WATER SUPPLY CITIZENS ADVISORY COMMITTEE
to the Mass. Water Resources Authority

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WSCAC Virtual Meeting Minutes
Tuesday, January 14th, 2025

WSCAC Members in Attendance in Bold:

- **Christine Bennett**, MWRA Advisory Board
- **William Copithorne**, Town of Arlington
- Steven Daunais, Tata & Howard
- Gerald Eves, Trout Unlimited
- **Bill Fadden**, OARS
- Bill Kiley, BWSC
- **Paul Lauenstein,** Neponset (Chair)
- **Paul Rybicki**, Partially Supplied Community
- Martin Pillsbury, MAPC
- Janet Rothrock, League of Women Voters
- **Bill Merriam**, Framingham resident, Foss reservoir abutter
- **Erin Bonney Casey,** Ipswich River Watershed Association
- **Ralph Abele**, Charles River Watershed Association
- Matt Brown, OARS
- **Warren Kimball,** Nashua River Watershed Association

Non-Members in Attendance:

- **Stephen Estes-Smargiassi,** MWRA
- **Paul Savard,** MWRA
- **Lydia Olson,** Mass Rivers Alliance
- **Moussa Siri**, WSCAC Executive Director

I. Introduction of the agenda (Moussa Siri, WSCAC)

Moussa Siri welcomed the attendees and introduced the meeting agenda. Moussa then passed the floor to Paul Lauenstein, who led the votes to approve the November 12 meeting minutes.

II. WSCAC Businesses

a. Roll Call and attendance Check (Moussa Siri/ Paul Lauenstein)

Paul Lauenstein began by thanking the Executive Director for his hard work and for making the necessary adjustments at the last minute to accommodate the meeting. He indicated he was looking to hear from Paul Savard from MWRA about the incredible project MWRA is undertaking to provide water to the Boston area. Paul then proceeded with the roll call to check the quorum and asked for a motion to approve the minutes.

b. Vote to approve November 12th meeting minutes (Paul Lauenstein, WSCAC Chair)

- Bill Fadden made a motion to approve the minutes.
- Paul Rybicki seconded the motion.
- Christine Bennett requested that the error be fixed on the name MWRA Advisory Board from Advisory Committee to Advisory Board.
- There was no other future discussion, and the November Meeting Minutes were approved unanimously.

III. Briefings

a. WSCAC Briefing (Moussa Siri/Paul Lauenstein WSCAC)

- Moussa Siri made a summary of the two subcommittees (Water Conservation and Forestry Subcommittees) meetings that took place, respectively, on December 6th, 2024, for the Water Conservation Subcommittee and December 12th, 2024, for the Forestry Subcommittee.
- Without going into details, Moussa indicated that Paul Rybicki volunteered to chair the Water Conservation Subcommittee and Paul Lauenstein for the Forestry Subcommittee until they have an interested person to take over.
- Moussa added that the Carbon Footprint has not been activated yet, as Paul Lauenstein is the only one willing to serve on that subcommittee.
- The next meetings are as follows:
    - Water Conservation Subcommittee is scheduled for Friday, **February 28th** at 10:00 AM
    - Forestry Subcommittee Meeting is scheduled for Friday, **February 28th** at 1:00 PM
    - Paul Lauenstein will, for now, make the agenda for the meetings. Call for people to join the subcommittees and get them running.
- Moussa also talked about the public hearing, shared by the Water Resources Commission, on Lynnfield Center Water District's request to increase the present rate of interbasin transfer by connecting to the MWRA through the Town of Wakefield. Some questions were raised by WSCAC members who are part of various watershed associations. When contacted to better understand the request, Colleen Rizzi (MWRA) indicated that only a portion of their water will be sourced from MWRA, as they will continue to maintain their existing sources. Colleen Rizzi also provided a link to all MEPA filings for those who are interested in learning more

about the request (see link). https://eeaonline.eea.state.ma.us/EEA/MEPA-eMonitor/project/1200fe61-d1f8-486b-a16e-53ba914a6252

