

Raritan Headwaters Association: Well Testing Report 2022

The Well Testing Program by Raritan Headwaters Association (RHA) is an integral component of the organization's mission to ensure clean and safe water for all. This program allows homeowners and residents within the Raritan watershed to purchase water quality tests in order to monitor the level of certain contaminants in their well water. Once acquired, the person collects a water sample from their residence and returns the collection to RHA, to which we have these samples tested at a state-certified laboratory. Once the samples are analyzed, RHA and the tester get a copy of the results. RHA will also help interpret the results for the tester and will provide informational resources to help the resident decide the best next course of action. Additionally, these results have helped RHA design a breadth of detailed "What's in Your Water" maps that anyone can access on our website. These maps show contamination levels of primary contaminants of concern within regions across the watershed.

The primary contaminants that made the 2022 Well Testing Report are: bacteria (coliform & E. Coli), nitrates, lead, arsenic, radon, and gross alpha.

- Coliform bacteria had been decently more prevalent than in past years, with an 8% overall increase since 2019.
- E. Coli has stayed unchanged since 2019 with a 3% presence rate.
- Nitrates below 4 mg/L have jumped up by 10% overall since 2019, which is a notable improvement.
- While the percentage of lead failures lowered by 1% from 2019 to 2022, the percentage of lead detections under the MCL of 15 ppb increased by 14% in that same time period.
- Arsenic proved to be the most improved over the last three years. Undetection for arsenic is up 5%, detections under 5 ppb are down by 2%, and arsenic failures have decreased by 3%.
- Radon results over 4000 pCi/L are down by 4% since 2019, however, there has been a 14% increase in radon detections between 800 to 4000 pCi/L in within that same time period. Detections under 800 pCi/L have dropped considerably by 10%.
- Gross Alpha has statistically remained fairly similar over the last three years. Undetections for gross alpha have decreased by 3% and detections under 5 pCi/L have increased by 1%. Detections between 5 and 15 pCi/L have increased by 1% and failures have increased by 1%.

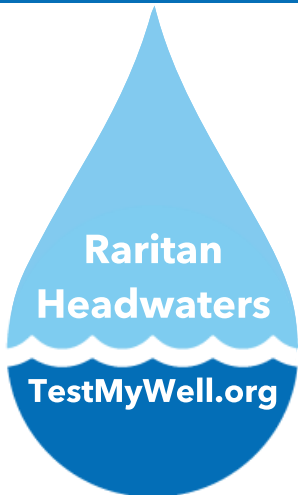
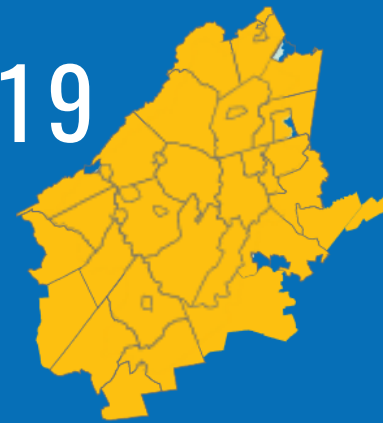
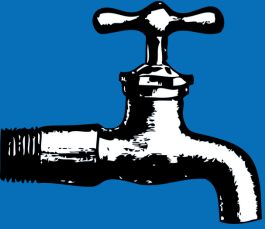
It should be noted that each year, RHA will test both new and previously tested wells which can attest for sharp shifts in results. Additionally, RHA ensures that the personal data of individuals is protected and confidential.

80% of households within the Raritan Watershed region depend on private wells for drinking water. Due to this high concentration of well-users, we agree with the US Environmental Protection Agency's recommendation to test household water at least once a year to ensure the well is free from harmful bacteria and nitrates. Thanks to your help in the citizen-science effort, we can accurately study our regions drinking water.

