

**Minutes**  
**April 24, 2018**

WAC and WSCAC met jointly at the Waterworks Museum in Chestnut Hill

**Attendees/Contributors:**

**WAC:** Craig Allen (chair), Stephen Greene, James Guidod (AB), Philip Ashcroft, Mary Adelstein, Taber Keally, Adrianna Cillo

**WSCAC:** Jean McClusky, Roger Wrubel, Bill Kiley (BWSC), Paul Lauenstein, Bill Fadden, Whit Beals, Jerry Eves

**Guests:** Wendy Leo, Kathy Soni (MWRA), Joseph Favaloro (Advisory Board), Joseph Szafarowicz (Arlington), George Atallah (Triumvirate), Lou Taverna (Newton, Advisory Board)

**Staff:** Andreae Downs, Lexi Dewey

**FUTURE MEETING DATES/TOPICS**

**NEXT:** TOUR, May 4, 10:30 am Greater Lawrence Sewer District, North Andover, MA

**VOTES:**

March 2018 minutes approved  
George Atallah nominated for WAC membership

**EXECUTIVE DIRECTOR'S REPORT:**

See attached

**PRESENTATIONS & DISCUSSION:**

**FY19 Capital Improvement Budget and Capital Expense Budget**

Kathy Soni, MWRA Budget Director

Total CIP spending since 1986 has been \$8.2 billion; future CIP spending is at \$3.3 billion from FY18 to FY46.

**CIP Cap:** Because the CSO Program is winding down—data analysis remains to be done—the focus is really on asset protection and water redundancy.

Kathy recounted the significant water redundancy contracts for FY19-FY23. She discussed, for instance, the Southern Extra High Redundancy and the Northern Intermediate High Redundancy. Kathy then recounted the asset protection projects and reviewed the cost of each.

Kathy discussed the top spending contracts for FY19. Construction for the Chelsea Creek Headworks Upgrade is projected to cost the most, at \$25.8 million. Lead Service Line Replacement Loans are projected to cost \$5.0 million.

**Current Expense Budget.** The goal, as always, is to deliver sustainable and predictable assessments. Kathy recounted the ways in which the Authority addresses debt service, such as defeasance, refundings, and use of reserves.

Kathy provided an overview of the Authority's long-term liabilities, and discussed the actual and forecasted rate revenue changes. The projected rate revenue change for FY19 is 3.9%.

Kathy highlighted the proposed direct expenses and compared them to FY18 actuals. Wages and salaries, for instance, will see a 2.7% increase. Fringe benefits will see a 3.7% increase. Kathy also discussed the indirect expenses. Watershed Program Operating costs and PILOT payments will see a 3% increase; insurance and mitigation will be level funded.

Kathy concluded her presentation by summarizing the process to come. The Advisory Board review will endure for sixty days; a public hearing will then take place, followed by the MWRA Board Hearing. Staff will present the final draft budget to the Board of Directors May 30.

Paul Lauenstein thanked Kathy for her presentation. He asked if she could comment further on the impact of rate increases on the financial status of the system. Kathy stated that if the variable rate increases, that margin, will shrink; thus, the MWRA must be cautious. The intent is not to run a huge surplus.

A WAC member posed a general question about the way in which the system is setup. He stated that he understands it would be advisable for a town to fix leaks—because they're paying for that water—but why is it in the interest of the MWRA to fix the leaks? Lou Taverna of the Advisory Board explained that it is generally cheaper to let the water run to waste, but it becomes a question of capital improvement and additional resources. If you do not fix the leaks, the amount of lost water continues to increase, and then the MWRA would be required to find new sources/build new reservoirs.

## **The evolution of Advisory Board budget review and comments**

Joseph Favaloro, MWRA Advisory Board

Joe Favaloro, executive director of the AB, explained the statutory purpose of the AB. Ultimately, the intent is to provide the Authority with recommendations that benefit communities. Joe has participated in this budget process for 30 years.

Historically, the budget review was an attempt to find the sweet spot between what to cut and what to keep; budget numbers originated at \$400+ million/year in capital expenditures. In order to accomplish this, the increases on the revenue side need to be in the double digits annually. Communities struggled to keep up. The Advisory Board, would produce two documents: the capital budget comments and the current expense budget comments. Both were incredibly detailed, with small cuts that would move the numbers down as far as they could go.

Over time, the Advisory Board sought to take more of a global perspective in its review. Joe discussed the year in which the Advisory Board advocated the CIP Cap. He stated that the review became a combined approach—the Advisory Board looked at overall need. The question is no longer how many dollars are specifically needed in any one division, but what is the overall need of the MWRA and how can debt be whittled down. The Advisory Board works with the MWRA and there is a back and forth. Joe recounted implementing the position that rate increases would not be more than four percent in a year (“four no more”). This position was initially applied only on the water side, but the Advisory Board kept pushing and secured the position for the wastewater side. He summarized the role of the Advisory Board—to be constructive in nature and to see how far they can push in order to find the sweet spot.

