

## Class V Well Requirements

Dry wells and other sub-surface stormwater infiltration practices or technologies serving uses other than single-family homes are considered Class V wells, subject to US Environmental Protection Agency (US EPA) regulations. Typically, Class V wells are shallow wells used to place a variety of fluids directly below the land surface. By definition, a well is “any bored, drilled, driven shaft, or dug hole that is deeper than its widest surface dimension, or an improved sinkhole, or a subsurface fluid distribution system” and an “injection well” is a “well” into which “fluids” are being injected (40 CFR §144.3). Stormwater dry wells and other sub-surface stormwater infiltration practices/technologies may be authorized to operate as long as they are registered with the US EPA, and only inject uncontaminated stormwater.

Applicants that submit drainage plans to the County for review will be notified of the need to register if the plans include a Class V system. The County requires Class V Well registration as part of permitting new development and will include a condition on the construction permit requiring registration. A condition for *'Public Works Inspection prior to Final'* will be added to the building permit with notes that the applicant must submit evidence to Public Works they have registered their Class V system with the US EPA's Region 9 Office. There is no fee associated with registration, and there are no ongoing reporting requirements. Applicants can satisfy the building permit condition by providing evidence of system registration to Public Works. A confirmation email and registration number from the US EPA are sufficient evidence of registration.

### Local Requirements

There are no detailed State or Federal requirements for the design or approval of new Class V systems. However, the County is the local authority responsible for ensuring that new Class V wells do not endanger underground drinking water supplies. The County's requirements are intended to ensure that new systems meet the minimum requirements set forth by the US EPA to and protect underground water supplies. The County reserves the right to reject site designs that include underground infiltration systems in settings deemed high risk by the County's Environmental Health Department.

Per the County's Public Improvement Standards, underground infiltration system and dry well designs must incorporate a stormwater pretreatment device or features to protect groundwater, remove solids, and ensure that particulate debris can be isolated from inflows.

The County requires that pretreatment for Class V systems meet one of the following two criteria:

1. Pretreatment proprietary devices certified by the Technology Assessment Protocol Ecology (TAPE) Program supported by the Washington State Department of Ecology. Devices certified in the Pretreatment or General Use Level Designation (GULD) technologies are acceptable.

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2. The pretreatment requirements for PR#2 are met entirely upstream of the infiltration system through at-grade LID features such as bioretention or biofiltration features, and a settling vault or sump is installed.

Underground infiltration systems do not meet the standards to qualify as Low Impact Development. Accordingly, Designers should demonstrate that a minimum of 30% of the site's post-construction runoff volume has been managed through at-grade LID strategies before proposing underground infiltration chambers or other Class V infrastructure.

Chapter 4 of the Post-Construction Stormwater Guidebook includes additional information about structural and groundwater setbacks for siting Class V infrastructure.

### Soil Report Data

A soils report will be required to demonstrate soil infiltration rates in the location and elevation of the proposed underground infiltration system and the minimum distance to seasonally high groundwater. See Chapter 4 of the Post-Construction Guidebook for additional information about required soils and infiltration testing and applicable factors of safety.

The soils report must include a statement indicating that the site soils at the proposed system location and elevation are suitable for an underground infiltration system and will not present a hazard to the site, adjoining properties, or the public right-of-way.

### Groundwater Setbacks

The minimum vertical groundwater setback for underground infiltration systems is 10 feet from the elevation of seasonally high groundwater. Soil types with high infiltration rates require additional setback distance to ensure adequate soil contact time in the vadose zone.

**Table C-1:** *Groundwater setbacks for underground infiltration systems, Class V systems*

Infiltration Rate	Minimum setback to seasonally high groundwater
<1 minute per inch	50 feet
1-4 minutes per inch	20 feet
>5 minutes per inch	10 feet

### Construction Requirements

Underground infiltration infrastructure is typically installed very early in the construction process. Protecting drain inlets to underground infiltration systems is of paramount importance during site construction.

Protective measures should be well documented in the erosion and sediment control plan or in the site's Stormwater Pollution Prevention Plan. Protective BMPs and their required maintenance frequency should be noted on grading and drainage plans. Drain inlets should

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remain offline until site surfaces have been stabilized with permanent stabilization measures.

Construction managers should call for all milestone inspections noted on their issued permit. County inspectors will observe and inspect the infrastructure at each milestone involved with installation of the underground system.

### Inspection Ports

The County requires that an observation well or inspection port be installed in every other row of chambers where multiple rows are installed. Where practical, an additional observation well that extends into the foundation gravel bed should also be installed for each series of chambers. All inspection and maintenance access ports should also be labeled “STORM”, accessible for inspection and maintenance at all times.

**Table C-2:** Web resources and reference hyperlinks for underground infiltration systems and dry wells

Page Hosting Agency	Site Title	Description	Link:
United States Environmental Protection Agency	Basic Information About Class V Injection Wells	Resources page with information about types, uses and requirements for Class V wells.	<a href="https://www.epa.gov/uic/basic-information-about-class-v-injection-wells">https://www.epa.gov/uic/basic-information-about-class-v-injection-wells</a>
United States Environmental Protection Agency	Federal Requirements for Class V Wells	Resources page with information about submitting inventory information.	<a href="https://www.epa.gov/uic/federal-requirements-class-v-wells">https://www.epa.gov/uic/federal-requirements-class-v-wells</a>
Environmental Protection Agency, Southwest Region 9	Class V Underground Injection Well Registration	Resources page with instructions and links for registering dry wells and underground stormwater chamber systems.	<a href="https://www.epa.gov/uic/forms/underground-injection-well-registration-epas-pacific-southwest-region-9">https://www.epa.gov/uic/forms/underground-injection-well-registration-epas-pacific-southwest-region-9</a>
State of Washington, Department of Ecology	Emerging Stormwater Treatment Technologies (TAPE)	Stormwater treatment technologies reviewed and certified by the Washington state Technology Assessment Protocol – Ecology (the TAPE program).	<a href="https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Emerging-stormwater-treatment-technologies">https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Emerging-stormwater-treatment-technologies</a>
County of San Luis Obispo, Public Works Department	Public Improvement Standards	Current County Public Improvement Standards, most recent version adopted in 2022.	<a href="https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Development-Services/Public-Improvements/Public-Improvement-Standards.aspx">https://www.slocounty.ca.gov/Departments/Public-Works/Forms-Documents/Development-Services/Public-Improvements/Public-Improvement-Standards.aspx</a>