

## **APPENDIX 7 – UTL**



# PACIFIC GROVE HOTEL

Date Prepared March 7, 2016											
Projected Water Use											
Prepared by RRM Design Group											
Room Count	<b>125 Rooms</b>										
Pool Area	<b>510 SF</b>										
Restaurant	<b>3300 SF</b>										
Conference/banquet	<b>1000 SF</b>										
Events per week	<b>2 /wk</b>	<b>104</b> conference/banquets days									
Occupancy	<b>70 %</b>	<b>= 256</b> hotel occupancy days									
Facility Type	Number/Size	Typical Fixture Water Use	Use Frequency/day	Water Use Per Day			Water Use/Per Year @ 70% Occupancy - gal		Water Use/Per Year - AFY (325,851 gal/af)		
<b>Hotel</b>											
<b>Guest Rooms</b>	<b>125</b>					Guest Per Room <b>1.5</b>					
Toilets	125	1.28 gpf	2 flush/guest/day			$125 \times 1.28 \times 2 \times 1.5 =$	<b>480</b> gpd	$480 \text{ gpd} \times 255.5 \text{ days} =$	<b>122,640</b> gal	0.38	
Faucets	125	1.3 gpm	2 wash/guest/day	0.45	Min duration	$125 \times 1.3 \times 2 \times 0.45 \times 1.5 =$	<b>219</b> gpd	$219.375 \text{ gpd} \times 255.5 \text{ days} =$	<b>56,050</b> gal	0.17	
Shower heads	125	2.2 gpm	1 shower/guest/day	5	Min duration	$125 \times 2.2 \times 1 \times 5 \times 1.5 =$	<b>2,063</b> gpd	$2062.5 \text{ gpd} \times 255.5 \text{ days} =$	<b>526,969</b> gal	1.62	
<b>Lobby, Office and Staff Area</b> <b>12 Staff (FTE)</b>											
Toilets	2	1.28 gpf	2 flush/staff/day			$12 \times 2 \times 1.28 =$	<b>31</b> gpd	$30.72 \text{ gpd} \times 365 \text{ days} =$	<b>11,213</b> gal	0.03	
Faucets	2	1.3 gpm	2 wash/staff/day			$12 \times 2 \times 1.3 =$	<b>31.2</b> gpd	$31.2 \text{ gpd} \times 365 \text{ days} =$	<b>11,388</b> gal	0.03	
Ice Maker (guest use)	6	1.1 gpd					<b>6.6</b> gpd	$6.6 \text{ gpd} \times 365 \text{ days} =$	<b>2,409</b> gal	0.01	
<b>Laundry</b>											
			Occupied Room laundry every 2 days			2gal/lb of fabric					
Washing Machines	3	2.5 gal/load	62 rooms per day@1 - 9lb load/room				1395	<b>1395</b> gpd	$1395 \text{ gpd} \times 255.5 \text{ days} =$	<b>356,423</b> gal	1.09
<b>Landscape Areas</b>											
Hotel Courtyard	1535	0.20 gpd/sf				$1535 \times 0.2 =$	<b>307</b> gpd	$307 \text{ gpd} \times 365 \text{ days} =$	<b>112,055</b> gal	0.34	
Fountain Ave Parking	645	0.20 gpd/sf				$645 \times 0.2 =$	<b>129</b> gpd	$129 \text{ gpd} \times 365 \text{ days} =$	<b>47,085</b> gal	0.14	
<b>Special Facilities</b>											
Pool	510	0.50 gpd/sf				$510 \times 0.5 =$	<b>255</b> gpd	$255 \text{ gpd} \times 365 \text{ days} =$	<b>93,075</b> gal	0.29	
Spa	120	0.50 gpd/sf				$120 \times 0.5 =$	<b>60</b> gpd	$60 \text{ gpd} \times 365 \text{ days} =$	<b>21,900</b> gal	0.07	
<b>HOTEL SUB-TOTAL</b>											
<b>Food Service/Restaurant</b>											
	<b>3300 SF</b>	service/kitchen ratio =	<b>50 /50</b>			Assume restaurant occupancy 50% for breakfast, 50% for lunch, 100% for dinner =	<b>2</b> turns per day				
Restaurant food service		7.6 gal/patron	3300 SF X 50% service /	<b>15</b> SF PP =	<b>110</b>	$110 \times 2 \times 7.6 =$	<b>1672</b> gpd	$1672 \text{ gpd} \times 255.5 \text{ days} =$	<b>427,196</b> gal	1.31	
Conference food service	1000 SF	7.6 gal/patron	Food service events =	<b>104</b>	(2 per week)	$67 \times 7.6 =$	<b>509</b> gpd	$509.2 \text{ gpd} \times 104 \text{ days/yr} =$	<b>52,957</b> gal	0.16	
<b>RESTAURANT SUB-TOTAL</b>											
<b>Conference &amp; Banquet</b>											
	1000 SF		Standing Occupancy	<b>143</b>		1 flush and wash/visitor/event. Male- urinal, female -toilet					
			Dining occupancy =	<b>67</b>							
			Average / day	<b>105</b>							
Toilets (M=2, F=3)	5	1.28 gpf	105 Visitors			$105 \times 1.28 \text{ gpf} =$	<b>134</b> gal	$134 \text{ gpd} \times 104 \text{ days/yr} =$	<b>13,936</b> gal	0.04	
Urinals	2	Waterless	NA			NA		NA		0.00	
Faucets	4	1.3 gpm	1 min. duration			$105 \times 1.3 \text{ gpm} \times 1 \text{ min} =$	<b>137</b> gal	$136.5 \text{ gpd} \times 104 \text{ days/yr} =$	<b>14,196</b> gal	0.04	

**PACIFIC GROVE HOTEL**

<b>CONFERENCE &amp; BANQUET SUBTOTAL</b>																		0.09
<b>Total Estimated Project Water Use</b>																		5.74
<b>Existing Water Use</b>																		-1.7
<b>Net Estimated Project Water Use</b>																		4.04
<b>REFERENCE DOCUMENTS:</b>																		
Pacific Institute, November 2003: <i>Waste Not, Want Not: The Potential for Urban Water Conservation in California</i> , Appendix D and E																		