

**TOWN OF WATERVILLE VALLEY
BOARD OF SELECTMEN
WORKSHOP MEETING MINUTES**

DATE: March 31, 2017

MEMBERS PRESENT: Chairman Mike Aronson, Margaret Turner and Bill Larsen.

MEMBERS ABSENT: None.

OTHERS PRESENT: Mark Decoteau, Jim Mayhew, Rob Burhoe, Jr., Greg Campbell, Jamie Emery and Dan Tinkham of Emery & Garrett Groundwater, and Joe Ducharme and Britt Ekstrom of CMA Engineers.

1. The meeting was called to order at 1:07 p.m.

2. Discussion with Engineers Regarding Well #3 Evaluation

Introductions are made to the BOS of the CMA Engineers and EGGI associates. Joe Ducharme of CMA recaps the issues with well #3 from the past 6 months. The town had been working with DES to conduct testing for the contamination source and this continued with no success until winter arrived, testing ceased, and another plan of action was needed to be developed. CMA then called upon EGGI to assist in the evaluation of the potential mechanisms that are the likely causes of the bacterial contamination. EGGI notes that bacterial contamination of production well can be generally be attributed to two primary mechanism; 1) a change in the nature of recharge to the well, and 2) a failure of well construction or infrastructure components that were originally designed to provide sanitary seals. CMA & EGGI recommend that both mechanisms be evaluated to identify the most likely causes of the contamination. Additionally it was mentioned there is a possibility that the transmission pipe under the Mad River is compromised in some way and allowing groundwater to get into the system. During earlier testing, samples were taken at different locations along the transmission line with varying levels of contamination.

Jamie Emery comments that low levels hits of E. coli and total coli form can possibly be the result of backflow. He explains that gravel pack around the pipe leading back to well from the river crossing will give water a path of least resistance if there is a crack in the pipe. There is a check valve which is located in the well, and there is a sleeve/link seal which connects to the pipe sections which could be a point of breach. The freezing and thawing of the ground, combined with boulders in the ground, may have caused movement in the pipe which may have compromised the link seal(s). Along with a visual inspection of the well itself and its clay seal, performed by pumping the well down and vacuuming out settled material, this will be the 1st and 2nd steps of the investigation.

The 3rd step will be to sample the groundwater for microscopic particulate analysis (MPA) during the pumping interval to inventory any microorganisms present, particularly those indicative of rapid water surface infiltration into PW3.

Bill Larsen asked if wells ever just go bad, and Jamie Emery replied that this usually does not happen. Also mentioned was the animal activity (beavers, gophers, woodchucks) in the general area and if this was related in any way, and that well#2 has not had any issues with contamination which is in the same general area. Jamie comments that well #2 and #3 are constructed differently, and usually these low levels hits are the result of groundwater infiltrating the system and not the well source itself. Discussion also included DES's statements from last year concerning the in-state drought and wells potentially drawing from differently as a result. This was viewed as an unlikely reason by EGGI. Prior to starting any of steps of the investigation normal tests, as well as MPA tests, will be performed to determine if bacteria is still present and of what type and respective levels.

The 4th step would be to test the integrity of the water main between PW3 and Well House 1 by performing a pressure test on the line to determine if any leaks are present and to confirm the integrity of the in-line check valve which prevents water from in the main line from bleeding back into the Well. If the pressure test detects a breach of some kind, additional testing utilizing cameras may be necessary to evaluate the problem.

The 5th and final step would be to prepare a report with the findings and potential causes of contamination in PW3 with recommended actions to resolve and restore PW3 to service. Suggestions of an impervious liner around the well was seem as a possible type of solution if groundwater is infiltrating, though the investigation results would determine what remedies should be utilized as corrective actions.

Discussion followed regarding the PW3 pump being replaced in late 2015, and if this would have any impact. The tests which followed in the next 10 months showed no issues, until the test in September 2016 which was positive for E. coli bacteria one time and positive for total coli form which followed per DES testing procedures.

The BOS was in agreement to proceed with the plan as presented by CMA and EGGI and the proposal was signed. May 2017 was seen as the likely time to start the work after the snow has melted. However prior to this time, samples will be taken at the two testing locations by WV Water Dept on a day when snow melt is occurring. These results will be given to CMA & EGGI at assist in their investigation.

Non-Public Session: The board goes into Non Public Session under RSA 91-A: 3, II (a). The Motion was made and seconded and with a roll call vote: Selectman Aronson – aye, Selectman Turner – aye, Selectman Larsen – aye, and the Board went into Non-Public Session at 4:00pm. The Board came out of Non-Public Session at 1:43pm.

3. Adjourn

Mike Aronson motions to adjourn the meeting at 1:53 pm.

Margaret Turner: 2nds.

Motion was carried by a unanimous voice vote.

Respectfully Submitted,

Sharon Charron

Town Clerk/Town Office Assistant