Key:

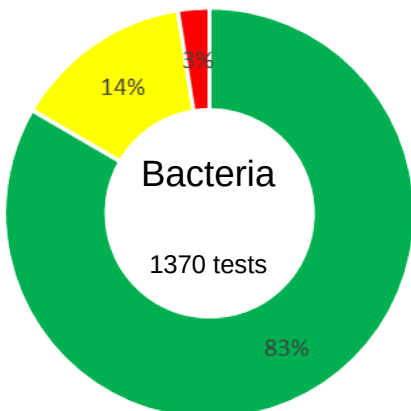
- mg/L = Milligrams per liter
- ppb = parts per billion
- pCi/L = Picocuries per liter
- MCL = Maximum Containment Level

WELL TESTING REPORT 2019

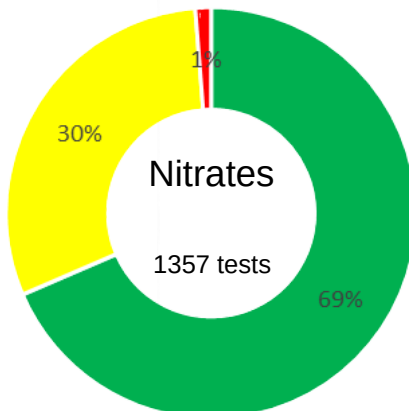


1,552 Taps Tested across 43 municipalities

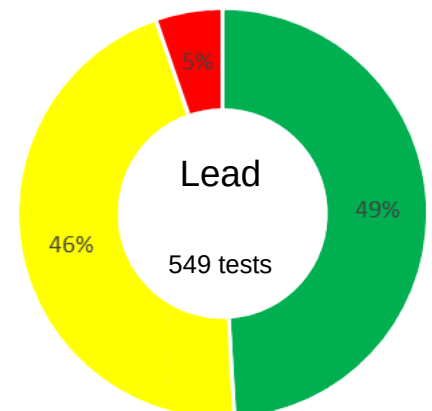
- Coliform Bacteria and E.coli
- Nitrates
- Arsenic
- Lead & Copper
- Volatile Organic Compounds
- Iron
- Manganese
- Pesticides
- Radionuclides (Gross Alpha and Radon)



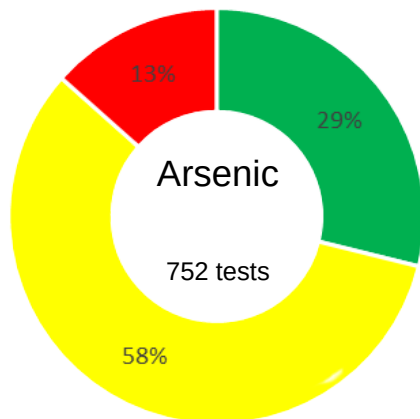
- Coliform bacteria absent
- Coliform present, E.coli absent
- E.coli present



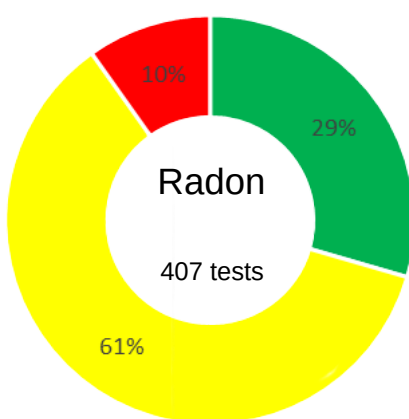
- Nitrates below 4 mg/L
- Nitrates 4- 10 mg/L
- Nitrates failure- over 10 mg/L



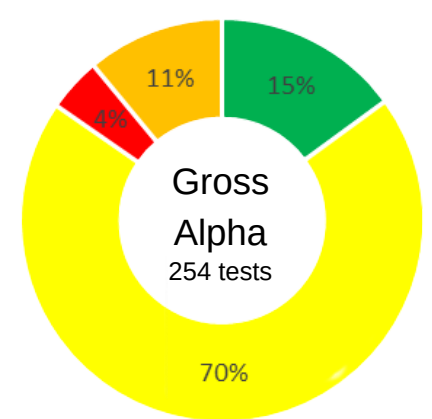
- Lead undetected
- Lead detected under MCL of 15 ppb
- Lead failure- over 15 ppb



- Arsenic undetected
- Arsenic detected under 5 ppb
- Arsenic failure- over 5 ppb



- Radon under 800 pCi/L*
- Radon detected 800-4000 pCi/L
- Radon over 4000 pCi/L**



- Gross Alpha undetected
- Gross Alpha detected under 5 pCi/L
- Gross Alpha 5-15 pCi/L
- Gross Alpha over MCL of 15 pCi/L