible and are usually issued 3 to 5 days in advance of a winter storm.</p> <p><b>Winter Weather Advisory:</b> Issued for accumulations of snow, freezing rain, freezing drizzle, and sleet which will cause significant inconveniences and, if caution is not exercised, could lead to life-threatening situations.</p> <p><b>Winter Storm Watch:</b> Alerts the public to the possibility of a blizzard, heavy snow, heavy freezing rain, or heavy sleet. Winter Storm Watches are usually issued 12 to 48 hours before the beginning of a Winter Storm.</p> <p><b>Winter Storm Warning:</b> Issued when hazardous winter weather in the form of heavy snow, heavy freezing rain, or heavy sleet is imminent or occurring. Winter Storm Warnings are usually issued 12 to 24 hours before the event is expected to begin.</p> <p><b>Blizzard Warning:</b> Issued for sustained or gusty winds of 35 mph or more, and falling or blowing snow creating visibilities at or below ¼ mile; these conditions should persist for at least three hours.</p> <p>It is expected that the local the Local Emergency Planning Committee (LEPC) will carefully and continually monitor meteorological conditions and forecasts. During such events, the Local Emergency Planning Committee (LEPC) shall be in constant contact with the National Weather Service (NWS) and disseminate information to agencies via conference call, e-mail and broadcast fax.</p>
	<p><i>See the NWS website for current warnings here:</i></p> <p>NWS</p> <p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>

<b>AP 8B – Natural Event (Winter Storm)</b>		
<b>Equipment Identified:</b>	Equipment  Location	<i>This equipment is available to assist in the execution of this AP.</i>
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	Winter storms, accompanied by strong winds and blizzard conditions, have resulted in localized power and phone outages; closures of streets, highways, schools, businesses, and nonessential government operations. People have been isolated from essential services in their homes and vehicles. A winter storm may escalate into a catastrophic event paralyzing municipalities, and rural areas for several days. Life threatening situations may occur in which emergency response agencies cannot perform their duties due to extreme weather conditions. Individual jurisdictions may be over-whelmed and need mutual aid assistance.	
<b>II. Isolate and Fix the Problem</b>	<p>Snow removal capabilities will vary widely, general procedures are as follows:</p> <p><b>Before the storm:</b></p> <ol style="list-style-type: none"> <li>1. Activate Emergency Operations Center (EOC).</li> <li>2. Monitor track of storm.</li> <li>3. Release nonessential personnel, as warranted.</li> <li>4. Assemble essential personnel and designate duties.</li> <li>5. Typical duties at this stage may include: <ul style="list-style-type: none"> <li>• Fill gravity storage tanks.</li> <li>• Test auxiliary power sources.</li> <li>• Fill fuel tanks.</li> <li>• Secure windows and doors.</li> </ul> </li> </ol>	

<b>AP 8B – Natural Event (Winter Storm)</b>		
	<ul style="list-style-type: none"> <li>• Mobilize snow removal equipment, as warranted.</li> <li>• Man remote stations essential to operations.</li> <li>• Stockpile chemicals, food, etc.</li> </ul>	
<b>II. Isolate and Fix the Problem</b>	<ol style="list-style-type: none"> <li>6. Discuss needs with electric company.</li> <li>7. Test back-up communications system.</li> <li>8. Review mutual aid agreements and verify connections to/from neighboring water systems.</li> </ol> <p>Review specific power outage contingency action plan.</p> <p><b>During the storm:</b></p> <ol style="list-style-type: none"> <li>1. Notify customers, media, and state and local authorities if service is disrupted or if significant demand management is necessary.</li> <li>2. Monitor reservoirs.</li> <li>3. Monitor changes in water quality. If a water quality emergency should develop, follow the appropriate procedure.</li> <li>4. Open connections with neighboring water systems if necessary.</li> <li>5. Provide backup power to facilities utilizing mobile generators, as appropriate.</li> </ol>	
<b>III. Monitoring</b>	<p>In order to monitor the infrastructure status and residents' health during a winter weather event, it is expected that the Utility will assist the Local Emergency Planning Committee (LEPC) in gathering the following types of information:</p> <ul style="list-style-type: none"> <li>• Electrical load</li> <li>• EMS cold-related responses / total responses</li> <li>• Cold weather-related water main breaks</li> <li>• Available sheltering centers</li> <li>• Status of salt and sand stockpiles</li> <li>• Available snow removal assets</li> <li>• Cold-related incidents / concerns</li> </ul>	

