



WSCAC Meeting

Location: Held virtually

February 8, 2022 – 10:00 am

Members in Bold in Attendance:

Jerry Eves, WSCAC Chair

Michael Baram

Whitney Beals

William Copithorne, Town of Arlington

Steven Daunais, Tata & Howard

Andrea Donlon, CT River Conservancy

Bill Fadden, OARS

James Guiod, MWRA Advisory Board

Bill Kiley, BWSC

Paul Lauenstein, NepRWA

Martha Morgan, Nashua River Watershed

Martin Pillsbury, MAPC

Janet Rothrock, League of Women Voters

Bruce Spencer, Retired DCR-DWSP Chief Forester

Kurt Tramosch, Wayland Wells

Non-Members in Attendance

Lexi Dewey, WSCAC staff

Andreae Downs, WAC

Lou Taverna, MWRA Advisory Board

Michael O'Keefe

Carmine DeMaria

Steve Estes-Smargiassi

Kathy Murtagh

Paul Savard

Lexi Dewey opened the meeting and welcomed members and friends to the virtual February 8, 2022 WSCAC meeting. There was a quorum so Lexi asked for a motion to vote the draft November 2021 minutes. Janet Rothrock made a motion, Paul Lauenstein seconded it and Lexi did a roll call vote. Minutes were approved with Andrea Donlon abstaining. Lexi asked for a motion to vote on the draft January minutes. Paul Lauenstein made a motion and Bill Copithorne seconded it. Lexi did a roll call vote and the minutes were approved.

Lexi provided the following briefs:


- The PFAS Interagency Task Force report to the legislature on potential policies and recommendations to address PFAS contamination in Massachusetts may be available to the public in March after it is reviewed by the task force and the legislature.
- DCR-DWSP has hired 19 positions in total. Eight in the Quabbin-Ware watersheds and eleven at Wachusett. Two more positions at Quabbin have recommended candidates. Six positions are now vacant due to promotions.
- Ware River Public Access Plan still on the DCR Commissioner's desk for review. Stakeholders are interested in forming a subcommittee to discuss multi-use trails.

- DCR Quarterly Report highlights-Visitation still high, gull numbers lower, money for construction work at the Quabbin Park Cemetery, the Quabbin Tower and the Administration building. Design work on a new drinking water well for the Admin. building is progressing.
- MassDEP's Annual Filtration Avoidance reports for Wachusett and the Quabbin-Ware are now available. Both will be emailed to members.
- Legislative updates included the proposed Invasives bill and drought bill which were reported out favorably. The proposed Better Bottle Bill needs additional Senate co-sponsors.

Lexi then asked James Guiod of the Advisory Board to briefly discuss the 2021 Annual Water & Sewer Retail Rate Survey.

As mentioned on the Advisory Board website, the Advisory Board has been tracking the retail rates for the 60 MWRA communities and many out-of-system communities for over thirty years. The survey gives the communities and ratepayers an opportunity to compare their rates to those of other communities, and also see the long-term trends of their rate history.

James noted that the Retail Rate Survey shows the wholesale price of water and sewer services and also what communities are charging for these services. The slide below shows the low assessment to communities in 2020 due to the pandemic. The assessment for 2021 is in line with regular annual assessment increases.

		<h1>Then & Now</h1>	
	2020	2021	
MWRA Wholesale Assessment Increase	1.00% (FY20-FY21)	2.95% (FY21-FY22)	
Average MWRA Retail Rate Increase	2.83% (CY 2020)	2.92% (CY 2021)	
Average MWRA Service Area Combined Retail Cost (120 HCF)	\$1,709 (per year)	\$1,760 (per year)	
Adjusted Average MWRA Service Area Combined Retail Cost	\$870 (per year)	\$911 (per year)	
	63 HCF/ year	70 HCF/ year	

Steve Estes-Smargiassi asked if staff have considered adding water use in communities outside the MWRA service area to the rate survey. James said they have considered doing this.

Paul Lauenstein noted that MWRA rate increases are lower than the current rate of inflation.

