

# Stormwater Injection Wells

Report on efforts to protect Lehigh County Authority's water supply

# Meeting w/ DEP and LCCCD – June 22, 2017

- Objectives:
  - Learn more about permitting process for stormwater injection wells
  - When does LCA have the ability to influence the outcome?
  - When does it make sense for LCA to participate / not participate?
  - What is DEP's or LCCCD's position on stormwater injection wells?
- What should LCA's position be?

# General Comments

- DEP Waterways & Wetlands Program is disconnected from EPA's Underground Injection Control (UIC) Program
- Currently no formal / official way for LCA or other water utilities to be part of the process
- DEP is concerned about increasing number of permit applications and how to respond to them
- DEP representatives greatly appreciated LCA reaching out and encourages continued proactive approach to providing comment
- Partnership with LCCD is our best option to stay “in the loop”

# Obtaining a Class V UIC Permit from EPA

- “Permit by Rule” with no public input process
- No rigorous review or burden of proof
- Certification by developer/engineer that injection of stormwater will not impact underground sources of drinking water
- Compliance is self-regulated / self-monitored
- Typically the EPA authorization is in-hand prior to submission of more detailed stormwater management plans to municipality, LCCD or DEP

# Municipal / LCCD Review

- Typical approval stage where LCA has been participating
- LCCD has maps provided by LCA showing source water protection (SWP) zones 1 and 2
- No formal process / requirements, but LCCD tries to bring LCA into the loop when a stormwater injection well is proposed within a SWP zone
- LCA provides results of hydrogeologic study of the injection well describing potential impact to drinking water quality
- Typically the municipality will weigh concerns raised by LCA heavily and have the developer/engineer adjust plans to reduce / eliminate impacts noted
- NOTE: Municipal ordinance could stop process at this stage, but are subject to challenge if no impact to drinking water quality is proven.

# DEP Review – Earth Disturbance & NPDES

- DEP goal – “maximize non-discharge alternatives” (in other words, DEP encourages stormwater management plans that promote groundwater recharge vs. stream discharge)
- Here’s the disconnect:
  - EPA Class V UIC permit references drinking water standards, with no compliance program to ensure quality of discharge
  - DEP NPDES permit enforces environmental standards (similar to WWTP permit limits for BOD, TSS, TKN), not drinking water standards
- DEP recognizes the disconnect, but doesn’t have a mechanism to address it
- Comments from LCA become important at this stage because we represent the drinking water perspective that DEP lacks

# Participating in DEP Permit Process

- LCA would need to proactively search for them in PA Bulletin and comment during public comment period
- Can use info from LCCD to track which ones are advancing from municipal level to DEP
- DEP will turn any written comments back to the developer/engineer for response that addresses the concerns raised
- DEP can consider additional restrictions:
  - Requirement for use of Alternative Roof Design BMP (tied to deed so cannot be changed later)
  - Special permit conditions for groundwater monitoring

# The Big Caveat...

- DEP welcomes / encourages comments to be submitted that provide scientific evidence of potential impact to drinking water
- DEP will support and use submitted studies to defend a position denying or restricting a permit for a stormwater injection well
- **Comments submitted without specific scientific evidence will not be useful to DEP (not legally defensible)**



# Overall Watershed Impact of Stormwater Injection Wells

- General comments from Al Guiseppe (SSM):
  - Stormwater has to go somewhere – impact to streams and groundwater is unavoidable
  - Plenty of studies that show that stormwater runoff causes stream impairments
  - Few, if any, examples of injection wells impacting surface water
  - Difficult to draw a conclusion that stormwater injection wells are better / worse than other management practices from an overall watershed perspective
- However, we could explore the impacts of stormwater injection wells in Karst aquifers as part of the watershed monitoring project currently being designed

# Proposed Next Steps / LCA Position

- Follow-up with LCCD to ensure strong partnership includes looping LCA in on stormwater injection wells proposed (not just those in a designated SWP zone)
- Continue to provide detailed data on impacts to drinking water as appropriate
- Ask for Alternative Roof Design BMPs to be specified in instances where injection wells will be used only to dispose of roof drainage
- Monitor PA Bulletin for injection wells that have moved on to the DEP permitting phase, and repeat objections made previously if not addressed
- Prepare and submit a “standard” objection to injection wells in Karst geology to be used in cases where specific SWP impacts are not identified
- Include evaluation of stormwater injection well impacts to watershed monitoring project currently being designed
- Prepare and submit a letter to all townships asking for their support in writing ordinances prohibiting stormwater injection wells

# Discussion