

Analysis of Water Use for Development

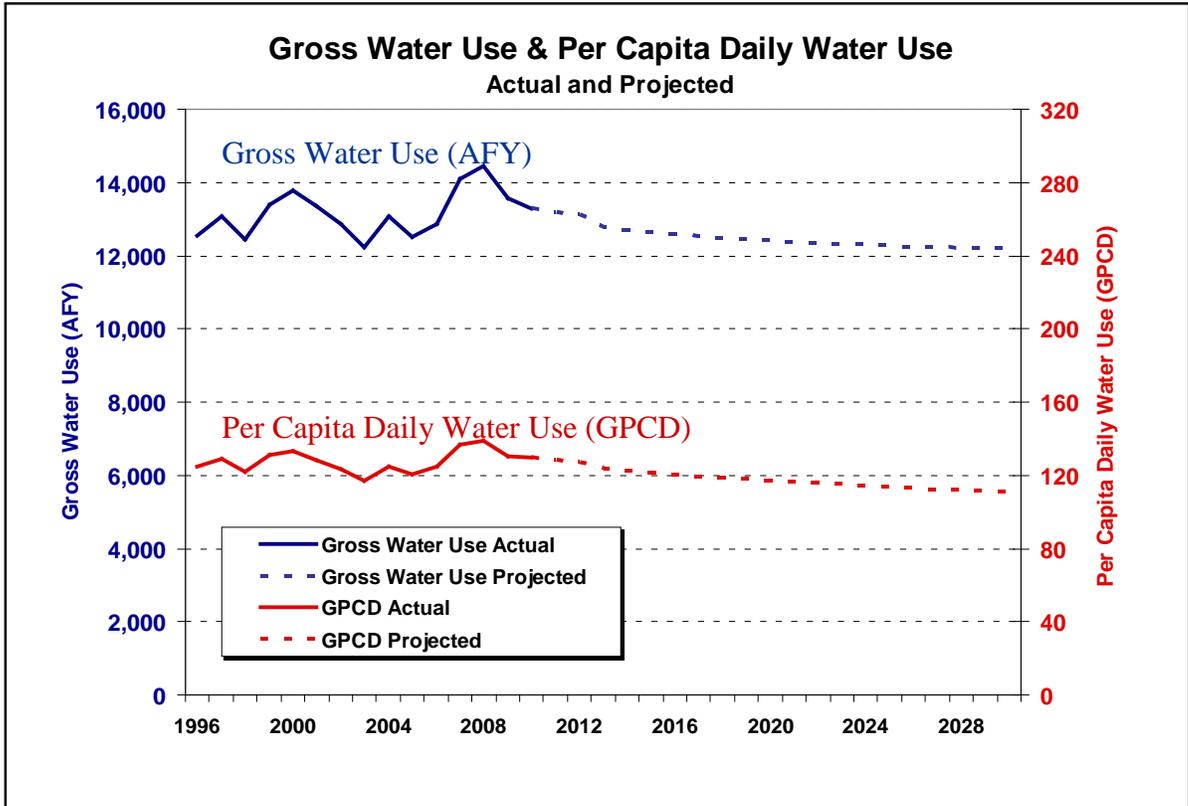
During a normal year, the City's water demand is 14,600 acre feet per year (AFY). Currently, the City is in a Stage Three Drought Condition with projected annual demands of approximately 9,800 AFY (65% of normal potable demand, plus some recycled water use). On average, development represents approximately 0.35% of the City's drought water demand projection, or 28-40 AFY (refer to Table 1 below). This estimate is based on information provided in the General Plan Update Final Environmental Impact Report (FEIR) and City data on development over the last ten years, as described below.

The FEIR prepared for the City's General Plan Update included an assessment of planned growth (assuming 2,800 new residential units and 2 million square feet of nonresidential development) over the 20-year planning period (2010-2030). This additional growth was estimated to increase long-term citywide water demand by a cumulative total of 791 AFY by the year 2030. This breaks down to approximately 40 AFY of new annual water demand, representing 0.41% of the annual drought demand projections.

City staff reviewed completed construction projects in the City from 2004-2013 (as determined by issuance of a certificate of occupancy for each project) and found that an average of 28 AFY of new water demandⁱ went online each year. Although the number varied greatly from one year to another (ranging from 8 to 55 AFY), this time period captured a development boom as well as the recent recession, and should serve as a realistic average in gauging development over the next 5 years. Most recently, for 2014 and 2015, a total of 38.54 and 9.74 AFY respectively, went online based on certificate of occupancy issuance (average of 24 AFY), which is consistent with the average over the previous 10 years. A 28 AFY increase would represent 0.29% of the annual drought demand projections.

