



WSCAC/WAC Meeting
Location: Held virtually
April 21, 2020 – 10:30 am

Members in Bold in Attendance:

Michael Baram, WSCAC Chair

Whitney Beals
William Copithorne, Town of Arlington
Steven Daunais, Tata & Howard

Andrea Donlon, CT River Conservancy

Gerald Eves, Trout Unlimited

Bill Fadden, OARS

Bill Kiley, BWSC

Paul Lauenstein, NepRWA

Martha Morgan, Nashua River Watershed

Martin Pillsbury, MAPC

Janet Rothrock, League of Women Voters

Bruce Spencer
Kurt Tramosch, Wayland Wells
Roger Wrubel, Mass Audubon

WAC Members in Attendance:

Adriana Cillo, BWSC
Belinda Stansbury
Craig Allen
James Guiod, MWRA Advisory Board
Kannan Vembu
Karen Lachmayr, Chair

Martin Pillsbury, MAPC

Mary Adelstein

Philip Ashcroft

Stephen Greene

Taber Keally

Zhanna Davidovitz

MWRA Staff in Attendance:

Wendy Leo
David Duest
David Granados
David Wu
Matt Horan
Jianjun Wang
Jim Coyne
Katie Ronan
Lise Marx

Maret Smolow

Patrick Smith

Mike Cole

Sally Carroll

Dillon Scott

Robert Belkin

Betsey Reilley

Tom Durkin

Non-Members in Attendance:

Lexi Dewey, WSCAC staff
Andreae Downs, WAC staff
Ace Peckham, WSCAC staff
Bruce Berman (Save the Harbor)
Charlie Jewell (BWSC)
Joseph Marckenley
Scott Newquist (Aquaback Technologies)

Jennifer Pederson (MWWA)

Richard Raiche (Somerville, MWRA Advisory Board
Executive Committee)

Vandana Rao (Director of Water Policy-EOEEA)

Tom Tilas (AECOM)

Andreae Donlon opened the virtual meeting, and attendees introduced themselves. WAC March minutes were approved by roll call vote.

Tom Durkin, MWRA Finance Director, presented on the FY2021 Proposed Current Expense Budget, with assistance from Mike Cole, MWRA Budget Director, and Matt Horan, MWRA Deputy Finance Director and Treasurer.

Tom began by noting that the budget was originally presented before the pandemic of COVID-19 began. Moving forward, there will be some necessary adjustments. The MWRA remains committed to sustainable and predictable assessments by applying a multi-year rates management strategy.

Budget drivers are:

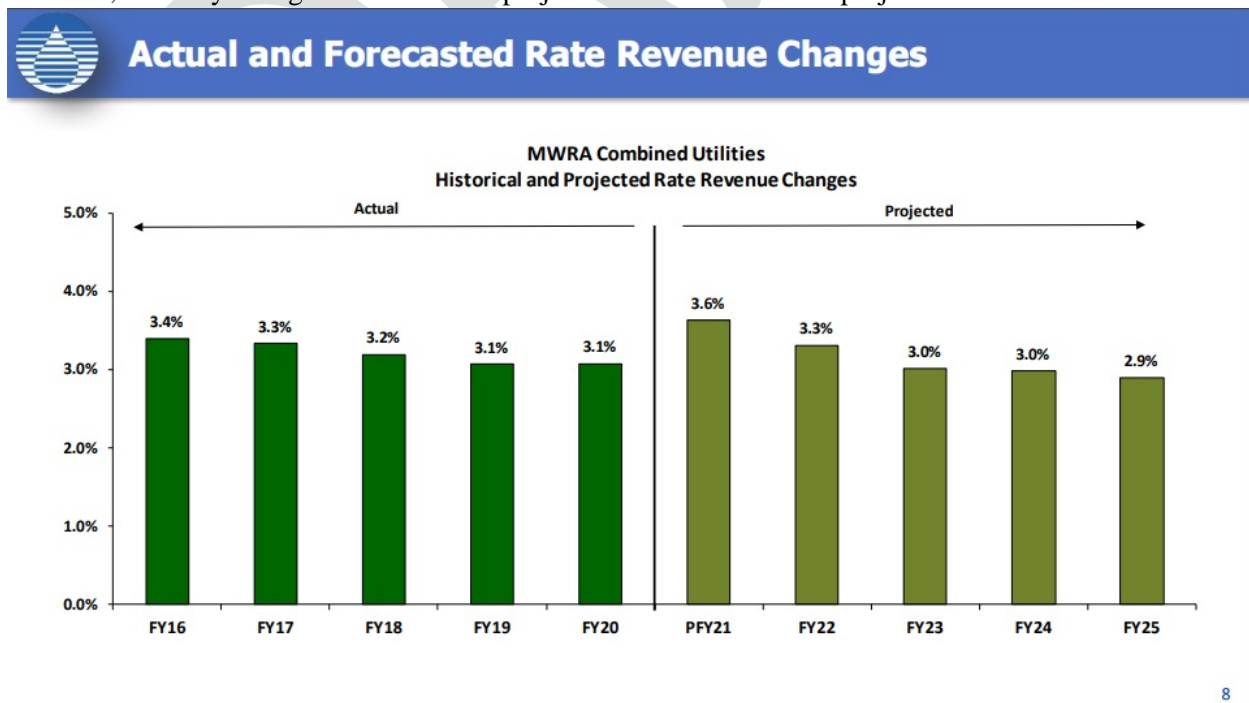
- Capital Finance Expenses
- Existing Expenses and Revenue
- Long-Term Liabilities (pension and OPEB)

