

Final

2010 Urban Water Management Plan Update



Prepared for:



Goleta Water District

Prepared by:
Kennedy/Jenks Consultants

November 2011

Acknowledgements

Goleta Water District

Board of Directors

Bill Rosen, President

Jack Cunningham, Vice President

Bert Bertrando

Lauren Hanson

Rick Merrifield

John McInnes, General Manager

The 2010 Urban Water Management Plan Update was prepared by:
Kennedy/Jenks Consultants

Staff Contributors:

Chris Rich, Water Supply & Conservation Manager

Tom Bunosky, Operations Manager

Chapter 2: Water Use

This section describes historic and current water usage and the methodology used to project future demands within GWD's service area. Water usage is divided into sectors such as residential, commercial and landscape.

2.1 Population

GWD has a current service area population of approximately 86,950. GWD's service area population for years 1990, 2000, and 2010 was estimated using Census data. Census tracts within the GWD service area were identified using Geographic Information System (GIS) software. Those census tracts not fully within the GWD service area were mapped and evaluated. In those instances where the urbanized area of the census tract fell within the GWD service area and the rest of the census tract was generally rural, then the population of that census tract was assumed to be in the GWD. In those instances where the urbanized area of the census tract extended outside of the GWD boundary, a percentage of the population was assigned to GWD (i.e., if 80 percent of a census tract area fell within GWD then 80 percent of the population was assigned to GWD). Population for intervening years was linearly interpolated based on the population established for 1990, 2000, and 2010. Estimated historic population for the GWD service area is shown in Table 2-1. As Table 2-1 documents, average annual growth in the water service area has been relatively consistent, remaining below 1 percent per year for the period 2000 to 2010.

**TABLE 2-1
HISTORIC POPULATION ESTIMATES IN
GOLETA WATER DISTRICT SERVICE AREA**

2000	2002	2004	2006	2008	2010
79,874	81,241	82,631	84,045	85,483	86,946

2.1.1 Growth Estimates

Population is one component of future water demand. Other factors include economic conditions, land use policies, changes in technology, and water costs. This interplay of factors makes predicting future water use difficult, particularly over a 25-year period. For this UWMP, three different projection methods were evaluated:

1. Estimating water demand growth consistent with population projections of the Santa Barbara County Association of Governments
2. Estimating water demands using past water growth demand trends
3. Estimating growth in water demands using anticipated land use development

These three methodologies are further discussed in Appendix C. Based on the evaluation of these methodologies Goleta Water District has decided to consider demand using a range of potential future scenarios, resulting from forecasts made using historic population growth rates

and land-use based growth rates (Table 2-2) (called “Moderate” and “High” estimates in the tables below).

**TABLE 2-2
PROJECTED POPULATION IN GOLETA WATER DISTRICT SERVICE AREA**

Service Area Population	2010 (Current)	2015	2020	2025	2030	2035
Moderate Estimate ^(a)	86,946	90,480	94,157	97,984	101,967	106,111
High Estimate ^(b)	86,946	94,841	102,245	107,740	109,077	112,120

Notes:

- (a) Based on Santa Barbara Association of Governments (SBCAG) 2002 Regional Growth Forecast, see Appendix C
- (b) Assumes population grows in proportion to anticipated land use developments, see Appendix C

2.2 Historic Water Use

2.2.1 Historic Water Deliveries

State law requires that the UWMP illustrate water use across various classes of customers, including: single family residential, multi-family residential, agricultural, commercial/institutional, and landscape customers. In 2010, residential uses comprise approximately 47 percent of GWD’s total demand, commercial and institutional uses make up approximately 25 percent of demand, and agricultural uses make up approximately 18 percent of demand. Actual water deliveries in 2005 and 2010 are provided in Tables 2-3 and 2-4, respectively. All GWD accounts are metered.

**TABLE 2-3
WATER DELIVERIES - ACTUAL 2005^(a)**

Water Use Sectors	Metered	
	# of accounts	Volume (AFY)
Single family	13,109	4,823
Multi-family	1,550	2,052
Commercial/Institutional	1,034	2,080
Landscape	153	263
Agriculture	162	2,050
Total	16,008	11,268

Note:

- (a) Water deliveries shown in this table are based on sales data and do not account for system losses.

