



CITY OF PORT ANGELES WATER USE EFFICIENCY (WUE) PROGRAM

A copy of the City's current water conservation plan as described in the City's 2002 Water System Plan is available upon request. The conservation program consists of two major components related to water use efficiency measures: supply-side measures for system efficiency, and demand-side measures to promote conservation of the water resource. Below is a summary of the evaluation of the current program from 2002 to 2007 and the proposed program for 2008-2013.

1) CURRENT WATER CONSERVATION PROGRAM EVALUATION (2002-2007)

A. SUPPLY-SIDE

The City has metered its main water supply at the Elwha Ranney collector and metered water pumped to the reservoirs in the high zone. Source and pumping meter data has been collected on a daily basis.

The City's water/wastewater collection division has conducted annual leak detection surveys of the City's municipal water system between 2002 and 2007. Approximately one-fifth (1/5th) of the municipal water system was surveyed annually and repair work was conducted accordingly.

The following table summarizes the leak detection surveys, estimated water savings, and estimated City costs. A copy of the annual leak detection reports is available upon request for further information.

Water Use Efficiency Program – Supply-Side Measures January 2002-December 2007		
Supply-Side Measures	Water Savings (cu ft)	Estimated City Costs¹
2002 Leak Detection Survey	2,722,861	\$5,000
2003 Leak Detection Survey	2,494,492	5,000
2004 Leak Detection Survey	386,471	5,000
2005 Leak Detection Survey	4,497,112	5,000
2006 Leak Detection Survey	755,374	5,000
2007 Leak Detection Survey	3,003,930	5,000
Total:	13,860,241	\$30,000

¹Leak detection survey costs only, the cost of the repair work is not included.

B. DEMAND-SIDE

All customers have service meters that are read on a monthly basis. With the exception of a few customers that are charged a flat rate as part of an easement agreement, all customers are charged a uniform commodity rate. All meters are tested and calibrated for accuracy prior to installation. The City replaced an average of 100 old service meters per year during the 2002-2007 period.

The City provided all customers with monthly water consumption information on their monthly utility bill including consumption information for the same period of the previous year. In addition to the consumption information provided with billing, the City has provided real-time access to account information to water utility customers through the *Utility Information Center On-Line*. This on-line service is available to all customers including single-family residential, multi-family residential and commercial customers. Customers can access consumption history information in various displays including by billing period or in graphical comparisons. Current meter reading and average daily usage has also been made available through this service on the Utility page of the City's website (www.cityofpa.us).

The City provides water conservation devices, such as low-flow showerheads and faucet aerators upon customer request at City Hall. Water conservation devices have been distributed at the City's booth at the annual Clallam County Fair and at the annual KONP Home Show. Information on the availability of the water conservation devices, rebates and information on water conservation has been made available in brochures at the City Hall and on the conservation page of the City's website (www.cityofpa.us).

The City has also provided rebates for residential customers that installed new high efficiency clothes washers and dishwashers. The rebates have been available in cooperation with the City's electric utility as part of its energy conservation program. The appliances must be *Energy Star*® listed and the customer must have an electric water heater to qualify for the rebate.

The following table summarizes the water conservation devices, estimated water savings, and estimated City costs by customer class.

Water Use Efficiency Program Measures January 2002-December 2007				
Demand-Side Measures	Single-Family and Multi-Family Residential Water Savings¹ (cu ft)	Commercial Water Savings¹ (cu ft)	Total Water Savings (cu ft)	City Costs
2002	564,626	1,460	566,086	\$21,127
2003	824,695	65,876	890,571	16,747
2004	976,386	65,876	1,042,262	10,871
2005	1,059,554	67,915	1,127,469	2,833
2006	1,166,089	135,877	1,301,966	3,821
2007	1,791,920	137,916	1,929,836	3,032
Total:	6,383,271	474,919	6,858,190	\$58,433

¹ Estimated water savings attributable to the above indoor conservation measures assume that 50% of devices supplied by the City are installed by the customer.

In addition to water saving devices the city provided educational brochures including water conservation tips, suggestions on ways to save water for single and multi-family residential and commercial customers. Conservation tips have been provided in a brochure available at the City's Customer Service counter in City Hall and on the City's website. Brochures have also been distributed at the City's booth during the annual Clallam County Fair and the annual KONP Home Show.

2) PROPOSED WATER USE EFFICIENCY PROGRAM (2008-2013)

The City proposes the following changes to the current water conservation plan for the 2008-2013 period.

A. SUPPLY-SIDE

The City may install additional distribution system metering on the 20" water main at the Peabody Heights reservoir. The City may also evaluate the installation of an additional meter at the end of the transmission line from the Elwha Pump Station. This meter may help to assess the leakage of the transmission line.

The City's water/wastewater collection division will continue its annual leak detection surveys of the City's municipal water system for the 2008 through 2013 period. The water utility has allocated \$10,000 for fiscal year 2008 for the annual survey.

B DEMAND-SIDE MEASURES

The City plans to continue its service meter replacement program with a focus on replacement of service meters over twenty-five years old that are less than 2 inches in size. The City also plans to continue to periodically calibrate meters 2 inches in size and greater.

The City plans to continue to provide all customers with monthly water consumption information on their monthly utility bill including consumption information for the same period of the previous year. In addition to the consumption information provided with billing, the City plans to continue to provide real-time access to account information to water utility customers through the *Utility Information Center On-Line*. The on-line service will be available to all customers including single-family residential, multi-family residential, commercial, and industrial customers. Customers can access consumption history information in various displays including by billing period or in graphical comparisons. The City plans to continue to provide current meter readings and average daily usage through this service on the Utility page of the City's website (www.cityofpa.us).

The City plans to continue to provide water conservation devices to single-family and multi-family residential, and commercial customers and also provide conservation devices to its industrial customers. Conservation devices such as low-flow showerheads and faucet aerators will be available at City Hall, the City's booth during the annual Clallam County Fair and at the annual KONP Home Show. Funding for the conservation devices will be

provided by the City's water utility in partnership with the City's electric utility. The City's electric utility plans to continue to provide rebates for high-efficiency clothes washers and dishwashers to single family and multifamily residential customers.

In addition to water saving devices the city will continue to provide educational brochures including water conservation tips, suggestions on ways to save water for single and multi-family residential and commercial customers. Conservation tips will continue to be provided in a brochure available at the City's Customer Service counter in City Hall and on the City's website. Brochures will also be distributed at the City's booth during the annual Clallam County Fair and the annual KONP Home Show.

SUMMARY OF PROPOSED WUE MEASURES FOR 2008-2013.

Measures/Customer Classes	SF	MF	C	I
Conservation rate structure	-	-	-	-
Customer leak education	X	X	X	X
Utility bill showing consumption history	X	X	X	X
Displays at fairs and events	X	X	X	X
Annual consumer confidence report education	X	X	X	X
High efficiency shower heads	X	X	X	X
High efficiency faucet aerators	X	X	X	X
Clothes washer rebate	X	X	-	-
Dishwasher rebate	X	X	-	-
Totals	8	8	6	6