Tom then shared some of the MWRA’s methods of addressing debt service:

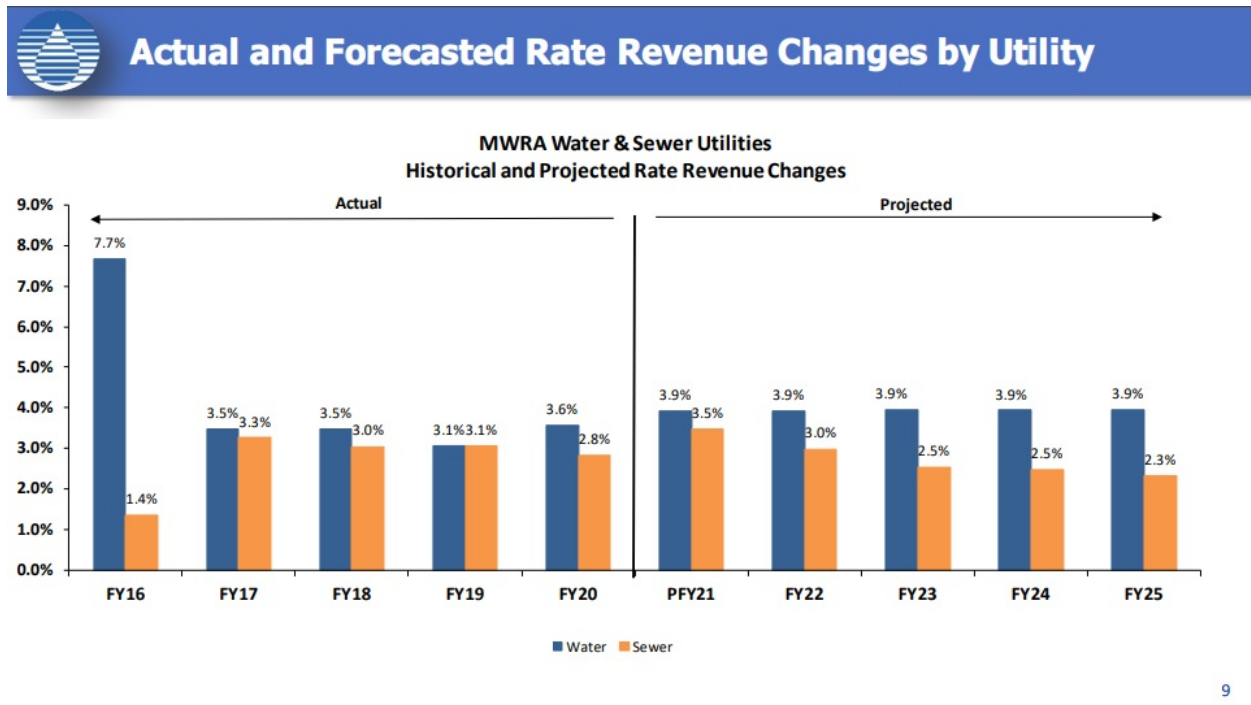
- Defeasance (paying down the principal using budget surpluses)
- Refunding (bonds)
- Use of Reserves (this hasn’t been necessary yet)
 - Rate Stabilization Fund
 - Bond Redemption Fund
- Tactical Issuance – Repayment Structure
- Controlling Capital Spending
- Strategic Use of Current Revenue/Capital Funding (Pay Go)

The MWRA carefully controls capital spending through the 5 Year Cap (FY19-23), with a set amount of funds to be spent over each five year period.