**TABLE 2-4
WATER DELIVERIES - ACTUAL 2010^(a)**

Water use sectors	Metered	
	# of accounts	Volume (AFY)
Single family	13,340	4,349
Multi-family	1,579	1,766
Commercial/Institutional	1,006	3,336
Landscape	203	371
Agriculture	165	2,387
Total	16,293	12,209

Note:

(a) Water deliveries shown in this table are based on sales data and do not account for system losses.

2.2.2 Historic Sales

GWD has, on occasion, considered the sale or purchase of water with other water purveyors. As shown in Table 2-5, GWD sold 1,150 AF of SWP water in 2010 to other regional agencies.

**TABLE 2-5
HISTORIC SALES TO OTHER WATER AGENCIES (AF)**

Agency	2005	2006	2007	2008	2009	2010
Montecito Water District	0	0	700	0	0	400
Santa Ynez River Water Conservation District-Improvement District No. 1	0	0	0	0	0	400
City of Buelton	0	0	0	0	0	50
Santa Maria			288			
La Cumbre Mutual Water Company	0	0	485	300	0	300
Total	0	0	1,473	300	0	1,150

2.2.3 Historical Other Water Uses

Table 2-6 summarizes what the California Department of Water Resources refers to as “other” water uses, besides metered deliveries and sales to other agencies.

GWD has in place a SAFE Water Supplies Ordinance (SAFE), approved by GWD voters in 1991 and amended in 1994. The SAFE Ordinance allows GWD to provide new service connections at a rate not to exceed one (1) percent of total potable water supply when certain conditions are met. In addition, the SAFE Ordinance established an Annual Storage Commitment – a groundwater recharge requirement when the Central subbasin of the Goleta Groundwater Basin drops below 1972 levels. As demonstrated by GWD’s 2011 Water Supply Management Plan, the basin is currently above 1972 levels; therefore, GWD is not required to make the Annual Storage Commitment. The SAFE Ordinance is further discussed in Chapter 3.

**TABLE 2-6
HISTORIC “OTHER” WATER USES (AF)**

Water Use ^(a)	2005	2010
Saline Barriers	0	0
Groundwater Recharge ^(b)	0	0
Conjunctive Use	668	0
Recycled Water	1,030	785
System Operations and Losses	1,201	505
Total	2,899	1,290

Notes:

- (a) Any water accounted for in Tables 2-3, 2-4, and 2-5 is not included in this table.
- (b) GWD has in place a SAFE Water Supplies Ordinance (SAFE). The SAFE Ordinance established an Annual Storage Commitment – a requirement that at least 2,000 AFY of water be put towards groundwater recharge when the Central subbasin of the Goleta Groundwater Basin is below 1972 levels. The SAFE Ordinance requires that the Annual Storage Commitment permanently increase by two-thirds of any new demand. As of 2011 the Annual Storage Commitment was 2,373 AF. However, as demonstrated by the GWD 2011 Water Supply Management Plan (Figure 11-10, pg. 35), the basin is currently above 1972 levels and therefore there is not a requirement to recharge the Annual Storage Commitment.

GWD has historically participated in conjunctive use practices, whereby excess surface water during Lake Cachuma spill events is injected and stored in the Goleta Groundwater Basin for later use. Injection for conjunctive use purposes are documented in the GWD’s 2010 Groundwater Management Plan, as well as annual reports pursuant to the Wright Judgment. As shown in Table 2-6, in 2005 GWD recharged 668 AF of Cachuma spill water. The spill water is not considered a “firm” supply and the recharge is not a regular demand.

As further detailed in Chapter 4, GWD has a relatively steady base of recycled water customers. For the last decade the amount of recycled water produced and delivered has remained relatively constant, with some variation due to rainfall.

