Progress Meeting – MWRA Supply Study

Town of Wayland Board of Public Works

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MWRA Supply Study

- Introductions & Meeting Objectives
- Project Scope & Schedule
- Options – MWRA Only / Local Only / Hybrid
- Progress to Date & Ongoing Evaluations
- Key Considerations / Decision Factors
- Cost Evaluation Approach
- Perspective from Other Communities *(time permitting)*
- Discussion
- Next Steps

MWRA Supply Study

Meeting Objectives

1. Progress update - initial findings & thoughts
2. Discuss knowns/unknowns
3. Listen to Board concerns & questions

MWRA Supply Study

Scope & Schedule

- NTP: 6/15/21
- Draft Report due 10/15/21
- Original Contract Scope:

  Focus on fully supplied MWRA conversion; water quality / blending analysis by others; local sources costs by others.
- Scope Revision:

  Evaluate hybrid solution which uses MWRA as supplemental source.

  Will need to evaluate water quality; develop costs.

MWRA Supply Study

Options & Approach

- MWRA – Fully supplied by MWRA Water System
- Local – Upgrade & Maintain Town Supplies
- Hybrid – MWRA to supplement Town Sources

- *Understand the end points and optimize a hybrid solution*
- *Utilize a 50-year planning period for life cycle cost comparison*

Summary of Key Decision Factors to be Compared

- Capacity to supply current / future needs
- Capital improvements required
  - MWRA connection
  - Local sources (near term)
  - Potential additional capital needs in planning period
- Recurring operations and maintenance costs
- Uncertainties
- Permitting / Regulatory considerations
- O&M considerations
- Other Benefits or Concerns

Local Supply / Hybrid

Progress to Date

- ✓ Reviewed existing Asset Management & Capital Plans
- ✓ Reviewed demand and pumping data

Next Step Evaluations

- Compile water quality trend data, capital, maintenance needs
- Assess best combination of sources for long term needs
- Develop capital and maintenance costs

MWRA Supply Option – Progress to date

- ✓ Evaluated options for Shaft L connection
- ✓ Evaluated distribution system upgrades
- ✓ Meeting w/ MWRA on 8/16; discussed:
  - Shaft L connection / Elm Street Pump Station
  - Hultman Aqueduct
  - Wheeling through Weston
  - Wheeling through Framingham

MWRA Supply – Discussion w/ Map

- Connection point
- Route(s)
- Infrastructure / Easement needs

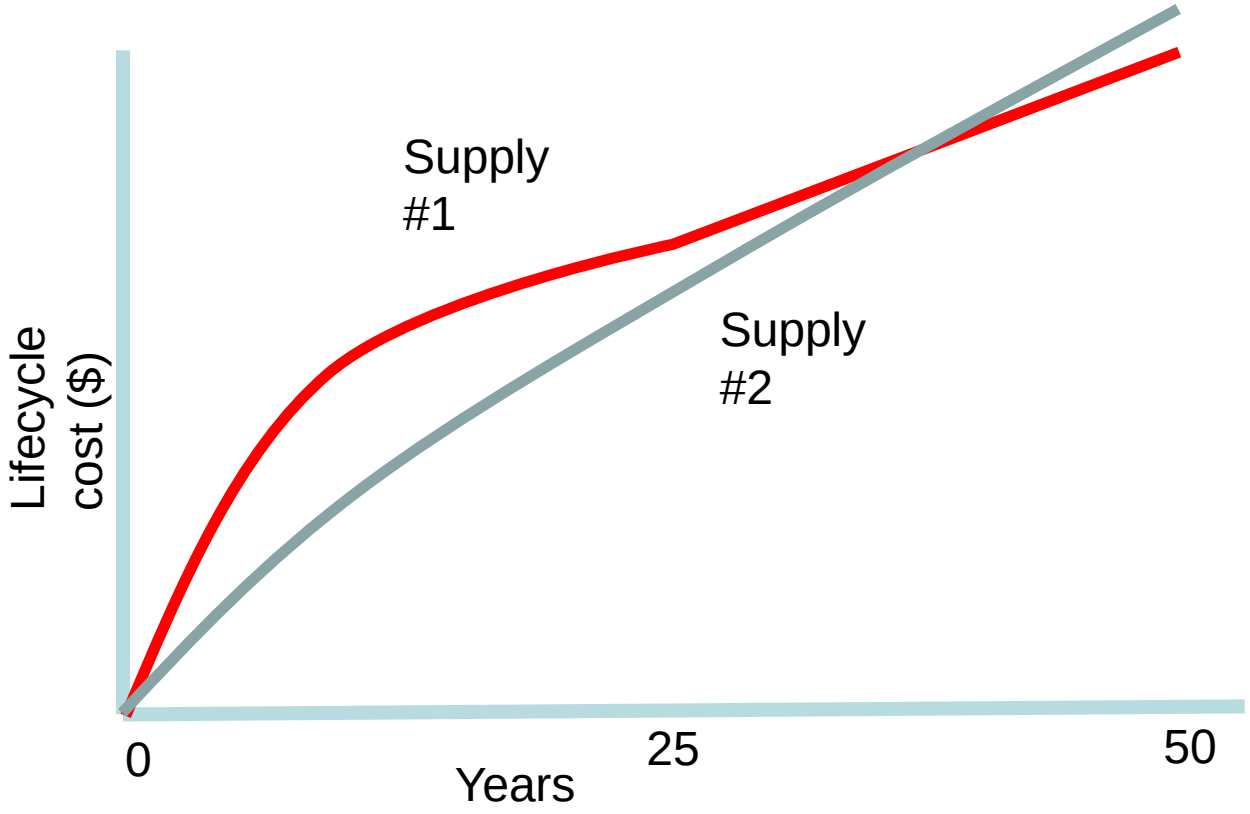
MWRA Supply – Next Steps to Evaluate

- Elm Street connection
  - Hydraulics
  - Infrastructure & Easement needs
  - Cost
- Water quality
  - MWRA will model for Wayland, need to provide % blend
  - Cost to chloraminate
  - Considerations – potential taste/ odor / discoloration; corrosion study will be required for lead/copper compliance

Cost Evaluation Approach

Supply Alternative	Initial Costs (Year 0)	Lifecyle Cost at 25 years	Lifecycle Cost at 50 years
Full Local			
Full MWRA			
Blended			

Example lifecycle cost comparison



MWRA Cost Components

Infrastructure

- Connection at MWRA
- Transmission main and pump station
- Upgrades to Wayland's water mains

MWRA Fees

- Entrance fee
- Wholesale water rate
- **Annual Water Budget**

Local Supply Cost Components

Infrastructure

- PFAS treatment
- Well rehabs
- Treatment upgrades
- Other planned upgrades from Asset Management Plan
- Redundant storage tank
- Recurring / foreseeable local supply upgrades for 50 years

Annual Water Budget

Hybrid Supply Cost Components

Infrastructure

- PFAS treatment
- Well rehabs
- Treatment upgrades
- Other planned upgrades from Asset Management Plan
- ~~Redundant storage tank~~
- Recurring / foreseeable local supply upgrades for 50 years
- Connection work at MWRA
- Pump station for MWRA water
- Transmission main
- Upgrades to Wayland's mains

MWRA Fees

- Entrance fee
- Wholesale water rate

Annual Water Budget

MWRA Supply

Perspective From Other MWRA-Served Communities

- Wilmington
- Reading
- Stoughton

Wrap Up / Next Steps