

# Annual Water Use Efficiency Performance Report Form

Please refer to the *Getting Started – Water Use Efficiency Guidebook*, DOH Pub. 331-375, for help in filling out this form.

## General System Information:

System Name: City of Bellingham

System ID #: 05600-3

County: Whatcom

Your Name: Anitra Accetturo

Your Title: Water Conservation Specialist

Your Phone Number: (360) 778-7732

Today's Date: July 1, 2008

## Production and Distribution System Leakage Information:

12-Month Performance Reporting Period:

1 / 2007 to 12 / 2007 (Month/Year)

<b>Distribution System Leakage Summary:</b>	
Total Water Produced and Purchased – Annual Volume	10 <input checked="" type="checkbox"/> millions of gallons* <input type="checkbox"/> gallons*
Distribution System Leakage – Volume	<input type="checkbox"/> millions of gallons* <input type="checkbox"/> gallons*
Distribution System Leakage – Percent	%

\*Report volume in millions of gallons or gallons: 1 cubic foot = 7.48 gallons

$$DSL = [(TP - AC) / TP] \times 100$$

Percent of Distribution System Leakage (DSL)  
Total Water Produced and Purchased (TP)  
Authorized Consumption (AC)

## Goal Setting Information:

**Date of Public Forum:** January 14, 2008 (Month/ Date/Year)

*Note: Goals must be established through a public process.*

**Has goal been changed since last performance report?**  Yes  No

**In the following section, provide a narrative on progress in reaching your goals.** Include the following information:

1. Identify water savings goals.
2. Identify the time schedule for achieving goals.
3. Describe progress made toward achieving goals, such as:
  - Estimate how much water you have saved.
  - Report progress toward meeting goals within your established timeframe.
  - If you are not on track to reach your goals, identify any adjustments or changes to your WUE measures.
  - Include any other information that helps you tell your story.

Please see attached documents.

*Note: If you cannot complete electronically, attach separate pages with general system information at the top.*

## Meter Installation Information:

**Is your system fully metered?**  Yes  No

If yes, / (Month/Year)

If no, complete the rest of this section.

**Date for completing installation on all existing connections and interties:**

1 / 2017 (Month/Year) Due by January 22, 2017

**Describe your progress in metering and any efforts taken to minimize leakage:**

The City of Bellingham has nearly 24,000 water customers. Of this, approximately 31% are metered, and 69% are flat rate water customers. The City has been active for the past two decades on minimizing its system leakage and in preparing for water metering. Since the Department of Health (DOH) adopted the Municipal Water Law and implemented the Water Use Efficiency requirements in 2007, the City has been expanding upon its efforts to meet DOH deadlines.

**METERING:** It is estimated that nearly 16,000 single-family residential flat rate water customers will need to have meters installed, which is estimated to cost \$8.5 million dollars. Approximately 2,400 single-family residential water customers are already metered. On June 23, 2008, City Council reviewed staff's summary of a list of potential options the City could adopt to meet DOH's mandatory metering requirement of January 22, 2017. Staff requested advisement from Council on which option(s) Council would like to review in further detail for consideration of adoption at the next scheduled City Council meeting on July 14, 2008. Since 2005, Bellingham Public Works has had a Voluntary Metering Program (VMP) in place, where flat-rate water customers are charged a one-time fee of \$150 to have a meter installed on their water service, and be charged a metered rate thereafter. In addition to

this, all new and remodel single-family residential construction must purchase a meter and be billed a metered rate thereafter.

**LEAKAGE:** Efforts to minimize system leakage have been on-going since 1994, as part of the City's Leak Detection Program. The City has approximately 389 miles of water main, with roughly 3-5% (15-25 miles) tested each year for leaks. The City has also had an annual water main replacement schedule in place for the past few decades, replacing approximately 2-4 miles of main each year. Water loss has been documented and estimated through water main breaks and water main replacements.

*Note: If you cannot complete electronically, attach separate pages with general system information at the top.*

**Return this completed form to:**

E-mail: [wue@doh.wa.gov](mailto:wue@doh.wa.gov)

Mail: WUE Program, Office of Drinking Water

PO Box 47822, Olympia, WA 98504-7822

FAX: (360) 236-2252

For more information, contact a regional planner:

**Eastern Regional Office – Spokane – Main Office: 509-456-3115**

**Southwest Regional Office – Tumwater – Main Office: 360-236-3030**

**Northwest Regional Office – Kent – Main Office: 253-395-6750**

The Department of Health is an equal opportunity agency. For persons with disabilities, this form is available on request in other formats. To submit a request, please call 1-800-525-0127 (TTY 1-800-833-6388).

## 1. Identify water savings goals

On January 14, 2008, City Council adopted Resolution 2008-01 which included the following goals and measures:

### Goals:

1. Maintain city-wide per capita daily consumption
2. Keep city-wide water demand equal to or below city population growth rate

### Measures:

Measure #1- Toilet retrofit program for SFR water customers

Measure #2- Toilet retrofit program for Multi-family water customers

Measure #3- Toilet retrofit program for Commercial customers

Measure #4- Develop and implement a water conservation education program for 6<sup>th</sup> grade students

Measure #5- Create lawn-watering door hanger for distribution during peak demand periods to educate water customers about proper outdoor watering techniques

Measure #6- Evaluate and Develop High-Efficiency Fixture Program

Measure #7- Develop future water rate structures with an emphasis on water conservation