GWD, like many water agencies, does have some unaccounted-for water. Unaccounted-for water is the difference between the amount of water produced and the amount of water billed to customers. Over the last five years unaccounted for water has been approximately six (6) percent of produced water within GWD’s system (system loss was determined by comparing overall production to overall sales for 2006 to 2010). Sources of unaccounted-for water include:

- Hydrant testing and flushing
- Customer meter inaccuracies
- Leaks from water lines

2.2.4 Total Historical Water Use

Table 2-7 below presents information on all historic water uses for the years 2005 and 2010.

**TABLE 2-7
HISTORIC TOTAL WATER USE (AF)**

Water Use	2005	2010
Total Water Deliveries (from Tables 2-3 and 2-4)	11,268	12,209
Sales to Other Water Agencies (from Table 2-5)	0	1,150
Other Water Uses (from Table 2-6)	2,899	1,290
Total	14,167	14,649

2.3 Existing and Targeted Per Capita Water Use

The Water Conservation Bill of 2009 (SBX7-7) is one of four policy bills enacted as part of the November 2009 Comprehensive Water Package (Special Session Policy Bills and Bond Summary). The Water Conservation Bill of 2009 provides the regulatory framework to support the statewide reduction in urban per capita water use described in the 20 by 2020 Water Conservation Plan. Consistent with SBX7-7, each water supplier must determine and report its existing baseline water consumption and establish future water use targets in GPCD; reporting is to begin with the 2010 UWMP.

The two primary calculations required by SBX7-7 are:

1. Base Daily Water Use calculation (average GPCD used in past years)
2. Compliance Water Use Target (target gallons per capita per day in 2015 and 2020)

The Base Daily Water Use calculation is based on gross water use by an agency in each year and can be based on a ten-year average ending no earlier than 2004 and no later than 2010 or a 15-year average if ten percent of 2008 demand was met by recycled water. Base Daily Water Use must account for all water sent to retail customers, excluding:

- Recycled water
- Water sent to another water agency
- Water that went into storage

It is at an agency's discretion whether or not to exclude agricultural water use from the Base Daily Water Use calculation. If agricultural water use is excluded from the Base Daily Water Use calculation it must also be excluded from the calculation of actual water use in later urban water management plans. GWD has elected to exclude agricultural water use from its calculation of Base Daily Water Use.

An urban retail water supplier must set a 2020 water use target (herein called the Compliance Water Use Target) and a 2015 interim target (herein called the Interim Water Use Target). There are four methods for calculating the Compliance Water Use Target:

1. Eighty percent of the urban water supplier's baseline per capita daily water use
2. Per capita daily water use estimated using the sum of the following:

- a. For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of DWR's 2016 report to the Legislature reviewing progress toward achieving the statewide 20 percent reduction target, this standard may be adjusted by the Legislature by statute.
 - b. For landscape irrigated through dedicated or residential meters or connections, water use efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in section 490 et seq. of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992.
 - c. For CII uses, a ten percent reduction in water use from the baseline CII water use by 2020.
3. Ninety-five percent of the applicable state hydrologic region target as stated in the state's April 30, 2009, draft *20 by 2020 Water Conservation Plan*. GWD falls within the Central Coast Hydrologic Region; 95% of the region target is 117 GPCD.
 4. Reduce the 10 or 15-year Base Daily Per Capita Water Use a specific amount for different water sectors:
 - a. Indoor residential water use to be reduced by 15 GPCD or an amount determined by use of DWR's "BMP Calculator".
 - b. A 20 percent savings on all unmetered uses.
 - c. A 10 percent savings on baseline CII use.
 - d. A 21.6 percent savings on current landscape and water loss uses.

The Interim Water Use Target is set as a halfway point between the Base Daily Water Use GPCD and the 2020 Compliance Water Use Target GPCD.

Finally, the selected Compliance Water Use Target must be compared against what DWR calls the "Maximum Allowable GPCD". The Maximum Allowable GPCD is based on 95 percent of a 5-year average base gross water use from 2003 to 2010. The Maximum Allowable GPCD is used to determine whether a supplier's 2015 and 2020 per capita water use targets meet the minimum water use reduction of the SBX7-7 legislation. If an agency's Compliance Water Use Target is higher than the Maximum Allowable GPCD, the agency must instead use the Maximum Allowable GPCD as their target.