<b>AP 8B - Natural Event (Winter Storm)</b>		
	<p>During winter weather emergencies, heavy snowfall, coupled with icy roads or ice accumulations on aboveground electrical transmission lines, can result in vehicular accidents and transmission line failure. Power outages during winter weather events can pose serious problems, particularly among those communities where life-sustaining equipment (LSE) is a necessity.</p>	
<b>III. Monitoring</b>	<p>Personnel should avoid traveling by vehicle, but if necessary, it is important to communicate destinations, routes, and expected arrival times. If vehicles get stuck along the way, help can be sent along the predetermined route. If personnel do get stuck:</p> <ul style="list-style-type: none"> <li>• Staff should stay with their car and not try to walk to safety.</li> <li>• Tie a colored cloth to the antenna for rescuers to see.</li> <li>• Start the car and use the heater for about 10 minutes every hour. Keep the exhaust pipe clear so fumes won't back up in the car.</li> <li>• Leave the overhead light on when the engine is running to be seen.</li> </ul> <p>Keep arms and legs moving to keep blood circulating and to stay warm and keep one window away from the blowing wind slightly open to let in air.</p> <p>During heavy storms, search and rescue operations, movement of emergency response agencies to assigned duties and restoration of essential services are likely to become the primary focus of the EOC.</p> <p>Priorities of response forces, prioritization of the use of snow removal equipment and allocation of all critical resources and response personnel will be the responsibility of the EOC.</p>	
<b>IV. Recovery And Return to Safety</b>	<p>It is recommended that staff observe the following safety tips in recovery from winter storm events:</p> <ul style="list-style-type: none"> <li>• After the storm, if personnel are required to shovel snow, be extremely careful. It is physically strenuous work, requiring frequent breaks. Avoid overexertion. Heart attacks from shoveling heavy snow are a leading cause of deaths during winter.</li> <li>• Walk carefully on snowy, icy, sidewalks.</li> </ul>	

<b>AP 8B - Natural Event (Winter Storm)</b>		
<b>V. Report of Findings</b>	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
<b>VI. AP-8B Revision Dates</b>		

<b>AP 8D - Natural Event (Earthquake)</b>		
<b>AP Summary:</b>	This Action Plan applies to earthquake events. In general, these events occur without any lead times, making it impossible to take proactive measures. Response and recovery can be time consuming during such events, and they can involve loss of electrical power supply, damage of structures and equipment, disruptions of service, and injuries to utility personnel.	
<b>Initiation and Notification:</b>	<p>An earthquake usually occurs without any type of warning. Due to the suddenness, all personnel should attempt to find immediate shelter. This may include:</p> <ul style="list-style-type: none"> <li>• Standing in a doorway and bracing your hands and feet against each side.</li> <li>• Getting under a desk or heavy table.</li> <li>• Standing flat against an interior wall.</li> <li>• Do not seek cover under laboratory tables or benches as chemicals could spill and harm personnel.</li> </ul> <p>After an earthquake has stopped, initiate this earthquake AP 8D.</p>	<p><i>Notification phone numbers can be obtained from the Organization Contact List in the Appendices as well as from Section XX of the ERP.</i></p>
<b>Equipment Identified:</b>	<p>Equipment</p> <p>Location</p> <p>Contact the Director of Public Works</p>	<p><i>This equipment is available to assist in the execution of this AP.</i></p>
<b>Specific Activities:</b>		
<b>I. Assess the Problem</b>	<p>In general, the [WUERM] will organize an assessment team to undertake the following activities:</p> <ul style="list-style-type: none"> <li>• Inspect all structures for obvious cracks and damage.</li> <li>• Assess condition of all electrical power feeds and switchgear.</li> <li>• If SCADA is working, immediately review system for all types of malfunctions, including telemetry, pressure in the distribution system, and operation of pumps and other equipment.</li> <li>• If buildings have any sign of damage, such as cracked</li> </ul>	<p><i>Be prepared for aftershocks. Although smaller than the main shock, aftershocks cause additional damage and may bring weakened structures down. Aftershocks can occur in the first hours, days,</i></p>

<b>AP 8D - Natural Event (Earthquake)</b>		
	<p>walls, broken windows, downed power lines, do not enter, but wait for trained personnel.</p> <ul style="list-style-type: none"> <li>• If buildings appear safe, cautiously inspect condition of interiors for damaged equipment, leaks, chemical spills, etc.</li> <li>• Communicate all findings via radio to Emergency Operations Center (EOC) or [WUERM], as appropriate.</li> <li>• Activate personnel accountability network to check for injury of staff.</li> </ul>	<p><i>weeks, or even months after the quake. Follow the same procedures as for earthquakes.</i></p> <p><i>See AP 7 for specific power loss procedures.</i></p>
<b>I. Assess the Problem</b>	<p>Earthquakes can cause significant power outages because of the impact on outside generation and transmission lines. After a major earthquake, power might be interrupted for an extended period of time over the entire operations area. In this instance, power restoration will most probably be slow and, depending upon the infrastructure damage, localized. Some isolated areas could take considerably longer for power restoration than others.</p>	
<b>II. Isolate and Fix the Problem</b>	<p>General earthquake procedures during an earthquake are as follows:</p> <ol style="list-style-type: none"> <li>1. Seek shelter under a deck, table, doorway, or inside wall.</li> <li>2. Once the shaking has stopped, gather valuables and quickly make your way outside. (DO NOT USE ELEVATORS.)</li> <li>3. Avoid electric wires, poles and equipment, once outside.</li> <li>4. Prepare for aftershocks.</li> </ol>	
<b>III. Monitoring</b>	<p>At all times, personnel should observe the following general steps:</p> <ul style="list-style-type: none"> <li>• Stay calm and await instructions from the designated official.</li> <li>• Keep away from overturned fixtures, windows, filing cabinets, and electrical power.</li> <li>• Provide assistance and/or call for medical help for injured employees as needed.</li> <li>• If major structural damage has occurred, order a complete evacuation. The building should be inspected by trained personnel for damage before reentry.</li> <li>• Protect from further danger by putting on long pants, a long-sleeved shirt, sturdy shoes, and work gloves.</li> <li>• Look for and extinguish small fires. Eliminate fire hazards.</li> </ul>	