Measure #8- Upgrade City Parks to high-efficiency irrigation systems

Measure #9- Continue existing Public Outreach measures

At the time of the above goal and measure adoption, the City's previous 2005 Water System Plan had not yet been officially accepted by WA Department of Health (DOH) and was in the midst of an extensive revision process. The City did not include measurable numbers in its goals due to this circumstance. At present, an updated draft system plan is being put forth to DOH in the next 30-45 days. Staff feels that the data presented and analyzed in the updated document is suffice to go forward with a subsequent update to its existing goals that will now include a measurable figure to gauge progress by. The established goals will be amended as forth:

1. Maintain city-wide per capita daily consumption **at an average of 105 gallons per capita per day (gpcd) for residential usage, and 77 gpcd for non-residential usage for the next six years.**

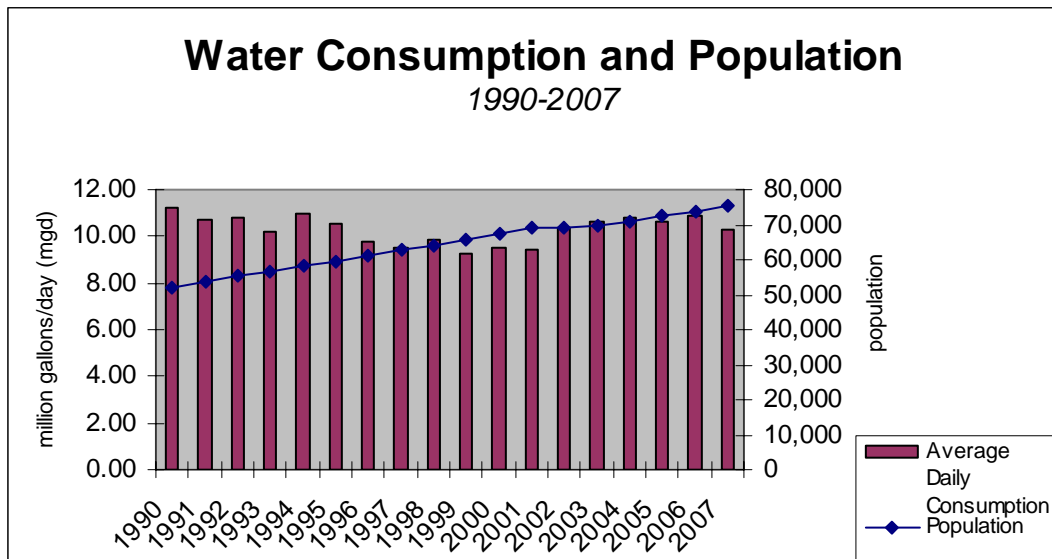
2. Keep city-wide water demand equal to or below city population growth rate **for the next six years.**

**2. Identify schedule for achieving goals**

Based on the size of the City’s system, the City of Bellingham established the above goals and nine measures for a six-year period, to coincide with its updated 2008 Water System Plan. The attached schedule is an anticipated timeline for implementing the adopted measures to help meet the goals over the next six years.

**3. Describe progress made towards achieving goals**

For over ten years, the City has run a successful water conservation program that continues to yield strong results from its community outreach, education programs and leak detection program. The diversity of the City’s programs has proven to have a positive impact on the public and has generated interest in learning more about our water source and conservation measures. City of Bellingham water customers continue to use our water supply in a responsible manner by exercising sound water use. Data shows consumption has remained steady despite continued population growth inside and outside the city.



2002-2006 Water Conservation Program Elements Summary		
PUBLIC EDUCATION	PROGRAMS	POLICY
Presentations to garden clubs, rotary groups, other associations and group functions	Voluntary Metering Program for retrofit of older flat rate single-family residences	
Conservation brochures/info packets at public locations	Mandatory metering on all new construction (Jan 2005)	Update of Water Wasting Ordinance
Television segments	Water Conservation Kits	Adoption of elements of DOH Water Use Efficiency Rule
On-going website updates and features	Spray-head Replacement Program	
Display booth at City Hall	Rain Barrel Program	

The City is continuing its existing public outreach measures to reach its adopted goals, and has completed Measure #5- develop lawn watering door hanger, for distribution in summer 2008 and beyond. Preliminary research for a toilet rebate program for single-family, multi-family, and commercial water customers (Measures #1-3) was conducted in 2006-07, and will resume again in fall 2008, with the program anticipated to begin sometime in 2009. Preliminary research has also begun for a high-efficiency fixture code for Measure #6, and is anticipated to be drafted and adopted in 2008-09. Please see the attached schedule for additional timelines on the various measures. Estimated savings with existing measures and programs is approximately 7-10 million gallons in leak detection and 5-10 million gallons in other programs annually.

**WUE Goals**

1. Maintain city-wide per capita daily consumption
2. Keep city-wide water demand equal to or below city population growth rate

WUE MEASURES	2008												2009												2010											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1. Toilet Retrofit Program for SFR																																				
2. Toilet Retrofit Program for Multi																																				
3. Toilet Retrofit Program for Comm																																				
4. 6th Water Conserv. Grade Prog																																				
5. Lawn watering Doorhanger																																				
6. High-Efficiency Fixture Prog.																																				
7. Water Conserv. Rate Struct.																																				
8. City Parks High Effic. Irrig. Syst.																																				
9. Existing Measures																																				

**WUE Goals**

1. Maintain city-wide per capita daily co
2. Keep city-wide water demand equal t

WUE MEASURES	2011												2012												2013											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
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