2.3.1 Base Daily Per Capita Water Use for SBX7-7 Reduction

Consistent with SBX7-7, the 2010 UWMPs must provide an estimate of Base Daily Per Capita Water Use. This estimate utilizes information on population as well as base gross water use. For the purposes of this UWMP, population was estimated as described in Section 2.1.

The UWMP Act allows urban water retailers to evaluate their base daily per capita water use by using a 10- or 15-year period. A 15-year base period within the range January 1, 1990 to December 31, 2010 is allowed if recycled water made up 10 percent or more of the 2008 retail water delivery. If recycled water did not make up 10 percent or more of the 2008 retail water delivery, then a retailer must use a 10-year base period within the range January 1, 1995 to

December 31, 2010. Recycled water did not make up 10 percent of the 2008 delivery to the GWD retail service areas, and for this reason, Base Daily Per Capita Water Use has been based on a 10-year period. In addition, urban retailers must report daily per capita water use for a 5-year period from January 1, 2003 to December 31, 2010. This 5-year base period is compared to the Target Based Daily Per Capita Water Use to determine the minimum water use reduction requirement (this is described in more detail in the following sections).

Tables 2-8 and 2-9 summarize the Base Daily Water Use calculation for GWD. The period 1995 to 2004 has been selected for calculation of the 10-year base period while the period 2005 to 2009 has been selected for calculation of the 5-year base period. The 10-year average Base Daily Per Capita Water Use for GWD is 119 GPCD; the 5-year is 117 GPCD.

**TABLE 2-8
BASE PERIOD RANGES**

Base	Parameter	Value
10-Year Base Period	2008 Total Water Deliveries (AF)	15,255
	2008 Total Volume of Delivered Recycled Water (AF)	1,055
	2008 Recycled Water as a Percent of Total Deliveries (%)	7%
	Allowable Base Period (years) ^(a)	10
	Year Beginning Base Period Range	1995
5-Year Base Period	Year Ending Base Period Range ^(b)	2004
	Year Beginning Base Period Range	2005
	Year ending Base Period Range ^(c)	2009

Notes:

- (a) 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.
- (b) The ending year must be between December 31, 2004 and December 31, 2010.
- (c) The ending year must be between December 31, 2007 and December 31, 2010.

**TABLE 2-9
BASE DAILY PER CAPITA WATER USE, 10-YEAR**

Sequence Year	Calendar Year	Distribution System Population ^(a)	Daily System Gross Water Use (MGD)	Annual Daily Per Capita Water Use (GPCD)
1	1995	77,761	9.16	118
2	1996	78,179	8.98	115
3	1997	78,599	10.46	133
4	1998	79,022	10.40	132
5	1999	79,447	9.91	125
6	2000	79,874	9.78	122
7	2001	80,554	9.11	113
8	2002	81,241	9.57	118
9	2003	81,933	8.59	105
10	2004	82,631	9.22	112
<i>Base Daily Per Capita Water Use, 10-Year Average</i>				<i>119</i>

Note:

- (a) GWD's service area population estimated using 1990, 2000, and 2010 Census data.

Table 2-10 provides the data on the Maximum Allowable GPCD. The Maximum Allowable GPCD is based on 95 percent of the 5-year average base gross water use. In this case 95 percent of the 5-year GPCD is 111 GPCD (95% of 117).

**TABLE 2-10
BASE DAILY PER CAPITA WATER USE, 5-YEAR**

Sequence Year	Calendar Year	Distribution System Population ^(a)	Daily System Gross Water Use (MGD)	Annual Daily Per Capita Water Use (GPCD)
1	2005	83,335	9.53	114
2	2006	84,045	8.58	102
3	2007	84,761	10.74	127
4	2008	85,483	10.74	126
5	2009	86,211	10.10	117
<i>Base Daily Per Capita Water Use, 5-Year Average</i>				117
<i>Maximum Allowable GPCD (95% of 5-year Average)</i>				111

Note:

(a) GWD's service area population estimated using 1990, 2000, and 2010 Census data.