The new approach the Advisory Board has put out on the table is “2.4 by 24.” The Advisory Board also advocates for what they call, “save it forward.” The MWRA—through use of defeasance and other funds—can in fact push the savings that are projected for FY23, FY24, and FY25 forward and use them to keep rates down. Nonetheless, Joe explained the effort is cooperative.

With reference to the next five-year CAP, Joe stated that the MWRA Advisory Board recommends that the MWRA spend under a billion dollars, \$950 million. In the spirit of not being disingenuous, the Advisory Board removed all of the community projects; I/I and lead pipe replacements are not part of this number.

The Advisory Board Operations Committee recommended—for the next two phases of I/I—\$90 million per phase. The Executive Committee increased that to \$100 million per phase. That would provide communities with needed dollars to repair their systems.

There are six or so communities that are very aggressive in using up their I/I money. Thus, the Advisory Board recommends a third fund: another \$100 million, for interim I/I loans. So in other words, if a community has used its Phase 11 and Phase 12 monies, MWRA can provide zero percent interest loans, so it can continue to do its projects.

Joe then discussed the Proposed FY19 Current Expense Budget. Joe recounted that the former Advisory Board chairperson, Katherine Dunphy, would ask if the Advisory Board could summarize its recommendations onto one sheet of paper. The idea was to be able to determine, in one look, what numbers were going up, and which were going down. In deference to her, the Advisory Board has created a Dunphy sheet. For FY19, the Authority’s proposed budget rate revenue increase was 3.9%. The Advisory Board counter-proposed 3.07%. This would still provide the Authority with what it needs for the year. Looking forward, Joe discussed the projected negative rate increases. Reducing rates, Joe explained, is not a good idea for communities. In order to address this negative rate increase, the Advisory Board suggests pushing the savings forward and using some of those projected opportunities that were set aside for FY24 and FY25 and utilize them in FY19-FY22. What you end up getting is an overall blending of rates so that the MWRA can stay in the 2.4% range.

Joe then discussed the sale of water. He indicated that a Weymouth Naval Base development is a huge economic driver; they need water to grow and the MWRA has water to sell. Although this

equation is seemingly straightforward, politics invariably delay the reaching of a deal. In the Advisory Board's budget comments, they indicated that they are working with the legislature to put a \$25-million-line item in the economic development grant for water supply mains so the Authority can get out to different parts of the system, for the purpose of economic development. Peabody is going to be taking more MWRA water, and is one of the first projects in this regard.

With respect to capital financing, the Advisory Board believes it should be life-asset based. The biggest project coming is in fact Metropolitan water redundancy (about \$1.5 billion, give or take). The life expectancy of the Metro pipe is about 120-125 years. Joe explained it makes sense to capitalize this interest over a longer period of time because of its expected lifetime; this does bring up the issue of "generational equity."

Joe then discussed benefits for communities, such as sustainable and predictable rates. He then transitioned to a discussion of storm water fees and outlined the intended timeline for their implementation. Newton has theirs in place, and Joe believes that Boston Water and Sewer Commission will have theirs in place by this time next year. The hope is that the Advisory Board is making it easier for communities to take the next step.

Lexi and Andreae thanked Joe for his informative presentation and opened the floor to questions.

A committee member stated that the big project looks like it's the Metro Tunnel. He asked if energy production has been looked into—the project seems like such an opportunity. Has the Authority analyzed the possibilities of optimizing the energy produced by the tunnel? Joe replied that he does not have a specific answer. But such questions are being considered, as this project is just in its infancy. Joe noted that the Authority is adopting a program management approach to the project and has hired two staff persons, including a Director for Redundancy.

Paul Lauenstein asked if Joe foresaw achieving the reduction in the revenue rate increase by deferring projects or by borrowing more money. Joe said neither; it is the product of strategy. Assumptions change as the process moves forward; you reevaluate pension contributions; and pieces shift as they come together. There are different opinions on how to get there—but there is no deferring of projects.

Lexi asked if Joe could expand on the \$25-million-line item in the legislature. Joe recounted the process of the Environmental Bond Bill and their Economic Development Bill. The line item would be put in for Mass Grants that would be used for pipeline projects that can illustrate the economic benefit of putting in the pipe.

The meeting was adjourned.

