

Minutes
April 18, 2017

The Wastewater Advisory Committee to the MWRA and Water Supply Citizens Advisory Committee met at the Waterworks Museum in Chestnut Hill, MA

Attendees/Contributors:

WAC: Craig Allen (vice chair), Stephen Greene, Adriana Cillo, James Guiod (AB), Karen Heinze

WSCAC: Whitney Beals (Chair), Jerry Eves (TU), Bill Copithorne (Arlington), Bill Fadden (OARS), Michael Baram, Terry Connolly (TU), Paul Lauenstein(NepRWA), Janet Rothrock (LWV)

Guests: Wendy Leo, Chris Goodwin, Kathy Soni, Tom Durkin (MWRA), Thomas Champion (Auditor), Gina DeNapoli (BWSC),

Staff: Andreae Downs (WAC), Lexy Dewey (WSCAC)

FUTURE MEETING DATES/TOPICS

NEXT: Friday, May 5, 10:30 am, **Tour of Deer Island**, 190 Tafts Ave, Winthrop, MA 02152

PRESENTATIONS & DISCUSSION:

Kathy Soni & Tom Durkin, MWRA, on the MWRA's Current Expense Budget (CEB) and Capital Improvement Projects (CIP)

CIP--FY18 Proposed Budget:

MWRA is in its final year of a 5-year spending cap of \$800 million. So far, the Authority has spent \$550m, which will mean \$250m underspending. Mid-way in FY15, the Advisory Board recommended that community assistance funding be excluded from the cap--which accounts for part of the underspending.

Now that the Combined Sewer Overflow (CSO) program is substantially complete, the CIP focus moves to asset protection (maintenance), and redundancy on water supply.

The Metropolitan Tunnel redundancy project is probably the Authority's last major effort in water redundancy. It will hit the budget most in 2023-2026

Debt levels continue to be reduced.

New projects this year \$85m water/\$37.4m wastewater

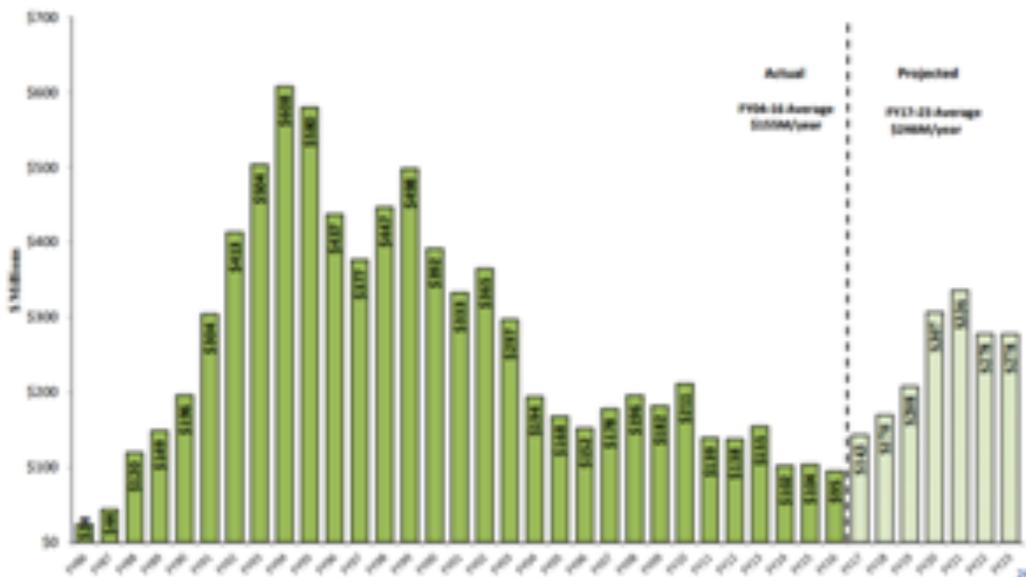
\$15m for the Quabbin Administrative building--it is not MWRA asset, but badly needs repair. It will need more than that eventually.

Nut Island is a very large project--learning from the Chelsea Creek headworks project.

