



Waterless Urinals

This **Advanced Method and Material** was developed jointly by the City of Bellingham Building Department and Sustainable Connections to enhance water conservation efforts by providing a means for the installation of waterless urinals.



BENEFITS

Waterless urinals achieve zero water consumption and can save an average up to 45,000 gallons of water per year, per urinal. Additional benefits of waterless urinals include:

- ❖ Lower electricity costs (to pump water and sewage)
- ❖ Elimination of infrastructure costs to provide fresh water or collect and treat sewage
- ❖ No installation, maintenance, or repair costs for flush valves, handles, sensors, or water supply piping
- ❖ Contribute up to 3 LEED® points for your project

The average household spends as much as \$500 per year on its water and sewer bill. By making just a few simple changes to use water more efficiently (including installing waterless urinals), you could save about \$170 per year. If all U.S. households installed water-efficient appliances, the country would save more than 3 trillion gallons of water and more than \$18 billion dollars per year! Also, when we use water more efficiently, we reduce the need for costly water supply infrastructure investments and new wastewater treatment facilities.

Nearly 65 percent of the urinals in use today—approximately 7.8 million fixtures—exceed the maximum allowable flush volume set by federal standards. At an average of two-gallons per flush, the potable water use of urinals alone in the US is approximately 160 billion gallons - equivalent to the water usage of 490,000 homes or 1.9 million people per year. This vast amount of outflow to the sewer and septic systems can be eliminated which helps support our natural waterways and oceans.

POLICY/CONDITIONS

Waterless urinals may be installed when all of the following conditions are met:

- The waterless urinal is installed per the manufacturers installation instructions.
- At least one plumbing fixture is installed upstream from the waterless urinal drain. Exception: When no changes to existing rough plumbing are within the project scope or when the proposed room configuration does not allow an upstream fixture.
- A ¾" (minimum) water supply pipe is rough plumbed to the location that a flushometer would require should the waterless urinal be changed to a flushing urinal in the future.
- The water supply pipe will terminate in a minimum ¾" F.I.P. fitting pointing toward the wall finish in the room where the urinal is located. The fitting may be either plugged with an approved ¾" M.I.P. plug or it may be provided with a pipe nipple and cap extending through the wall.
- In cases where the water piping does not extend through the wall finish a permanent marking will be affixed to the wall indicating the location of the capped water supply.

SCOPE

All buildings with an approved potable water source and an approved sewage disposal system.

DEFINITIONS

None

PERMIT REQUIREMENTS

In general, the person installing the waterless urinal obtains any required permits. For specific information applicants should contact the **COB Permit Center/Building Services Division** for more information: (360) 778-8300 or permits@cob.org.



Waterless Urinals (cont'd)

- Compliance with one of these standards:
 - Plastic/fiberglass: ANSI Z124.9-2004
 - Vitreous china: ANSI/ASME A112.19.2M-1998
 - Non-vitreous china: ANSI/ASME A112.19.9M-1991
 - Water free urinals: IAPMO Interim Guide (IGC)161-2002

REFERENCES / SOURCES

Bureau of Planning and Sustainability - City of Portland; OR
IAPMO Interim Guidelines – International Association of Plumbing and Mechanical Officials.

FINANCIAL INCENTIVES

City of Bellingham

The City Council has adopted the Voluntary Metering Program (VMP) to help promote water conservation and offer city residents the opportunity to potentially save money on their utility bill. It is available through the Public Works Department to any single family residence inside the City limits. Currently, residential customers are billed a flat rate of \$28.23 a month for water service, regardless of the amount of water used.

ADDITIONAL RESOURCES



WaterSense

A comprehensive website on how simple and smart it can be to save water.
www.epa.gov/watersense/pp/het.htm



Build your own Rainbarrel

Collecting rainwater from your roof in rain barrels is a great way to conserve water, save money on your water bill, and reduce stormwater runoff.

www.cob.org/documents/pw/environment/water-conservation/how-to-build-a-rainbarrel.pdf



H2Ouse

A virtual encyclopedia of water conservation information for your home. Take the tour to investigate your water saving opportunities in each area of your home.

www.h2ouse.org

SCOPE

All buildings with an approved potable water source and an approved sewage disposal system.

DEFINITIONS

None

PERMIT REQUIREMENTS

In general, the person installing the waterless urinal obtains any required permits. For specific information applicants should contact the **COB Permit Center/Building Services Division** for more information: (360) 778-8300 or permits@cob.org.