# DRYWELLS

drywell is an underground perforated pipe surrounded with gravel that collects stormwater runoff and infiltrates it into the ground. Stormwater from roofs, parking lots, and other impervious surfaces flows through an inlet pipe that empties into the drywell. Drywells are made from concrete or plastic in a variety of widths and depths. A catch basin may be required for drainage areas other than residential roofs.

Drywells can be installed under any surface with adequate drainage. They are not allowed for wastewater drainage or in wellhead protection areas. Plants can be established on top of the facility, however there is a need for occasional access for maintenance and inspection.



# **Benefits**

Drywells reduce runoff flow rate, volume, and temperature, and help recharge groundwater. They are disposal only systems and are usually paired with a water quality or pretreatment facility.

#### Maintenance

Periodically inspect drywell systems to ensure proper operation and structural stability. Maintenance needs include controlling erosion, removing excessive debris, and cleaning and repairing inlet and outlet pipes. Clogged drywells must be refurbished or replaced. A drywell can last up to 30 years with proper construction and maintenance.

#### Cost

Drywells are commonly available from construction supply companies, and are relatively inexpensive to install and maintain. Depending on their size, drywell systems cost from \$1,200 to \$1,500 including installation.

# **Safety and Siting Requirements**

- Drywells are prohibited where there is permanent or seasonal groundwater within 10 feet of the bottom of the drywell.
- Use drywells in soils that drain well and in areas with low water tables. Drywells are prohibited in some parts of northeast Portland near the Columbia River.
- Place drywells at least 10 feet from the building foundation or basement, 20 feet from any cesspool, and five feet from any property lines.
- Pits for drywells must be at least four feet in diameter and five feet deep. Minimum drywell diameter is 28 inches.
- Drywells must be at least 500 feet from private drinking water wells.
- Refer to Portland's Stormwater Management Manual for details on sizing, placement, and design.

### Permits

- All drywells, except those that drain only residential rooftops, must be registered with the Oregon Department of Environmental Quality before receiving City permits.
- The City's Bureau of Development Services (BDS) must approve drywell siting and sizing.
- New or altered plumbing connections require a plumbing permit from BDS.

#### Examples

Drywells are located on private property throughout Portland, and in many public streets on the east side of the Willamette River. Because they are subsurface facilities, there are no examples to view.



#### note:

Silt basin/collection box or an equivalent washer is optional but recommended for roof runoff.

Silt basins are highly recommended for all other surfaces.



For Clean River Rewards information www.CleanRiverRewards.com or 503-823-1371

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