Asset protection (capital maintenance) part of CIP, but \$25-30m/year is just maintenance in the CEB

CIP Category	FY09-13	FY14-18	FY19-23
Asset Protection	30.1%	51.2%	62.5%
Carroll WTP	4.7%	2.0%	0.4%
Water Redundancy	16.3%	20.1%	28.1%
CSO	38.2%	10.8%	0.4%
Other	10.7%	15.9%	8.6%
Total	100.0%	100.0%	100.0%

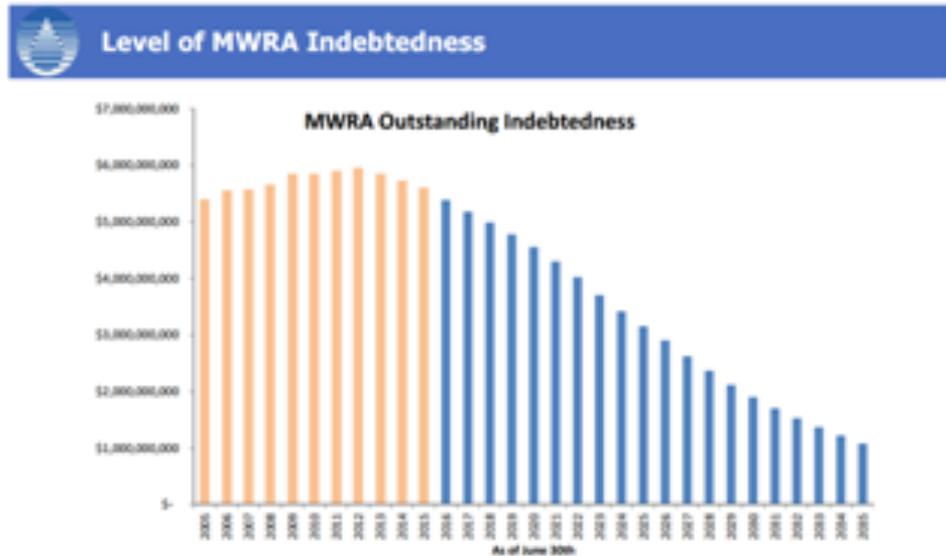
 **Historic and Projected Capital Improvement Spending**



Of the \$152m in new wastewater contracts, the majority is an \$80m clarifier rehab at DI.

Debt: declining, but

2022 is the most challenging year for repayments as of this year. 2022 is the focus of MWRA's defeasance strategy.

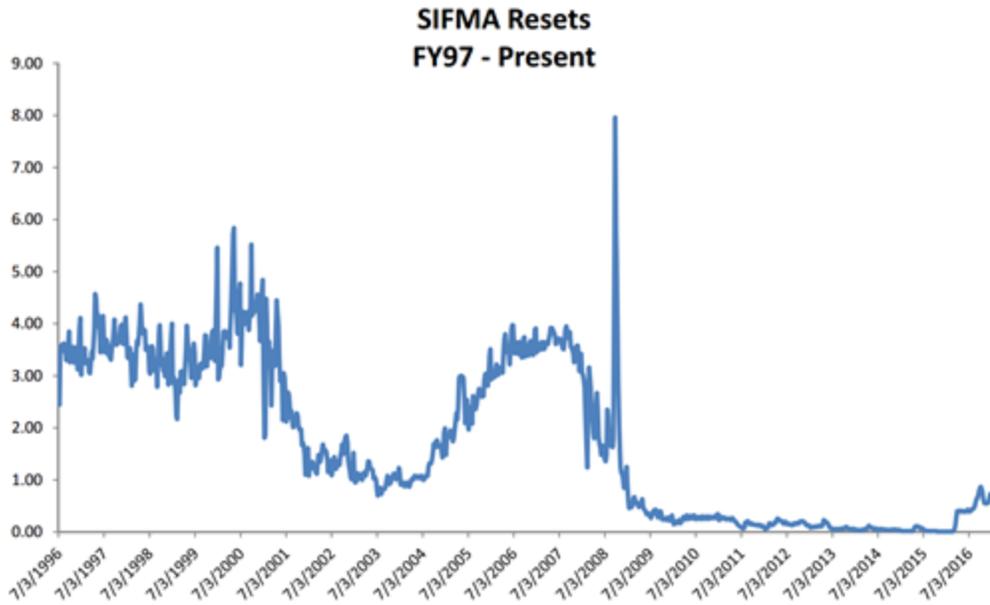


CEB

Managing uncertainties--keeping rates predictable

Debt eats up a lot of the budget (63% this year), and drives the increases in the budget. If debt can be controlled, then the rate increases can be more predictable.

This year highly uncertain global and domestic events may impact variable interest rates. Interest rates have been at 1%, but already seeing changes



Interest rates affect how much MWRA pays in interest, but also what it collects in interest on reserves.

Volatility also in construction costs, chemicals, environmental regulations, etc.

Taxes--if they go down, the benefit MWRA gets from issuing tax-exempt bonds--so they may have to increase interest paid to attract investors.

The Harbor Electric Energy Corporation: HEEC, put a cable to Deer Island from K Street in South Boston in the late 1980s. MassPort now looking to dredge the harbor to allow bigger ships. Investigating what was in the area, the Army Corps discovered that the cable was not at the depth specified in the permit, and was closer to the surface than the as-built diagrams showed. Has been a dispute at the highest level about just what to do and who will pay for it.

