



Presentation to the

MWRA Advisory Board

Metropolitan Tunnel Redundancy Program Update

January 21, 2021



Program Update

- Program Staffing
- Preliminary Design, Geotechnical Investigation and Environmental Impact Report
- Community and Stakeholder Outreach
- Expert Review Panel (ERP)
- Other Ongoing Program-Wide Activities

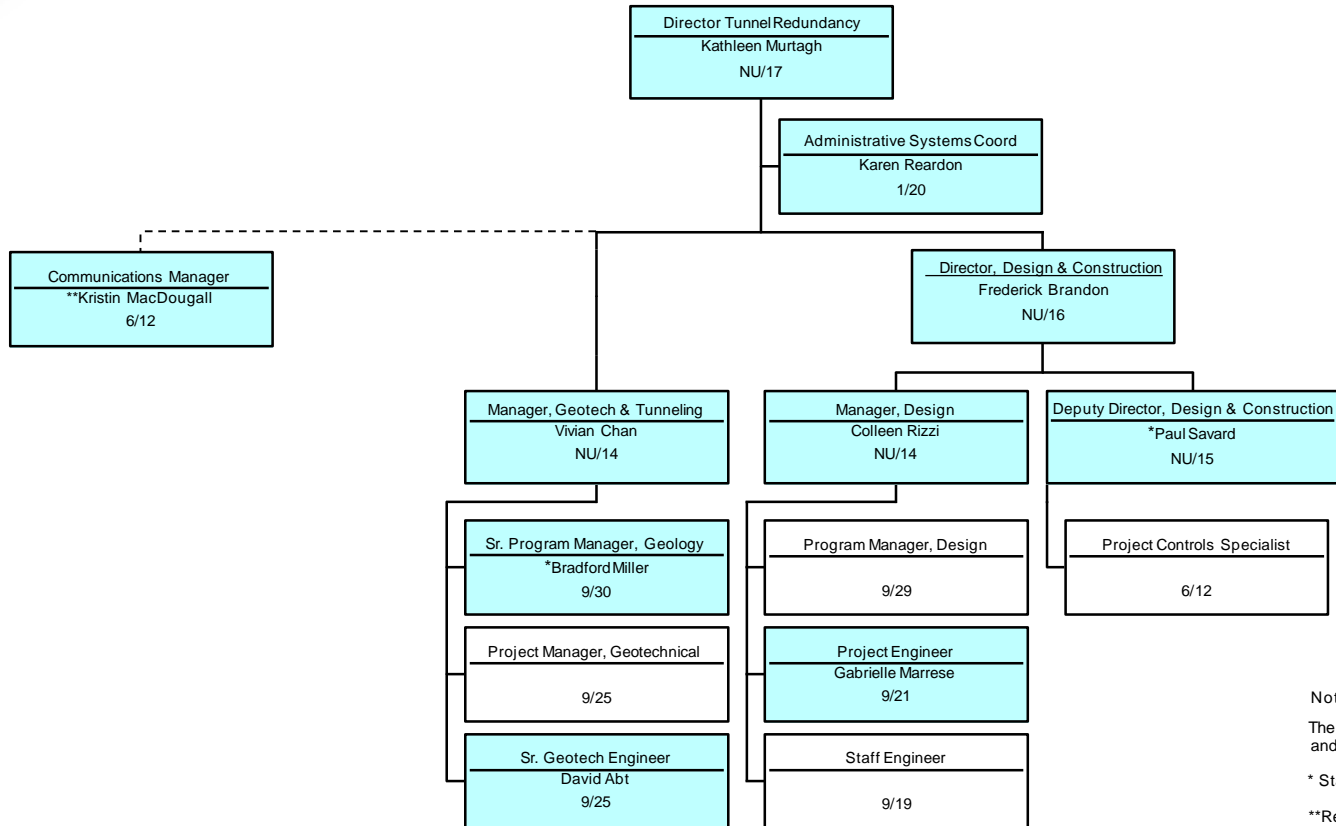


Tunnel Department Staffing Approach

- Build staff capacity to match Program needs
 - Bring expertise and experience necessary to support the Program
 - Plan for the future of the Tunnel Department
 - Grow with the Program
 - Consistent with Expert Review Panel recommendations
 - Approach is consistent with BHP and MWWST
- Tunnel Department staff are assisting with non-tunnel projects where their expertise is helpful