<b>AP 8D - Natural Event (Earthquake)</b>		
	<ul style="list-style-type: none"> <li>• Monitor the radio for instructions.</li> <li>• Expect aftershocks.</li> <li>• Use the telephone only to report life-threatening emergencies.</li> </ul>	
<b>IV. Recovery And Return to Safety</b>	<p>General earthquake procedures after an earthquake are as follows:</p> <ol style="list-style-type: none"> <li>1. Activate Emergency Operations Center (EOC).</li> <li>2. Contact emergency assistance (local police, local fire department, rescue squad, etc) as necessary to respond to injuries of staff.</li> <li>3. The [IO] is to notify customers, media, and state and local authorities if service is disrupted or if significant demand management is necessary.</li> <li>4. Inspect facilities for structural damage, including: buildings, storage tanks, pipelines, and process equipment. Consider the use of an outside engineering consultant.</li> <li>5. Prioritize and repair water main leaks.</li> <li>6. Contact neighboring purveyors for mutual aid arrangements, and open connections as needed.</li> <li>7. Respond to side effects (loss of power, fire chemical spills, etc.)</li> </ol>	
<b>V. Report of Findings</b>	Assemble relevant personnel to review effectiveness of action plan and reinforce lessons learned.	
<b>VI. AP-8D Revision Dates</b>		

# **Appendix D: Municipal Code Chapter 13.09: Mandatory Water Conservation Regulations**

[Soledad, California, Code of Ordinances](#) >> [Title 13 - PUBLIC SERVICES](#) >> [Division II. - Water](#)  
>> [Chapter 13.09 - MANDATORY WATER CONSERVATION REGULATIONS](#) >>

**[Chapter 13.09 - MANDATORY WATER CONSERVATION REGULATIONS](#)**

**Sections:**

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**[13.09.010 - Purpose.](#)**

The purpose of this chapter is to increase public awareness of the need for water conservation, and to provide regulations and restrictions on the delivery of water and the consumption within the city limits of water supplied for public use as will (1) conserve the water supply for the greatest public benefit with particular regard to domestic use, sanitation and fire protection, and (2) ensure compliance with water regulations of other governmental agencies of appropriate jurisdiction.

*(Ord. 534 § 2 (part), 1993)*

**[13.09.020 - Definitions.](#)**

- A. Agency. "Agency" means the Monterey County Water Resources Agency.
- B. "Automatic shutoff nozzle" means a water release mechanism securely affixed to the end of a water hose that requires the person using the hose to apply and maintain the flow of water, and that shuts off immediately when pressure is released.
- C. "Change of ownership" means a transfer of the right to beneficial use thereof, regardless of whether such transfer is voluntary, involuntary, or by operation of law, court order, grant, gift, devise, inheritance, trust, contract of sale, addition or deletion of an owner, property settlement or by any other means.
- D. "Change of use" means a change from one use of a structure to another use that is identified as a different use under the zoning ordinance, Title 17, of the Municipal Code of the city of Soledad.
- E. "City manager" means the city manager of the city of Soledad.
- F. "New construction" means a completely new structure, a new addition to a previously existing structure or the portion of a previously existing structure that is newly remodeled or renovated.
- G. "Overdraft" means the condition of a groundwater basin where the amount of water withdrawn by pumping exceeds the amount of water replenishing the basin over an extended period of time, or where the amount of water withdrawn by pumping results in an unacceptable degradation of groundwater quality within the basin.
- H. "Person" means any individual person and any firm, partnership, corporation, business entity, association, district, agency, city, county and any other entity or organization.
- I. "Public works director" means the superintendent of public works of the city of Soledad.
- J. A "shutoff nozzle" means a water release mechanism ("nozzle") securely affixed to the end of a water hose which enables the user of the hose to control the flow of water in the hose, including stopping the flow of water completely and securely, by a lever or mechanical device in the nozzle.
- K. "Superintendent of utilities" means the superintendent of utilities of the city of Soledad.
- L. "Water recirculating system" means a system approved by the city that recirculates water between hot water and cold water lines, so that substantially all the cold water standing in the pipes will be returned to the water heater and reheated before the faucet is turned on. The system may be turned on and off by a manually operated switch, by a timer-operated switch, or otherwise, or may be left on permanently.

*(Ord. 534 § 2 (part), 1993)*

**[13.09.030 - Enforcement.](#)**

The city manager and all officers and employees of the city, including all ex officio officers and employees, shall enforce all the provisions of this chapter by the issuance of citations, including warning citations, and taking all other necessary action, including bringing civil action to abate a nuisance as set forth herein, through the city attorney's office.