2.3.2 Compliance Water Use Targets for SBX7-7 Reduction

In addition to calculating base gross water use, the "20 by 2020" legislation requires that a retail water supplier identify its demand reduction targets. The methodologies for calculating demand reduction targets were described above. GWD is choosing to meet SBX7-7 targets as an individual agency rather than as part of a regional alliance. GWD has selected Method 3 to calculate the agency's 2020 Compliance Water Use Target and Interim Water Use Target.

The Compliance Water Use Target under Method 3 is 95 percent of the applicable state hydrologic region target as stated in the state's April 30, 2009, draft *20 by 2020 Water Conservation Plan*. GWD falls within the Central Coast Hydrologic Region; 95 percent of the region target is 117 GPCD.

However, as described earlier, the Maximum Allowable GPCD is 111. The calculated Compliance Water Use Target, under Method 3 (117 GPCD) is greater than the Maximum Allowable GPCD. In these cases the Compliance Water Use Target must be set at the Maximum Allowable GPCD, or 111. Results are as follows:

- Interim Water Use Target, 115 GPCD
- Compliance Water Use Target, 111 GPCD

Over the last 5 years GWD has averaged 117 GPCD, meaning that in order to meet the water use targets prescribed by SBX7-7, GWD will have to reduce current water use by approximately 2 percent by 2015 and by approximately 5 percent by 2020.

2.4 Projected Water Use

2.4.1 Projected Water Demands

As described in Section 2.1, GWD has decided to consider future demand given both a “moderate” growth rate and a “high” growth rate (see Appendix C). Tables 2-11 and 2-12 provide the range of anticipated water use, by sector, for years 2015 through 2035. Notably, the degree of growth forecasted in each customer class is driven by underlying assumptions regarding growth trends and land use. For example, Table 2-11 assumes water demand growth proceeds relatively evenly across customer classes. Comparatively, Table 2-12 forecasts a greater degree of water demand growth in the Commercial / Institutional customer class, due to projects and policies outlined in local General Plans and the UC Santa Barbara Long Range Development Plan. Recycled water demand is not included in Tables 2-11 and 2012; for recycled water demand see Table 2-13.

**TABLE 2-11
PROJECTED WATER DEMAND BY SECTOR – MODERATE ESTIMATE (AFY)**

Water Use Type	Current^(a)	2015	2020	2025	2030	2035
Single Family Residential	4,757	4,950	5,151	5,361	5,579	5,805
Multi-Family Residential	1,910	1,988	2,069	2,153	2,240	2,331
Commercial/Institutional	3,252	3,384	3,522	3,665	3,814	3,969
Park and Landscape Irrigation ^(b)	375	375	375	375	375	375
Agriculture ^(a)	2,848	2,848	2,848	2,848	2,848	2,848
<i>Total Estimated Demand without Conservation</i>	<i>13,142</i>	<i>13,546</i>	<i>13,965</i>	<i>14,402</i>	<i>14,856</i>	<i>15,329</i>
<i>Conservation (2% by 2015, 5% by 2020)</i>		<i>(271)</i>	<i>(698)</i>	<i>(720)</i>	<i>(743)</i>	<i>(766)</i>
<i>Total Estimated Demand with Conservation</i>		<i>13,275</i>	<i>13,267</i>	<i>13,682</i>	<i>14,113</i>	<i>14,562</i>

Notes:

(a) Average sales data years 2006-2010.

(b) Park and Landscape Irrigation water use and Agricultural water use set at average use 2006-2010.