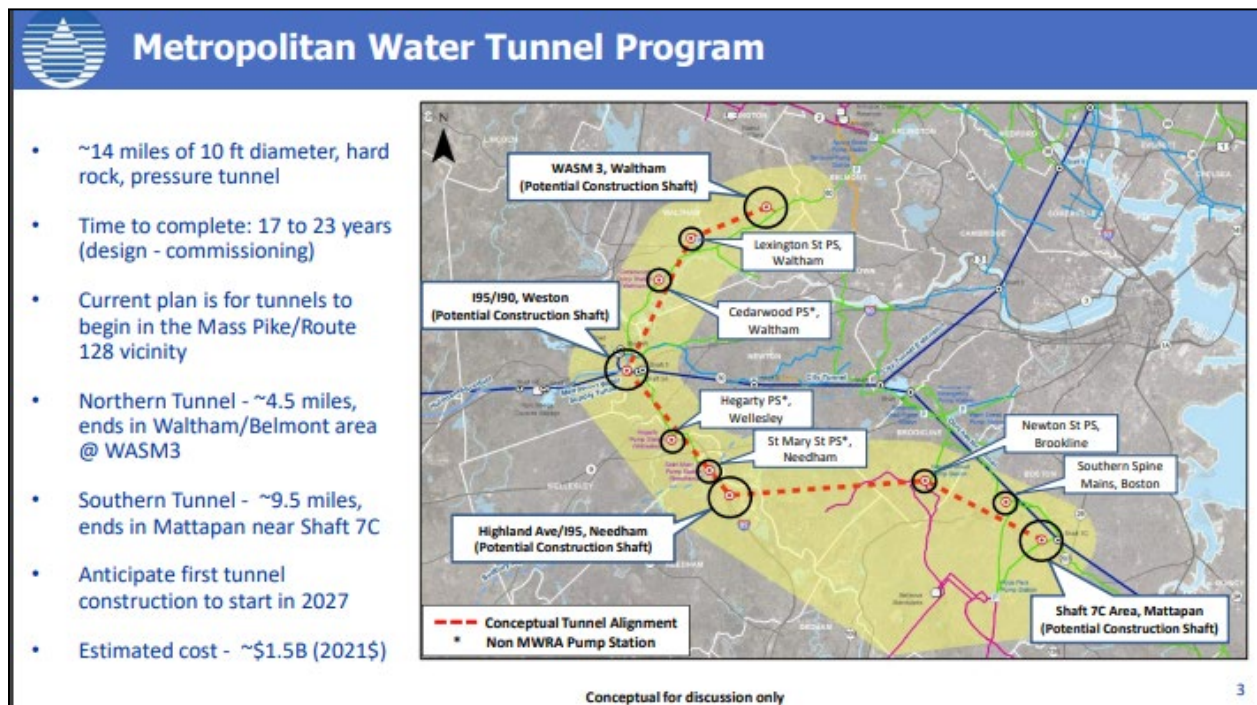
James mentioned that the Advisory Board welcomes any questions or suggestions regarding the survey. You can reach the office at (617) 788-2055, or email James at: james.guidod@mwraadvisoryboard.com with your feedback. Copies of this document are available at their website in PDF format at <http://www.mwraadvisoryboard.com>.

James was thanked for his presentation.

Lexi noted that WAC voted unanimously at their February meeting to join the Advisory Board with the available Boston Harbor seat. Lexi asked members to vote on joining the Advisory Board with the available Quabbin seat. The executive committee has discussed this option and sees it as favorable to WSCAC. Lexi noted that she and Andreae already attend the monthly Advisory Board meetings. The chairs of both WAC and WSCAC can attend or can appoint a designee. Paul Lauenstein asked if anyone had a negative thought about joining. No one had a comment so Paul made a motion to approve and Bill Fadden seconded it. Lexi did a roll call vote. All approved with James abstaining.

Lexi introduced Kathy Murtagh, Director of the Tunnel Redundancy Program, and Paul Savard, Deputy Director of Design and Construction. The presentation focused on the following:

- Tunnel Program-(slide below) Goal is redundancy to the City Tunnel, the City Tunnel extension and the Dorchester Tunnel
- Geotechnical investigation-The Northern Boundary Fault, the Dedham Island Fault, Mt Hope Fault, and the Stonybrook Fault. The importance of understanding the geology to evaluate possible tunnel routes, and the design and construction of the tunnels.
- Alternatives evaluation process and criteria-
- MEPA review-ENF submitted in March 2021 and received the Secretary’s Certificate. Staff working on Draft Environmental Impact Report (DEIR)
- Community outreach-Working group meetings (WSCAC attends)
- Ongoing and upcoming work-Finalize alternatives evaluation and submit DEIR in fall 2022



The program schedule includes the preliminary design through January 2024, then beginning the final design. Construction is targeting to begin in 2024 and be completed by 2037.

