



FUSS & O'NEILL

Tiogue Lake Bacteria Study

Presentation to
Town of Coventry, RI

September 26, 2022

The Issue

- June 2018 routine water quality monitoring identified high *Enterococcus* bacteria at Briar Point Beach
- Monitoring data ~40 times higher than RIDOH action value
- Two-week beach closure
- RIDOH and RIDEM could not identify cause in 2018

The Issue

- ***Enterococcus* is a Fecal Indicator Bacteria that points to the presence of harder-to-detect pathogens**
- **Ingesting contaminated water can cause:**
 - Gastroenteritis, vomiting
 - Skin rashes
 - Ear/eye/throat infections

Common Potential Enterococcus Sources

Stormwater or Illicit Discharges



Image credit: NVDOT

Contaminated Groundwater Seeps



Image credit: Ventura County, CA

Pet/Wildlife Waste



The Approach

On-Site
Assessment

Rainfall
Data

Septic
Repair
Permits

Water Use
Data

These approaches combined EPA-developed methods with analysis of available secondary data to help identify which potential sources bacteria may be present in Tiogue Lake

Our Findings

Groundwater seep
Pet waste hotspot

Stormwater has a
clear signal

Cesspools are present
around the lake

Two open septic
repair permits in
2018

We were unable to identify a single major point source of *Enterococcus*

What Can We Do?

Near-Term

- Targeted public education and outreach about
 - Septic system and cesspool maintenance
 - Scoop the Poop
 - Lawn maintenance
- Continue to enforce waterfowl feeding ban and make pet waste bags and trash cans available along Arnold Rd causeway



What Can We Do?

Long-Term

- **Install Green Stormwater Infrastructure (GSI) retrofits**
- **Pair GSI retrofits with other roadway projects**
- **Coordinate Sewer Facility Plan with Community Comprehensive Plan**
- **Consider involvement with Municipal Resilience Program or Community Septic System Loan Program**



Thank You!

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