**TABLE 2-12
PROJECTED WATER DEMAND BY SECTOR – HIGH ESTIMATE (AFY)**

Water Use Type	Current^(a)	2015	2020	2025	2030	2035
Single Family Residential	4,757	4,973	5,178	5,381	5,411	5,443
Multi Family Residential	1,910	2,196	2,448	2,691	2,793	2,895
Commercial/Institutional	3,252	3,940	4,597	4,978	5,048	5,375
Park and Landscape Irrigation ^(b)	375	375	375	375	375	375
Agriculture ^(b)	2,848	2,848	2,848	2,848	2,848	2,848
<i>Total Estimated Demand without Conservation</i>	<i>13,142</i>	<i>14,332</i>	<i>15,447</i>	<i>16,274</i>	<i>16,476</i>	<i>16,936</i>
<i>Conservation (2% by 2015, 5% by 2020)</i>		<i>(287)</i>	<i>(772)</i>	<i>(814)</i>	<i>(824)</i>	<i>(847)</i>
<i>Total Estimated Demand with Conservation</i>		<i>14,045</i>	<i>14,675</i>	<i>15,460</i>	<i>15,652</i>	<i>16,089</i>

Notes:

(a) Average sales data years 2006-2010.

(b) Park and Landscape Irrigation water use and Agricultural water use set at average use 2006-2010.

2.4.2 Projected Sales and Other Water Uses

GWD does not anticipate any regular or large sales to other agencies in the future. GWD will consider selling unneeded water on a short-term basis when projected or actual supplies exceed GWD demand and ability to inject groundwater. As in the past, GWD does not anticipate future water demand related to saline barriers, groundwater recharge operations or conjunctive use. For the purpose of projections, unaccounted-for water is assumed to be approximately six (6) percent of total sales. Table 2-13 shows projected sales and other water uses.

**TABLE 2-13
PROJECTED SALES AND "OTHER" WATER USES (AFY)**

Water Use^(a)	Current	2015	2020	2025	2030	2035
Sales to Other Agencies ^(b)	0	0	0	0	0	0
Saline Barriers	0	0	0	0	0	0
Groundwater Recharge ^(c)	0	0	0	0	0	0
Conjunctive Use	0	0	0	0	0	0
Recycled Water ^(c)	1,070	1,070	1,070	1,070	1,070	1,070
System Operation and Losses ^(e)	789	884	903	939	958	984
Total	1,859	1,954	1,973	2,009	2,028	2,054

Notes:

- (a) Any water accounted for in Tables 2-11 and 2-12 is not included in this table.
- (b) Though there were sales to other agencies in year 2010 no future sales are projected.
- (c) Assumes groundwater above 1972 levels and SAFE Annual Storage Commitment not triggered.
- (d) Set at highest historic use 1995 to 2010.
- (e) Loss in year 2010 based on comparison of production versus sales. All other years assumed to be 6% of potential demand. Potential demand set as average of moderate and high demand estimates.

2.4.3 Total Projected Water Use

Table 2-14 presents the "moderate" estimate of projected water demand for the years 2015 to 2035; Table 2-15 presents the "high" estimate.

**TABLE 2-14
TOTAL PROJECTED WATER USE – MODERATE ESTIMATE (AFY)**

Water Use	Current	2015	2020	2025	2030	2035
Total Water Deliveries (from Table 2-11) ^(a)	13,142	13,275	13,267	13,682	14,113	14,562
Sales to Other Water Agencies (from Table 2-13)	0	0	0	0	0	0
Additional water uses and losses (from Table 2-13)	1,859	1,954	1,973	2,009	2,028	2,054
Total	15,001	15,229	15,240	15,690	16,141	16,617

Note: (a) Assumes conservation.

**TABLE 2-15
TOTAL PROJECTED WATER USE – HIGH ESTIMATE (AFY)**

Water Use	Current	2015	2020	2025	2030	2035
Total Water Deliveries (from Table 2-12) ^(a)	13,142	14,045	14,675	15,460	15,652	16,089
Sales to Other Water Agencies (from Table 2-13)	0	0	0	0	0	0
Additional water uses and losses (from Table 2-13)	1,859	1,954	1,973	2,009	2,028	2,054
Total	15,001	15,999	16,647	17,469	17,679	18,143

Note: (a) Assumes conservation.

2.4.4 Water Use Projections for Low Income Households

Senate Bill 1087 requires that water use projections of an UWMP include the projected water use for single-family and multi-family residential housing 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. The water demands described for low income households in the paragraphs below are a subset of the water demand estimates of Tables 2-14 and 2-15.