- Moussa also went over the upcoming agendas of the WSCAC, which you can find on the WSCAC website. He reminded WSCAC members to notify him in advance if they would be unable to attend a meeting.
- Moussa turned it over to Paul Lauenstein, who called WSCAC members one more time to engage in the process of subcommittees. Paul indicated that WSCAC needs to anticipate population growth, making water conservation very important. Paul also indicated that the state aims to achieve net-zero carbon emissions by 2050. Quabbin forests are crucial for carbon sequestration, demonstrating the importance of forestry in the Quabbin area. It is a controversial issue, but WSCAC members need to inform and educate themselves, which is a reason to join the forestry subcommittee. Paul asked members to bring any topics of interest, such as the lead and copper rule or PFAS, if they wanted to lead a discussion on them.

b. MWRA Advisory Board Briefing (Christine Bennett, Advisory Board)

- Christine Bennett indicated that they are coming to the end of the 2024 rate survey with a hard deadline of January 15 for the communities to respond. They are also waiting for people to review the sheets they compiled. Christine noted that there are a few communities within the WSCAC sphere that stand out. These communities are Ashland, Bedford, Lynn, Peabody, Reading, and Wilmington. The Advisory Board is still awaiting their review of the compiled information and confirmation that it complies with their data.
- She added that the results will be published at the end of the month, and those who subscribed to the Advisory Board News and Notes will receive a link to the data.
- Christine indicated that they added a few national systems to their comparative table (Oregon, Las Vegas, Phoenix, Santa Fe, and Georgia).
- They added a couple more supplementary questions this year, asking communities about their positions on PFAS regulation and the anticipated cost associated with it, and if they have a program dedicated to the lead and galvanized replacement service lines inventory.
- Christine informed the Committee that the Advisory Board also responded with comments on the Final and Supplemental Environmental Impact Report for the proposed System Expansion associated with the redevelopment of South Weymouth Naval Air Station. The comments focused on how this environmental report was compiled, how the assessment of the MWRA's existing water supply capacity was conducted, and how the wastewater infrastructure in the south system was safeguarded, among other aspects.
- Shed added that they received the preview of the Fiscal Year 26 Capital Improvement Program Budget from MWRA staff the week before. This would be part of the MWRA Board of Directors meeting, where the staff report will be formally and verbally requested to be transmitted to the Advisory Board.
- Christine also talked about the joint meeting to be held on March 20 with WSCAC and WAC to review the budget to minimize the work of staff if they have to report to all advisory committees individually.
- Paul thanked Christine for the rate survey and encouraged all members to check the survey data.

c. MWRA Briefing (Steve Estes-Smargiassi, MWRA) (15 minutes)

Steve Estes-Smargiassi had a few updates as follows:

- Tracking overtime of the John Carroll Treatment Plant SCADA System upgrade, a milestone as they are bringing one side of the plant new SCADA System, and they are pushing to newly rebuild the SCADA system up. The plant was brought online a little over 20 years ago, and it now requires a major rehabilitation of the control system. They ended up building a parallel control system and began transitioning to one side of the plant from the old system to the new system.
- The other nearly completed project is the cleaning and repair of the Norumbega Covered Storage Tank (NCST). Norumbega has three cells, and for the past three years, they have been using the winter period to take one of the three cells offline, drain it, perform an internal cleaning, inspect it, and so on, which has cost a couple of million dollars. This is the third of the three.
- MWRA also just finished replacing hatches at Fells Reservoir. Post 911, they needed to make them more secure.
- The Expert Panel on Lead corrosion control review has been underway for the last couple of years. The third panel meeting is coming in February. They will dissect data to see if they would consider adding phosphate in the long term. They will bring in an expert panel to help review the data while accelerating the lead service line replacement, with more updates expected in two months.
- Based on the inventories submitted by communities on lead service lines, there is no big surprise in terms of the number of lead service lines, but there are a lot more unknowns.
- Updates on drought status: There is a lot of news about the drought, and the California news makes it even more interesting. The state has been experiencing a severe drought, and the Drought Management Task Force has lowered the drought level by one or two levels for most of the state. Recent ranges have been favorable, and wildfire risk in Massachusetts has dropped significantly.
- Quabbin remains in normal operation range with 85.4% full at Quabbin and 85.7% pour Wachusett, but with a transfer from Quabbin to Wachusett to face the drought.
- Not unexpectedly, the staff summary in February or March will show a slight increase in water demand from last year by a couple of gallons due to the summer drought.
- Tracking a bunch of regulatory changes coming primarily out of the EPA and ultimately out of DEP. Lead and copper rule improvement is ongoing, and they are still working their way through anticipated guidance manuals, determining how they will be implemented, and ensuring that MWRA communities are up to speed on the matter.
- The EPA will issue the Prochlorate Rule, which will have a higher maximum contaminant level than the state's. Additionally, the state needs to determine how to update its PFAS Regulation to align it with the new federal rule.
- The last rule being tracked and of interest to MWRA is the change in the EPA microbial and DBP rule. It is anticipated that this draft rule will be released in the summer, with the final rule following a couple of years later. The draft, which has already been completed, includes so far:
    - A very important one is the chain in the minimum distribution system disinfectant residual requirement. The current requirement is to have a detection range residual in 95% of the sites across the region, and MWRA communities must meet this requirement. Suppose they do propose a numerical limit, but make it too high. In that

