

Lora Petso

My comments are in the attached pdf. They are submitted as a personal opinion, and not as a representative of any government or group.

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Comments on draft NPDES Permits and 2024 SWMMWW, by Lora Petso. These comments are submitted as an individual, and not as a member or representative of any government or group.

I have provided some comments by manual section, but first I wish to highlight two overriding concerns:

- I. *We need to stop allowing UIC wells to discharge PFAS laden storm water into and above underground sources of drinking water.*

Yes, this is a precautionary approach, and it annoys everyone with an agenda that is being disrupted by PFAS. In other words, it annoys everyone. Please keep reading anyway.

The precautionary approach is federal law for UIC wells.¹

While we have made some improvements, fundamental problems remain:

(1) The “improvements” to the UIC manual section (I-1.4) will not prevent PFAS contamination of drinking water supplies via UIC storm water wells largely because no MRs or BMPs in the manual significantly reduce PFAS in stormwater discharge, and PFAS travels well in the environment.²

For example, Table I-4.45, apparently the height of protections in the UIC section, is clearly labeled as treatment for “solids, oil, and metals” only. Even the maximum treatments contemplated, 50% solids removal and an oil water separator, won’t clean much PFAS from urban stormwater.

As another example, the manual allows just a 3-foot separation from a drinking water aquifer? In other places just a 5-foot separation? That can’t be justified by the science. (At a minimum, please see the ITRC PFAS manual linked in footnote 2.)

(2) The word “guidelines” has been added to the section I-1.4 heading, changing it from “UIC program” to “UIC program guidelines.”

This appears to weaken, not strengthen, protection of drinking water aquifers.

¹ As of today, the first sentence on the EPA web page is: “The goal of federal regulations is to prevent contamination of ‘underground sources of drinking water’ (USDW’s) from the placement of fluids underground through injection wells.” See: <https://www.epa.gov/uic/underground-injection-control-regulations>.

² There is no longer any reason to offer excuses – all the boxes are ticked. DOE has generated credible studies of PFAS in the Lake Washington basin, with PFAS in urban stormwater topping the charts, followed closely by PFAS in groundwater. See the PSEMP-2022 Toxics Monitoring Synthesis at p. 25 for a readable summary of the most recent findings. DOH is aware of the science on PFAS in drinking water. See, for example, the SAL’s. The State is also aware of how well PFAS travels in groundwater without “magically” diluting. A quick review of the presentations from the recent two-day DOH PFAS conference will confirm. For a seriously scientific look at all things PFAS, see the ITRC PFAS website. <https://pfas-1.itrcweb.org/>. ITRC has an extremely comprehensive, science heavy, PFAS manual that is regularly updated. There are also fact sheets written in slightly less scientific language. (Hint, click the three lines to the left on the web page to navigate).

(3) Under the new manuals neither WAC 173-218, or the “improved” UIC well “guidelines” in section I-1.4 of the manual, are ever likely to apply to any project. The flowchart (figure I-3.1) now limits the application of the UIC program and WAC 173-218 to only projects which discharge all runoff to UIC wells.

For example, in the case of Madrona Elementary in Edmonds, there are something like 12 to 16 UIC wells taking the vast majority of PFAS laden runoff from several acres of roof and parking lots to be discharged around 80 feet underground in porous soils above a public drinking water aquifer. I believe that a tiny portion of the site runoff is discharged elsewhere. Under the new flow chart, there would be no UIC regulation of these multiple and massive wells under the UIC WAC or the SWMM.

Future projects could entirely avoid UIC regulation by using UIC wells for 99+% of contaminated runoff 24/7/365, and a little rain garden for remaining 1%? Please no. All UIC wells should be regulated under all available UIC protections.

(Note: The error is repeated in figure I-3.2)

(4) Language regarding individual UIC types has also been altered to avoid the UIC WAC and the “improved” UIC well “guidelines.”

For example, the changes to BMP T7.50-Drywells are shocking. The draft actually deletes the phrase “*drywells are subject to UIC regulation.*”

Then, text is added to create a massive new loophole. “If there is overflow to the MS 4 . . . only the registration requirement of the UIC rule applies.”

So, if you construct an overflow to the MS4, even if it is rarely or never used, you may discharge up to 100% of PFAS laden runoff to a UIC above a drinking water supply 24/7/365 without regulation under WAC 173-218 or under I-1.4 of the SWMM? Please no.

(Note: I believe this error is repeated in sections for perforated pipes, and perhaps for other UIC’s throughout the manual)

(5) The permits and manuals fail to correctly (or consistently) define and apply the non-endangerment standard.

Federal UIC law prohibits discharge of contaminants (including PFAS) above underground sources of drinking water if the presence of the contaminants may adversely affect the health of persons. 40 CFR 144.12(a). This is part of the federal non-endangerment standard, and is specifically incorporated in our WAC at 173-218-080.

Federal law places the burden of demonstrating non-endangerment on the applicant. Therefore, UIC’s above drinking water supplies cannot be authorized under the presumptive approach.

Obviously, the proposed text reading “only the registration requirement of the UIC rule applies” must be removed from the SWMM and permits.

Perhaps less obviously, we cannot continue to endanger people by discharging PFAS into underground sources of drinking water merely because there is not a numeric groundwater standard for PFAS.

All language in both permits and manuals must correctly define and apply the non-endangerment standard.

- II. *We should not allow new infiltration facilities to discharge PFAS laden stormwater into and above underground sources of drinking water.*

This request is based on the same concerns regarding PFAS contamination of drinking water sources as described above. The PFAS should be removed before discharge, or the discharge should not be infiltrated.

Site Selection Criteria SSC-2 isn't sufficient because there are no numeric groundwater standards for PFAS, and the anti-degradation policy of WAC 173-200-030 is disregarded.

So, those are the two main concerns. Please just close any of the other loopholes that I may have missed in the above comments. Once you get a clean regulatory program in place, please put it in both the manual and the permits.

Also:

Please delete the language claiming following BMP's = AKART; and

Please delete the executive summary discussion of "Equivalent Manuals", and any related provisions manual and permit provisions, because it appears to avoid any UIC well provisions included in the SWMM, without even requiring Ecology to review the variance from the SWMM. It also fails to indicate what manuals Ecology's UIC program intends to designate as "equivalent"; and

Please delete the claim that "Approaches that use infiltration, sorption, filtration and or effectively capture tire debris are presumed to provide the necessary treatment for car habitat."

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