(Ord. 534 § 2 (part), 1993)

### **13.09.040 - Mandatory restrictions on water waste.**

- A.** Repair of Plumbing, Sprinkler and Irrigation Systems. Any person who is the owner, manager or person responsible for the day-to-day operation of any premises shall take caution to initiate steps to repair any leaking, broken or defective water pipes, faucets, plumbing fixtures, other water service appliances, sprinklers, water or irrigation systems, or distribution systems within a reasonable time after such person learns of such leaks, breaks or defects, and shall thereafter diligently and promptly pursue such repair work to completion. In any event, such action initiating steps for repair shall take place within seventy-two hours after such person first learns of the problem, unless a variance is obtained from the city of Soledad.
- B.** Washing of Vehicles. No person shall use a water hose to wash any car, truck, boat, trailer, bus, recreational vehicle, camper, aircraft, tractor or any other vehicle, or any portion thereof, with potable water, unless the hose is equipped with an automatic shutoff nozzle.
- C.** Cleaning of Structures. No person shall use potable water through a hose to clean the exterior of any building or structure unless such hose is equipped with a shutoff nozzle.
- D.** Cleaning of Surfaces. No person shall use potable water through a hose to clean any sidewalk, driveway, roadway, parking lot, or any other outdoor paved or hard-surfaced area, except where necessary to protect public health and safety. The use of a bucket is not prohibited at any time for cleaning food, grease, oil, or other stains or spillage from surfaces.
- E.** Water Spillage. No person shall cause, suffer or permit water to spill into streets, curbs or gutters. No person shall use any water in any manner which results in runoff beyond the immediate area of use, unless the contour of the premises is such that avoidance of some minimum spillage is impossible.
- F.** Swimming Pools and Spas. No person shall empty and refill a swimming pool or spa except to prevent or repair structural damage or to comply with public health regulations.
- G.** Fountains. No person shall use water to operate or maintain levels in decorative fountains, unless such water is recycled in the fountain.
- H.** Visitor-Serving Facilities. The owner and manager of each hotel, motel, restaurant, convention and other visitor-serving facility shall ensure that such facility displays, in places visible to all customers, placards or decals approved by the agency, promoting public awareness of the need for water conservation and/or advising the public that waste of water is prohibited.
- I.** Public and Quasi-Public Entities. All public and quasi-public entities shall display, in visible locations in all rostrums, kitchens and dining areas, placards or decals approved by the agency, promoting public awareness of the need for water conservation and/or advising the public that waste of water is prohibited. "Quasi-public entities" include educational institutions, churches, recreational facilities open to the public, and other such entities designated by the superintendent of utilities. Placement of placards or decals by a quasi-public entity of a type not specifically mentioned in this chapter shall not be required unless the superintendent of utilities gives written notice to the entity that this chapter is applicable to the entity so notified and that placement of placards or decals is required.
- J.** Commercial Car Washes. No person in charge of the operation of any commercial car wash facility shall suffer or permit the washing of any boat, trailer, recreational vehicle or other vehicle in such facility or on its premises, other than by the following methods:
  - 1. Use of mechanical automatic car wash facilities utilizing water recycling equipment;
  - 2. Use of a hose that operates on a timer for limited time periods and shuts off automatically at the expiration of the time period;
  - 3. Use of a hose equipped with an automatic shutoff nozzle;
  - 4. Use of bucket and hand washing.
- K.** Construction.
  - 1. No potable water may be used for compaction or dust control purposes in construction activities where there is a reasonably available source of reclaimed or other subpotable water approved by Monterey County health department and appropriate for such use.
  - 2. All hoses used in connection with any construction activity shall be equipped with a shutoff nozzle. When an automatic shutoff nozzle can be purchased or otherwise obtained for the size or type of hose in use, the nozzle shall be an automatic shutoff nozzle.
- L.** Use of Hydrants. No person, other than a member of the fire department of the city of Soledad, the fire department of any other jurisdiction giving assistance to the Soledad fire department in emergencies, the city of Soledad department of public works, or the city of Soledad water and sewer utilities department may use water from a fire hydrant, without first obtaining a permit from the planning department of the city of Soledad.

- M.** Leakage and Repair Program. The public works director shall maintain in effect a distribution system leakage detection and repair program. This program shall be reviewed on an annual basis and a report analyzing the results of the program shall be prepared by the director and submitted to the city council.
- N.** New Construction.
1. In all new construction, all toilets shall be ultra low-flow toilets with a maximum tank size or flush capacity of one and one-half gallons.
  2. All shower heads shall have a maximum flow capacity of two and one-half gallons per minute.
  3. All hot water faucets that have more than ten feet of pipe between the faucet and the hot water heater serving such faucet shall be equipped with a water recirculating system.
  4. All new construction requiring a discretionary permit from the city of Soledad shall apply xeriscape principles throughout the exterior landscape development, associated with such new construction, including such techniques and materials as native or low water use plants and low precipitation sprinkler heads, bubblers, drip irrigation systems and timing devices.
- O.** Retrofitting Existing Hotels and Motels. All existing hotels and motels shall, within six months following the effective date of the ordinance codified in this chapter, be retrofitted with shower heads with a maximum flow capacity of two and one-half gallons per minute.
- P.** Retrofitting Upon Change of Ownership or Use.
1. All existing residential structures shall, at the time of change of ownership, be retrofitted, if not already so modified, with ultra low-flow toilets with a maximum tank size or flush capacity of one and one-half gallons, and shower heads with a maximum flow capacity of two and one-half gallons per minute.
  2. All existing commercial and industrial structures shall, at the time of change of ownership or change of use, be retrofitted, if not already so modified, with ultra low-flow toilets with a maximum tank size or flush capacity of two and one-half gallons per minute.
- Q.** Indiscriminate Use. No person shall cause, suffer or permit the indiscriminate running of water not otherwise prohibited by the provisions set forth above which is wasteful and without reasonable purpose.
- R.** Use in Excess of Eighty-Five Percent of 1991 Use. No person shall consume water in excess of eighty-five percent of 1991 use. Water fees charged by the city shall be reviewed November, 1994, and in November every other year thereafter to determine if rates need to be changed to:
1. Address excessive use by any person(s); and
  2. Provide sufficient revenue for the city to meet obligations and provide water services consistent with its policies.
- S.** Use of Water to Irrigate. No person shall use water to irrigate lawns, landscape or other turf areas which is not in accordance with local city and county ordinances.