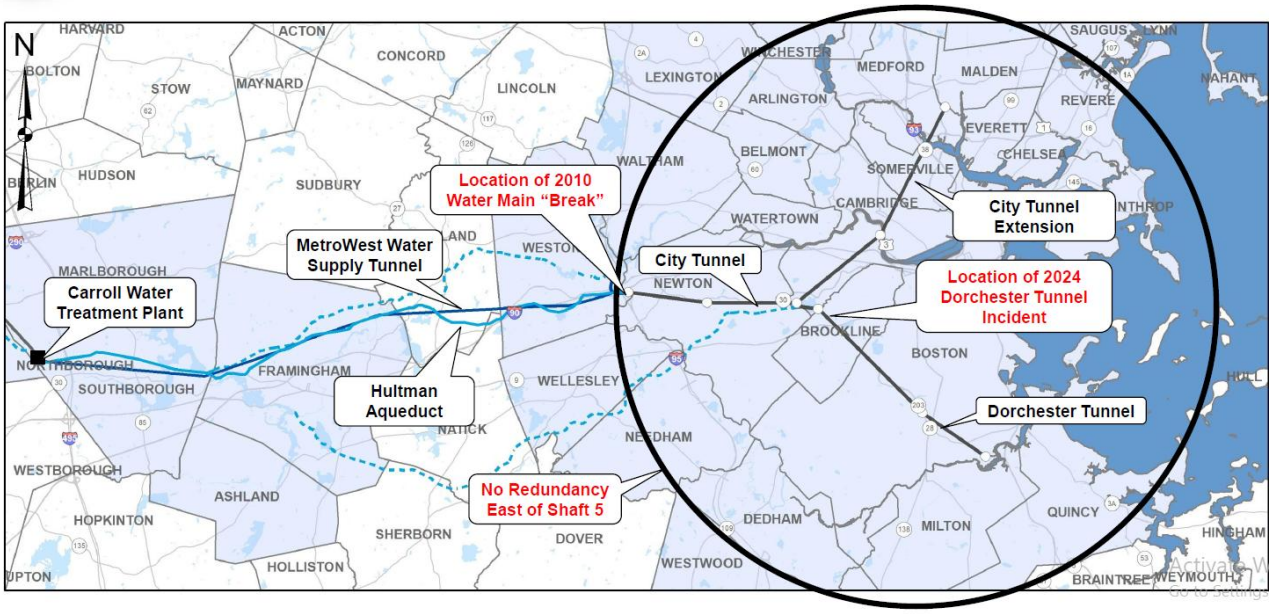
case, it may prompt the MWRA to consider treatment changes and community initiatives to accelerate lead service line replacement, as well as changes to their operations, tanks, and other aspects, which could be fairly complicated, potentially controversial, and certainly expensive. Steve indicated that they will have a conversation in the summer when they see the first draft, and he anticipates that MWRA will be involved.

- The last point was fire and water. When discussing the drinking water system, many of us think one thing the MWRA focuses on is drinking water. In fact, the most important things MWRA does with the water system they put in place and updated over the years have to do with fire protection and sanitation, with the ability to flush wastewater to a safe place away from people's homes and businesses. When major fires occurred way back in a few of MWRA communities (Chelsea, Malden, Lynn, etc.), it prompted Fox to come back and look at the trade-off between drinking water quality and how the size of the pipe should be (too big or too small). They anticipate new information in a few months on how California's Los Angeles water system operates. As a water supply professional, Seteve thinks that they did well by providing four times their normal flow to fight the fire before they ran out of storage.

