



January 27, 2021

**Subject: Town Administrator's Update to Select Board on E.coli bacteria contamination of Natick's water system**

**Summary of Sequence of Events:**

1. Water samples were collected by an in-house licensed person on Jan 12th and delivered to a handling/transport operation in Hudson, MA and subsequently transported to a Department of Environmental Protection (DEP) approved lab in Rhode Island, delivered that same night. Natick has used this lab for approximately 13 years.
2. The following day, Jan 13<sup>th</sup>, 9 of 12 finished water samples (not including raw well water) showed evidence of E.coli bacteria. Normally, with positive test results, confirmatory resampling is mandated immediately. However, due to the high number of positive results, and out of an abundance of caution, the State DEP issued a "Boil Water Order" immediately.

3. After two repeated sampling series, approximately 24 hours apart, with all samples testing “clean”, the Boil Water Order was lifted by DEP the evening of Friday, Jan 15th.

**Immediate Actions by the Town Departments upon receiving the positive E.coli lab results:**

- The water infrastructure was inspected by Public Works personnel- those who know the system- for any breach by animals and/or persons; none were reported.
- Further inspection was conducted by the use of a drone, of areas difficult to access such as top vents and hatches on the two water towers.
- Residual chlorine levels, which are affected by organics in the water, were evaluated and found to be normal range.
- As a precaution, two raw well sites that were positive for E.coli were taken off-line and the chlorine level in the distribution system was increased by a small amount.

**Subsequent Investigatory Efforts employed by the Town:**

- An independent engineering firm was commissioned to conduct an assessment of the water system and potential sources of contamination.
- Water testing protocols were evaluated and determined to be in full compliance with Federal Drinking Water Standards

with sufficient licensed personnel; Natick's water sampling plan has been approved by the DEP.

- A conversation was had with the DEP Regional Section Chief as to their experience across the state – they typically get about 4-6 “false positive” results per year re E.coli water sampling across the State.
- The Health Department reported no water-related illnesses reported in Natick.
- A subsequent sampling series sent to MWRA (January 19<sup>th</sup>) for testing of Total Coliform and E.coli; again, all 12 samples came back clear (Jan 20<sup>th</sup>).
- An “After Action Review” was conducted with all departments to capture those areas where process improvements can be made; mainly in automated information dissemination.

### **In Conclusion:**

- Both Town staff and the independent engineering consultant conclude that this event was in all likelihood caused not by contamination of the water system, but by inadvertent cross-contamination of the lab samples.

### **Some Perspective of this process:**

- Natick's water system is rigorously monitored and tested with over 1,500 water quality tests performed in a DEP

certified lab annually. Given the last recalled positive test results, this equates to a magnitude of almost 20,000 water quality samples performed without such an incident. The point being, is that the “false positive” two weeks ago does not negate a tremendous record of a clean and dependable water service in Natick.

### **Going Forward Improvements:**

- Our protocols in both testing as well as emergency notification have been reviewed and refinements made to ensure the safety of the residents, to include updates in automated notification. Going forward the Town will continue to use the MWRA testing lab for the next couple weeks as we formalize an agreement with a different testing facility.

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Town of Natick