

# Water Reuse: Using Our Water Wisely

## Background

Protecting Oregon's water is one of DEQ's highest priorities. Developing strategies to encourage water reuse is a key action to help achieve this priority. Water reuse means using water again that has been previously used for another purpose. Reusing water reduces the demand to use drinkable water for uses, such as irrigation, that don't require highly treated water. The quality of reused water determines how it can be used to ensure protection of public health and the environment.

## The value of reusing water

In recent decades water has been treated to very high standards, used for a primary purpose, and then discharged to a river or stream as "wastewater."

Although this water is typically of lower quality following a primary use, used water has resource value and can often

be safely reused for additional purposes without adverse effects to public health or the environment. Reusing appropriately treated "wastewater" for irrigation, industrial, commercial and construction applications helps conserve drinking water supplies and improve water quality of surface waters.



## Types of water reuse

DEQ encourages reuse of three general categories of water:

**Graywater** refers to water from showers, baths, bathroom sinks, kitchen sinks and laundries. Graywater can be reused for limited activities, such as subsurface irrigation, with minimal treatment.

**Recycled water** refers to treated effluent from a municipal wastewater treatment facility. Oregon recognizes four classes of recycled water, based on various levels of treatment, that can be reused for specific beneficial purposes.

**Industrial wastewater** refers to treated effluent from an industrial process, manufacturing or business, or from the development or recovery of any natural resource. An example of industrial

wastewater is water derived from the processing of fruit, vegetables or other food products.

## Who can reuse water

Homeowners and small businesses can reuse graywater for toilet and urinal flushing with the appropriate plumbing permit from a local building department. Outdoor reuse of up to 1,200 gallons per day of graywater can occur by carefully planning reuse activities and obtaining a general Water Pollution Control Facility graywater reuse and disposal system permit from DEQ.

Municipal or industrial wastewater treatment facilities are required to manage and operate water reuse projects under a reuse management plan. These plans are specific to each facility and part of a facility's National Pollutant Discharge Elimination System or WPCF water quality permit. Site-specific conditions, such as application rates, setbacks to sensitive features, signage and other limitations may be required to ensure protection of public health and the environment.

## Many beneficial uses

Although water reuse activities are limited to non-drinking water purposes, a wide-range of activities can occur, including irrigation of crops and pastureland, irrigation of urban landscapes (e.g., golf courses, playing fields, business parks), industrial cooling, dust control, street sweeping, and artificial groundwater recharge. Specific water reuse activities depend on the water treatment and resulting quality. More reuse activities can occur with higher-quality water. As treatment technologies improve and public awareness of water reuse benefits increase, more innovative and urban uses of water will become more common.

## For more information

Contact Ron Doughten, DEQ water reuse program coordinator, Portland, at 503-229-5472, or call toll-free in Oregon at 1-800-452-4011, ext. 5472.

## Alternative formats

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