IV. Presentations: MWRA Metropolitan Water Tunnel Program (Paul Savard, P.E., Deputy Director, Design and Construction, MWRA, Metro Tunnel Program)

Paul Savard from MWRA gave a presentation on the Metropolitan Water Tunnel Program Updates, which are summarized below.

- Paul began with an overview of the MWRA Metropolitan Water Tunnel System, which serves approximately 60% of the Metropolitan Area's water demand (see figure below).



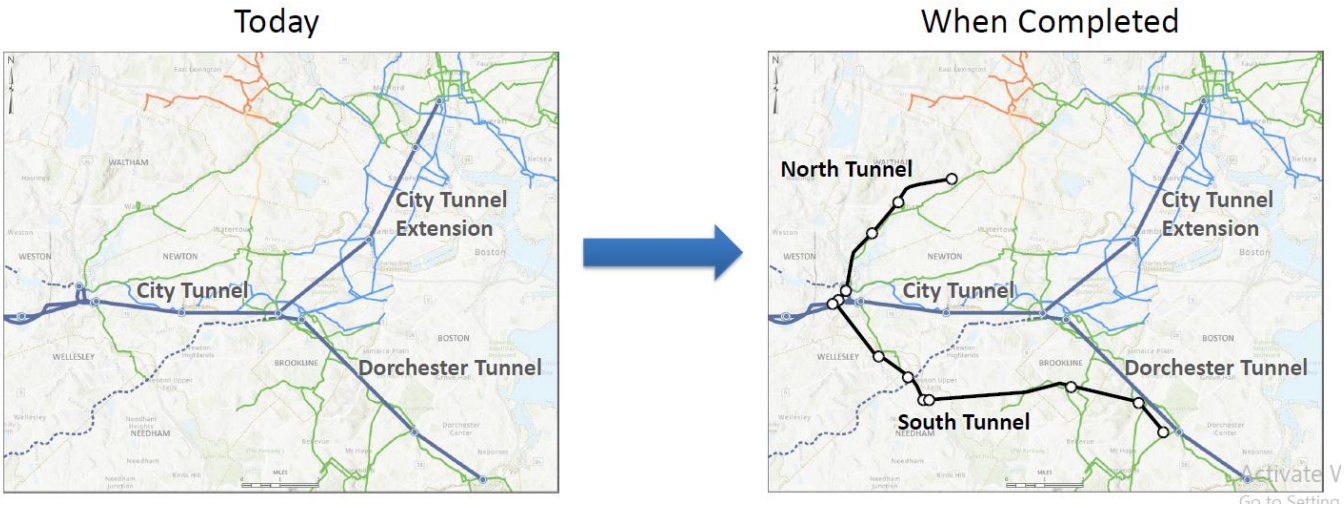
- Paul Savard proceeded then with the description of the purposes of the Metropolitan Water Tunnel System. As seen in the pictures below, Paul indicated some issues related to the tunnel.
  - Our current Metropolitan Tunnel System, servicing the Boston area, is in need of repair

- The tunnels, valves, chambers & pipelines are between 50 – 80 years old

  - Currently, we cannot maintain our tunnel system east of Shaft 5 in Weston because a shutdown of the entire Metropolitan Tunnel System would be required
  - The Metropolitan Water Tunnel Program will solve that problem by creating a redundant water tunnel system, allowing the old system to be completely taken offline for inspection, maintenance, and repair

