



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

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WSCAC In-person Meeting Minutes

Tuesday, April 08th, 2025

Meeting time: 10:00 AM – 1:00 PM

Location: DCR Watershed Field HQ at John Augustus Hall, 180 Beaman Street, West Boylston, MA

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
- **John Gregoire**, MWRA
- **Ken Mackenzie**, DCR
- **Lou Taverna**, MWRA Board of Directors
- **Purvi Patel**, EEA
- **Adriana Cillo**, BWSC/WAC
- **Heather Conkerton**, OARS
- **Andreae Downs**, WAC
- **Marie Siri**, Public
- **Moussa Siri**, WSCAC Executive Director

I. Introduction (Moussa Siri, WSCAC)

Moussa Siri welcomed the participants and expressed his gratitude to those who attended the meeting. After welcoming the participants, Moussa presented the agenda. He then passed the floor to Paul Lauenstein, WSCAC chair, to check attendance.

II. WSCAC Businesses

Roll Call and attendance Check (Paul Lauenstein, WSCAC Chair)

Paul Lauenstein also thanked attendees for coming and proceeded with the roll call. After the roll call, Moussa added that the vote on the meeting minutes for the March 28th meeting would take place at the May 13th meeting.

III. Briefings

WSCAC Briefing (Moussa Siri, WSCAC)

Moussa Siri indicated that:

- WSCAC water conservation and forestry subcommittees have been meeting and discussing.
- Subcommittees will be giving brief updates during the upcoming meetings.
- The water conservation subcommittee will explore and write a support letter for the drought bill to be submitted to the committee for review and input.
- A discussion will be held to identify a topic for the May 13 meeting, as Colleen Rizzi (MWRA) requested to postpone the Quabbin Communities meeting related to the Quabbin Feasibility Study.

WAC Briefing (Andreae Downs, WAC)

Andreae Downs' briefing consisted of the following points:

- The WAC Alewife Tour, scheduled for May 2
- Combined Sewer Overflows (CSOs) next phase
- Sludges and contaminants (PFAS)
- The Wipes bill at the state level

MWRA Briefing (Steve Estes-Smargiassi, MWRA)

Steven Estes-Smargiassi's briefing addressed a question related to the MWRA Drought Management Plan Updates and some changes related to the current drought conditions.

- The risk and Resiliency Assessment of MWRA systems required under AWIA was certified to the EPA on time prior to the March 31 deadline. Now, the emergency response plan will also be updated by September as required by the 5-year update requirement.
- Water quality report—one of the themes is that MWRA is 40 years old this year. Will highlight accomplishments
- Lead and LSL replacement. State DEP just filed a report on all the LSLs in the state. The MWRA system has about half of them. Less than half of the unknown service lines. MWRA is aggressively working with communities to get rid of LSL

- MWRA has already sent a draft drought response plan to the state. MWRA is among those utilities that have Water Management Act registrations rather than permits because they use less water than they did in the early 1980s, but with changes in the WMA regulations, they would now be controlled by state drought status restrictions. Under the revised regulations, systems like MWRA's with multi-year plans can submit a system-specific drought plan, which MWRA has done. Steve would be happy to present on the new drought plan in more detail at the next meeting.

IV. **Presentation on Quinapoxet Dam Removal Project (John Gregoire, Senior Program Manager, Reservoir Operations from MWRA)**

John welcomed and thanked participants for attending this session, and introduced the presentation key points (see presentation link at the end for more information if interested):

- MWRA
- Brief overview: rationale for dam removal, design components

Project commencement October 2024

- River bypass methods
- Turbidity monitoring
- Physical dam removal
- Urgent acceleration of the critical component
- Time-lapse video
- Current site work

Project location

John Gregoire indicated that Wachusett Reservoir has three major inputs:

- Stillwater River from the north,
- Quinapoxet River (today's discussion) from the west,
- Quabbin Aqueduct, also from the west.



✚ Historic River Channel ca. 1902

John indicated:

- That they kept Wachusett as full as possible, so it might fill up the 3-arch bridge and essentially fill the new flood plain and drop its sediment load.
- The dam was built for sediment control using a 1905 technology

