

Minutes
March 3, 2017

The Wastewater Advisory Committee to the MWRA met at MAPC, 60 Temple Pl., Boston, MA

Attendees/Contributors:

WAC: Taber Keally (chair), Craig Allen (vice chair), Stephen Greene (by phone), Adriana Cillo, Karen Lachmayr, Martin Pillsbury, Beth Miller, James Guidod (AB)

Guests: Wendy Leo, Karen Heinze (SCLF/Xyleco), Gina DeNapoli (BWSC), Kenneth Bates, Stephen Cullen, Carol Leone (MWRA), Philip Ashcroft (NEWIN), Debbie Cheng, Diane Stokes (Cambridge DPW)

Staff: Andreae Downs

FUTURE MEETING DATES/TOPICS

NEXT: TUESDAY, April. 18, 10:30am: Auditor's Water Finance report (Thomas Champion); MWRA budgets (Kathy Soni, Tom Durkin), Waterworks Museum, 2540 Beacon St., Chestnut Hill, MA

VOTES:

February 2017 minutes approved
Karen Heinze membership approved

EXECUTIVE DIRECTOR'S REPORT:

- Deer Island saw record low flow during this year's drought.
- Sewer meter repairs have changed sewer assessments
- 2017 is a challenging budget projection year for MWRA because of uncertainty—EPA changes, HEEC cable, diesel and chemical price volatility, health insurance increase rates, and lower financial returns on the health trust fund (OPEB) are all playing in
- New contract to get specialists to Deer Island to look at possibilities for heat & power before deciding how to replace the 20-year-old heat plant
- Revised MWRA master plan is due in a year or so
- Chelsea Creek Headworks rehab, \$75m, has started
- WSCAC meeting on private wells and groundwater tracking
- Solid waste conference: landfills are closing, 7 trash-to-energy incinerators, Bourne digester trial wasn't economically feasible; Plymouth WWTP is exploring one; trash disposal reduction is on track across the state. Food waste—down 20-25%. Going to food pantries, also composting or digesting on farms. WAC will tour the Greater Lawrence WWTP and co-digestion pilot in May 2018

ADVISORY BOARD UPDATES:

- Report out of the Auditor’s office on water infrastructure and how relates to economic development
- Cost of water infrastructure state-of-good-repair correlates with the earlier state study
- \$20b need over next 20 years state wide
- Auditor’s report had ideas on how to finance

MWRA UPDATES:

- On Deer Island—the valve and pump replacement for the 10 giant pumps in the North Main Pump Station continues, and are about half done.
- EPA has granted MWRA and OMSAP’s request to remove the emergency notification of exceedances of two measures, now shown not to be triggered by the outfall.
- Moving forward on measures for testing the CSO system as required.

PRESENTATIONS & DISCUSSION:

Stephen Cullen and Kenneth Bates

MWRA Sewer system includes 275 miles of pipes, interceptor pipes, force mains.

227 miles of gravity sewer. Municipal sewers feed to these.66% of work is preventative inspections—these can generate work orders.

Inspection equipment includes remote control cars/boats. Not yet wireless.

For most pipes, use closed circuit TV inspection, pole cameras (sewer selfie sticks). For siphons, which go over/under rivers and are full of water, they use sonar.

Goal to inspect 32 miles of pipe each year, so whole gets inspected every 7 years. As they inspect, they rate the condition of the pipe. Siphons are inspected every 3 years. Other structures—manholes, head houses, etc. inspect 650/year.

Q: How has the drought affected maintenance?

Actually, helpful—can see more of the pipe

New software gives operators step-by-step instructions. Grouped geographically. Asset condition drives frequency of inspections.

Separate maintenance efforts for the sewer pumps.

Examples of remote controlled camera bots—as the operator detects an issue, the software generates a work order to clean, inspect again, or repair.



Closed Circuit Television Inspection(CCTV)
Pipe Transporters – Small/Large Pipe

Once something is detected, the MWRA sends out cleaners—vactorjet trucks, scrubbers, clamshells

Operations also inspects all CSO outfalls, wetwell cleaning, repair manholes and headhouses, and are out in the field during wet weather.

Clamshells are used for large debris—sometimes find 2x4s in the sewers

MWRA rarely rents equipment, because they use these trucks so often—pays to own.



SIPHON BARRELL CLEANING EQUIPMENT

Examples of buckets, porcupines, other cleaning equipment. Every day is a little different, because each sewer pipe, surface area and obstruction is different.

High maintenance equipment—have a shop that just maintains the equipment.

Training examples—railroad safety, confined space, CPR, first aid, flagging safety, hazardous waste, construction safety



SEWER SIPHON CHAMBER/MANHOLE REHABILITATION



<<- Examples of repairs staff made to structures

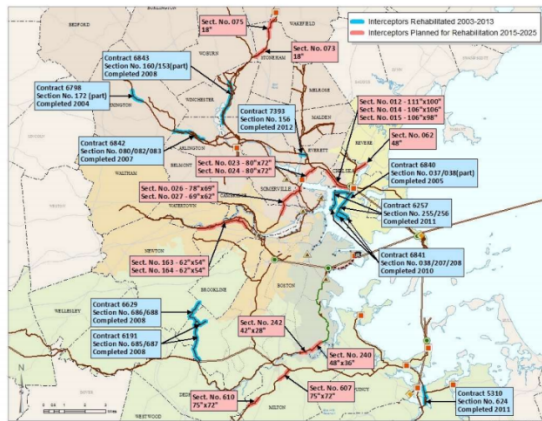
Map of what has been rehabilitated, and what is planned.

What is the cost for this whole activity?

It increases every year—big push from management to do the maintenance that needs to be done.

The MWRA Capital Improvement Program looks ahead 5 years. MWRA wastewater staff generally look out 2 years when scheduling work.

MWRA INTERCEPTOR PROGRAM



MWRA is working on lots of little projects, and planning several at a time so that they can keep moving forward on something while getting over hurdles on others.

30 staff on pipe maintenance and inspection.