The initial budget proposes a 3.6% rate increase for FY21 (see slide below), but in light of the current health situation, that may change. This will alter projected revenue as well as projected investment income.

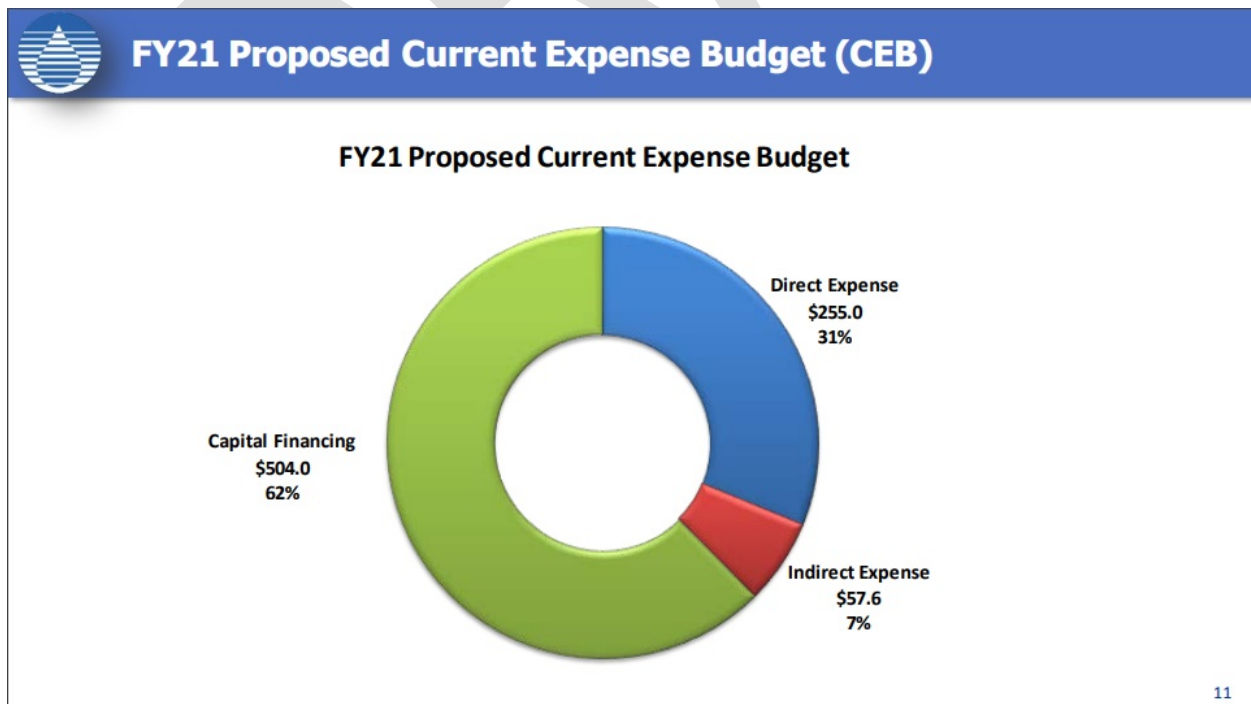


Tom then showed historical and projected rate revenue changes by utility, separating water and wastewater revenue changes (see slide below).



9

Mike Cole reviewed the CEB budget structure, explaining that the proposed budget is made of both direct and indirect costs as well as capital financing.



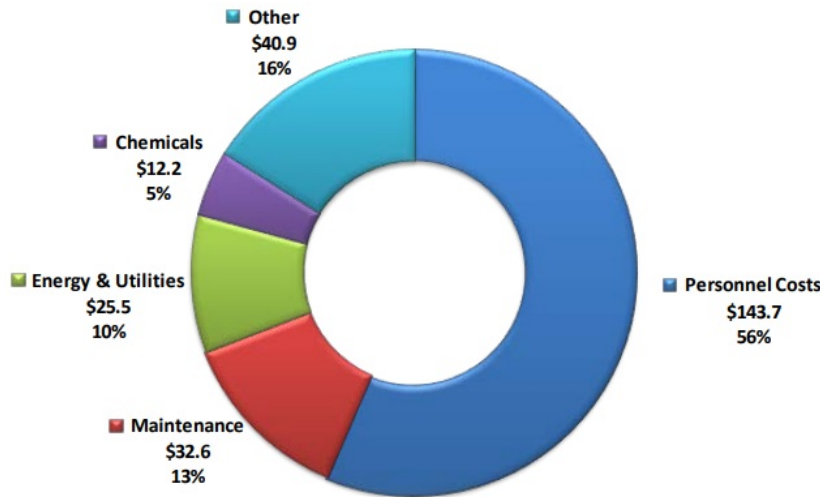
11

Direct Expenses are made up of Personnel (includes fringe benefits and health insurance premiums), Maintenance, Energy and Utilities, Chemicals, and Other.