Approximately 82 percent of GWD service area is comprised of unincorporated County of Santa Barbara, the remainder of the service area (18 percent) is primarily within the City of Goleta. Based on 2000 Census Data, the County of Santa Barbara housing element estimates that “extremely low”, “very low” and “low” income households make up approximately 33.5 percent of all households in the City of Goleta and unincorporated county area (County of Santa Barbara 2010 page 26). However, to meet regional housing needs goals the County estimates that 44 percent of new housing units would need to be suitable for extremely low, very low, or low income residents (County of Santa Barbara 2010 page 69). The City of Goleta also updated its housing element in November 2010. In order to meet its regional housing needs goals, Goleta estimates that 40 percent of new housing units would need to be suitable for extremely low, very low, or low income residents (City of Goleta 2010 page 10A-63).

To estimate the future number of new low-income households in the Goleta Water District a weighted percentage was calculated as shown in Table 2-16.

**TABLE 2-16
WEIGHTED PERCENTAGE OF LOW-INCOME HOUSEHOLDS**

	% GWD in Jurisdiction	% Future Housing Units Low Income	Weighted Percentage Low-Income
City of Goleta	18.0%	40.0%	7.2%
Santa Barbara County	82.0%	44.0%	36.1%
<i>Estimate % of future housing units in GWD that will be low income</i>			43.3%

The weighted average of 43.3 percent was used for projections of water demand for single-family and multi-family customers from very low and low-income households. Table 2-17 presents projections of future low-income household water demands assuming the moderate estimate of growth and Table 2-18 presents the potential demand assuming the high estimate of growth.

**TABLE 2-17
PROJECTIONS OF FUTURE LOW-INCOME HOUSEHOLD
WATER USE – MODERATE ESTIMATE (AFY)**

Water Use^(a)	2015	2020	2025	2030	2035
Estimated Very Low and Low-Income Household Water Use	115	227	348	474	604

Note: (a) Assumes conservation.

**TABLE 2-18
PROJECTIONS OF FUTURE LOW-INCOME HOUSEHOLD
WATER USE – HIGH ESTIMATE (AFY)**

Water Use^(a)	2015	2020	2025	2030	2035
Estimated Very Low and Low-Income Household Water Use	213	395	578	632	687

Note: (a) Assumes conservation.

Further, GWD will not deny nor condition approval of water services, nor reduce the amount of services applied for by a proposed development that includes housing units affordable to lower income households unless one of the following occurs:

- GWD specifically finds that it does not have sufficient water supply;
- GWD is subject to a compliance order issued by the California Department of Public Health (CDPH) that prohibits new water connections; or
- The applicant has failed to agree to reasonable terms and conditions relating to the provision of services.

2.4.5 Other Factors Affecting Water Usage

Two other factors that affect water usage are weather and conservation practices. Historically, when the weather is hot and dry, water usage increases. The amount of increase varies according to the number of consecutive years of hot, dry weather and the conservation activities imposed. During cool and wet years, historical water usage decreases to reflect less water usage for exterior landscaping and agricultural uses. Past studies by GWD have indicated that during dry years demand increases by 7 percent above normal.

In recent years, water conservation has become an increasingly important factor in water supply planning in California. Since the 2005 UWMP, there have been a number of regulatory changes related to conservation including new standards for plumbing fixtures, a state universal retrofit ordinance², new Green Building standards, demand reduction goals and more. In addition, the California Plumbing Code has instituted requirements for new construction that mandate the installation of ultra low-flow toilets and low-flow showerheads.

Per capita residential, commercial, and industrial usage can be expected to decrease as a result of the implementation of more aggressive water conservation practices.

² Under Senate Bill 407 passed in October 2009 and signed into law by Governor Arnold Schwarzenegger, starting in January 2014 toilets and urinals across the state must meet efficiency standards as a condition of receiving a certificate of occupancy. The legislation requires that a seller or transferor of single-family residential real property, multifamily residential real property, or commercial real property disclose to a purchaser or transferee, in writing, specified requirements for replacing plumbing fixtures, and whether the property includes noncompliant plumbing.