



# Water Reuse Rainwater Harvesting Bulletin # 30

Department of Planning and Land Services, July 2013  
Division of Building Safety and Inspection for 2012 I Codes

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The purpose of this bulletin is to provide clarification and guidance on the permitting and inspection requirements for Rainwater Harvesting.

**Rainwater Harvesting Systems** are unique in each application. For this reason, each rainwater harvesting system proposed for use must be engineered and site-specific and are subject to approval by the Building Division. The design and installation of these systems are regulated by the Washington State Amendments to the 2012 Uniform Plumbing Code Chapter 17, WAC 51-56-1700.

**Water Uses.** Harvested rainwater uses may include water closets, urinals, trap primers for floor drains, floor sinks, water features, industrial applications and interior irrigation systems.

**Permits.** It shall be unlawful for any person to construct, install, alter or cause to be constructed, installed or altered any rainwater harvesting system within a building or on any premise without first obtaining a permit to do such work.

**Exceptions:**

1. A permit is not required for exterior rainwater catchment systems used for outdoor drip and subsurface irrigation with a maximum storage capacity of 360 gallons (1363 L).
2. A plumbing permit is not required for rainwater catchment systems for single family dwellings where outlets, piping, and system components are located on the exterior of the building. This does not exempt the need for permits where required for electrical connections, tank supports, or enclosures

The following permits may be required for the installation of a rainwater harvesting system:

**Plumbing permit, PLRW-Plumbing Reuse of Water Permit** for rainwater harvesting systems to include the system itself and all outlets being served by the system. This is a separate permit not to be confused with the normal plumbing permit associated with standard building projects. The fees for plan review and inspection are \$100.00 per hour plus in addition to the fixture count of backflow devices.

**Building permit** for cistern footings, foundations, enclosures and roof structures.

**Grading permit, +/- erosion control,** may be necessary for underground tanks.

**Critical areas** determination may be required.

**Electrical permit** for the pump or other electrical controls.

**Application.** The following information must be provided with each permit application for a rainwater harvesting system. Number of copies is determined by the Submittal Standard.

1. Site plan, including site elevations.
2. A water availability letter from the Water Purveyor.
3. A diagram of the rainwater harvesting system (including piping , equipment and cross-connection control devices) and domestic potable water systems, including sizing and dimensions.
4. Specifications and manufacturer's installation instructions for cistern(s), pump(s), filtration and/or disinfection, and roof washing or pre-filtration system(s).
5. Engineering. Installation, including, but not limited to, the following systems, will require structural engineering: Cisterns that are located on top of building structure or cisterns that are located on sloping sites.

Information in addition to that listed above may be necessary in some instances. The size and complexity of the building, site and system will determine the necessity for additional information.

**Plan Review.** Plans will be reviewed through our normal review process and the reviewer will place a HOLD on the Final, with a comment "Verify cross-connection control certification for internal and premise isolation." Once the application is reviewed and approved, the permit will issue and work can commence.

**Inspections.** Inspections will be as normally required for any project. One key element to keep in mind is the required inspection and testing of the Backflow Prevention Devices.

**Backflow Prevention (WAC 51.56 UPC Section 603).** Approved backflow prevention assemblies must be installed in accordance with the requirements of Washington Administrative Code (WAC 246-290-490) and UPC Section 603. WAC 51.56.0600 requires coordination between Pierce County and the Water Purveyor for cross control requirements. For specific information, please call your Water Purveyor.

**Building Inspector Verifies the Certificate of Inspection**

The Building Inspector will:

- Confirm the cross connection control devices are installed.
  - Internal Protection: ***Backflow protection at the point of hazard.***
  - Premise Isolation: ***Backflow protection at the meter if required.***
- Review the Certificate of Inspection to verify it covers both internal and premise isolation.
- Document the certification on the inspection report along with the comment "OK to release the hold on Plumbing/Building Final".
- Not approve occupancy unless the above items are complete.

**Property Owner Is Responsible For Initial Testing Of Backflow Prevention Devices**

The property owner, tenant or other responsible person shall:

- Have the devices tested by a Backflow Assembly Tester certified by the Washington State Department of Health.
- Have devices checked and certified prior to requesting inspection by the Pierce County Building Department.
- Have the Cross Connection Certificate on site at or near the electrical panel for the inspection.

For further information check out: Washington State Department of Ecology  
[http://www.ecy.wa.gov/programs/wr/hq/rwh\\_info.html](http://www.ecy.wa.gov/programs/wr/hq/rwh_info.html)