# March WAC Director's Report

## 3/7/18 Environmental Business Council Breakfast on Delegation

With DEP's Stephanie Cooper (now in Beth Card's position) & Doug Fine. Also Phil Guerin of Worcester DPW

Cooper: Reasons for Massachusetts to take on the program:

- NPDES backlog at EPA
- Everyone else has delegation
- Baker has committed \$4.7m/year (legislative allocation)
- DEP can use better Science (integrated water management)
- DEP has better local knowledge

Margaret van Deusen (CRWA): DEP could do integrated water management today, without delegation. Even with the backlog, EPA has done a good job with NPDES. Cast doubt on the adequacy of \$4.7m in funding, when earlier studies had said \$8-10m

Cooper: We realized we would not need senior staff for every position. \$1.5 m is for contractors, mostly in water monitoring (ie grants for watershed organizations)

Cited work DEP is now doing measuring Nitrogen loads on the CT river and LI sound. Fears that EPA will set tighter nitrogen controls on wastewater treatment plants, when they may not be the source of most of the nitrogen on the river.

CT has a nitrogen trading program on the CT River/LI sound, which is highly effective at removing nitrogen.

Said DEP won't get additional water quality monitoring staff without delegation.

Guerin:

- NPDES science is flawed
- EPA is not as approachable as DEP
- Urged those in attendance to lobby the Joint Committee on Energy, Natural Resources and Agriculture to move the bill (was since moved to study—effectively killing it for this term)

Comments; Most delegated programs have a blended financing model.

Municipalities are OK with fees using the drinking water model, but only if the funding isn't "poached" for other needs—as was done with some of the drinking water fees recently.

Environmental community wants better oversight. Drinking water permits now raise about \$2m, and if the wastewater program were entirely done by fees on this model, it would cost the average public water user \$5/year to fund the entire program (Tom Champion, from the auditor's

department). Would want to add an inflation escalator to the fee, as drinking water fees are falling behind costs.

## Water Resources Commission 3/19

February was warmest on record in Boston. Precipitation is now above normal in all areas of MA for the first time since the 2016 drought. Streamflow has also fully recovered. Groundwater has mostly recovered. Predictions are for above normal temperatures and precipitation for March.

WRC draft Water Conservation Standards—first put out in the 1990s. Most substantial update 2006. Out for comment until March 23. Commission worked through chapters, discussing whether to add flexibility to some of the metrics for greater conservation, metering and seasonal rates, also whether water rates could be better used to encourage water conservation. Water leak work should also include I/I, since water leaving the community via the sewers is also impacting groundwater levels.

Suggestion to have state water conservation standards on new appliances, like Energy Star. Energy scorecard legislation coming that could also be water related. National “water sense” standards for builders and appliances. LEED also uses Water Sense.

Also, conversation about private wells and enforcement of drought restrictions.

## 3/21 MWRA Board

**Water:** state of community water assistance (leak repair, metering)

**Lead and copper:** lead levels continue to go lower, with corrosion control, but best to have none. Stagnant water in lead pipes. Lead service line replacement program: MWRA funding \$100m (0% loan/10 years) but not anywhere close to spent (5 communities, \$7.5 m). Authority is pushing for full (public and private) line replacement. Also pushing for galvanized line replacement because some, esp. in Quincy, were lined with lead. Work is complex, with homeowner coordination, so replacement running between \$5-8,000 per house. That includes sidewalk replacement, etc. Estimate 8,000 lead service lines and 40,000 goose neck connections. Primary source of lead in children still paint unless child is bottle-fed and not yet crawling.

**Personnel:** new position in engineering and construction management of the city tunnel redundancy project (\$129-\$ 180K). Created. Hope to hire (from outside) in April. Expect 2 years of permitting, and to hire staff for this team as it gets more complicated. Board requested a full organizational chart. Deer Island’s project management group totaled 45 people at its peak. Should be between 5-15 on this project according to the Advisory Board budget review. Steady state for MWRA is 1150, but with retirements, regularly are under that.

**Finance:** fleet: currently worth about \$30m. Includes heavy equipment, trailers, mobile generators, cranes, etc. Will be buying more energy efficient vehicles to reduce emissions from transportation. Authority owns 112 passenger cars (not personal cars) that can be hybrid or electric. Heavier equipment isn’t likely to have to conform to emissions guidelines soon.

**Budget:** current variance is about \$10m, cumulatively.

**Wastewater:** Deer Island flows during storms of March 13<sup>th</sup>—mainly snow event, but power outage at south boston transformer. Affected 10 wastewater Facilities and all of deer Island. Generators back online in 10 minutes and brought processes back slowly. First pumps back in 20 minutes. Went from 500mgd to 0, so headworks shut gates to control. No SSOs. Process information control was also down for an hour and more people had to be deployed to monitor processes. Resulted in a reportable blending event. All effluent standards were met. Looking at why utility power went down and assessing whether the Authority should fire up the generators more often.

I /I financial assistance: More interest from communities. 13 of the 43 communities have taken all of their money. Staff placeholder for the next two rounds is \$120m, down from \$160m in rounds 9&10. Estimate that I /I generally is down for both north and south systems.