The MWRA bought its first parcel in Waltham last year. The site will be used for construction of a valve vault and shaft connecting to the tunnel below. It will also provide a secondary water source for the Lexington Street pump station which services about 40 percent of Waltham.

Phase 1A Program – Test Borings

Phase 1A = 10 Test Borings:

- Waltham – Fernald Property - 445 ft
- Waltham – School St - 424 ft
- Waltham – Felton Street - 411 ft
- Waltham – Cedarwood PS - 437 ft
- Weston – DCR, Norumbega Tower Park - 433 ft
- Wellesley – Hegarty PS - 416 ft
- Needham – St Mary St PS - 513 ft
- Newton – Newton South High School - 470 ft
- Brookline – Newton Street PS - 548 ft
- Boston – DCR/Boston Light, American Legion Hwy - 412 ft

Conceptual for discussion only

Drilling of all 10 borings has been completed with an average of 451 feet deep.

Phased Approach to Geotechnical Investigations

- Phase 1A Program (2021):
 - Provides important data and initial understanding of geologic conditions along possible tunnel alignments
 - Advances our understanding of geologic faults located along these alignments
- Phase 1B Program (2022):
 - Continue data gathering and refinement
 - Support preliminary design
- Phase 2, 3, 4...

Conceptual for discussion only

Tunnel staff started with a two-tunnel concept which is the North and South Tunnels. They began with 30 alternatives for siting possible shaft sites, connection points, system hydraulics and linking tunnel segments. They narrowed it down to 10 alternatives that included looking at land availability, constructability, operations, environmental concerns and social/community impacts. They narrowed it further from 10 to 3 alternatives. Each of these will be discussed in detail, with one preferred, in the DEIR to be submitted to MEPA for review later this year.

Alternatives Evaluation

- Currently evaluating various alternatives that link specific shaft sites considering:
 - Land availability & suitability
 - Environmental impacts
 - Geology
 - Constructability
 - Schedule
 - Cost
- Sites currently under consideration are owned/controlled by MWRA, Waltham, Wellesley, MassDOT, DCR, and DPH
- Will identify 1 preferred and 2 back up alternatives for further evaluation in the DEIR
- Preliminary design will be for one alternative (preferred)

Conceptual for discussion only 14



Staff continues to meet with the expert panel, the community working group, and other stakeholders including MassDOT, DCR, DCAMM, municipalities and utilities.

Ongoing and upcoming work includes:

- Submitting the DEIR to MEPA in fall 2022
- Begin survey work and Phase 1B geotechnical program
- Continue shaft sites real estate acquisition
- Prepare for geotechnical assistance, final designs and construction management services contracts
- Prepare for tunnel construction contracts

Paul talked about the role of the expert panel which is made up of a group of tunnel experts from around the country, some of whom were involved with the construction of the MetroWest tunnel. The panel reviews the geotechnical program, managing risk and construction quality, public outreach and many other aspects of the tunnel program process.

Members asked the following questions:

Paul: How would an earthquake affect the tunnels? Kathy said it would have to be a strong earthquake to affect the tunnels because they are deep underground. Unreinforced concrete, reinforced concrete and if necessary, steel lined may all be used in different parts of the tunnels depending on conditions. Steel has some flex and is very expensive so it is used only when necessary.

Michael: Will the two tunnels be constructed at the same time? Kathy said most likely yes so that the project moves at a good pace. Two contracts are probable with 2 different companies because the project is so big. A large amount of consistent power is the most important utility since the tunnel boring machines use a lot of power. The ability of Eversource to provide adequate power needs will play a big role in the location of shaft sites. MWRA will have to protect their own existing infrastructure in nearby sites and they will most likely have to move other utilities that may be in the tunnel's path.

Andrea: What are the possibilities of contamination and pollution? Kathy said that because the tunnel is a closed system, spills and contamination are unlikely. Water inside the tunnel is at 200 feet of pressure.

Whit: Where will all the excavation muck be stored and disposed of? Kathy said the sites to periodically store the muck will need to be around five acres and will hopefully be near the highway. The disposal time frame will be approximately 2028-2032. The team will be paying close attention to the ability to offset environmental impacts.

Martha: What types of soil are being found? Kathy mentioned mostly sand and gravel with some till and a bit of clay. These are deep rock tunnels so excavation materials will be made up of different types of rock which is being investigated now with the borings being done.

Steve: The difference in CA faults and New England faults. Kathy said while the CA faults are much more active, NE faults have less movement and are more passive.

