

## Water, Wastewater, and Solid Waste Generation

540 W. Pueblo (Cancer Center)

### WATER DEMAND\*

	Amount	Unit	# of units, seats, or 1,000 sq.ft	factor/GPD	amount/gpd	AFY
Auto Repair and Body shop	0	1000SF	0	98.2	0	
Bank	0	1000SF	0	151.8	0	
Church	0	1000SF	0	151.8	0	
Church with School	0	1000SF	0	160.7	0	
condominium	0	unit	0	250	0	
Convalescent Hospital	0	1000SF	0	98.2	0	
Gas Station	0	1000SF	0	258.9	0	
Gas Station/Mini Market	0	1000SF	0	437.4	0	
General Office	0	1000SF	0	89.3	0	
Grocery Store	0	1000SF	0	375	0	
Health Club	0	1000SF	0	285.7	0	
Hotel/Motel	0	1000SF	0	116.1	0	
Hotel/Motel/Restaurant	0	1000SF	0	133.9	0	
Industrial Assembly and Manufacturing	0	1000SF	0	75.8	0	
Industrial R&D	0	1000SF	0	103.9	0	
Medical Office	57	1000SF	57	133.9	7632.3	
Mixed Medical/Dental	0	1000SF	0	205.3	0	
Multifamily Apartment	6	unit	6	214.3	1285.8	
Restaurant 24 hour	0	seat	0	35.7	0	
Restaurant fast food	0	1000SF	0	1124.5	0	
Restaurant sit down	0	seat	0	18.3	0	
Retail Large over 20,000 SF	0	1000SF	0	60.7	0	
Retail Small under 20,000 SF	0	1000SF	0	98.2	0	
Retirement Facility	0	1000SF	0	89.3	0	
Senior Apartment	0	1000SF	0	107.1	0	
School - Elementary	0	1000SF	0	16.4	0	
School - Junior High	0	1000SF	0	24.7	0	
Single Family Residential < 9999SF	0	unit	0	285.6	0	
Single Family Residential 10,000-22,000 SF	0	unit	0	455.3	0	
Single Family Residential 22,001- 43560 SF	0	unit	0	788.8	0	
Single Family Residential > 1 acre	0	unit	0	1285.5	0	
Theater	0	seat	0	4.2	0	
Warehouse/Industrial Storage	0	1000SF	0	62.5	0	
<b>WATER DEMAND TOTAL</b>					<b>8918</b>	<b>9.99</b>

### NEW WASTEWATER GENERATION \*\*

Landscape Type	Amount	unit	Landscape water consumption	Irrigation Demand AFY	Sewer Demand AFY
<i>Turf Grass</i>					
Cool Season	0	1000SF	0.055	0	
Warm Season	0	1000SF	0.048	0	
<i>Orchards</i>					
Avocados	0	1000SF	0.031	0	
Citrus	0	1000SF	0.035	0	
<i>Landscaping - Non-water conserving</i>					
Groundcover	74	1000SF	0.041	3.034	
Schrubs	0	1000SF	0.041	0	
Trees	0	1000SF	0.034	0	
<i>Landscaping - Water Conserving</i>					
Groundcover	0	1000SF	0.021	0	
Schrubs	0	1000SF	0.021	0	
Trees	0	1000SF	0.017	0	
<b>TOTAL</b>			<b>AFY</b>	<b>3.034</b>	<b>7.0</b>

\* Source: City of Santa Barbara Water Demand Factor and Conservation Study "User's Guide" Document NO. 2

\*\* Wastewater generation is calculated by deducting irrigation demand from water demand. Use the Landscape Architect irrigation demand estimate or this table.

### SOLID WASTE GENERATION\*\*\*

#### CONSTRUCTION WASTE

Type use	Amount SF	Factor/SF	Waste Generated (lbs)	Waste (Tons)
<i>Commercial Development</i>				
Remodel	3832	40	153280	
Demolition	21767	100	2176700	
New Construction	30547	25	763675	
<i>Residential development</i>				
Remodel	1093	100	109300	
Demolition	6373	60	382380	
New Construction	5061	15	75915	
<b>TOTAL</b>			<b>3661250</b>	<b>1830.625</b>

**OPERATION WASTE**

**PROJECT WASTE (NEW)**

**RESIDENTIAL**

Type Use	# Units	PPH	Waste Factor (Tons/Year)	Waste Gen. Tons/yr
<i>Residential</i>				
Single Family	0	3.01	0.95	0
Attached Residential	6	2.65	0.95	15.105
<b>RESIDENTIAL TOTAL</b>				<b>15.105</b>

**COMMERCIAL/INDUSTRIAL/INSTITUTIONAL WASTE**

Type Use	SF/Rooms	Unit	Factor Tons	Waste Gen. Tons/yr
Neighborhood center 30,000-100,000	0	SF	0.0009	0
<i>Regional Shopping Center 100,000-300,000</i>				
Anchor	0	SF	0.00012	0
Tenant	0	SF	0.0048	0
General Retail and Miscellaneous Services	0	SF	0.0057	0
Eating and Drinking Establishments	0	SF	0.0115	0
Automotive Dealer and service stations	0	SF	0.0016	0
Hotel and Motel	0	Rooms	0.8	0
Warehouse	0	SF	0.0016	0
Health Services	0	SF	0.0013	0
Hospital	0	Rooms	1.9	0
Office	57239	SF	0.0013	74.4107
Educational Institutions	0	SF	0.001	0
Transportation, Communications, Utilities	0	SF	0.0026	0
Manufacturing	0	SF	0.0026	0
<b>COMMERCIAL/INDUSTRIAL/INSTITUTIONAL TOTAL</b>				<b>74.4107</b>

