

Roundtable Discussion

December 6, 2017
Joint Meeting of the
Directors of Utilities Committee &
Health Directors

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Fecal Indicator Virus (Coliphage) Criteria *Potential Monitoring in Recreational Waters*

- EPA is developing CWA Recreational Water Quality Criteria for coliphage, a viral indicator of fecal contamination
Fact sheet: <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P100P31A.txt>
- Viruses are primary cause of illnesses related to contact recreation in surface waters
- Advantages of measuring coliphages:
 - Correlate better to human pathogenic viruses than traditional FIB (FIB do not always predict all types of illnesses, like norovirus); have similar environmental fates as viruses
 - Inexpensive test methods; could develop simple kits; commercial methods provide results in under 8 hours; suitable for swimming advisories
 - Indicators of WWTP performance; may be better than FIB
- No timeline for criteria development, possibly 2018

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Elizabeth River Project’s Septic System Task Force

Goal : “Establish a regional task force on septic tanks, with the Eastern Branch as the pilot focus area, for the purposes of increasing tracking of existing septic tanks, enforcing pump out of the tanks, providing education and considering incentives and possible grant programs for replacing septic tanks with wastewater hookups.”

Focus on:

- Indian River tributary
- Broad Creek tributary

Invited Participants:

- Elizabeth River Project
- Chesapeake Utilities
- Chesapeake PW
- Chesapeake Health
- Norfolk Utilities
- Norfolk PW
- Norfolk Heath
- Norfolk Environmental Commission
- Portsmouth Health
- Virginia Beach PW
- Virginia Beach Health
- HRSD
- HRPDC
- VDH Onsite Sewer
- VDH Env Health/Sanitation
- VDH Shellfish Sanitation
- DEQ

Issues discussed:

- Is human contamination a factor? Can a study show septic system impacts on water quality?
- How should conversions to sanitary be funded and incentivized? Installment payments, cost share programs, new state loan program, CDBG grants?
- What is the cost to bring service to known clusters of septic systems? Do the water quality benefits justify public spending?

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DWSRF Lead Service Line Replacement Program – FY18 Projects

- 3 applications received by VDH; all 3 are funded:

| Owner | Project | Project Cost/Funding Offered |
|-----------------------------|--|---|
| American Water (Alexandria) | 85 LSL replacements | \$425,000 (grant – state funds) Ave cost est. \$5,000 per line |
| Henry County PSA | 30 LSL replacements and 3,500 LF 6”-main replacement | \$500, 000 (100% forgiveness low interest loan; por. fed \$) |
| City of Richmond | 200 LSL replacements (goal) | \$500,000 (grant – state funds) Ave cost est. \$2500 per line |

- 12 mo. performance period (Jul 2017 – Jun 2018)
- This is the only state program providing funding for LSL replacement; will be offered again next year.
- Note: DC Water LSL map - <https://geo.dewater.com/Lead/>

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Public Health Impacts of Detroit Water Shutoffs

Preliminary study by Henry Ford Health System’s Global Health Initiative correlates Detroit water shutoffs to water-related illnesses in hospital patients, including: a) skin and soft tissue infections, and b) water-borne bacterial infections.

- 37,441 cases of Henry Ford Hospital patients diagnosed with water-borne illness between January 1, 2015 and February 12, 2016 were analyzed and compared with block-level addresses whose water was shut off during the same time period for nonpayment.

Results: “Overall, the models showed that patients who are the most likely to be impacted by water-associated illness resulting from the shutoffs are also the most socially vulnerable.”

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Those who were diagnosed with a water-associated illness were 1.42 times more likely to have lived on a block that had experienced a water shutoff.

- After accounting for [social] vulnerability, **the effect of living on a block that has been affected by shutoffs results in increased likelihood that patients will be diagnosed with water-associated illness.**

Those patients who came from blocks that were shut off were 1.55 times more likely to have been diagnosed with a water-associated illness.

- ...[T]he data shows that **patients diagnosed with water-associated illnesses are more likely to come from blocks affected by shutoffs** than from blocks not affected by shutoffs, even when controlling for socioeconomic status.

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