CEB Budget Highlights – Direct Expenses

Direct Category

(\$s in millions)



- Personnel Costs: Increase of \$4.8 million or 3.5% over FY20. FY21 includes 5 additional positions for the Tunnel Redundancy Program and a 6% increase to Health Insurance premiums.
- Maintenance: Decrease of \$0.1 million or 0.3% from FY20. Operations maintenance is essentially level-funded in FY21 (increase of 0.4% over FY20).
- Utilities: Increase of \$1.1 million or 4.4% over FY20, driven by increases to Electricity and Diesel Fuel.
- Chemicals: Increase of \$0.4 million or 3.1% over FY20 driven by increases to Ferric Chloride and Sodium Hypochlorite, partially offset by a decrease to Soda Ash.

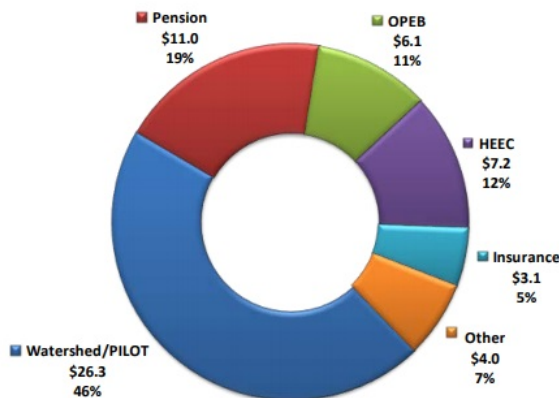
12

Indirect Expenses include Watershed Budget/Annual PILOT payments, Pension, HEEC, OPEB, Insurance, and Other. The MWRA decreased the Watershed budget by \$500K over last year due to continued vacancies in the DCR Division of Water Supply Protection. The remaining items, which include HEEC (the Harbor Electric Energy Cable), OPEB (Other Post Employment Benefits) fund, and the Pension and Insurance line items have all increased.

CEB Budget Structure – Indirect Expenses

Indirect Expenses by Category


(\$s in millions)

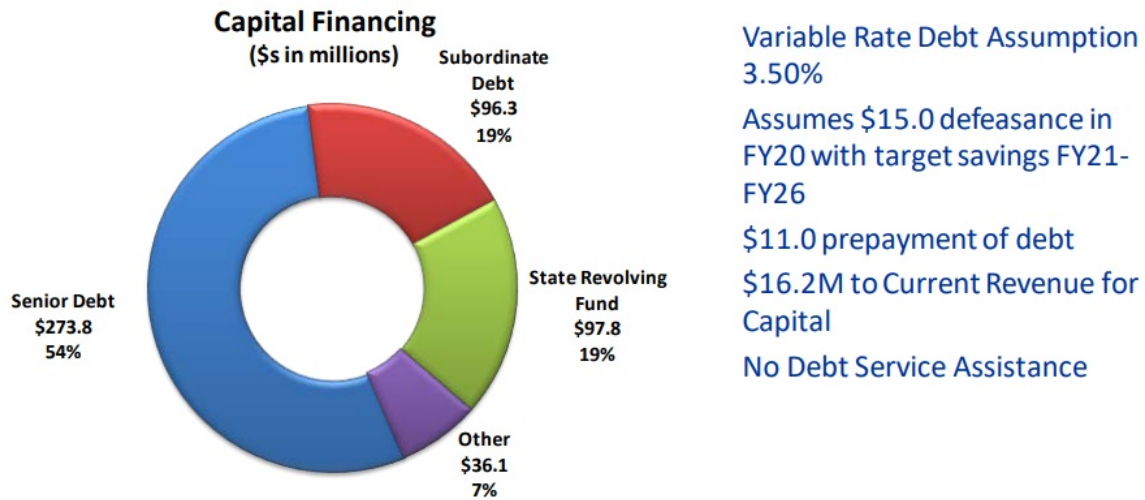


- Watershed/PILOT: Decrease of \$0.5 million or 1.9% from FY20. Assumes 7 FTE vacancy adjustment in FY21.
- Pension: Increase of \$3.7 million or 50.4% over FY20. Per January 2018 actuarial valuation.
- HEEC: Increase of \$2.8 million or 62.9% over FY20. Final costs to be determined by the DPU.
- OPEB: Increase of \$0.1 million or 1.7% over FY20. Per January 2017 actuarial valuation.
- Insurance: Increase of \$0.5 million or 17.2% over FY20. Premium increase of 20% based on market conditions. Claims based on 3 year average.