Beaton update: environmental bond bill filed by Gov., including climate resilience and adaptation; fixing DCR deferred maintenance of assets. Boston as example of resilience planning. Now before Legislature.

**Laskey report:** Bonnie Hale retiring

Showed pictures of MWRA flood protection before the last few storms—newly anticipating flooding before storms. More severe damage during the high tides and storm surges shown in the boston harbor islands and at the Navy Yard. Waves came up over the top of the digesters. Deer and nut islands cut off from the mainland. Chelsea parking lot also flooded. New norm?

## MWRA Board 4/18

**Personnel:** Hiring of Kathleen Murtagh, PE, now at CDM Smith, worked on the water main break in Weston, also working on the Sudbury Aqueduct as water redundancy, to supervise the tunnel redundancy project. 3-year contract. Tunnel project is 15-17 years, estimated. She met with the board—talked about why she wanted the job—she cited Shaft 5 break. Likes solving problems, likes how MWRA responded. Been at CDM over 30 years—if leaving, would only be for a job as challenging and rewarding as this one. Will be hiring the rest of the team for the project. Plans to take it slow and make sure the right team is in place to take this forward.

MWRA now required to meet OSHA standards—mostly means more paperwork (Laskey). Will need to hire a director of occupational safety.

**Finance:** About \$1m/month variance on interest rates that goes to defeasance. Overbudget for water pipe loans to communities.

**Wastewater:** replacing and repairing the digester mixers on Deer Island. Three on current contract at just under \$100K/digester. Ongoing program, refurbish one mixer/year. Changing the technology would cost 3x as much, and about \$100K/year to maintain.

Gravity thickener rehab—\$19m to rebuild. Long overdue. Critical part of the process. End of useful life. Full rebuild—first in 20 years outside of emergency repairs noted in February—drives, covers, access bridges. Will replace steel with higher quality steel to better withstand hydrogen sulfide

**Water:** discussion of the fire at DCR's facility in New Salem—used for watershed protection. Not insured by policy, because state owns so much property that they can't afford the premiums. Also, don't have a

self-insurance fund—left to state agencies. Lost 5 vehicles and building is a total loss. Cause is unknown. Cost will eventually be the MWRA's funding of the watershed protection trust.

Wachusett Aqueduct pump station update: well ahead of schedule. Exterior pretty much done, pumps inside. Working on wiring. Could be done in early winter.

**Executive Director's Report:**

DEP will be giving MWRA a drinking water award for its work testing school water for lead.

Cyber security remains an issue for MWRA—installing patches to protect from Russian Router virus.

“Beer Can Hill” @ BC is slated to become a new park in Chestnut Hill, with walking paths, benches & landscaping. Includes MWRA shaft, now fenced off. BC will bear all the costs & maintenance. MWRA will retain ownership.

## **AB 4/19**

**FY19 budget Comment Preview:**

Joseph Favaloro: 4 years ago, the challenge from AB to MWRA was 4 no more. We have a new challenge—it's multi-year and involves the 5-year cap on the CIP (now set at \$1.07billion), which the AB thinks could be \$950 million.

Matt Romero: The top Deer Island Projects include the clarifier project at \$135 million. Interception & pumping—Chelsea Creek at \$42.7m, Prison Point at \$35m. There are a few large projects—not a lot of little projects. How to reduce the cap? Expect some delays (normal) but can also delay some other projects. It is a challenge.

Community funding: Outside of the cap, the Executive Committee has recommended **increasing** funding for Phases 11&12 by \$10 million to \$100 million each (MWRA proposed \$60m/year—WAC endorsed the earlier AB proposal of \$90m/year). Also, to make **interim I/I loans** available for those communities who use up all their funding ahead of everyone else—recommend \$100 m at 0% interest and 10-year payback.

CEB for FY19: AB challenge is a 3.07% increase. Do so by decreasing the assumed variable interest rate on short-term debt. Be more realistic about the vacancy rate. Take debt service assistance off the top (usual), remove \$1.8 million in optional debt payment this year, but make it up in the years when the MWRA is looking at negative rate increases. Use longer financing periods (40 years) for longer-term assets like the metro tunnel. Investigate taxable bonds for items like the HEEC cable that can't be paid with tax-free bonds. Reduce the use of pay-as-you-go. Use rate stabilization funds.

New challenge: 2.4% by (FY20)24.

Also—sell more water. Plan for expansion with each expansion so can reach the next town with water without major increases in pipe sizes. Get MassWorks grants to fund the connections.

**Rate assessment primer** (mostly for those new to the AB)—see handouts

**AB FY19 budget**

Giving raises to two people in the AB staff. Wages and salaries are thus up \$32K, the entire budget is growing \$40K.

**Debt Service Assistance**—this year the legislature gave MWRA \$944K. Expect in FY19 up to \$1.1m. Watching the Economic Development Bill for the addition of \$25m for water connection work (see above).