Tunnel Redundancy Department Organization Chart



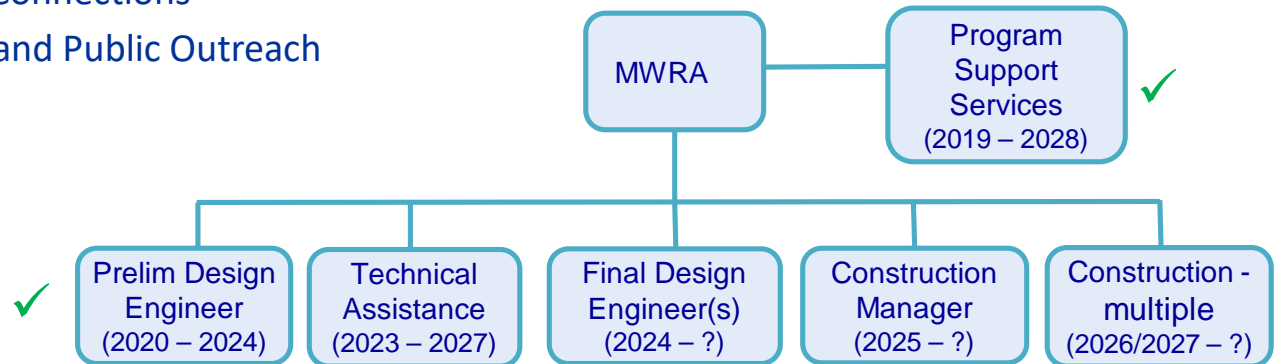
Notes:
The shaded boxes are filled positions and the white boxes are vacant positions.
* Start Date: January 2021
**Reports to the Executive Office



Tunnel Program Structure

Tunnel Program FY21 CIP Items

1. Program Support Services
2. Preliminary Design/Phase 1 Geotech/MEPA Review
3. Technical Assistance
4. Final Designs – at least 2
5. Construction Manager – 1 or more
6. Construction Shafts & Tunnels – 2 or more
7. Construction Surface Connections
8. Administration, Legal and Public Outreach





Preliminary Design Key Activities

Preliminary Design Began in July 2020:

- Duration of 3.5 years
- File Environmental Notification Form (ENF) in early 2021
 - ENF will propose Program Study Area for Tunnel Alignment Alternatives Evaluation
- Evaluation of Alternatives (2021 – 2022) - Select Shaft and Connection Locations
- Extensive Public Engagement – Working Group (early 2021 – 2023)
- Geotechnical Investigations (begin early 2021)
- Mapping and Survey
- Environmental Impact Reports (Fall 2022)
- Preliminary Design (complete by Dec 2023)





