

CAMBRIDGE WATER BOARD

**MEETING MINUTES**

September 12, 2018

This meeting was called to order at 5:00 p.m. at 250 Fresh Pond Parkway, in Cambridge, Massachusetts. Those in attendance were:

**Cambridge Water Board (CWB):** Richard Johnson, Ann Roosevelt and Jason Marshall

**Cambridge Water Department (CWD):** Sam Corda, Tim MacDonald, Mark Gallagher, Jamie O'Connell and Linda Vierboom

**KMDG Landscape Architect and Cambridge Resident:** Kaki Martin

Mr. Johnson announced that he will be recording the meeting.

**A. MINUTES OF MAY 8, 2018 MEETING**

Mr. Johnson moved, and Mr. Marshall seconded the motion to approve the revised May 8, 2018 minutes as written. The vote was unanimous in favor of the motion.

**A. MINUTES OF JUNE 2018 MEETING**

Mr. Johnson moved, and Mr. Marshall seconded the motion to approve the June 12, 2018 minutes as written. The vote was unanimous in favor of the motion.

**B. MANAGING DIRECTOR'S REPORT**

*Drainage and Community Garden Project:* Mr. Corda introduced Cambridge resident and landscape architect, Kaki Martin. Ms. Martin worked with Kleinfelder on the Drainage and Community Garden Project. This project included water quality improvements such as the perimeter path re-alignment and bio swale retention basins. The Bio swale between the perimeter road and reservoir is designed to filter and clean the stormwater runoff. This is the same strategy as was used in the Lusitania Meadow stormwater control system. The reservoir is buffered on the street side with high hummocks which were designed to accommodate climate change goals and anticipated rising flood levels. There are small breaks between the Hummocks with manageable zones where sand bags and/or temporary movable "dams" could go if needed. The former railroad track beds have been capped and the area planted with native plantings. The success rate of the plantings has been higher than normal. Trees that could be kept were kept, such as key Oaks and occasional Maples. The community garden, which was previously plagued with flooding and drainage problems, is now dry, ADA compliant and meets all City design standards.

The meeting was adjourned to tour the Drainage and Community Garden Project; led by Kaki Martin. During the tour it was noted that due to high dog usage, there is a strategy in place to protect the new plantings via the installation of long term temporary fencing (3-5 years). The fence may be kept in place longer, if needed, to ensure that all the new plants will fully establish themselves and thrive. There is a mix of diverse native plantings which are doing very well; are all under warranty. Near the garden there is the addition of a bike rack and drinking fountain. There is now a path, unofficially called "Chip's Path" leading into the garden and onto the perimeter rode. (Ms. Roosevelt suggesting a possible official naming of the path in honor of Chip.)

The meeting was returned to order at 5:52 pm.

Key Topics: Tour of the Drainage and Community Garden Project,  
40" Transmission Main Evaluation/ DCR Greenway Updates

*Future Water Board Meeting Dates:* The November and December water board meeting dates were approved.

*40" Transmission Line Condition Evaluation Update- Presented by Mark Gallagher, Director of Engineering and Distribution Operations* – The evaluation of the condition of the 40" transmission mains going up to Payson and back to the City is ongoing. The intent of this evaluation is to determine the existing condition, and based on this, recommend what a future course of action may be. The evaluation of the cathodic protection system, which was installed in 1999, was performed by the original installers of the system, Core Tech. It was found to be functioning satisfactorily and there is no need to replace or structurally line these mains at this time. The assessment was done by exposing pipe in the same locations as done 19 years previously at Glacken Field and Grove Street Park in Belmont. Ultrasonic instruments which measured pitting on the pipe, thickness of pipe and corrosive soils were used. Considering that the pipes have been underground for over 120 years, the pipe looked good and there was minimal pitting. Soil corrosivity at the Grove Street site was non-corrosive while Glacken Field samples were moderately corrosive. The data indicates pipe walls look in good shape. The cathodic protection system operation (which protects the pipe from corrosion) was checked and deemed operational and working but not to its full potential. Recommendations have been made to optimize the system and maximize the life of the transmission mains. The leak detection team, Pure Technologies, will perform internal leak detection, tentatively, at the end of the month. Three locations where the pipe will be exposed have been finalized and it will take one day per area to complete. The intent is to determine if there are any leaks in the 40" transmission mains. The leak detection is performed using a probe with a parachute inserted through a 2" corporation stop; the flow of the water will propel the probe to test the entire pipe. The probe will show the magnitude and location of any leaks. Leaks can be repaired "live" with wood plugs and new steel pieces welded onto the outside of the 40" riveted steel pipe. Mr. Gallagher said the term "Fire Plug" was a historical reference to spots/holes in the pipe where plugs would be taken out for firefighting. In short, so far there is good news about the main. The last piece of the puzzle will be looking from the inside.

*DCR Greenway Update:* Mass DOT awarded the contract. Brush removal has been completed. Rails began to be removed in late August. The lighting demonstration/pilot (3 lights) is available to view and a map of the exact location at Daney Park was provided.

*CIPP Status:* We have started the work on the study and hope to have it at the October 16<sup>th</sup> meeting. The intent was to put together a draft report subject to discussion, critique; corrections. The preferred methodology for review is to get the documents early for a more active discussion. Providing the draft report in advance of the October meeting may not be doable. Mr. Corda will let Ms. Roosevelt know how far along the CDM component is in a couple of weeks. November may be a better date to discuss and review the report.

## C. OPERATIONS

### **Transmission and Distribution:**

*Ms. Roosevelt asked if there were a way to prioritize water main replacement. Mr. Gallagher replied that there is a priority list in place factoring in age, material, fire flow, leak history and then if it is scheduled under Department of Public Works for street replacement. If they all align they become the highest priority water mains.*

**Watershed:**

Drilling under the Salt Depot Brook by Eversource was discussed. When asked if there is impact for us, Ms. O'Connell said that there shouldn't be because they will restore any damage, if any, that they have caused.

It was asked if redevelopments were detrimental to our watershed. Jamie O'Connell said she sees redevelopment as a good thing for us because redevelopment typically results in significantly improved storm water management, resulting in higher water quality as compared to before the project.

*Mr. Johnson referred to an article in the Globe today regarding "E- Bikes" on the Minuteman Bikeway. The E-bikes probably will be coming here, too.*

**Business:**

No comments

**Water Operations:**

Mr. MacDonald said we have complied and shut down the plant as contracted with C Power to reduce loads to the grid during emergency periods. We've also been doing Demand Response to drop off the grid during peak demand days and commented that we have hit every one. ISO New England has a very useful app in determining the peak demand hour and day.

*Mr. Johnson commented that he liked the addition of the "Precipitation, Difference from Normal" chart on the water summary report.*

**Engineering:**

No comments

**D. ACTION ITEMS**

None

**E. MISCELLANEOUS CORRESPONDENCE AND ITEMS OF INTEREST**

No comments

**F. NEW BUSINESS**

None

**G. NEXT MEETING DATES/TOPICS**

- October 16, 2018: Approved/ Study Draft Report Discussion
- November 13, 2018: Approved/Study Report/Customer Service
- December 11, 2018: Approved/ Election of the President/Study Report/Customer Service
- January 8, 2019: TBA/TBD
- February 12, 2019 TBA/TBD

Mr. Johnson moved, and Mr. Marshall seconded the motion to adjourn the meeting at 6:46 p.m. The vote was unanimous in favor of the motion.