Three years ago, est. was \$12m to armor the cable. Now it's \$40m.

Bigger dollars are in not using the cable--MWRA's concern. MWRA required to have back-up electricity--diesel generators. Enough to run the plant without the cable, but much more expensive.

With all the cost considerations involved in energy purchases--and the cost of keeping the generators running--about \$50m, when include renting backup generators. May be a way to do without impacting the budgets. But it is the biggest challenge facing us today.

Already, MWRA has had to buy more diesel fuel because of the HEEC cable being turned off for the exploration of where exactly it sat in the harbor.

Q: So who benefits from the dredging?

Tom Champion: The whole regional economy. Trend to larger & larger container and passenger ships. When the Black Falcon terminal opened, it brought in a lot more cruise traffic. The container facilities, under the Tobin Bridge and in South Boston are old now. The larger vessels cannot get in to the Port of Boston. Maintaining a connection to the rest of the world--all the cars sold in New England now come up from New York on the highways. Benefits are considerable, but diffused.

Q: Similar issue in the protection of the Wachusett from oil spills.

TC: this is simpler, because you have a private entity trying to shift its environmental risks onto other people. MWRA needs the electricity & will buy it from somebody. I don't think Eversource makes money off hardening the cable, just selling electricity.

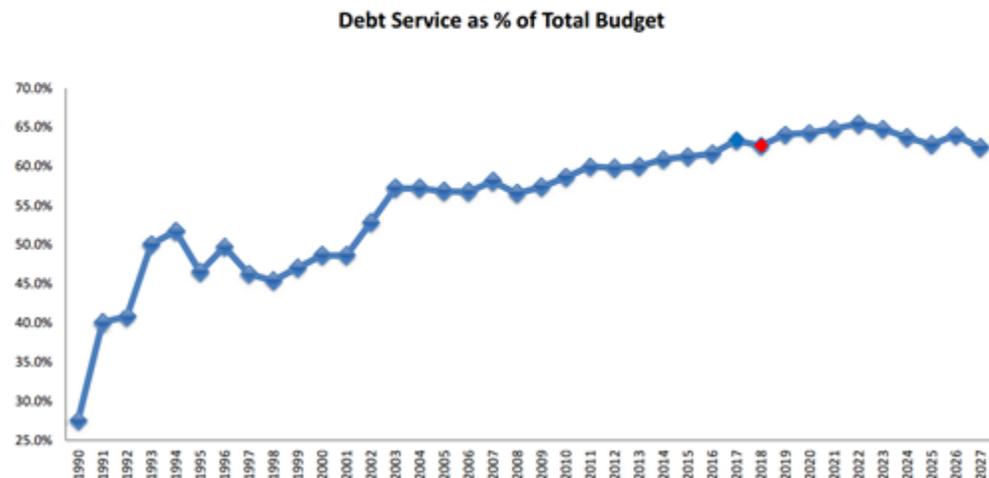
Q: If Eversource built that--it's like the contractor who didn't do the job you paid for, they have to come back and fix it. Why should we?

A: back in 1989, MWRA signed on as a co-permittee. So Eversource says 'we're partners in this!'

Q: how far along is the thinking on the rail line in the Wachusett?

A: Board of Directors have a reservation about buying an asset MWRA wouldn't control. Discussion about how much to buy and whether MWRA can do it. They are meeting in the governor's office.

Capital Finance Expenses – Peak in 2022



Q: So if the cable were as deep as it should be, would it be deep enough for the dredging?

A: Yes. And if it weren't, it would be the Federal government who would be responsible--for permitting it where it was a problem.

Another assumption is that if the EPA issues a new NPDES permit for Deer Island, that may include a requirement to eliminate enterococcus--which is done with chlorination & dechlorination--for a half year, MWRA is putting \$600,000 as a placeholder in the budget.

Debt as a percentage of the total budget--this is what concerns us. By 2021, debt as a percentage of CEB peaks--working to get us through the next 4 years:

The Metro tunnel is in here--cash flows start in FY18 with design, construction after 5 years, and is layered in until 2036.

Q: Will this spike up again?

A: This is a percent of budget. You saw the debt service as a mountain that peaked some years ago? The metro tunnel at \$1.4b and the debt service payments are layered in after the peak starts to drop.

Looking at pay-as-you-go capital financing--what are best practices. Gives MWRA more long-run flexibility, less interest to pay. Like a downpayment.

Rate of increase of expenses ideally is 2.5%, corresponding with inflation at 2.5%--there won't be a time when rates stay the same or go down. But in long-term should hit 2.5% and stay there.



