

UICs and the WPCF Permit



Class V Stormwater Underground Injection Control devices (UICs) manage stormwater by collecting it and discharging it under the ground. UIC owners whose systems meet certain thresholds must obtain a Water Pollution Control Facilities (WPCF) permit to operate UICs. The WPCF permit establishes requirements for the construction, maintenance, and management of UICs for the protection of groundwater as a drinking water resource under the United States Safe Drinking Water Act (SDWA).

About UICs

A Class V Stormwater Underground Injection Control device (UIC) collects stormwater runoff and discharges it to the subsurface. These devices are often referred to as drywells, soakage trenches, or sumps. They are typically composed of one or more storm drains that lead to a perforated pipe, bottomless or perforated structure, or an underground pocket of drain rock.

When managed responsibly, UICs are a low-cost, low-impact option for managing stormwater. UICs:

Recharge groundwater

UICs mimic natural processes by allowing stormwater to infiltrate onsite. Because stormwater is allowed to infiltrate, UICs assist in recharging groundwater.

Protect surface water quality

Beneficial bacteria in the soil help remove pollutants which would have been discharged directly to a waterway in a traditional stormwater conveyance system.

Save money

Installing a UIC is often much less expensive than connecting to an existing stormwater system, especially if the area to be drained is far from an existing system or waterway.

Avoid disturbance

Because UICs often function alone without being connected to another system, they can be installed with less ground disturbance than traditional conveyance systems that must be connected to an existing systems or piped to a waterway.

UICs and Drinking Water

Because UICs discharge water under the ground, care must be taken to install and maintain them in a way that does not negatively impact groundwater. Approximately 70% of Oregonians utilize groundwater as a drinking water source. For many communities, including Keizer, groundwater aquifers supply water to the public drinking water system. Thus, UICs are regulated by the United States Safe Drinking Water Act (SDWA). The SDWA was passed by Congress in 1974. It establishes standards for the management of public water systems as well as regulations which protect the sources of drinking water, including groundwater.

The Water Pollution Control Facilities (WPCF) Permit

Operators of UICs that cannot be authorized by rule must obtain a WPCF permit to operate their systems. In Oregon, the permitting authority is the Department of Environmental Quality (DEQ). The WPCF permit template for UICs contains parameters for the design, location, installation, maintenance, and monitoring of UICs, as well as other programs and activities to ensure the protection of groundwater.

City of Keizer UICs

The City of Keizer owns and operates approximately 86 publicly-owned UICs. Keizer's WPCF Permit provides for equal management of stormwater through subsurface distribution. The City prepared for permit issuance by inspecting UICs, identifying potential problems, and developing programs and measures to decrease pollutants entering UICs, thereby protecting groundwater quality.

Keizer's UIC Program

The City of Keizer received its WPCF Permit (#103068) on October 23, 2013. Among other things, a requirement of the permit is a comprehensive UIC Management Plan. Some components of Keizer's UIC Management Plan include:

- Conducting public outreach and education
- Ongoing spill response efforts
- Ongoing cleaning and maintenance of UICs
- Enforcement for illicit discharges
- Program tracking and evaluation for annual reporting to DEQ
- Good Housekeeping for City activities
- Developing an approved closure plan and corrective action plan for problematic UICs
- A monitoring plan (sample collection, corrective action for exceedance, and reporting)