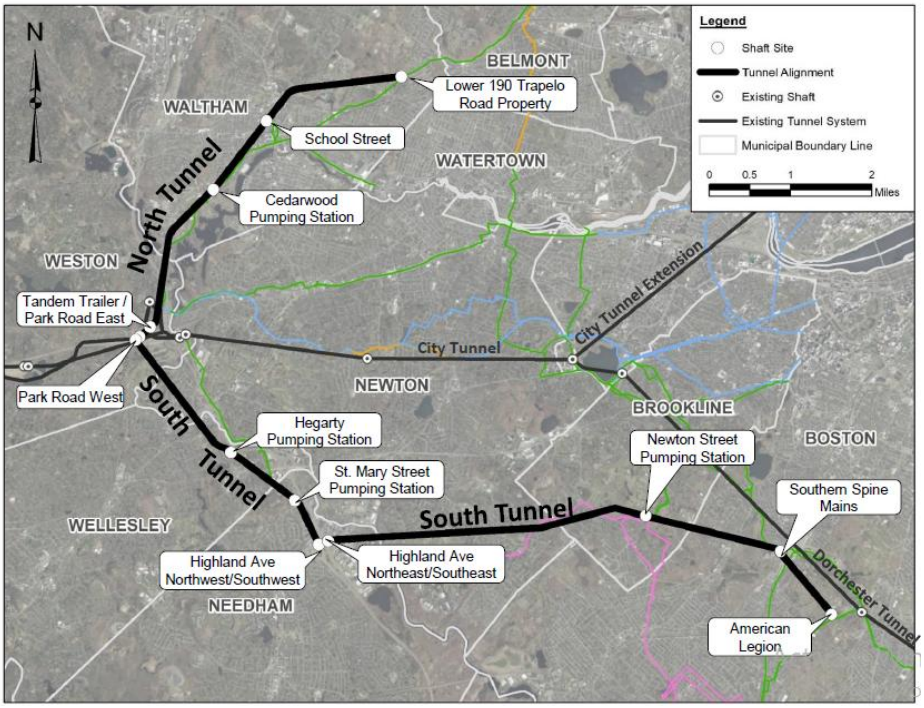
- Paul indicated that the goal of this project is to provide full redundancy to the Metropolitan Water Tunnel System.
  - Provide normal water service and fire protection when the existing tunnel system is out of service
  - Provide the ability to perform maintenance on existing tunnels year-round
  - Provide uninterrupted service in the event of an emergency shutdown
  - Meet high-day demand flow with no seasonal restrictions
  - Avoid activation of emergency reservoirs
  - Meet customer expectations for excellent water quality

- Project as it is now and how it would look when completed (see image below).

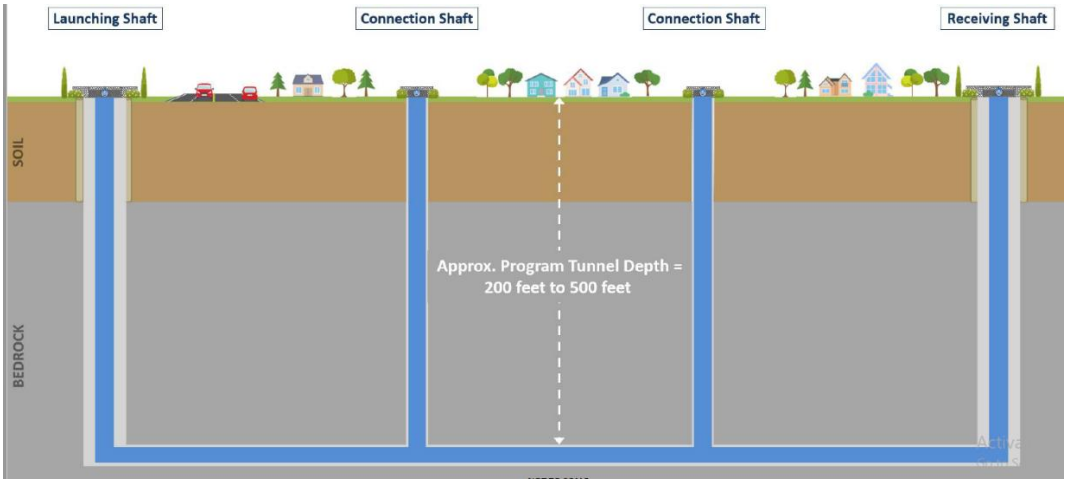


- The Tunnel overview (see image below):
  - 15 miles of deep, hard rock, pressure water tunnels
  - 13 Shaft Sites

    - Tunnels will begin in the Weston (I-90/I-95 vicinity)
    - North Tunnel - ~5 miles, ends in Waltham
    - South Tunnel - ~10 miles, ends in Mattapan near American Legion Hwy
    - Tunnel Construction is anticipated between 2028 and 2040
- Paul talked about the Construction Shaft Sites and the Connection Shaft Sites (see presentation link for details)



- Paul also presented an animated conceptual construction design (refer to the presentation for more details)



- The Preliminary Design (2020 – Early 2024) is completed and will consist of 15 miles of deep rock tunnel and a 100-Year Service Design Life (see details in the presentation)

