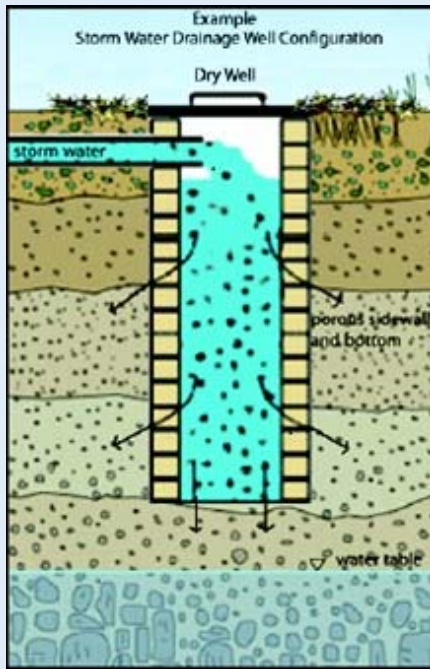


2019 Updates to UIC Well Requirements



Introduction

The 2019 revisions to the Stormwater Management Manual for Eastern Washington (SWMMEW) and the Stormwater Management Manual for Western Washington (SWMMWW) incorporate best management practices (BMPs) for Underground Injection Control (UIC) wells that were previously contained in Ecology's *Guidance for UIC Wells that Manage Stormwater*, (Publication #05-10-067, 2006). The purpose of including the UIC well BMPs into both stormwater management manuals is to update and clarify UIC Program requirements established under the Safe Drinking Water Act.

The same UIC BMPs are included in both manuals. The manuals include an explanation of how Municipal Stormwater (MS4) National Pollutant Discharge Elimination System (NPDES) Phase I and II permittees can meet UIC Program requirements through implementation of the MS4 permit requirements. The manuals also serve as a reference for businesses and non-NPDES permitted municipalities to comply with their UIC Program requirements. The guidance also helps UIC well owners ensure that their stormwater management is protective of groundwater quality.

The design and construction requirements for ensuring groundwater quality is protected are not new, but they have been updated. Additionally, the 2019 manuals include important clarifications and new restrictions on where UIC wells may be used to manage stormwater.

For More Information

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[https://ecology.wa.gov/
Regulations-Permits/Guidance-
technical-assistance/Underground-
injection-control-program](https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Underground-injection-control-program)

Special accommodations

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Implementation of UIC well BMPs is an existing requirement

Requiring UIC well BMPs to protect groundwater quality is not new. In 1986, the U.S. Environmental Protection Agency gave Washington State authority to regulate UIC wells. The UIC Program Rule, Chapter 173-218 WAC, was published in 1986 and revised in 2006. Ecology clarified the requirements for UIC wells that manage stormwater and published *Guidance for UIC Wells that Manage Stormwater* (UIC Guidance) to explain the 2006 rule changes. For the 2019 stormwater manual revisions, Ecology updated the UIC Guidance and incorporated it into the new versions of the SWMMEW and the SWMMWW. Both manuals contain the same UIC BMP language.

The updated UIC BMPs in the 2019 stormwater manuals supersede the 2006 UIC Guidance. The content of both updated manuals was reorganized and edited for clarity to ensure that UIC well owners and project proponents understand the UIC Program requirements. The design and construction requirements are largely the same, but new UIC well siting restrictions are now in place to better protect groundwater used for drinking.

The UIC Program's overall approach to protecting water quality is based on BMPs implemented in accordance with Ecology's stormwater manuals.

MS4 Permit coverage does not determine UIC BMP requirements

The [UIC Program Rule](#) is the sole state regulatory authority for UIC wells. Since MS4 permits do not cover discharges to UIC wells, the date that the UIC BMPs in the 2019 manuals are required is independent of when or whether a jurisdiction has MS4 permit coverage or adopts the manual. (The MS4 permit does cover stormwater that overflows from or bypasses a UIC well and then discharges to a surface water.)

The UIC Program Rule, Chapter 173-218 WAC requires the use of all known, available, and reasonable methods of prevention, control and treatment (AKART) for all discharges to groundwater. The AKART requirement for UIC wells that manage stormwater is fulfilled with the implementation of the UIC BMPs in Ecology's stormwater manuals. The BMPs are based on extensive scientific and engineering information about how to prevent and reduce stormwater pollution with effective source control and treatment methods.

New UIC project proponents must gather extensive information about the site's hydrologic characteristics and proposed land uses. The project design engineer must include UIC BMPs appropriate for site conditions and the pollutants associated with the proposed land use. Operational and structural source control BMPs prevent or minimize pollutants from contaminating stormwater runoff which is then conveyed to treatment BMPs to remove pollutants before stormwater reaches groundwater via a UIC well. This two-pronged approach to source control and treatment effectively safeguards UIC wells and groundwater from stormwater pollution. This approach to stormwater management recharges aquifers and protects surface water hydrology from uncontrolled runoff.



Summary of UIC BMPs

The UIC Guidance is now housed in, and superseded by, the 2019 UIC BMPs in the stormwater manuals. It includes these key requirements:

- Project proponents must submit UIC registration to Ecology 60 days prior to commencing well construction. This allows for Ecology's review as well as outside interested parties.
- UIC wells may be included in a stormwater management program whether a jurisdiction is covered by an MS4 permit or not.
- All municipal and private well owners must complete an assessment for UIC wells built before February 3, 2006, if this has not yet been done.
- Project proponents should be aware of new UIC siting restrictions:
 - UIC wells located near drinking water wells and within Ground Water Protection areas have additional requirements.
 - Deep UIC wells constructed below a confining layer have additional requirements.
- Separation between the base of the UIC well and the top of the water table is required for all UIC wells.
- Treatment is required for all stormwater from pollutant generating surfaces.
- Project proponents will use the manuals to determine the treatment requirements by a combination of:
 - The pollutant loading classifications for solids, metals and oil in stormwater runoff from the contributing land use; and
 - The level of treatment needed for the expected loads of solids, oil, and metals; and the vadose zone treatment capacity.



2019 Stormwater Management Manuals

<https://ecology.wa.gov/stormwatermanuals>

SWMM – Eastern WA

[Chapter 5.6—Subsurface Infiltration](#)

(UIC Wells)

SWMM – Western WA

[Vol 1-4 UIC Program Administration and Design Guidelines](#)

When do the 2019 UIC BMPs apply to projects?

The UIC BMPs in the 2019 manuals became applicable after the new [Eastern](#) and [Western](#) manuals were published on July 1, 2019.

All new projects that are planning to manage stormwater with UIC wells must use the 2019 UIC BMPs. Any new project beginning the design process must also submit a UIC registration to Ecology at least 60 days prior to commencing UIC well construction.

Project proponents that completed at least 30% design in advance of October 1, 2019 may continue to use the 2006 guidance. These projects must submit a UIC registration to Ecology at least 60 days prior to commencing UIC well construction.

Ecology's approval of the registration is required prior to construction of a new UIC well.