Table 1: NET WATER DEMAND FROM DEVELOPMENT		
	Estimated (Per General Plan Update FEIR)	Actual¹ (2004-2013)
Acre Feet Per Year (AFY)	40 AFY	28 AFY
Annual Demand (% of Annual <u>Normal</u> Water Demand (14,600 AFY))	0.27%	0.19%
Annual Demand (% of Annual <u>Drought</u> Water Demand (9,800 AFY))	0.41%	0.29%

While it may seem surprising that development represents such a small portion of the City's water demand, this information is consistent with data from the City's 2011 Long-Term Water Supply Plan (LTWSP). The LTWSP anticipates declining potable water demand due to continuing water conservation measures (including long-term efficiency improvements resulting from measures such as updated plumbing codes and appliance standards) offsetting the effects of development, as illustrated in the following chart from the City's 2010 Urban Water Management Plan update.



During the last prolonged drought event (approximately 1986-1992), significant time and effort was spent to determine, on a case by case basis, if a proposed project could be provided sufficient water supplies without significantly impacting the City's ability to provide adequate supplies to existing users. Two major differences today, in comparison to the last significant drought, are that new projects have substantially lower water use due to required water efficient plumbing fixtures and landscaping, and there are significantly fewer projects in the pipeline (estimated demand of 616 AFY for all pending and approved projects in 1986 vs. 167 AFY currently). Refer to Table 2 for a breakdown of estimated water demand from pending and approved projects. Table 3 identifies the estimated water demand from all projects that have been issued a building permit, but have not received a certificate of occupancy. Additionally, the City's overall water consumption is less now than it was back then (approximately 16,225 AFY in 1986 vs. approximately 14,600 AFY currently (pre-drought)).

Table 2: ESTIMATED WATER DEMAND¹ FROM ALL PENDING AND APPROVED DEVELOPMENT (AFY) (THROUGH 2-29-16)				
PROJECT STATUS	LAND USE			TOTAL
	Residential	Mixed Use	Non-Residential	
Approved (No Building Permit Issued)	54.66	7.65	7.33	69.64
Pending (Not Approved)	13.24	58.95	25.31	97.50
TOTAL	67.90	66.60	32.64	167.14

The numbers identified in Table 2 represent projects in various stages of the process that have been submitted over many years. Some of these projects may never come to fruition, but it represents a worst-case analysis for purposes of context. If all of the projects currently in the pipeline were approved and built in the next year, it would represent 1.7% of the annual drought water demand projection (1.14% of normal year demand).

If the City Council were to restrict issuance of permits for development, it would affect approved and pending projects, which total approximately 167 AFY (Table 2). Table 3 identifies those projects for which a building permit has already been issued. These project approvals, which total approximately 75 AFY, would not be affected by a moratorium on development.

Table 3: ESTIMATED WATER DEMAND¹ FROM ALL DEVELOPMENT CURRENTLY UNDER CONSTRUCTION (AFY) (THROUGH 2-29-16)				
PROJECT STATUS	LAND USE			TOTAL
	Residential	Mixed Use	Non-Residential	
Building Permit Issued	24.0	20.03	31.29	75.32

With regard to those projects in the pipeline (pending and approved) and those for which a building permit has been issued, several of them are Affordable Housing projects.

Affordable Housing is a top priority for the City, and the General Plan includes policies supporting affordable housing. Policy LG1 is to “prioritize the use of available resources capacities for additional affordable housing... over all other new development.” Table 4, below, identifies the estimated water use associated with affordable housing projects. If a moratorium on development were imposed, affordable housing may be exempt, so it is important to consider what portion of new water demand is associated with affordable housing.

Table 4: AFFORDABLE HOUSING PROJECTS			
PROJECT STATUS	ADDRESS	DESCRIPTION	ESTIMATED WATER DEMAND¹
Permit Issued	240 W. Alamar	4 moderate income units	0.22 AFY
Permit Issued	1032 E. Mason	6 units for seniors	1.07 AFY
Subtotal			1.29 AFY
On Appeal	251 S. Hope	80 units for low- and very-low income frail elderly	14.4 AFY
Approved	510 N. Salsipuedes	40 units for families	6.4 AFY
Approved	3869 State	58 units for seniors	7.07 AFY
Pending	813 E. Carrillo	17 studios for Veterans	2.3 AFY
Subtotal			30.17 AFY
TOTAL			31.46 AFY

Pending and approved affordable housing projects total 30.17 AFY, which represents 18% of the total pending and approved development.

ⁱ Based on Water Demand Factors from the Water Demand Factor Update Report, City of Santa Barbara, October 2009.