- MWRA's MEPA filings and Environmental Impact Reports related to the project are as follows (see link for more details):
    - Environmental Notification Form (ENF), March 2021
        - Certificate Issued May 2021
    - Draft Environmental Impact Report (DEIR), October 2022
        - Certificate Issued December 2022
    - Supplemental Draft Environmental Impact Report (SDEIR), July 2023
        - Certificate Issued September 2023
    - Final Environmental Impact Report (FEIR), February 2024
        - Certificate Issued April 2024
    - These documents are available on our website: https://www.mwra.com/mwtp/resources.html#resources

- MWRA has an outreach program and has met with 10 communities and has had numerous meetings with seven communities where the tunnel will be constructed, met with stakeholders and permit agencies, with numerous organizations, businesses & private property owners to coordinate field work, etc. Public outreach will continue through the construction period.
    - Established a Website https://www.mwra.com/mwtp.html and email address (for questions) Tunnels.info@mwra.com (refer to presentation for more detailed information)
- Paul indicated that the Geotechnical Investigation will be done in three phases:
    - Phase 1, Preliminary Design/Environmental Impact Report (2020 – 2023) (Completed)
    - Phase 2, Geotechnical Support Services (2023 – Early 2026) (ongoing)
    - Phase 3, Final Design (2025 – 2028) (Up next)

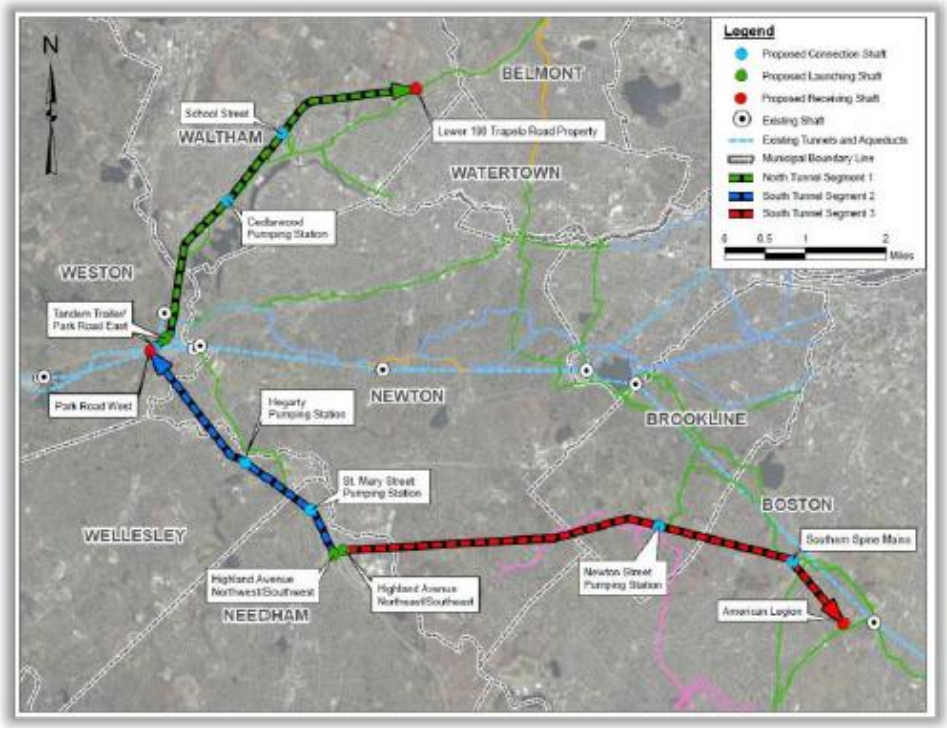
Deep Boring Site Set-up

Deep Boring Site Set-up

- The final design would include:

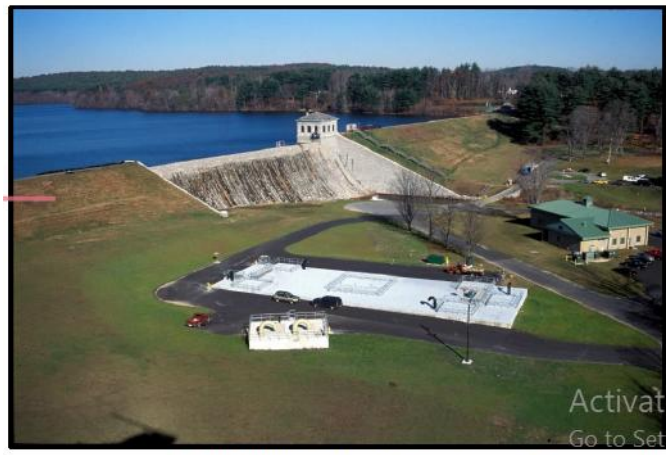
- Detailed Design & Contract Document Preparation
- Geotechnical & Environmental Investigations & Reports
- Field work – Test Borings & Survey
- Land Acquisition
- Permitting
- Community Approvals/Agreements
- Continue Outreach
- Securing Power Supply at Shaft Sites