17


Matt Horan presented on **Capital Finance Expenses**. He noted that long-term tax-exempt interest rates are remaining relatively stable, and are currently low. This will benefit the MWRA budget. The current economic climate offers a good opportunity to borrow. Short-term tax-exempt interest rates are volatile, with a downward trend. The hope is that the reduced interest rates from borrowing will balance reduced interest income.

 **CEB Budget Structure – Capital Finance Expenses**



19

Tom Durkin discussed the rate revenue requirement, explaining that in the budget process, after total expenditures have been calculated, staff begin with the non-rate revenue. The larger the non-rate revenue amount, the more of an offset to the rate revenue to be generated by MWRA water and wastewater communities. As the slide below shows, in FY21, MWRA’s total expenditures are budgeted to be \$816.7 million. Their proposed non-rate revenue is \$27.3 million, which leaves \$789.4 million to be raised. This means that their rate revenue requirement for FY21 is 3.63%. The MWRA’s goal is to have rate revenue charges of 2.9% in FY25.

 **Rate Revenue Requirement \$s in Millions**

Category	FY21 Proposed
Direct Expenses	\$ 255.0
Indirect Expenses	\$ 57.6
Capital Financing	\$ 504.0
Total Expenditures	\$ 816.7
Non-Rate Revenue	\$ 27.3
Rate Revenue Requirement	\$ 789.4
Total Revenue	\$ 816.7
Rate Revenue Requirement	3.63%

24

Mike Cole shared several slides on the Capital Improvement Program (CIP). The CIP focuses on asset protection and long-term redundancy, and stretches over a five-year period. The current five-year period is FY19-FY23, so FY21 is right in the middle of this period. The total that they expect to spend in the 5 year period is \$983.3 million; FY21's budget allows for \$256.3 million in Capital Improvements.

The proposed expenditures for FY21 are primarily wastewater, other than the Metropolitan Tunnel Redundancy Project, with the top current spending projects related to treatment plants.

FY21 Proposed CIP – Top Projects Excluding Loans FY19-23 Cap Period Spending

Project	Subphase	FY19-23 Spending (\$000)	% of Total
DI Treatment Plant Asset Protection	Clarifier Rehab Phase 2 - Construction	\$111,900	10.3%
I&P Facility Asset Protection	Chelsea Creek Upgrades - Construction	\$51,381	4.7%
Corrosion & Odor Control	NI Odor Control HVAC Improvement Construction	\$49,563	4.6%
I&P Facility Asset Protection	Prison Point Rehabilitation - Construction	\$36,143	3.3%
NIH Redundancy & Storage	Section 89 & 29 Replacement - Construction	\$21,300	2.0%
NIH Redundancy & Storage	Section 89 & 29 Redundancy Construction Phase 2	\$19,776	1.8%
SEH Redundancy & Storage	Redundancy Pipeline Sect 111 - Construction 3	\$19,325	1.8%
DI Treatment Plant Asset Protection	Gravity Thickener Rehabilitation	\$19,275	1.8%
DI Treatment Plant Asset Protection	Fire Alarm System Replacement - Construction	\$15,857	1.5%
New Connect Mains-Shaft 7	CP3-Sect 23,24,47, Rehabilitation	\$14,700	1.4%
Metro Tunnel Redundancy	Preliminary Design & MEPA Review	\$14,166	1.3%
SEH Redundancy & Storage	Redundancy Pipeline Sect 111 - Construction 2	\$14,120	1.3%
Top FY19-23 Spending Suphases		\$387,506	35.6%
Other Changes		\$701,371	64.4%
Total FY19-23 Spending		\$1,088,877	100.0%

31

Proposed new projects added in FY21 total \$57 million, with much more focus on water supply (\$50.0 million), including painting water tanks (\$27.9 million). Principal drivers of future capital project expenditures are water redundancy projects (such as the Northern Intermediate High Redundancy Section 89 and 29 Replacement Construction – see first slide below) and asset protection (such as the Carroll Water Treatment SCADA upgrade – see second slide below).