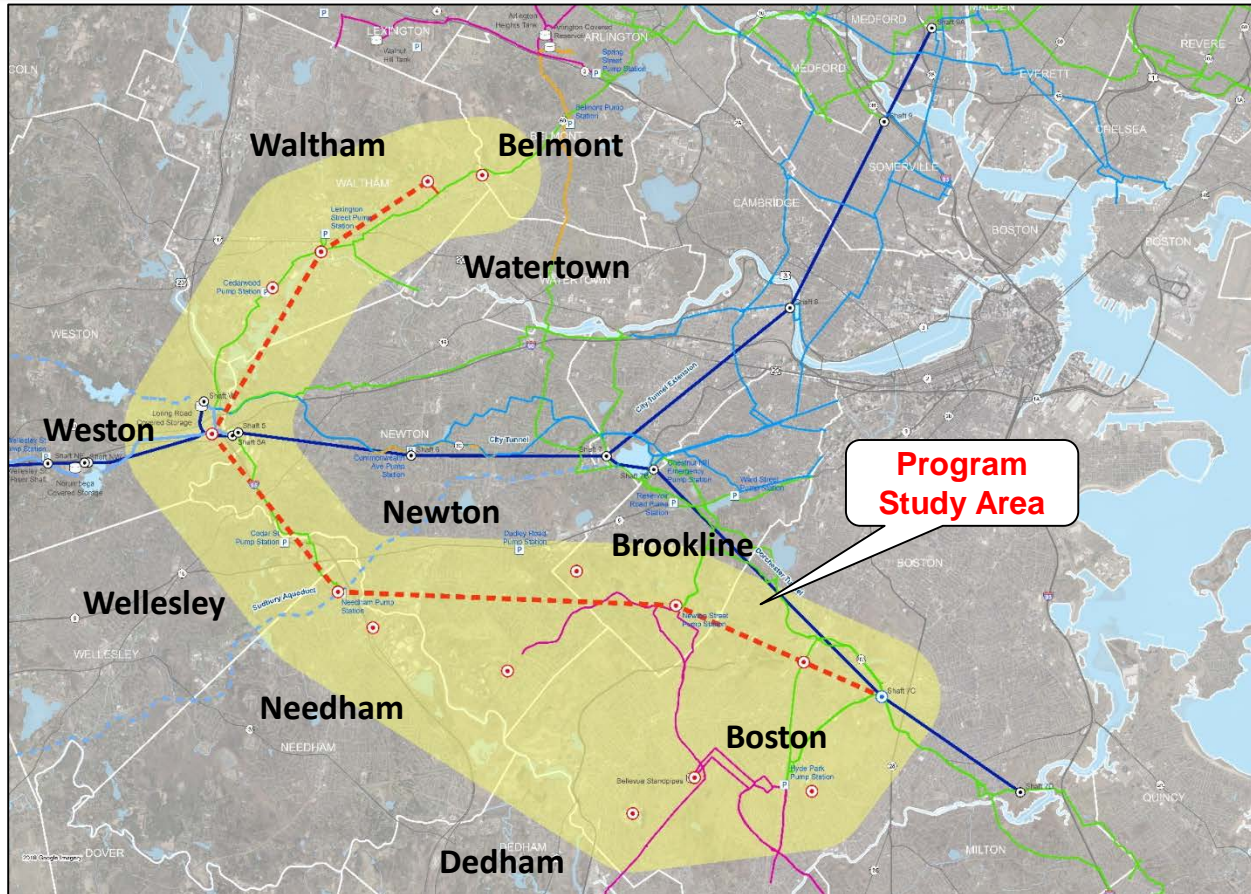
Tunnel Redundancy Program Schedule

- **Technical Assistance: 2023**
 - Field work – borings, survey, etc.
 - Other “data” collection
- **Final Design: begin in 2024**
 - Two or more final design contracts
 - Additional geotechnical investigation, survey, State and local permitting
 - Preparation of bid documents
- **Construction Manager: begin in 2025**
 - Evaluating # of contracts
 - Provides management and inspections of all construction work
 - Experienced with rock tunnel construction
- **Construction: begin in 2026 or 2027**
 - Two or more tunnel construction packages
 - Each contract lasts 5 years+/-





Program Study Area



--- Conceptual Tunnel Alignment



Community and Stakeholder Outreach

- Launch simultaneous with Preliminary Design
- Outreach to Community Leaders
 - Upcoming work in their city/town
 - Expectations in years ahead
 - Opportunities for input
 - Coordination on real estate needs
 - Connections to local systems
- Establish Working Groups
- Early coordination with state agencies
 - EEA Agencies/MEPA, MassDOT, DCAMM, DCR





Tunnel Working Group Concept

- Includes all 10 communities
 - One (or more) representative from each community
 - Initial Working Group for this Program will consist to 10 to 12 members
- Transparent process for evaluating and selecting shaft sites and tunnel alignments
- First Working Group meeting in early 2021, prior to filing ENF
- Monthly meetings through the evaluation of alternatives (Winter 2021 – Spring 2022)





Expert Review Panel Meetings



- November 2019 – Program Kick-Off
 - Program management, staffing, communications, tunneling & geotechnical challenges, contract practices
- September 2020
 - Risk Management Plan
- September 2020
 - Preliminary Design Work Plan and Schedule
- January 2021
 - Geotechnical Investigation Work Plan (Ph1A)







ERP Key Recommendations

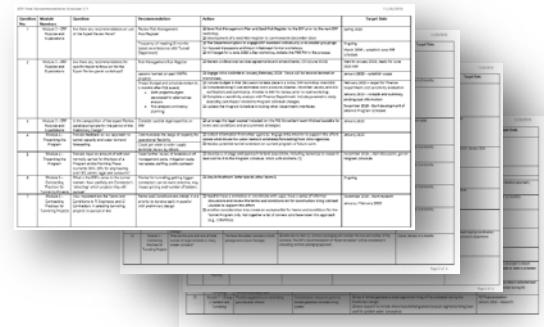
November 2019:

- Shaft siting and land acquisition 
- Key Dept. positions – staff sooner
- Contract practices – start sooner
- Geotechnical approach 
- Collaborative approach – keep doing it!



September 2020:

- PDE workplan & schedule.....
- Master program schedule – do it now
- Communicate early with key parties
- Shaft sites 
- Time, inflation, delays = \$\$\$\$
- Risk Management approach 



Category	Item	Responsible	Status	Notes
1	Shaft Siting	John Doe	Complete	Final location determined.
2	Land Acquisition	Jane Smith	In Progress	Final contracts pending review.
3	Contract Practices	Mike Johnson	Review	Finalizing terms and conditions.
4	Geotechnical Approach	Sarah Lee	Complete	Final report submitted.
5	Collaborative Approach	David Kim	Ongoing	Regular meetings with stakeholders.



Other Program Activities

Completed Program-Wide Guidelines and Standards

- Program Risk Management Plan
- Program Quality Management Plan
- Program Delineation Report
- Existing Geotechnical Data Report
- Geotechnical Field Manual
- Geotechnical Data Management Plan
- Hydraulic Analysis
- Program Management Plan
- Document Control Plan
- Style Guide

Ongoing Program-Wide Activities

- Expert Review Panel
- Program Guide Specifications
- Program Budget Analysis
- Program Schedule Development
- Project Controls
- Contract Practices
- Community & Stakeholder Outreach
- Industry Outreach



Future Updates

Plan to update MWRA Board at key milestones through Preliminary Design

- Proposed tunnel alignment and shaft sites (late 2021/early 2022)
- Draft Environmental Impact Report (mid 2022)
- Geotechnical program progress (TBD)
- Preliminary Design (multiple, mid-late 2023)
 - Cost estimate
 - Schedule
 - Contract packaging

Additional updates – topics/dates TBD





<http://www.mwra.com/mwtp.html>



Thank You!