*(Ord. 534 § 2 (part), 1993)*

### **13.09.050 - Warnings.**

In order to encourage cooperative efforts to achieve water conservation, it shall be the policy of the city of Soledad to issue a written warning notice when an alleged violation is first noted. Such warning shall include an explanation of the alleged violation. Any individual provided with such notice will then be given an opportunity to correct the identified problem. However, if an infraction citation is issued and a prosecution commenced for the alleged violation, in no case shall proof of a violation depend upon the showing that a warning was previously given, nor shall failure to give a warning be a defense.

*(Ord. 534 § 2 (part), 1993)*

### **13.09.060 - Penalties.**

- A.** Each violation of this chapter is an infraction.
- B.** Any violation that occurs or continues from one day to the next shall be deemed a separate violation, for each day during which such violation occurs or continues to occur.
- C.** The fine for a first violation of this chapter shall be fifty dollars. The fine for a second violation and each subsequent violation of this chapter within a period of twelve months, regardless of the specific section or subsection violated, shall be one hundred dollars.

*(Ord. 534 § 2 (part), 1993)*

### **13.09.070 - Nuisance.**

- A.** Any violation of this chapter is declared to be a public nuisance.
- B.** In accordance with the provisions of Chapter 9.04 of the Soledad Municipal Code, the city may, upon order of the city council, abate an identified public nuisance and/or bring civil action to enjoin or abate

the nuisance and make the costs of nuisance abatement a special assessment against the parcel of land on which the nuisance is located or originates.

- C. Nothing contained in this section limits the city to the prescribed remedy, or prevents the city from initiating and prosecuting any other remedy available to it for the abatement of a public nuisance, or for recovery of the cost of abatement, under the civil or criminal statutes of the state or under other ordinances of the city.

*(Ord. 534 § 2 (part), 1993)*

#### **13.09.080 - Variances.**

- A. Any person may, at any time, apply in writing for a variance from strict application of this chapter. The application for the variance shall be filed with the city of Soledad.

The planning director may, in his discretion, temporarily dispense with the requirement to file a written application, if he finds that an emergency condition exists requiring immediate action on the variance request.

- B. The city manager may grant a temporary variance of up to one year to come into compliance with the terms of this chapter upon making both of the following findings:

1. The strict application of the chapter would create an undue hardship, or an emergency condition exists which requires that the variance be granted; and
2. Granting the variance will not cause a significant adverse effect on the water supply or on service to other water consumers.

- C. In granting a variance, the city manager may impose any conditions in order to ensure that the variance is consistent with the overall goal of water conservation. The granting of a variance and any conditions imposed upon such variance shall be set forth in writing.

- D. Any decision of the city manager with respect to an application for a variance may be appealed in writing to the city council. The city council shall schedule the matter for hearing within thirty days of receipt. The city council may confirm, modify or rescind any decision of the city manager in this regard. The city council's decision on all variance appeals shall be final.

*(Ord. 534 § 2 (part), 1993)*

#### **13.09.090 - Revenues received from enforcement.**

- A. All revenues received by the city from enforcement of this chapter shall be used exclusively for city water conservation programs, including but not limited to administrative, monitoring and enforcement costs of mandatory water conservation.

*(Ord. 534 § 2 (part), 1993)*

#### **13.09.100 - Severability.**

If any section, subsection, sentence, clause or phrase of this chapter is for any reason held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this chapter. The city council declares that it would have passed this chapter and each section, subsection, sentence, clause or phrase thereof irrespective of the fact that any other part thereof be unconstitutional or invalid.

*(Ord. 534 § 2 (part), 1993)*

# **Appendix E: Resolution to Declare a Water Shortage Emergency**

June 28, 2011

**RESOLUTION NO. \_\_\_\_\_ (MODEL)**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SOLEDAD TO  
DECLARE A WATER SHORTAGE EMERGENCY**

**PURSUANT** to California Water Code Section 350 et seq., the Council has conducted duly noticed public hearings to establish the criteria under which a water shortage emergency may be declared.

**WHEREAS**, the Council finds, determines and declares as follows:

- (a) The City is the water purveyor for the property owners and inhabitants of Soledad;
- (b) The demand for water service is not expected to lessen.
- (c) When the combined total amount of water supply available to the City from all sources falls at or below the Stage II triggering levels described in the 2005 Urban Water Management Plan, the City will declare a water shortage emergency. The water supply would not be adequate to meet the ordinary demands and requirements of water consumers without depleting the City's water supply to the extent that there may be insufficient water for human consumption, sanitation, fire protection, and environmental requirements. This condition is likely to exist until precipitation and inflow dramatically increases or until water system damage resulting from a disaster are repaired and normal water service is restored.