FY21 CIP – FY21 Top Spenders - Redundancy

Northern Intermediate High Redundancy Section 89 and 29 Replacement Constr.

FY 21 Budget: \$9.2M

Total Contract: \$21.3M

NTP: July 2020

SC: July 2022



43



FY21 CIP – FY21 Top Spenders - Asset Protection

Carroll Water Treatment Plant SCADA Upgrade Construction

FY 21 Budget: \$5.0M

Total Contract: \$9.9M

NTP: July 2020

SC: July 2022

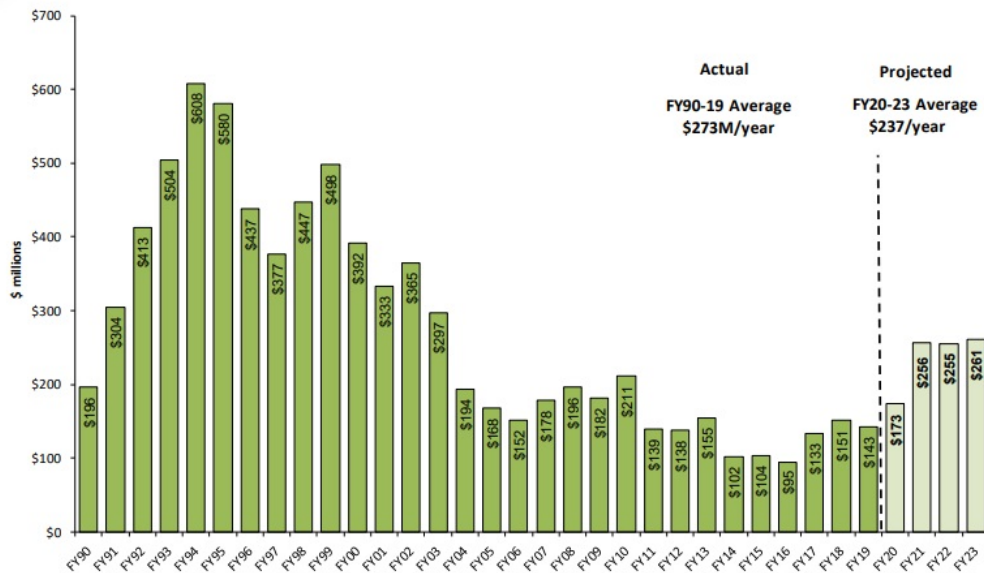


45

Mike shared a graph (below) showing the history of the MWRA’s Capital Improvement Spending, both actual and projected, from FY90 to FY23.