<b>TOTAL INCREASE OPERATIONAL WASTE (TONS/YR)</b>	<b>89.5157</b>	<b>UNMITIGATED</b>
<b>TOTAL INCREASE OPERATIONAL WASTE (TONS/YR)</b>	<b>44.75785</b>	<b>MITIGATED</b>

\*\*\* Source: Santa Barbara County Environmental Threshold and Guidelines Manual 2008

**EXISTING WATER DEMAND\***

	Amount	Unit	# of units, seats, or 1,000 sq.ft	factor/GPD	amount/gpd	AFY
Auto Repair and Body shop	0	1000SF	0	98.2	0	
Bank	0	1000SF	0	151.8	0	
Church	0	1000SF	0	151.8	0	
Church with School	0	1000SF	0	160.7	0	
condominium	0	unit	0	250	0	
Convalescent Hospital	0	1000SF	0	98.2	0	
Gas Station	0	1000SF	0	258.9	0	
Gas Station/Mini Market	0	1000SF	0	437.4	0	
General Office	0	1000SF	0	89.3	0	
Grocery Store	0	1000SF	0	375	0	
Health Club	0	1000SF	0	285.7	0	
Hotel/Motel	0	1000SF	0	116.1	0	
Hotel/Motel/Restaurant	0	1000SF	0	133.9	0	
Industrial Assembly and Manufacturing	0	1000SF	0	75.8	0	
Industrial R&D	0	1000SF	0	103.9	0	
Medical Office	27	1000SF	27	133.9	3615.3	
Mixed Medical/Dental	0	1000SF	0	205.3	0	
Multifamily Apartment	5	unit	5	214.3	1071.5	
Restaurant 24 hour	0	seat	0	35.7	0	
Restaurant fast food	0	1000SF	0	1124.5	0	
Restaurant sit down	0	seat	0	18.3	0	
Retail Large over 20,000 SF	0	1000SF	0	60.7	0	
Retail Small under 20,000 SF	0	1000SF	0	98.2	0	
Retirement Facility	0	1000SF	0	89.3	0	
Senior Apartment	0	1000SF	0	107.1	0	
School - Elementary	0	1000SF	0	16.4	0	
School - Junior High	0	1000SF	0	24.7	0	
Single Family Residential < 9999SF	0	unit	0	285.6	0	
Single Family Residential 10,000-22,000 SF	0	unit	0	455.3	0	
Single Family Residential 22,001- 43560 SF	0	unit	0	788.8	0	
Single Family Residential > 1 acre	0	unit	0	1285.5	0	
Theater	0	seat	0	4.2	0	
Warehouse/Industrial Storage	0	1000SF	0	62.5	0	
<b>WATER DEMAND TOTAL</b>					<b>4687</b>	<b>5.25</b>

**EXISTING WASTEWATER GENERATION \*\***

Landscape Type	Amount	unit	Landscape water consumption	Irrigation Demand AFY	Sewer Demand AFY
<i>Turf Grass</i>					
Cool Season	0	1000SF	0.055	0	
Warm Season	0	1000SF	0.048	0	
<i>Orchards</i>					
Avocados	0	1000SF	0.031	0	
Citrus	0	1000SF	0.035	0	
<i>Landscaping - Non-water conserving</i>					
Groundcover	93	1000SF	0.041	3.813	
Schrubs	0	1000SF	0.041	0	
Trees	0	1000SF	0.034	0	
<i>Landscaping - Water Conserving</i>					
Groundcover	0	1000SF	0.021	0	
Schrubs	0	1000SF	0.021	0	
Trees	0	1000SF	0.017	0	
<b>TOTAL</b>			<b>AFY</b>	<b>3.813</b>	<b>1.44</b>

**EXISTING WASTE GENERATION**

**RESIDENTIAL**

Type Use	# Units	PPH	Waste Factor (Tons/Year)	Waste Gen. Tons/yr
<i>Residential</i>				
Single Family	0	3.01	0.95	0
Attached Residential	5	2.65	0.95	12.5875
<b>RESIDENTIAL TOTAL</b>				<b>12.5875</b>

**COMMERCIAL/INDUSTRIAL/INSTITUTIONAL WASTE**

Type Use	SF/Rooms	Unit	Factor Tons	Waste Gen. Tons/yr
Neighborhood center 30,000-100,000	0	SF	0.0009	0
<i>Regional Shopping Center 100,000-300,000</i>				
Anchor	0	SF	0.00012	0
Tenant	0	SF	0.0048	0
General Retail and Miscellaneous Services	0	SF	0.0057	0
Eating and Drinking establishments	0	SF	0.0115	0

Automotive Dealer and service stations	0	SF	0.0016	0
Hotel and Motel	0	Rooms	0.8	0
Warehouse	0	SF	0.0016	0
Health Services	0	SF	0.0013	0
Hospital	0	Rooms	0.9	0
Office	27000	SF	0.0013	35.1
Educational Institutions	0	SF	0.001	0
Transportation, Communications, Utilities	0	SF	0.0026	0
Manufacturing	0	SF	0.0026	0
<b>COMMERCIAL/INDUSTRIAL/INSTITUTIONAL TOTAL</b>				<b>35.1</b>

<b>TOTAL EXISTING RESIDENTIAL COMMERCIAL/INDUSTRIAL/INSTITUTIONAL WASTE GENERATION</b>	<b>47.6875</b>
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**NET NEW DEVELOPMENT DEMAND**

			Total
Net New Water Demand			4.74
Net new Irrigation Demand			-0.779
Net New Sewer Demand			5.52
Net New Construction Waste			1830.625
Net New Residential Waste Generation			2.5175
Net New Commercial Waste Generation			39.3107
Total Operational Waste Unmitigated			41.8282
Total Operational Waste Mitigated			20.9141