

## Rainwater Harvesting and the Environment

The environmental benefits of harvesting rainwater vary widely from climate to climate. In Portland, the climate is typically very wet in the winter and very dry in the summer. Rainwater harvesting systems can be used for outdoor irrigation, indoor non-potable (non-drinking water) uses, or potable uses with treatment.

To have a significant beneficial impact on the city's drinking water supply and to provide stormwater management benefits, an individual rainwater harvesting system should be large enough to store spring rainfall for use throughout the entire summer and early fall months. You should consider Portland's dry summer climate, site capacity for collecting rainwater, anticipated uses for rainwater, and the impacts of the resources required before investing in a rainwater system.

The resources inside this brochure include information on calculating your rainwater harvesting potential as well as a number of other ways to reduce your impact on the stormwater and drinking water systems, including using native plants and practicing water-efficient gardening strategies.



### Saving water makes cents!

#### Questions?

Contact:

**Portland Water Bureau**  
**WATER CONSERVATION PROGRAM**  
503-823-4527  
conserve@water.ci.portland.or.us  
www.portlandonline.com/water



#### Portland Water Bureau

1120 SW Fifth Avenue, Room 600  
Portland, OR 97204  
Phone: 503-823-7404  
www.portlandonline.com/water



Randy Leonard, Commissioner  
David G. Shaff, Administrator

To help ensure equal access to City programs, services and activities, the City of Portland will reasonably modify policies/procedures and provide auxiliary aids/services to persons with disabilities. Call 503-823-7404 with such requests.

## RESOURCES FOR Rainwater Harvesting

**COLLECTING RAINWATER is an ancient practice that people have used throughout history.**

Collecting Rainwater is an ancient practice that people have used throughout history. In Portland, capturing the abundant winter rainfall and putting it to work in your home or garden helps connect us with the water that sustains our community.

Portland's municipal drinking water system, which collects water in the Bull Run watershed and delivers it primarily by gravity, is a very large and efficient rainwater harvesting system. A rain barrel attached to the downspout on your house is an example of a very small rainwater harvesting system.





## Using Rainwater Outdoors

Harvested rainwater is often used for outdoor irrigation, such as watering a lawn or garden. In Portland, you are not required to get a city building permit to harvest rainwater and use it outdoors if your system is under 5,000 gallons and the height to width ratio of the system is under 2:1. You may need site development or plumbing permits if you divert the overflow from your existing stormwater disposal location. If you use electricity to pump the rainwater, you will need an electrical permit. You should consider how much rainwater storage capacity you will need for watering plants during the dry summer months when there is little rainfall. Several of the city resources help you calculate how much storage capacity you will need.



## Using Rainwater Indoors

Most indoor rainwater systems in Portland are for non-drinking water uses such as flushing a toilet. If you are thinking about harvesting rainwater for limited, residential indoor use, you will need to follow the relevant Code Guide for rainwater harvesting which is available through the city's Bureau of Development Services. Any residential system exceeding Code Guide parameters, such as the use of rainwater for indoor drinking water use, requires prior approval to install a system through filing an appeal with the Bureau of Development Services.



# Rainwater Resources

The following City of Portland bureaus have resources to help you find out more about rainwater use.

### Bureau of Environmental Services –

Rainwater harvesting systems can be an important piece in an overall stormwater management system. Managing stormwater helps reduce combined sewer overflows (CSOs), increases groundwater recharge, reduces erosion and pollutants in surface waters, and gets you a discount on your onsite stormwater charge. Environmental Services has a variety of publications available on managing stormwater, from disconnecting downspouts to building rain gardens to installing rain barrels. Rainwater harvesting systems can also be used during new construction or redevelopment to address stormwater management requirements and to help projects meet LEED certification.

To find these resources, visit [www.portlandonline.com/bes](http://www.portlandonline.com/bes) and select the **Publications** tab to see stormwater publications, fact sheets and manuals, visit [www.cleanriverrewards.com](http://www.cleanriverrewards.com) to learn about stormwater discounts, or call **503-823-7740**.

### Bureau of Planning & Sustainability –

The Bureau of Planning and Sustainability's website offers tips on calculating your rainwater harvesting potential and information on rainbarrels. To find these resources, visit [www.portlandonline.com/bps/greenbuilding](http://www.portlandonline.com/bps/greenbuilding) select the Green Building Hotline tab, then the Tools & Resources tab, then Sustainable Sites, Stormwater Management; or call the Green Building Hotline at **503-823-5431**.

### Bureau of Development Services –

The Bureau of Development Services has produced a rainwater harvesting code guide which explains the local code requirements for harvesting rainwater. The guide is available at [www.portlandonline.com/bds](http://www.portlandonline.com/bds) select **Quick Links**, then **Code & Program Guides**. At the bottom of the page, under *Commercial Plumbing Codes/Uniform Plumbing Code*, select *Chapter 6: Rainwater Harvesting Systems for Interior Use or Combined Interior and Exterior Use*.

A paper copy of the code guide is available at the Development Services Center, 1900 SW 4th Avenue, or call **503-823-7300**.

### Portland Water Bureau –

The Water Bureau's conservation provides indoor and outdoor water-saving tips and FREE water conservation devices. Visit [www.portlandonline.com/water](http://www.portlandonline.com/water) and select the **Conservation** tab, or call **503-823-4527**.

