Key Topics: Water Conservation Planning, Reservoir System Status,
DEP and NOAA/NWS Drought Status and Forecast,
DCR Greenway Lighting

CAMBRIDGE WATER BOARD

MEETING MINUTES
January 10, 2017

This meeting was called to order at 5:02 p.m. at 250 Fresh Pond Parkway, in Cambridge, Massachusetts. Those in attendance were:

Cambridge Water Board (CWB): Richard Johnson, Ann Roosevelt, Kathleen Kelly, Jim Burruss and Jason Marshall
Cambridge Water Department (CWD): Sam Corda, Fred Centanni, Tim MacDonald, Jamie O'Connell, Mark Gallagher and Linda Vierboom

A. MINUTES OF DECEMBER 13, 2016 MEETING
Mr. Marshall moved and Mr. Johnson seconded the motion to approve the December 13, 2016 minutes as written. The vote was unanimous in favor of the motion.

B. MANAGING DIRECTOR'S REPORT
Water Conservation Planning: CWD reached out to Cambridge residents in August via Tweets and the updated Water Department website, providing Drought Condition Status and Water Conservation Tips. Ms. Roosevelt commented that the shared use process has encouraged these types of communication. CWD began working with the City, last fall, to reduce irrigation on City owned land. CWD is updating and reviewing possible enhancements to conservation planning and will have a major campaign ready for the spring. The Department of Public Works, City Manager's office and Community Development will also be involved; with the kickoff meeting to be held within the next few weeks. Feedback is welcome. Cambridge uses significantly less outdoor irrigation as compared to suburban communities. Public spaces are a major importance in the City and DPW is looking at making the City irrigation systems more efficient as well as operating correctly. The biggest potential savings for the City is in irrigation reduction. Water based play areas in City parks are often complicated and unreliable. Manual operation may alleviate the risk of running all day. The green bag pouches on newly planted trees are efficient ways to water a tree. Plantings on the reservation will be a major focus, with emphasis on efficient methodologies to protect our investments. Indoor conservation has and will continue to be encouraged and looked at. Currently, daily average residential usage in Cambridge is 45-50 gallons per person. This amount is low compared to the state standard of 65. Saving this natural resource via conservation will help reduce our need for MWRA water during extreme drought conditions, however revenues will go down as water conservation continues or improves. Although a slight improvement to the drought has been seen, it is expected to continue; 10 or 15 inches above normal rainfall would be needed to get us fully out of the drought.
Reservoir System Status: We've been able to draw from Fresh Pond and Stony Brook to run all of our own water since December 12, 2016 and should be able to continue to do so for several more weeks and longer if average rainfall continues. It will be a significant savings not having to purchase MWRA water during that time. Hobbs Brook will not be used unless we have to in the summer. The idea to survive the drought is to minimize MWRA water and keep the reservoir system intact. Mr. MacDonald said we may be in a position in late spring or early summer where we are not able to continue to store water in Hobbs. This can happen due to the limited capacity at both Fresh Pond and Stony Brook reservoirs. The Stony

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Brook Reservoir, our smallest reservoir, has a 20 square mile watershed while Hobbs Brook is the largest of our reservoirs and has a 5 square mile watershed; as a result most of the rainfall in our watershed goes into Stony. The Stony Brook Reservoir has a spillway into the Charles River which typically spills every spring based on the watershed configuration and the small size of the Stony Brook Reservoir. Fresh Pond has no outlet (only what we are pumping out). Stony will gain elevation as it receives more water than is being pumped out of Fresh Pond to Cambridge. Ms. Roosevelt asked if a reverse pump, to pump water from Stony Brook to Hobbs Brook was possible, particularly if droughts becomes more common. Mr. MacDonald said that the feasibility of this option was considered about 20 years ago when the new plant was being designed. Based on the climate change perspective, the predictions are for increased water and temperatures in our area. Longer storm events and sea level rise are predicted, resulting in increased water, not less.

DEP and NOAA/NWS Drought Status and Forecast: Drought remains but improves. Weather maps handed out to members showed that 1/6 of the state, including Cambridge, has been downgraded from drought warning to drought watch. Mr. MacDonald will forward the drought/weather links to water board members. The Fresh Pond rain gage has been reading a bit off and is being repaired.

