



Research Approach

- We will drill wells and sample ground water nutrients before and after area homes and businesses are hooked up to the sewer to monitor the effects of sewerage on groundwater flow and nutrient loading adjacent to Academy Cove.
- We will also sample bottom algae and measure surface water quality (the level of nutrients and dissolved oxygen, for example) before and after these area homes and businesses are hooked up to the sewer to see if the health of the coves improves after the sewer hookup.
- These results can provide evidence of whether hooking up to the sewer can make a difference to the surrounding waters.

Project Summary

Nutrients in wastewater flushed to septic systems can seep into the groundwater, which flows into the Harbor and coves in and around Wickford, RI. These nutrients, primarily nitrogen, cause impact water quality by promoting excess algal growth, which leads to reduced oxygen availability for other aquatic life. The U.S. Environmental Protection Agency (EPA) and the U.S. Geological Survey (USGS) have teamed up with the Town of North Kingstown to monitor surface and ground water to see if/how sewerage can make a difference.

Frequently Asked Questions

What is that machine out front? A drill rig. The EPA and USGS are installing groundwater wells to sample sediment, groundwater, and to measure groundwater depth.

Why are they sampling the groundwater? Groundwater with nutrients discharges into the harbor and the coves around Wickford, which impacts water quality.

Why are they drilling at the Library? Some of the nutrients in the groundwater in this area come from septic systems. A number of area homes and businesses are currently septic systems and are scheduled to be hooked up to the sewer. We want to see if sewerage decreases the level of nutrients in the groundwater, and eventually helps to improve the quality of the water in the Harbor and the connected coves.

What do the wells look like? The wells have small iron manhole covers set in concrete flush with the ground.

When will you take the well samples? Sampling will occur before and after connection to the sewer is complete.

Where is the sewer water going to go? The water from the sewers will go to the existing Quonset Sewage Treatment Plant, which has a clean finished-water outfall into the bay near the Quonset Airport.

Is the cove polluted? Water flowing into the coves includes nutrients and other natural and anthropogenic constituents in groundwater, storm runoff, and stream flow.

Which houses have an impact on water quality? Every house connected to the municipal sewer will help reduce nutrients and other septic related constituents in the groundwater, improving water quality. Those closest to the water's edge may contribute to a more rapid impact on water quality.

Who is working on the groundwater project? The project is a collaboration of the US Environmental Protection Agency (USEPA), the US Geological Survey (USGS), and the Town of North Kingstown.

How do we get more information on the project? You can go to the USEPA, Southern New England Program web page at: www.epa.gov/snep/epausgs-collaborative-snep-projects#6

**More Questions?
Contact Us!**

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