**NOW, THEREFORE, BE IT HEREBY RESOLVED** that the City Council of the City of Soledad hereby directs the City Manager to find, determine, declare and conclude that a water shortage emergency condition exists that threatens the adequacy of water supply, until the City's water supply is deemed adequate. After the declaration of a water shortage emergency, the City Manager is directed to determine the appropriate Rationing Stage and implement the City's Water Shortage Emergency Response.

**FURTHERMORE**, the Council shall periodically conduct proceedings to determine additional restrictions and regulations which may be necessary to safeguard the adequacy of the water supply for domestic, sanitation, fire protection, and environmental requirements.

**PASSED AND ADOPTED** by the City Council of the City of Soledad at a regular meeting duly held on the \_\_\_ day of (MONTH), (YEAR) by the following vote:

AYES, and in favor thereof, Council members:

NOES, Council members:                      None

ABSENT, Council members:                      None

ABSTAIN, Council members:                      None

\_\_\_\_\_  
Mayor

ATTEST:

\_\_\_\_\_  
City Clerk

## **Appendix F: BMP Self Certification Tables**



# SOLEDAD

CALIFORNIA

March 1, 2011

California Department of Water Resources  
Attn: Betsy Vail  
PO Box 942836  
Sacramento, CA 94236-0001

Re: Original AB 1420 Self-Certification Statement Tables 1 & 2

To Whom It May Concern:

Enclosed, please find our original AB 1420 Self-Certification Statement Tables 1 & 2, updated today, March 1, 2011. Should you have any questions, please call Clifton W. Price, Public Works Director at (831) 223-5173.

Sincerely,

A handwritten signature in blue ink that reads "Amanda J. Sevall".

Amanda J. Sevall  
Administrative Secretary  
Public Works Department

**AB 1420 Self-Certification Statement Table 1**

**Note: Table 1 documents Status of Past and Current BMP implementation.**

**Self-Certification Statement:** The Urban Water Supplier and its authorized representative certifies, under penalty of perjury, that all information and claims, stated in this table, regarding compliance and implementation of the BMPs, including alternative conservation approaches, are true and accurate. This signed AB 1420 Self-Certification Statement Table 1, and Table 2 are the basis for granting funds by the Funding Agency. Falsification and/or inaccuracies in AB 1420 Self Certification Statement Table 1, and Table 2 and in any supporting documents substantiating such claims may, at the discretion of the funding agency, result in loss of all State funds to the applicant. Additionally, the Funding Agency, in its sole discretion, may halt disbursement of grant or loan funds, not pay pending invoices, and/or pursue any other applicable legal remedy and refer the matter to the Attorney General's Office.

Name of Signatory: Adela P. Gonzalez Title of Signatory: City Manager Signature of Signatory: *Adela P. Gonzalez* Date: 3-01-2011

Application Date: \_\_\_\_\_

Proposal Identification Number: \_\_\_\_\_ C UWCC Member? Yes/No  Yes  No

Has Urban Water Supplier submitted a 2005 Urban Water Management Plan? Yes/No  Yes  No Is the UWM Plan Deemed Complete by DWR? Yes/No  Yes  No

Applicant Name: City of Soledad

**Project Title:** Soledad Water Recycling/Reclamation Project

Applicant's Contact Information: Name: Clifton W. Price Phone: 831-223-5173 E-mail: cliff.price@citysoledad.com

Participants:

Retailer (List Below)		Wholesaler (List Below)	
City of Soledad			

C1	C2	C3	C4	C5	C6	C7	**C8	**C9	**C10	C11	C12	C13	C14	C15	C16	C17	C18
		BMPs required for Wholesale Supplier		BMPs implemented by Retailers and/or Wholesalers / BMP		Compliance Options/Alternative Conservation Approaches (1)		BMP Is Exempt (2)			BMP Implementation Requirements Met						
				Retailer Yes/No	Wholesaler Yes/No	Regional Yes/No	BMP Checklist	Flex Track	Gallons Per Capita Per Day GPCD	Not Cost Effective	Lack of Funding	Lack of Legal Authority	CUWCC MOU Requirement Met: Retailer Yes/No	CUWCC MOU Requirement Met: Wholesaler Yes/No	Date of BMP Report Submitted to CUWCC for (2007-2008) (MOU Signatories) (3)	Date BMP Implementation Data Submitted to DWR in CUWCC Format (Non MOU Signatories) (3)	All Supporting Documents have been Submitted Yes/No
	✓		BMP 1 Water Survey for Single/Multi-Family Residential Customers	Yes			X						NO			Jun-06	Yes
	✓		BMP 2 Residential Plumbing Retrofit	Yes			X						NO			Jun-06	Yes
	✓		BMP 3 System Water Audits, Leak Detection	Yes			X						NO			Jun-06	Yes
	✓		BMP 3 Leak Repairs	Yes			X						NO			Jun-06	Yes
	✓		BMP 4 Metering with Commodity Rates for All New connections	Yes			X						YES			Jun-06	Yes
	✓		BMP 4 Retrofit of Existing Connections	Yes			X						YES			Jun-06	Yes
			BMP 5 Large Landscape Conservation Programs and Incentives	Yes			X						NO			Jun-06	Yes