- The list provided in the presentation provides details about permits and approvals at the municipal, state of Massachusetts, and federal levels.
- The construction schedule is as follows:
  - Tunnel Construction:
    - South Tunnel – 2028
    - North Tunnel - 2029
  - Early Enabling Construction Work: Target to begin in 2026
    - TBM Power Supply – by Eversource
    - Needham Dewatering Drainage Line
    - Lower 190 Trapelo Road Property - Building Demolition
    - Tandem Trailer Parking Relocation



- The infrastructure will be permanent and will be mostly below grade (see examples below, and for more pictures, see the presentation)
  - Top of shaft structure and valve chamber

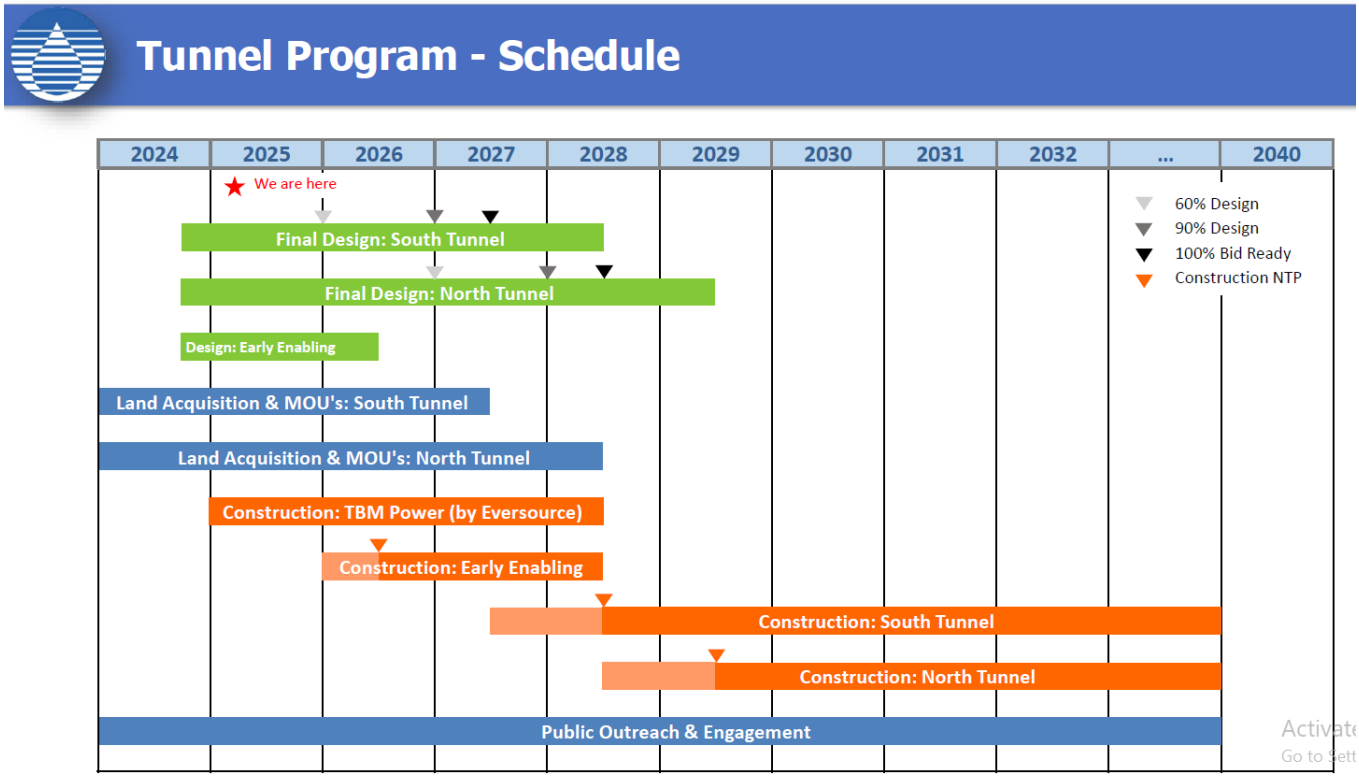
    - (~2 ft above grade)
  - Connection piping (all buried)



MWWST Shaft E, Southborough

MWWST Shaft 5/5A, Weston

- Paul provided a summary of the tunnel program schedule, as seen in the table below.