FY18 Proposed Current Expense Budget (CEB)

Highlights – Capital Finance Expenses

- Variable Rate Debt Assumption 3.50%, 25 bp increase
- \$20 million defeasance built into the FY18 Budget
- \$10.9 million prepayment of debt built into FY18 Budget
- \$1.0 million continued commitment to increase Current Revenue for Capital
- No Debt Service Assistance

61

If MWRA gets state Debt Service Assistance, it will apply those funds to next year's rates--eliminates uncertainty.

Tom Champion, State Auditor's Office: The Cost of Water Infrastructure

The Division of Local Mandates (DLM) was created to investigate possible unfunded mandates, and look at additional implications of state law & policy on municipalities.

The Water Infrastructure Finance Commission (WIFC) in 2012 looked at water infrastructure in the state and what maintenance would cost.

Now with SWMI (Sustainable Water Management Initiative--a Massachusetts DEP program) and MS4 permits (municipal separate stormwater system), time to have another look at the costs.

Heard "holistic" from many sources, and became the way we started to look at the issue:

Auditor sent out surveys to all 351 communities and got 146 back. Majority of larger communities. Covers 64% of the Commonwealth's population. Good basis for analysis.

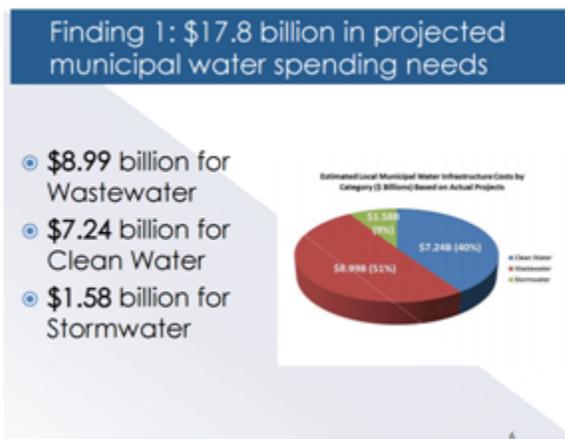
Water Systems and the Concept of a "Holistic" Approach

Mass WIFC: "Need to look at regulation more holistically . . . in funding projects to give us the highest public benefit [and to] use scarce resources in the most efficient way."

Mass Waterworks Assoc: "Unlike regulators, [communities] not have the luxury of only concentrating on each program one at a time."

Findings:

1. \$17.8b in projected water infrastructure needs. This is low. Basic takeaway is that this is a big number. Stormwater number probably too low. Comes in part from municipalities looking at current spending plans, not at actual cost impacts of the new MS4 permit.



- a. Our recommendation to the state: STOP lending. START granting money. Otherwise it won't happen
 - b. Recommended \$50m/year for next 10 years--won't eliminate the gap, but will establish a principle.
2. MS4 permit compliance will add \$2b in municipal water expenses
 - a. Municipalities should start establishing stormwater enterprise funds that function as water & sewer funds do.
 3. Regional collaborations--like MWRA--are the exception

- a. State legislation needed to get to the same level of professional, shared, approach to water needs that MWRA can.

Q: How can you apply that to stormwater?

A: Small regional collaboratives share technical resources and expertise. Do not impose rates or performance requirements. MMA has established a statewide collaborative, chaired by the town administrator of Charlton, MA.

4. State loan and grant programs are going to only 42% of communities
 - a. Change repayment options--allow interest and principle forgiveness for the State Revolving Fund (SRF)
 - b. Increase DEP funding for outreach to municipalities
5. Only 6% of DLM's survey respondents have any kind of climate change plan for water infrastructure--not just at the coast but well inland around rivers.
 - a. Convene state summit on climate and municipal water infrastructure
 - b. Give municipalities expert assistance on this matter

Q: couldn't there be a carrot & stick? If you don't include climate planning in your infrastructure upgrades, you don't get the money?

A: But first step to build public awareness. You are right--incentives would also help.

6. Innovative technologies that would save money are not being adopted (only 18% of respondents indicated they were adopting)
 - a. Review regulations and practices to remove barriers
 - b. Get communities more funding to adopt new cost saving technologies
7. Communities would rather have DEP administer stormwater permits than EPA

Q: one of the questions is who funds that?

A: Delegation--should not be entirely a state budget line-item. Needs a variety of funding sources. State legislature has not been a dependable source of DEP funding

- a. Fund DEP's administration of wastewater permits with a variety of sources
- b. Create 10-year rolling capital investment compacts for stability & predictability.

The Auditor's reports go to the Governor, Legislature, and as widely as possible. MMA also.

The US Government Accountability Office (GAO) predicts for many of our inland cities: big bills, declining population and other water issues to impact the financing of water infrastructure in the future.

We may see more money going into the SRF, and have it called investment, even though it gets paid back.