C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13 C14 C15 C16 C17 C18

BMPs required for Wholesale Supplier	BMPs required for Retail Supplier	BMPs	BMP Implemented by Retailers and/or Wholesalers / BMP		Compliance Options/Alternative Conservation Approaches (1)		BMP is Exempt (2)			BMP Implementation Requirements Met									
			Wholesaler Yes/No	Regional Wholesaler Yes/No	BMP Checklist	Flex Track	Gallons Per Capita Per Day GPCD	Not Cost Effective	Lack of Funding	Lack of Legal Authority	CUWCC MOU Requirement Met: Retailer Yes/No	CUWCC MOU Requirement Met: Wholesaler Yes/No	Date of BMP Report Submitted to CUWCC for (2007-2008) (MOU Signatories) (3)	Date BMP Implementation Data Submitted to DWR in CUWCC Format (Non MOU Signatories) (3)	All Supporting Documents have been Submitted Yes/No				
		BMP 6 High-Efficiency Washing Machine Rebate Programs	No		X												Jun-06	Yes	
✓		BMP 7 Public Information	Yes		X													Jun-06	Yes
✓		BMP 8 School Education	Yes		X													Jun-06	Yes
		BMP 9 Conservation programs for Commercial, Industrial, and Institutional (CII) Accounts	Yes		X														
✓		BMP 10 Wholesale Agency Assistance Programs	N/A		X												N/A		N/A
		BMP 11 Conservation Pricing	Yes		X													Jun-06	Yes
		BMP 12 Conservation Coordinator	Yes		X														
✓		BMP 13 Water Waste Prohibitions	Yes		X													Jun-06	Yes
		BMP 14 Residential ULFT Replacement Programs	Yes		X													Jun-06	Yes
✓			Yes		X													Jun-06	Yes

\*C6: Wholesaler may also be a retailer (supplying water to end water users)

\*\*C8, \*\*C9, \*\* and C10: Agencies choosing an alternative conservation approach are responsible for achieving water savings equal or greater than that which they would have achieved using only BMP list.

(1) For details, please see: <http://www.cuwcc.org/mou/exhibit-1-bmp-definitions-schedules-requirements.aspx>.

(2) BMP is exempt based on cost-effectiveness, lack of funding, and lack of legal authority criteria as detailed in the CUWCC MOU

(3) Non MOU signatories must submit to DWR reports and supporting documents in the same format as CUWCC.



Implementation Scheduled to Commence within 1st Year of Agreement																		
CUWCC 2010 Flex Track BMPs	BMPs required for Wholesale Retail Supplier	BMPs required for Retailer Supplier	BMP implemented by Retailers and/or Wholesalers			Compliance Options / Alternative Conservation Approaches (1)			BMP is Exempt (2)			Funds Requested, if Available (See AB 1420 Compliance Table 3) Yes/No						
			Retailer Yes/No	Wholesaler Yes/No	Regional Yes/No	Alternative Conservation Approaches Year/No	BMP Checklist	Flux Track GPCD	Gallons Per Capita Per Day	Not Cost Effective	Lack of Funding		Lack of Legal Authority	Start Date (MM/YY)	Completion Level (%)	BMP Completion Date (MM/YY)	Budget (Dollars)	Funding Source & Finance Plan to Implement BMPs
3.30	✓		YES					X				Jul-11	0%	Jul-12	\$ 5,000.00	Water Enterprise Fund	YES	
3.40	✓		YES					X				Jul-11	0%	Jul-12	\$ 5,000.00	Water Enterprise Fund	YES	
4.00	✓		YES					X				Oct-10	75%	Sep-11	\$ 500.00	Customer Rates	YES	
5.00	✓		YES					X				Oct-10	75%	9/1/2011	\$ 2,500.00	Customer Rates	YES	

\*C6 Wholesaler may also be a retailer (supplying water to end water users)  
 \*\*C9, \*\* C10, and \*\*C11 Agencies choosing an alternative conservation approach are responsible for achieving water savings equal or greater than that which they would have achieved using only BMP list  
 (1) For details, please see <http://www.cuwcc.org/mou/exhibit-1-bmp-definitions-schedules-requirements.aspx>  
 (2) BMP is exempt based on cost-effectiveness, lack of funding, or lack of legal authority, as detailed in the CUWCC MOU

## **Appendix G: Potable Water Rate Summary**

## WATER RATES

Effective January 1, 1996

5/8" and 3/4" Meters – Minimum Monthly Fees – \$11.73. Each multi unit is charged a minimum monthly fee of \$11.73

1" Meter	\$ 20.55	4" Meter	\$ 91.10
1-1/2"	26.45	6"	158.66
2"	35.27	8"	235.07
3"	70.50	10"	282.09

For the first:     2,000 Cubic feet \$0.63/100 Cubic feet  
                       2,000 – 3,000 Cubic feet \$0.95/100 Cubic feet  
                       3,000 – 5,000 Cubic feet \$1.10/100 Cubic feet  
                       Over 5,000 Cubic feet \$1.44/100 Cubic feet