Janet: Will the tunnel boring machines be removed from the tunnels at completion? Kathy said yes. They are removed in pieces through a receiving shaft.

Kathy introduced Carmine DeMaria as the public outreach staff member for the tunnel group. He can be reached for additional questions at Carmen.demaria@mwra.com

The tunnel program also has its own website for people who are looking for more information. Kathy and Paul were thanked for their presentation.

Steve Estes-Smargiassi discussed the following MWRA briefs:

- Staffing-Rehiring continues to be difficult. Many MWRA staff are of retirement age. There is a lot of competition for new employees. Staff numbers are down from their target numbers which can cause a deferring of priority work. Covid has also affected staff numbers. Nearly 10 percent of employees were out due to Covid after the Christmas holiday break. All staff are required to be vaccinated and many are boosted as well. Maintaining social distance and managing work teams carefully can reduce the risk and maintain the ability of staff to work. Certain activities which require close contact are being deferred in some cases.
- Changes to the Lead & Copper Rule and the work that will come out of that for communities. MWRA staff will be offering a training session for water superintendents and staff this spring when additional guidance info from EPA and DEP becomes available. It is important for communities to use the time from now until the deadline of Oct. 2024 to prepare for the changes. All communities are now required to produce a complete inventory of all service lines, both public and private. They are required to document the type of material used in the lines and to post the inventory. Owners of lead service lines will need to be notified and new town plans created. New sampling will be required in schools and childcare facilities. A lot of preparation needed to achieve these changes and additions to meet the deadline. MWRA staff will continue to work with communities to assist with these requirements MWRA is also working on corrosion control treatment in their facilities in the event that changes may be needed. They have a working group and an expert review panel to assist, as well as an experimental pipe rig to test different types of treatment. They want to get out ahead of any possible changes that might be needed.
- Fall water quality- Heavy rainfall over the late summer and early fall altered the characteristics of Wachusett reservoir water. Treatment required a higher demand for chlorine. Chlorine decay also occurred at a faster rate which led to lower residuals in communities at the edges of the service area. MWRA staff are looking at what treatment changes could be made if this kind of weather occurred again. What can communities do to address these kinds of water quality concerns?
- Annual report on water use-Demand continues to decrease. The average was 181 mgd with withdrawals down 1 ½% despite half a million new people in the existing service area. Water use continues to be much more efficient. The decrease in demand affects how the reservoirs are operated and how the water is treated.

Paul- Chlorine or Chloramine use. The addition of chlorine and ammonia creates chloramines. If a higher chloramines residual is needed, more chlorine and ammonia is required. Staff meet weekly to look at daily water quality. The chlorine dose is the most frequent change.

Whit-Is spilling water at Wachusett an option to increase water quality by supplying more Quabbin water? Steve said they maximize the quabbin transfer for higher water quality. More Wachusett water is released down the Nashua but with lower demand and a lot of rain that occurred in 2021, the balance between Quabbin and Wachusett must be deliberate. Staff must always be mindful of water quality, drought, and flooding. It is a balancing act.

Michael-Does MWRA receive Data Safety Sheets from companies transporting hazardous materials by rail over the Wachusett Reservoir? Steve said yes, MWRA does receive this information after the materials go over the reservoir. Staff has prepared a data base from materials that have been transported over several years so they are prepared to respond if a spill should occur. Steve noted that the new agreement with CSXT is much improved from the communication with Pan Am in the past. He also mentioned the risk of trucks carrying hazardous materials and the risks they pose.

The high price of copper was mentioned by Michael. Steve said that while some areas of the country use plastic service lines, he thinks copper will still be used despite the higher price. Chemical supplies for water treatment are also tracked closely to maintain adequate supplies if there are potential supply chain issues.

Paul-Succession planning. Steve mentioned that the MWRA is reassessing how they are structured to determine staff numbers. Staff numbers been reduced from a high of 1700 to 1200 employees now. They are hiring from the outside as well as promoting from within. Certain positions are harder to recruit due to a range of salary packages in the Boston area and beyond.

Kathy noted the importance of having adequate staffing for the tunnel program.

Lexi thanked MWRA staff for their presentations and briefings. She noted that the next virtual WSCAC meeting will be held on March 8th.

Lexi mentioned the topics for upcoming virtual WSCAC meetings:

- March-Reservoir Operations and Water Quality
- April –Annual MWRA joint budget meeting
- May-TBD
- June-Barre heath tour (in person)

The meeting was adjourned.

