



QUONOCHONTAUG CENTRAL BEACH FIRE DISTRICT
December 24, 2019

Dear Resident

Our QCBFD Public Water System remains on a RIDOH mandated Boil Water Advisory (BWA) due to an inability to clear Total Coliform (TC+) from Well #1...our main well water supply. In a nutshell, delayed maintenance of our well field, i.e., clearing and grubbing overgrown vegetation in the vicinity of the wells and regrading to fill depressions within the well field, has caused Well #1 to continue to be TC+, most likely from local ground water infiltration. Upon completion of the well field regrading, including carefully sourcing and testing proposed fill, it is expected that the natural ground water flow patterns will be re-established and the well field contamination will reverse. We expect this may take several months. We also expect that we will be required to install a 4 log disinfection system and are continuing to explore and plan for this.

How did we get here?

- In mid August the two Wells and distribution samples returned TC+ and Well #2 was EC+.**
 - The E coli in well #2 triggered a BWA and the recurring TC+ samples triggered a Level 2 Assessment.**
 - It is important to note that EC+ has NEVER been found in the distribution system and ONLY in well #2.**
- In Mid September video inspection of the wells revealed significant biomass and root infiltration at the bottom of**

both wells. This finding was consistent with vegetation overgrowth encroaching onto the wells.

- **Well field vegetation clearing and root grubbing was initiated and we began to fill and grade low elevations where pooling and standing water collect. This work is ongoing.**
- **In Mid October both wells were chemically "scrubbed" and physically redeveloped.**
 - **Well #2 has returned TC-/EC- but Well #1 continues to return TC+ due to alteration of surface water drainage from the vegetation clearing.**
- **Due to a recent DEM reclassification of "wetlands", our wells of > 70 years are now administratively deemed to be within 200 ft of "wetlands" and assumed to be under the influence of surface water (GUDI) until proven otherwise.**
 - **GUDI testing is performed in the fall and spring by running well water through a micro-particulate filter for 24hrs and then the filtrate examined for various debris. The first set of tests performed in October returned as low probability of GUDI. The second test is set for March 2020.**

What are we doing?

- **Well field vegetation and regrading maintenance as mentioned above. We hope to have this completed by Spring.**
- **We had reached out to RIDOH about installing a temporary 4 log chemical disinfection system which was denied. RIDOH did not want to create "a false sense of security"! RIDOH will only accept a permanent 4 log chemical disinfection system which can be monitored in real time, meaning UV disinfection is NOT allowed. Permanent 4-log chemical disinfection is problematic for us due to iron levels, low flow distribution system branches (buildup of toxic chemical disinfection byproducts), and the pending GUDI designation.**
- **Anything which requires additional filtration, elevated iron levels, GUDI designation, would require enlargement of the pump house and thus a CRMC regulatory permitting**

application. Reconfiguration of the distribution system could require excavations and relaying of pipe. We are working on looking into cost estimates for this possibility.

- In late November we altered our UV disinfection system, originally designed to prevent bacteria growth in the storage tank, to run constantly in an attempt to sterilize the distribution system and minimize the number of TC+ samples collected.**
- We are looking into several chemical and hybrid 4 log systems for all options, including running only off of well #1, hybrid UV and chemical disinfection (think NYC water), MIOXX chemical disinfection (think Westerly water) and looking for a second low iron well source within our well field. This is a process which may take up to a year or longer for full implementation.**

What do I do this Holiday Season?

- TC+ in the water alone is not a public health issue, except for immunosuppressed individuals (infirm, elderly, and neonates) and thus no Boil Water is required. TC+ is an indicator that fecal coliform EC+ may gain access to the water. Every sample we take of our water tests for BOTH TC and EC! I wish to stress that EC+ has NEVER been sampled in our distribution system, i.e. the water coming out of your kitchen faucet, and that to my knowledge there has NOT BEEN any report of illness from our QCBFD water.**
- The fact is had we not had EC+ in Well #2 back in August and September (now fully sterilized), a BWA would NOT have been issued. At this point we cannot lift the BWA because of the persisting TC+ samples and thus we remain in an administrative Catch 22!**
- RIDOH has very clearly stated that each individual has a right to comply or not comply with the BWA.**
- Having said that we do remain under a BWA and will most likely remain so for the foreseeable future.**

On behalf of the PW committee,

Best Wishes for the Holidays!

**Vincent Reppucci
PW Chairperson**

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