

Groundwater Sustainability Forum: Community Voices and Next Steps

On August 28th, the Long Island Community Resilience Team hosted a Groundwater Sustainability Forum to share the final results of the 18-month Groundwater Sustainability Study and gather input from residents on next steps. The study, led by hydrologist Carol White of C.A. White and supported by Resilience Fellows Emma Morgan and Brian Wilcenski, created a well and septic database, examined groundwater conditions, and developed recommendations to address vulnerabilities. The project included collecting data from wells and septic systems, testing water samples from homes and public buildings, and studying the island's soil and geology. About 42 community members attended the presentation at the Community Center.

The presentation highlighted the importance of protecting our island's groundwater, which serves as a sole source aquifer for the community. This means there are no reasonable alternative water supplies beyond what is stored underground. Over 90% of homes rely on private wells drilled into the bedrock aquifer, making the protection of this shared resource critical to our health and sustainability. While the study confirmed that on an annual basis, the island's natural recharge is currently sufficient to supply average annual household use on the island, it's important to note that groundwater recharge varies seasonally. During the summer months when recharge is limited and demand is high, localized availability and quality problems can occur especially during periods of drought – like we are currently experiencing in Maine. As more homes are expected to be built in the coming years, water supplies will also need to be monitored closely for sufficient natural recharge rates to ensure the long-term reliability of the resource.

The results of the study revealed ongoing challenges with water quality. *E. coli* bacteria were detected in about 14% of wells, and results suggest these problems persist year after year. Based on the recent sampling program, it does not appear that saltwater intrusion is currently a major issue, though some shoreline wells show elevated chloride levels that are likely due to saltwater impacts. With sea level rise, however, a small number of properties may face future flooding or saltwater risks that can impact both water supplies and septic systems. These findings underscore the need for ongoing monitoring, protection measures, and sustainable water practices to ensure that residents can continue to rely on safe and sufficient groundwater.

The study's recommended next steps are to focus on protecting water quality through septic maintenance, water testing, monitoring programs, and outreach and education. Recommendations included regular septic pump-outs, expanded water quality sampling,

educational outreach, and advocating for legislative changes that recognize the importance of island aquifers.

In the discussion that followed the presentation, community members provided their input on top priority areas moving forward. Education was seen as essential, so homeowners and short-term renters understand septic care and water testing responsibilities. Strengthening enforcement was another focus, with suggestions for stronger oversight during property transfers and support for the Code Enforcement Officer. They also highlighted the need for coordination, including organizing community-wide pump-out schedules and creating a central database to compile water testing information. Conservation ideas included areas to boost recharge and better management of runoff.

The forum made clear that while we have enough water, keeping it clean and safe is a shared responsibility. With a combination of town leadership, homeowner action, and community-wide collaboration, residents can help protect the aquifer and ensure a resilient water future for the island.

The Community Resilience page on the Town website is a central hub for project updates, educational materials, and ways to get involved. The final report, including a summary of results and detailed recommendations, will be published there.

In case you missed the August 28th forum, there will also be a virtual webinar led by Carol White to recap the results and insights. More details will be posted on the Community Resilience Page.