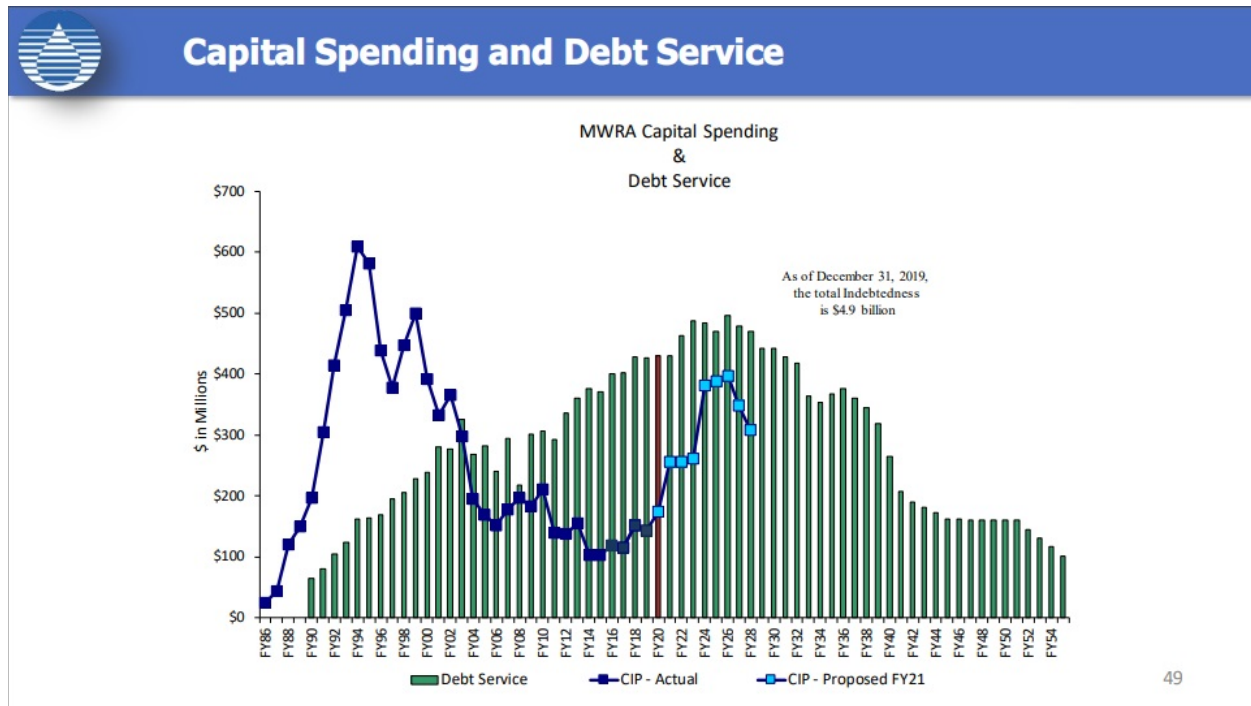


Historic and Projected Capital Improvement Spending



46

Matt Horan showed the attendees a graph outlining the MWRA's Capital Spending and Debt Service (see below). They have leveled off their debt service, but there will be another peak coming in the next few years, which will allow the MWRA to decrease its underlying debt.



49

Mike Cole noted that next steps for the MWRA are to continue with asset protection, as well as more detailed focus on the metro tunnel redundancy project, which is expected to take approximately 17-23 years and cost \$1.47-\$1.7 billion at the estimated midpoint of construction.

Metropolitan Tunnel Redundancy Program

FY19-23 Projected Expenditures

Contract Name	Start/Duration (years)	Contract Budget (millions)	FY19-23 Spending (millions)
Program Support Services Awarded	FY19/9	\$17.5	\$8.3
Preliminary Design/MEPA Review Anticipated award April 2020	FY20/3.5	\$16.0	\$14.2
Technical Assistance Anticipated Award January 2022	FY22/6	\$4.1	\$1.2



51

Tom opened the forum for questions, which came in via chat and video.

Tom Tilas of AECOM asked about stimulus funds for projects. Tom Durkin confirmed that if stimulus funds are available, the MWRA will be applying for them, and gave examples of previous projects that were paid for with stimulus funds, like a wind turbine.

Andreae Downs asked about the effect of changing energy costs, specifically diesel fuel, due to COVID-19. Mike confirmed that prices have dropped, and that this will affect the FY21 budget.

Michael Baram asked, in light of so much uncertainty in pricing, forecasts, and the market, what are the major areas of impact on the budget? Mike said they're taking a closer look at everything, including potential overtime or fewer employees, chemical costs, and diesel fuel, as he mentioned earlier.

Michael then asked about a mentioned delay in the Carroll Treatment plant project. Jim Coyne said the delay may be a couple of months.

Kannan Vembu noted that rate increases seem lower in previous years. Tom responded that the budgets start out as conservative, which leads to a higher proposed rate of increase. Since the long-standing goal is to keep the rate increases under 4%, they're budgeting for 3.9% as the max.

Andreae asked about construction projects that were scheduled, but now are delayed, and what impact those may have on the budget. Jim Coyne confirmed that some projects are delayed, for various reasons (not just directly from COVID – procurement and agency approvals take longer, for example). Tom pointed out that there may be difficulty in sourcing materials, or getting construction staff, since there may be an increase in a need for specialized construction. Tom Tilas noted there are delays in moving projects forward, because the process required to approve and begin has been slowed down. Other projects are moving faster due to factors like lower traffic. Supply is challenging, as steel or other equipment may be more difficult or expensive to manufacture, since some come from areas affected by shut downs, and certain safety precautions need to be met in order to protect workers.

Andreae asked about the process of getting stimulus funds. Tom said they are watching for announcements to determine the requirements to receive funds. Tom Tilas added that deadlines to apply for funds may be 6-9 months out, to allow prep time for projects that may be vital but are not currently ready.

Andreae asked why MWRA would use the state revolving fund at 2%, when the open market federal rate is lower. Matt explained that they look at balancing the programs. The SRF has ways of lowering borrowing costs beyond interest rates that make those funds more attractive.

