

Regulatory Implications of EPA's ASR Letter

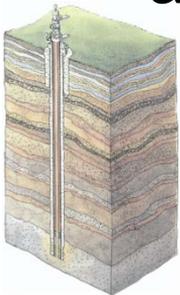
Bob Van Voorhees
Underground Injection Technology Council

GWPC UIC Meeting
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UITC

- The Underground Injection Technology Council (UITC) is an organization of companies that use underground injection for safe and effective management of water resources, recovery and management of natural resources and environmental management.
- In operation since 1985 – now includes all well classes
- Established to preserve the availability of deepwell injection technology as an environmental management option for hazardous and nonhazardous wastewaters under conditions where injection will be safe, effective and protective of human health and the environment.



ASR Role Recognized

- EPA recognizes ASR is an important tool to conserve water as part of a long-term water management strategy.
- Florida challenge is that underground drinking water storage formations can mobilize minerals like arsenic when in contact with oxygen in injected water.
- EPA believes ASR is still a viable option.



EPA's ASR Letter

- Describes how Florida can apply UIC program requirements to public water system (PWS) ASR wells when arsenic mobilization is a concern.
- Emphasizes these regulations apply only to Class V wells.
- Cautions wells that could be classified as Classes I-IV or VI must not be permitted under Class V regulations even if the injection is also for the purpose of storing water for future use as drinking water.



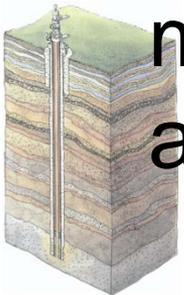
Class V Allows Flexibility

- UIC Class V regulations (40 CFR §144.12(c) and §144.84(b)(1)) provide authority for the UIC Program Director to issue a permit for a UIC wells not meeting the fluid movement prohibition provision in §144.12(a).
- Previously, this was thought to require an enforcement action and compliance order.



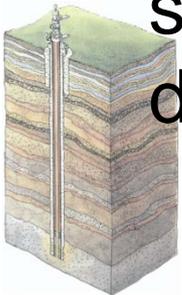
Class V Permitting

- UIC Program Director may choose not to close an ASR well not meeting 144.12(a)
- 40 CFR §144.84 allows Director to impose case-by-case permit conditions preventing endangerment under SDWA 1421(d)(2).
- Thus Florida may permit ASR wells with conditions set to protect public health and maximize protection of the USDW while allowing some arsenic contamination.



Still Protecting USDWs

- A permit will prevent endangerment if it “includes conditions to prevent any pathway for human consumption of waters that exceed the Maximum Contaminant Level (MCL) for arsenic, without relying solely on treatment of drinking water by the public water system before supplying water to customers.”
- “The UIC regulations protect underground sources of water, not merely the supply of water delivered by a public water system.”



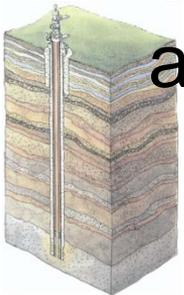
Permit Requirements

- Although Class V wells may be approved by rule, Directors have discretion to issue permits instead.
- Class V permits contain the conditions applicable to all permits (see 40 CFR §144.51 and §145.11(a)(19))
- Any additional conditions are determined by the UIC Program Director



State Primacy Discretion

- Agency with Class V primacy has discretion to make site specific determinations.
- This discretion includes
 - whether or not to issue a UIC permit and
 - what conditions should be included in the permit,
- Determinations must be consistent with the SDWA, applicable EPA UIC regulations and approved state programs.



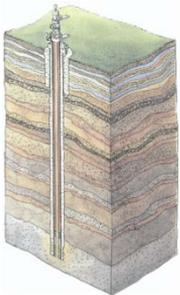
Setting Permit Conditions

- To satisfy SDWA goals and requirements, permit conditions should
 - encompass activities to minimize the mobilization
 - limit the spatial extent of any potential contamination
 - protect public health
- A guiding principle should be that the burden of public health protection not be transferred from the public water system to another USDW user (either in the storage zone or downgradient).



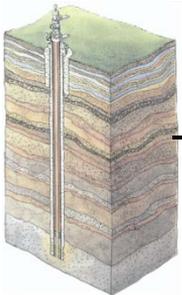
EPA Recommendations

- EPA appropriately recognizes the respective roles of Directors when it recommends rather than requires that Florida use the approach described when it issues a permit where arsenic mobilization is a factor for ASR
- EPA further recommends that permit conditions ensure that injected water will only be withdrawn by the PWS that injected it, because that entity:
 - Is aware of the situation,
 - Is accountable for the presence of arsenic, and
 - must comply with other regulations under the SDWA.



Area of Control

- Water withdrawn beyond PWS “area of control” should not need treatment to address ASR contaminants.
- USDW users other than the PWS should not have access to the impacted area of the aquifer.
- Control may be accomplished by "site access controls":
 - institutional controls,
 - property interests,
 - ordinances restricting use,
 - rules that restrict well construction within the impacted area,
 - implementation of setbacks in the state's water well construction rules or
 - similar measures to control contaminated groundwater access



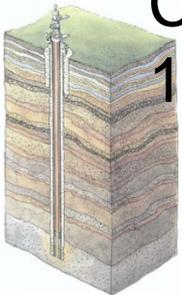
Resource Management

- EPA approaches the issues facing ASR operators by recognizing the importance of viewing USDW protection through a resource management framework.
- Similar approaches are important in other UIC areas such as managing potential receiving formations and injected fluids under other injection well classes.



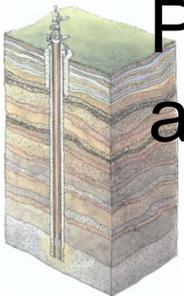
Fluid Movement Restriction

- EPA recognizes that preventing USDW endangerment under SDWA §1421(d) does not require prevention of any contaminant from entering a USDW.
- Previously recognized in developing the Florida Class I municipal well rules in §146.15&16.
- EPA restricts this approach to Class V because EPA has chosen by rule to impose stricter limits for most other well classes.
- That rule could be changed by rulemaking as it was for Class IM. See *Miami-Dade County v. EPA*, 529 F.3d 1049, 1064-66 (2008 11th Cir.)



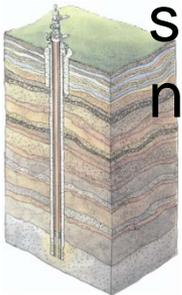
ASR Policy Limitations

- EPA cautions wells that could be classified as Classes I-IV or VI must not be permitted under Class V regulations even if the injection is also for storing water.
- EPA specifically references Class I municipal wells (ASR Letter, footnote 1).
- Yet this should not prevent conversion from disposal to ASR for treated wastewater exiting a POTW if rules are followed (e.g., injection into appropriate formation) for ASR permitting



Signal Accomplishments

- EPA's ASR letter explains how the SDWA and the UIC regulations allow States to address water shortages while protecting the quality of future water supplies.
- It embraces a resource management approach
- It provides a well-considered solution for PWSs experiencing water shortages who wish to use ASR.
- It is faithful to the intended State-Federal partnership
- “By clarifying how to permit ASR wells so that they may be used to augment drinking water supplies while at the same time protecting USDWs, EPA addresses a critical need for Florida and others facing water shortages.”



For More Information:

Bob Van Voorhees

Underground Injection Technology Council

1155 F Street, NW, Ste 700

Washington, DC 20004-1312

202-508-6014

bob.vanvoorhees@gmail.com

See also: www.UITCouncil.org