100 Cu. Ft. ....	\$ .63	4200 .....	\$ 35.30
200 .....	1.26	4300 .....	36.40
300 .....	1.89	4400 .....	37.50
400 .....	2.52	4500 .....	38.60
500 .....	3.15	4600 .....	39.70
600 .....	3.78	4700 .....	40.80
700 .....	4.41	4800 .....	41.90
800 .....	5.04	4900 .....	43.00
900 .....	5.67	5000 .....	44.10
1000 .....	6.30		
1100 .....	6.93		
1200 .....	7.56		
1300 .....	8.19		
1400 .....	8.82		
1500 .....	9.45		
1600 .....	10.08		
1700 .....	10.71		
1800 .....	11.34		
1900 .....	11.97		
2000 .....	12.60		
2100 .....	13.55		
2200 .....	14.50		
2300 .....	15.45		
2400 .....	16.40		
2500 .....	17.35		
2600 .....	18.30		
2700 .....	19.25		
2800 .....	20.20		
2900 .....	21.15		
3000 .....	22.10		
3100 .....	23.20		
3200 .....	24.30		
3300 .....	25.40		
3400 .....	26.50		
3500 .....	27.60		
3600 .....	28.70		
3700 .....	29.80		
3800 .....	30.90		
3900 .....	32.00		
4000 .....	33.10		
4100 .....	34.20		

<u>Amounts Over 5000 – Meter</u>	
<u>Charge + \$ 44.10 + \$ 1.44/100 Cubic Feet</u>	
6000 – Meter Charge .....	\$ 58.50
7000 .....	72.90
8000 .....	87.30
9000 .....	101.70
10,000 .....	116.10
11,000 .....	130.50
12,000 .....	144.90
13,000 .....	159.30
14,000 .....	173.70
15,000 .....	188.10
20,000 .....	260.10
25,000 .....	332.10
30,000 .....	404.10
35,000 .....	476.10
40,000 .....	548.10
50,000 .....	692.10
60,000 .....	836.10
70,000 .....	980.10
80,000 .....	1,124.10
90,000 .....	1,268.10
100,000 .....	1,412.10

## **Appendix H: Waste Water Rate Summary**

Exhibit A

Table 1

Wastewater Rates for FY 10-11  
By Customer Classification

Sewer Service Code	Customer Classification	Existing Rates July 1, 2010 (\$/month)	Proposed Rates January 1, 2011 (\$/month)
<i>Residential</i>			
1	Single Family Residential	23.46	39.75
2	Multiple Family Duplexes	16.88	28.39
3	Mobile Home Units	10.85	17.98
<i>Commercial</i>			
5	Small Office, Com.	23.32	39.38
6	General Office, Com.	58.59	100.08
7	Large Comm., Com.	215.89	370.77
8	Gas Station, Com.	22.60	38.28
9	Car Wash, Com.-low user	42.47	72.47
9	Car Wash, Com.-high user	560.78	966.01
10	Restaurant/Bar	133.08	229.58
11	Restaurant-High volume	465.87	805.57
14	Laundromat -Low/High User	380.09	117.62/460.
15	Churches/PF	34.90	59.34
16	Medical Offices	34.39	58.43
17	Dental & Veterinarian	25.29	42.77
18	Bank	14.20	23.67
19	Supermarkets	124.04	214.50
20	Bakery	75.90	130.60
21	Beauty/Barber Shops	2.76	3.99
22	Post Office	2.78	4.04
23	Hotel/Motel, (per room)	4.98	7.82
Unknown	Convalescent Home (per unit)	17.74	30.52
Unknown	Movie Theater	121.71	238.48
Industry *	Golden State Vintners	5,066	7,192
Industry **	Dole Fresh Vegetables	5,008	5,008
<i>Schools</i>			
	(rate is per student/year)		
	Jack Francionni (elementary)	8.55	14.72
	Frank Ledesma (elementary)	8.55	14.72

Sewer Service Code	Customer Classification	Existing Rates July 1, 2010 (\$/month)	Proposed Rates January 1, 2011 (\$/month)
	Pinnacles High School	17 11	29.44
	Chalone High School	17 11	29.44
	Gabilan (elementary)	8.55	14.72
	Main Street (middle school)	12.84	22.08
	Rose Ferrero (elementary)	8.55	14.72
	San Vicente (elementary)	8.55	14.72
	Soledad High School	17 11	29.44
	Preschools (Metz & Gabilan Dr )	8.55	14.72
CDCR	Fixed Monthly Charge, Plus.	Included in Rates	111,809.49
	Flow - Per Million Gallons,	3,081 07	3,143 17
	BOD - Per 1,000 pounds	309.25	200 44
	SS - Per 1,000 pounds	314 96	211.52
	Plus, flat annual Admin. rate	4 15	Included above
* Rates for Industry in the City	Flow - Per Million Gallons, plus	3,081 07	4,653 67
	BOD - Per 1,000 pounds	309.25	362.26
	SS - Per 1,000 pounds	314 96	390 14
	Plus, flat annual Admin. rate	4 15	Included above
** Under Agreement			

## **Appendix I: Public Comments**

On June 22, 2011, the Soledad City Council held a second public hearing on the Final Draft 2010 Urban Water Management Plan. The comments and/or questions raised during the Public Comment / City Council meeting are summarized below.

- Ms. Santa Cruz, a resident of the City, commented regarding the cost of the upgraded City Wastewater Treatment Facility, and expressed concern regarding the quality and use of treated wastewater. The City Public Works Director clarified that this Report does not relate to the construction of the wastewater treatment facility, and described the potential uses of recycled water.
- Councilmember Mr. Bourke asked several questions regarding details within the report, all of which were answered by the Public Works Director.
- No changes to the Final Draft of the report, with the exception of the inclusion of this Appendix, were made as a result of comments or questions submitted during the Public Comment / City Council hearing.