

May 24, 2018

**DRINKING WATER QUALITY EVALUATION
OF WATER PROVIDED BY AQUA-NJ**

T.O. Najarian Associates, Inc. (Najarian) was retained by Berkeley Township to perform a drinking water quality evaluation of water provided to residents by Aqua-NJ. The discoloration of the water and resident complaints prompted the evaluation. Najarian's full report was issued to the Township on May 18, 2018. Below is a summary:

The first step of the evaluation was a meeting with Aqua on February 26, 2018. Aqua was receptive and acknowledged that elevated levels of Iron, which is the cause of the discoloration, are a problem. Aqua stated that they maintain a water line flushing schedule and that three treatment plants utilizing greensand plus Iron removal media were designed and will be constructed in 2018/2019 to address the problem.

As part of Najarian's evaluation, water sampling and analyses were performed to evaluate contaminant concentrations. Najarian coordinated with Aqua to collect water samples from six (6) locations within Aqua's water distribution system as follows:

- Two at the Aqua point-of-entry locations at the Lifetime Tank Well 4 and Pinewald Tank Wells 3 & 5 facilities;
- Two at private residences located toward the end of the distribution system;
- Two at the Bayville and Potter Elementary Schools located in between.

Aqua was cooperative and collected split-samples for analyses. The water samples were analyzed for a full suite of contaminants, including radionuclides at the source wells, at NJDEP-certified laboratories.

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The independent water testing revealed the following:

1. Compound concentrations similar to those historically reported by Aqua were found;
2. No compounds were reported at levels exceeding Federal and New Jersey Primary Drinking Water Standards - Maximum Contaminant Levels (MCL), which are health-based;
3. Radionuclides were not reported at levels above allowable limits;
4. The water samples reported Iron and Aluminum at levels exceeding the NJDEP Secondary Drinking Water Standards - Recommended Upper Limits (RULs), which are primarily based on aesthetics;
5. Iron and Aluminum are naturally occurring and the elevated concentrations originate from the source wells;
6. There does not appear to be a correlation between the levels of Iron and Aluminum and location within the water distribution system.

Aqua provided an update during a conference call on May 16, 2018:

- Construction mobilization of the water treatment plants has commenced;
- The treatment plants are expected to be operational in the Fall of 2019;
- Aqua will continue to maintain a semi-annual flushing schedule with spot flushing as needed. Aqua stated this schedule was approved by the NJDEP;
- Customers are urged to file any complaints with Aqua's 24-hour call center; Aqua stated they will call back within 24-hours (Phone: 877-987-2782).

On behalf of the Township, Najarian advised Aqua to maintain a strict flushing schedule with spot flushing, as needed, and to implement whatever steps are necessary to expedite the construction process of the treatment systems.