- Paul also provided contact information for those who want to learn more about the project
  - Tunnel Program Website: https://www.mwra.com/mwtp.html
    - Program Information
    - Reports and other Documents

        - Meeting Agendas and Minutes
    - Program email address: Tunnels.info@mwra.com
        - Public inquiries and information requests
    - Contact Us
        - Carmine DeMaria, Community Relations Coordinator
        - 617-305-5725
        - Carmine.DeMaria@mwra.com

Key Questions and Answers:

Paul Lauenstein: Are there other ways of looking at geology other than boring?

Paul Savard: Absolutely, but he mentioned they use boring because they have a lot of historical data available based on boring techniques, which provides us with information on how the tunnel is constructed (they need to conduct about 100 deep borings).

Ralph Abele: With the boring, you may run into groundwater. Is that part of MWRA permitting or your environmental review? What are you going to do with the water coming back up by the tunnel shaft?

Paul Savard: Yes, part of the tunnel design is to assess the rock core they got. How much water might infiltrate the unit when it is constructed? Metrowest was like that, and what they do is use the core information to see what type of rock condition you may run into. If they anticipate having a water inflow, the contractor working on the TBM out front may be able to conduct probing. They can drill and cut down some of the groundwater before they intercept it. They will reduce the amount of groundwater, but not to zero, and they can estimate what that amount can be. That water can be pumped to the surface and treated; some steps would involve obtaining a water discharge permit from the DEP, which they must go through. All these processes will be defined in the primary design before they advance to the construction phase.

Paul Rybicki: Are the tunnels for the south and the north the same diameter?

Paul Savard: They would be, and they expect them to be between 10 and 12 feet in diameter, the same size as the city tunnel extension in the Dorchester part.

Paul Rybicki: If this boring is going right below my house, and you're not going to conduct a thorough test, do you have to notify me? I wouldn't feel a ground shake, would I?

Paul Savard: No, the boring is so deep. For land acquisition, MWRA will acquire an easement along the tunnel. We estimate the easements to be around 600.

Steve Estes-Smargiassi: If you are right above it, we will take a subsurface easement below your property.

Paul Lauenstein: What is the total cost of the project? And would MWRA bear insurance for the project?

Paul Savard: For the insurance part, the contractor would have the insurance they are required to have. The project's cost is outlined in the CIP, totaling $2 billion for all components.

Bill Fadden: Were the engineers involved, and how was the selection made?

Paul Savard: We made two-step selections from April 2024. We completed the RQ steps and then the RP steps, starting in April, until we received the reward in November 2024. Firms submitted their technical approaches and estimated costs for doing the work, and based on that, the selection was made.

Bill Fadden: Who is the final design consultant?

Paul Savard: The primary is WSP, which teams up with Black & Veatch and several subcontractors. When asked about their qualifications, Paul indicated that they had constructed similar tunnels around the country.

Moussa Siri: Based on what happened at the Dorchester Tunnel, would MWRA put up signs to indicate the tunnel's presence to avoid such an incident?

Paul Savard: We are discussing this with MWRA to ensure proper control, notification, and awareness of any ongoing work.

Steve Estes-Smargiassi: We are currently conducting very aggressive outreach. We provide updated maps to all communities with deep underground rock infrastructures, and we reach out to trade associations and relevant organizations in the town. We want people to understand that when undertaking geothermal work, they should be aware of what may be nearby.

Access all presentations here: https://www.mwra.com/about-mwra/advisory-groups/water-supply-citizens-advisory-committee-wscac/wscac-presentations-0

Moussa thanked Paul Savard and Steve Estes-Smargiassi for coming and for Paul's brilliant presentation. He thanked all attendees and turned the meeting over to Paul Lauenstein to adjourn.

Christine Bennett made a motion to adjourn, and Bill Copithorne seconded the motion!

All in favor!

Meeting adjourned around 11:40 AM.