

DEPARTMENT OF
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State of Washington

Underground Injection Control (UIC) and MS4 Program



WELCOME

**EWA Presentation
February 8, 2022**

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What will we talk about today?

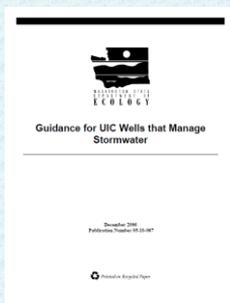
- UIC Overview
 - What is a UIC well?
 - What are the UIC Rule requirements?
- UIC Rule and MS4 Permit Relationship
 - MS4 and UIC Program coordination

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UIC Rule

- 173-218 WAC Underground Injection Control Program
- Guidance Manual Developed in 2006



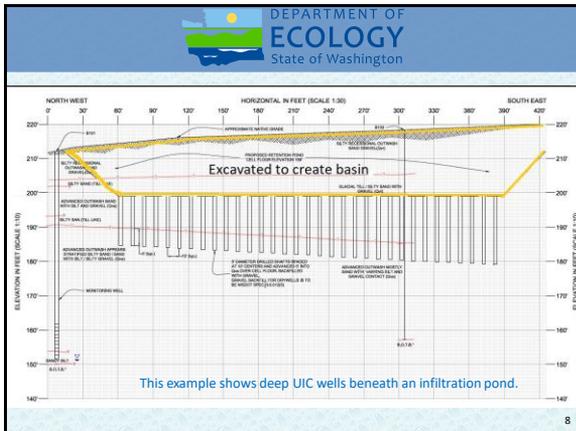
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What is a UIC well?

UIC: a manmade structure deeper than the largest surface dimension, or contains perforated pipe

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UIC Examples

- Drywells
- Drain Fields
- Infiltration trenches with perforated pipe
- Storm chamber system with the intent to infiltrate
- French Drains

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Examples that are not UIC

- Buried pipe and/or tile networks that serve to collect water and discharge that water to a conveyance system and to surface water.
- Surface infiltration basins and flow dispersion stormwater facilities.
- Infiltration trenches without perforated pipe or a similar mechanism.

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How UIC wells are used in WA




- Manage stormwater from urban landscape
 - This is the majority!*
- Enhance remediation at ground water/soil clean up sites
- Recharge aquifers
- Serve as heat pump-air conditioning return flow wells

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NPDES vs UIC

The two programs overlap

- The UIC program borrows the design, construction, operation, and maintenance BMPs from the Stormwater Program to fulfill the AKART requirements of the UIC rule.

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Section S2.A

Municipal Stormwater General Permits

This Permit authorizes the **discharge of stormwater to surface waters and to groundwaters of the State from MS4s owned or operated by each Permittee** covered under this Permit, in the geographic area covered pursuant to S1.A.

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Section S2.A.1

Municipal Stormwater General Permits

Discharges to groundwaters of the State through facilities regulated under the Underground Injection Control (UIC) program, Chapter 173-218 WAC, **are not authorized under this Permit.**

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SWMMEW 1.4.6

- If **all** stormwater runoff from the project site discharges to a Class V UIC well, the Municipal Stormwater Permits do not pertain to the project, and the Minimum Requirements do not apply. The UIC rule (Chapter 173-218 WAC) applies in such cases.

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What Constitutes “No Discharge to MS4”?

- Western WA Manual Text: Full Runoff File from WWHM or MGS Flood enters the UIC
- Eastern WA Recommendation: 100-yr, 3-hour and/or 100-yr, 72-hour storm

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Treatment Determination (does not include infiltration trenches)

- Use pollutant load and vadose zone treatment capacity classification to determine level of treatment and whether additional BMPs are needed:
 - **Land Use Evaluation/ Pollutant Loading**
 - Low to high
 - Based on proposed land use and average daily traffic
 - **Vadose Zone Treatment Evaluation**
 - High treatment capacity to none
 - Depends on a combination of the vadose zone geologic material, conductivity, adsorption, CEC and thickness above water table
 - If thickness is less than required – the vadose zone considered to have no treatment capacity



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Treatment Tables (does not include infiltration trenches)

- 2019 SWMMEW
 - Tables 5.21, 5.22, and 5.23



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Manual Language

The MS4 Permit does not authorize stormwater discharges to/from UIC wells unless the overflow or discharge from a UIC well drains to a MS4.

In those cases, the MS4 Permit does authorize the surface discharge and the conditions of the MS4 Permit directly apply.

UIC rule requirements always apply and the UIC Rule authorizes the discharge to groundwater. *For example, if a UIC well is designed to infiltrate the 10-year storm and route larger storms to the MS4, the UIC BMPs apply to designing the well, and the requirements of the MS4 Permit apply to the well.*

(emphasis added)

Needed clarifications:

- (1) If the UIC well is handling both the water quality design storm and the flow control requirement, no additional requirements apply
- (2) Also, the OVERFLOW to the MS4 is all that is authorized by the Permit

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Local Program Coordination

For public UIC wells, either as part of the SWMP or for each well:

- Source control
- Targeted education and outreach
- Operations and maintenance
- Review well designs to see if they have sufficient capacity to handle "all" runoff

For private wells, at (and behind) the permit counter:

- UIC design review to confirm well capacity
- Additional local requirements



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Requirements for Municipal UICs

- Apply MS4 SWMP to UICs, or
- Create SWMP for UICs (by area or listing UICs), or
- Create individual Stormwater Site Plans for each UIC

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Requirements for Municipal UICs

Municipal Permittees that do not have a final UIC SWMP and SWMP Plan or individual Stormwater Site Plans for their UICs must instead apply their MS4 SWMP to areas served by municipal UIC wells in order to remain in compliance with the UIC Program Rule.

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Questions?

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