CAMBRIDGE WATER BOARD

MEETING MINUTES

November 12, 2019

This meeting was called to order at 5:03 p.m. at 250 Fresh Pond Parkway, in Cambridge, Massachusetts. Those in attendance were:

Cambridge Water Board (CWB): James Burruss, Ann Roosevelt and Jason Marshall
Cambridge Water Department (CWD): Sam Corda, David Kaplan, Fred Centanni, Ed Dowling, Jamie O'Connell, Mark Gallagher and Linda Vierboom

A. MANAGING DIRECTOR'S REPORT

Per- and Polyfluoroalkyl Substances (PFAS) Update: PFAS is a group of compounds that are a class of human-made chemicals typically associated with manufacturing of non-stick coatings, water proofing, dryer sheets, some water-resistant food wrappers/take out containers, stain proofing treatments and with certain fire-fighting foams. This type of fire-fighting foam stopped production in 2008 but still exists. There are over 4000 compounds in the PFAS family and many of these stopped in production in early 2002 and were substituted with less health risk related compounds. PFAS is analyzed down to Parts Per Trillion (PPT) and the limit is based on an average of all samples collected. The current MADEP regulation tests for 5 compounds with a limit of 70 ppt, very similar to the EPA regulation. Based on the current regulation, CWD PFAS confirmed is at 19.9 ppt for the 5 compounds. The new proposed DEP regulation tests for 6 compounds with a limit of 20 ppt to take specific actions. CWD water is also at 19.9 ppt for the total combination of the 6 PFAS compounds. CWD 2013-2015 Perfluorooctanesulfonic acid (PFOS) and Perfluorooctanoic acid (PFOA) amounts were non-detectable but lower levels are now detectable due to better testing equipment. Based on this, DEP recommended in June that tests be re-done. CWD collected the first round of samples on August 22, 2019 and a confirmation set of tests September 2019. Under the MADEP *current* regulation and the *proposed* guideline these samples yielded a confirmed 19.9 ppt of the five and/or six compounds combined.

Keeping with our history of transparent communications with the community; proactiveness, we have voluntarily chosen to follow MassDEP's guidance proposed for water systems that fall within the 20-70 ppt range.

Potential Methods to Remove PFAS from our Water:
Replacing the existing granular activated carbon (GAC) filter media is the least complicated and most timely solution for removal. A bench scale study will be needed to determine the most effective carbon mixture and duration of the media before it will need to be changed out (replaced with new media) to maintain the PFAS removal efficiency. It is anticipated that the PFAS reduction would be at least 50% and it is estimated that the cost of replacing the GAC filter media is about $1.5 million. Our current plan is to perform the bench scale testing, subsequent to DEP approval of our plan, and replace the media by the end of 2020. The Federal or State funding potential is unknown at this time.

Nano Filtration or Reverse Osmosis are alternative methods to removing PFAS in our water. Either of these would require significant modifications to our treatment process and take many years to pilot and construct/modify our existing processes, as well as DEP approval of the piloting and final design.

Moving Forward:
A quarterly PFAS testing program will be implemented beginning in December 2019, which will be the second quarter of testing. During the December PFAS testing we will test each reservoir to see if we can determine a specific source of PFAS. The goal will be less than 10 ppt for the combined PFAS compounds. Information and links to DEP and EPA are available on the CWD website. These links will provide a good background and potential health effects of PFAS. CWD will be meeting with DEP on November 13th to discuss and move our plan forward as diligently as possible.

Ms. Roosevelt commented that the Fire Department had on occasion, in the past (over 25 years ago) used the fire tower located within the Water Department maintenance building, adjacent to Fresh Pond, for fire suppression training purposes and likely had used firefighting foams. Fresh Pond, because of past Fire Department training, and our other two Reservoirs, because of automobile fires, are likely places for PFAS sampling to determine its origin. At this time purveyors of water are being asked to clean up PFAS as in the case of current remediation projects in Massachusetts.

It was asked what the MWRA water PFAS levels are. It was responded that their levels are 3 parts per trillion or less. This shows the benefit of not having highways going under and over, such as in the case of the Cambridge watershed.

Mr. Marshall commented on the prudent action by CWD of notifying the board and the public. PFAS information and copy of the letter to City Councilors and Water Board Members has been posted on the CWD website along with the CWD and Sam Lipson/Public Health phone numbers. Mr. Corda and Mr. Dowling said they are prepared to respond to any outreach from City councilors and the public.

B. MINUTES OF OCTOBER 17, 2019 MEETING

Mr. Burruss moved, and Mr. Marshall seconded the motion to approve the October 17, 2019 minutes as written. The vote was unanimous in favor of the motion.

C. OPERATIONS

Transmission and Distribution:
The CWD monthly updated list of lead services is currently at about 1,000. The original amount had been over 10,000.

Watershed:
As part of the goal of understanding the current ecological state at Blacks Nook, we will be sampling the sediments over the winter. Sediment chemistry will be analyzed to determine the basis for restoration. An option could possibly be spot dredging to make deeper holes for habitat.

It was also noted that the "stone lined" swales near the entrance of the treatment plant, have been redesigned and the new design will be implemented before the Greenway Project is completed.

Business:
No Comments

Water Operations:
It was noted the 22 rainy days in October were almost a record. We are exactly where we were last year, from a water storage perspective. Our average production is 12.65 million gallons per day. This number is trending down despite population growth in the City. Conservation, low flow fixtures, pro active leak detection.... It all helps. Our water registration (the maximum amount of water we can withdraw) is 16.16 million gallons per day over 365 days (a year).

Our newest water operator hire is working on their grade 4 certification. A Grade 3 is required, and a Grade 4 is our goal for all water plant operators, based on the processes we use, to operate the plant. All other treatment plant operators have this grade.

The board offered their congratulations to the laboratory on receiving the Charles C. Whipple Award for Excellence.

Engineering:
Central Square jacking operation/ quick comment: This DPW/sewer system project is utilizing a hydraulic press which will go under the subway about 30' and come up the other side.

D. ACTION ITEMS
None

E. MISCELLANEOUS CORRESPONDENCE AND ITEMS OF INTEREST
No Comments

F. NEW BUSINESS
None

G. NEXT MEETING DATES/TOPICS

- December 11, 2019 (Wednesday): Approved/Election of the President/Fresh Pond Reservation Rules & Regulations (Draft/redline version to be sent out in advance by Dave)
- January 14, 2020: Approved/TBD
- February 11, 2020: Approved/TBD
- March 10, 2020: TBA/TBD

Mr. Marshall moved, and Mr. Burruss seconded the motion to adjourn the meeting at 6:10 p.m. The vote was unanimous in favor of the motion.