Paul asked whether the combined heat and power plant upgrade on Deer Island (which uses captured digester gas – methane – to produce heat and electricity) would be eligible for stimulus funds, and Tom confirmed that the MWRA is looking into that.

Kannan asked what's covered under the direct costs (16%) on the pie chart. Mike explained that the figure includes a wide variety of extras such as furniture, vehicles, and leases.

Mary Adelstein asked how the reduction of commercial water use will impact revenue. Tom confirmed that some places are using less water. Boston's share of water use is usually about 1/3. It looks like their share is going to

come in less than that, and other communities will see an increase in their shares as a result. This could mean some communities will have higher than normal bills from MWRA for water & sewer.

Michael asked about universities and the drop in use of water. Tom said that from the MWRA's perspective, they're looking at the entire city of Boston, not just the universities, but that Boston would certainly be paying attention to that. Andreae noted that Newton's water use is also down, primarily because its two colleges are now closed. Michael also suggested that hospitals and medical groups may also be using more water.

Lexi and Andreae thanked the presenters, and moved to WSCAC and WAC issues.

Lexi requested a vote on the February and March WSCAC minutes. Bill moved to approve minutes. Paul seconded. Votes were submitted via rollcall, and both sets of minutes were approved.

Wendy Leo of the MWRA shared further information, mentioning that as a result of the COVID-19 shut down, communities are seeing lower receipts and cannot shut off water for non-payment. Some construction is continuing during the pandemic, such as gravity thickeners, and work on the Chelsea Creek Headworks (with delays). The Authority is exploring ways to ease the payment burden in the next fiscal year by lowering its annual assessment increase and helping communities with other water-sewer related costs. The April MWRA Board meeting was canceled, and Wendy said that DEP is having weekly conference calls with drinking and wastewater workers on worker safety, and that MWRA has enough PPE. She noted that during this time period of social distancing, essential non-remote staff are split into groups, with only one group working at a time, and staff is staying as far apart from other as much as possible. Charlestown Navy Yard office is essentially closed, accessible only by permission, and Chelsea maintenance access is limited.

CSO program — progress updates and press releases were published as required by the variances for Charles River and for the Alewife Brook/Mystic River by 4/15. Annual summary reports and a semiannual report on the post-construction monitoring and performance assessment project will be published by 4/30. A public briefing on the CSO program is May 28 at 10. Wendy will send details (links provided below).

- [Joint Public Notice: Charles River Basin Combined Sewer Overflow Control Progress Update](#)
- [Joint Public Notice: Alewife Brook Combined Sewer Overflow Control Progress Update](#)
- [Annual summary report on CSO discharges and rainfall](#)
- [Semiannual report #4 for the post-construction monitoring and performance assessment project](#)
- [May 28 CSO public briefing notice from the *Environmental Monitor*](#)

Fred Laskey is providing weekly updates, posted to the Advisory Board website on Tuesdays. TRAC is not doing field sampling during this time, but all other operations continue.

Wendy and Karen Lachmayr discussed a study by Biobot and Eric Alm's group at MIT on COVID-19's survival in wastewater, which indicated that COVID-19 may be far more widespread than previously realized. MWRA sometimes works with universities and the Water Research Foundation on wastewater studies, and is currently providing samples to other researchers for COVID-19 studies. The study has faced some criticism for assumptions made in interpreting the results. However, the results indicates sewage sampling is an effective and sensitive way to test for the occurrence of a virus in a population, particularly when little is known about disease prevalence.

Michael asked whether this information could lead to the development of standards to be met before reopening, and Karen said yes, possibly.

Andrea Donlon asked whether the virus can survive in freshwater (like drinking water supplies). Karen says we really don't know for sure, but since it needs a host, it probably can't survive long.

Other questions included whether the virus could multiply in the sewage (no, as viruses need to infect a host to reproduce), if the study would help estimate mortality rates (likely yes, since it indicates the infected rate is much higher than previously reported, which means the mortality rates would be lower), and whether the results include recovering individuals (those with antibodies in their system) or just active infections (unsure, as we do not know how long after recovery patients still shed the virus). Wendy noted that we should see this paper as a proof of concept, and not put too much stock in the numbers.

James Guiod presented the advisory board report. All staff are working remotely, doing a weekly check-in. The Advisory Board is aware that the budget will be changing, and he noted that both the MWRA Board of Directors and the Advisory Board may be moving their next meeting date.

Andreae thanked all the presenters and the meeting was adjourned.

DRAFT