DCR Greenway Lighting: Cambridge bike path senior planner, Bill Deignan, told Mr. Corda that his department and the City Manager have agreed that they would like to light all Cambridge bike paths, if possible. The issue is that the bridge out of Kingsley Park and Huron Avenue (at the pine forest) is in an area where lighting would likely impact and disturb habitat and wildlife. The Water Department, Fresh Pond Advisory and the Water Boards would like that short section not to be lit. The City will make a recommendation based on a Community Development funded study. DRC does not typically light paths except for an underpass. It is their belief that bikers will have appropriate lighting on their bikes. With so many bike paths and no DCR budget to maintain them, it would be the City's responsibility to light. The City would fund the study, installation and costs for any lighting. The Advisory Board will discuss the options at their meeting next week. Mr. Corda will send out a list of pros and cons, as put together by Mr. Kaplan, regarding potential impacts of lighting. Ms. Roosevelt recommends waiting to hear both sides. In answer to Kathleen Kelly's question regarding the timeline, Mr. Corda said DCR has not received funding to construct the Greenway, although confident of the commitment and expected summer 2017 start date. Mr. Corda will let board members know when DRC gives Notice of Intent. DCR has agreed to all of the CWD's configuration changes within the Reservation. Lighting, or the lack thereof, will be the last item to factor in. Ms. Kelly asked if there was a plan to create a barrier either through a fence or vegetation, between the path and the area where people enter Fresh Pond through the Pine woods area off Huron Avenue. Currently there are several informal trails. Mr. MacDonald said we may plan some of that via long range access planning. Mr. Corda recommended that any changes to access through the pine forest be properly studied and defined through a formalized process with professionals that understand the Fresh Pond Master Plan and can work with us to come up with a plan and answers. Mr. Corda reminded all that a formal path must be ADA accessible. CWD would have to fund a commissioned study and there could be a two year delay on projects until the full impact of the drought is realized. Ultimately, it is up to the City Manager to carry through a directive regarding path lighting. Based on the DCR design there are no plans to change the entrance or exit at the pine forest area. Mr. Johnson suggested this concern be voiced at the Fresh Pond Advisory meeting.

C. OPERATIONS

Transmission and Distribution: MIT project to include underground garage and addition of 4,000 beds to campus.

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Water Operations: The plant has been staffed and running 24/7 since December 12th. Operators continuing to perform various maintenance projects even while the plant is running.

Watershed:
Zone "A": The watershed division conducted site visits and checked parcels with Mass DEP that were suspected to be zone A's. As a result, new areas received Zone "A" designation.
104 Boston Post Road: The proponents would like to develop the entire foot print of the parcel using historic mill properties so it won't need to adhere to normal policy. Septic is prohibited in Zone "A" and would need redundancy with an above ground system. Proponents have not submitted plans yet. Jamie O'Connell said the proponents have a lot of hurdles to go through. The Weston's Board of Health Director has met with CWD and the Town of Weston is keeping CWD very much up to date. Mr. Corda, Mr. MacDonald and Mr. Kaplan have met with the Cambridge law department.

Business:
None

Engineering:
None

D. ACTION ITEMS
Mr. Johnson moved and Ms. Kelly seconded the motion to approve the revised/updated Weir Meadow sign. The vote was unanimous in favor of the motion.

E. MISCELLANEOUS CORRESPONDENCE AND ITEMS OF INTEREST
No comments

F. NEW BUSINESS
None

G. NEXT MEETING DATES/TOPICS

- February 14, 2017 (Tuesday): Approved/Lab Tour/ Lead and Copper Rule Update
- March 14, 2017: TBA/TBD
- April 11, 2017: TBA/TBD
- May 9, 2017: TBA/TBD
- June 13, 2017: TBA/TBD

Ms. Kelly moved and Mr. Johnson seconded the motion to adjourn the meeting at 6:45 p.m. The vote was unanimous in favor of the motion.

Minutes approved by vote of the Board.

Signed: _____ Date: _____
Ann C. Roosevelt, President