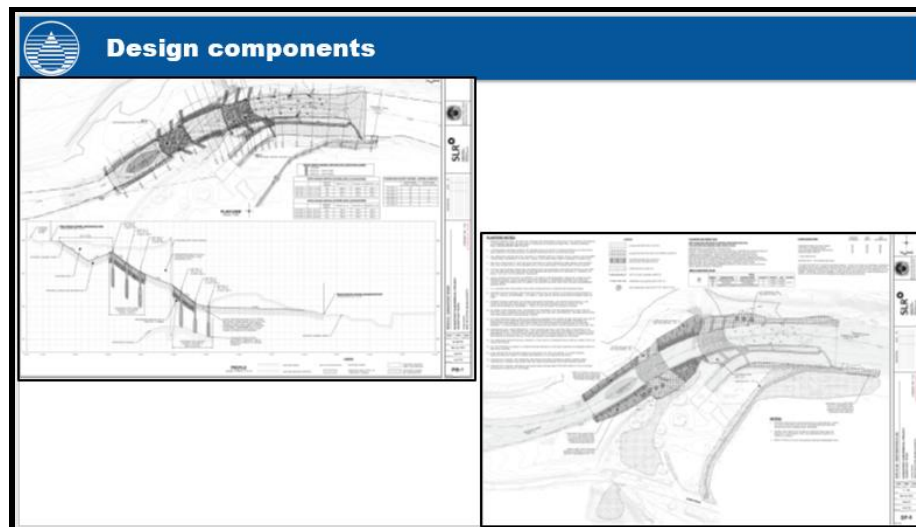
✚ Rational dam removal (see presentation for pictures)

- The dam was constructed for sediment and turbidity control,
- Function obsolete now due to modern reservoir operation with more effective controls for turbidity,
- Necessity to restore fish passage (landlocked salmon and native trout) up to the Quinapoxet River,
- Dam in poor condition and repair requires expensive investment (~ \$1 M),
- Return River to a natural riverine hydrology aids in climate resilience.

Note: For the project team and permitting, please see the slides at the link at the end.

✚ Design components

- Dark areas on the plan and profile images
 - Upper left illustrates the main river channel redesigned into a riffle/pool system
 - The lower right illustrates detailed design components for the floodplain and riverbank restoration



✚ Construction phases

These are the original 3 phases planned:

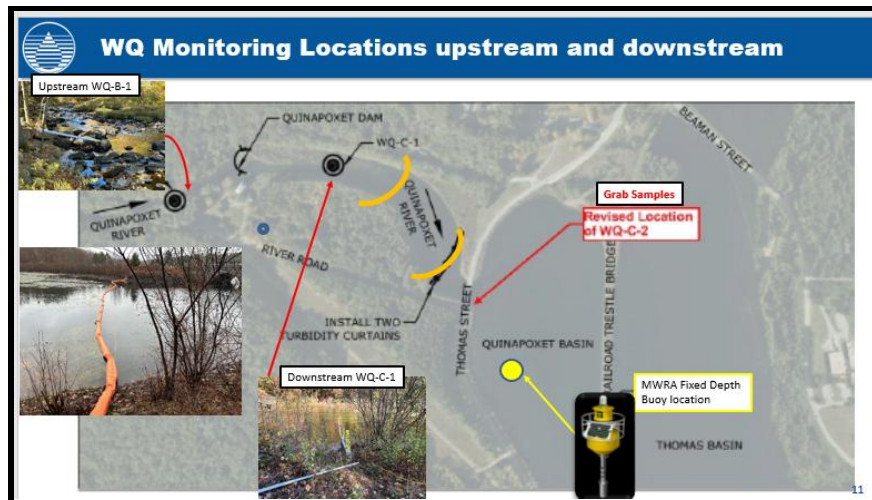
Phase I. Initial coffer-damming of the river and bypass flow structure,

Phase II. Phase 2 involves the actual water diversion, some limited groundwater pumping to keep work areas dry, culvert crossing, etc., and then the demolition of the masonry structures.

Phase II. Phase 3 consists of installing the tailrace channel, reconstructing the river, installing an ADA fishing platform, and bioengineering the floodplain.

Water quality monitoring locations upstream and downstream (see image below)

- Ensure that the Filtration Waiver is not affected (not to jeopardize our Filtration Waiver for Wachusett Reservoir)
- Required the contractor to hire an independent testing contractor to install real-time water quality monitoring equipment.



Bypass pumping – Low-flow conditions (< 20 cubic feet/second) (see slides for images)

- Bypass the river to be able to work in the dry
- Low flow conditions, installation of 3 12" pumps (2 active and one in reserve) and an 18" bypass pipe with a dissipater at the discharge
- Much of the project was done during the ongoing drought last fall/ early winter, the river was at a low flow, and the bypass was employed often.

Open channel bypass – high-flow conditions (see slides for images)

- Bypass system for bankfull conditions up to 830 cfs.
- Done with an open channel constructed out of bin blocks with a reinforced polyethylene liner

Demolition details

- The structure was saw-cut vertically and horizontally after the dam was exposed and dried out.

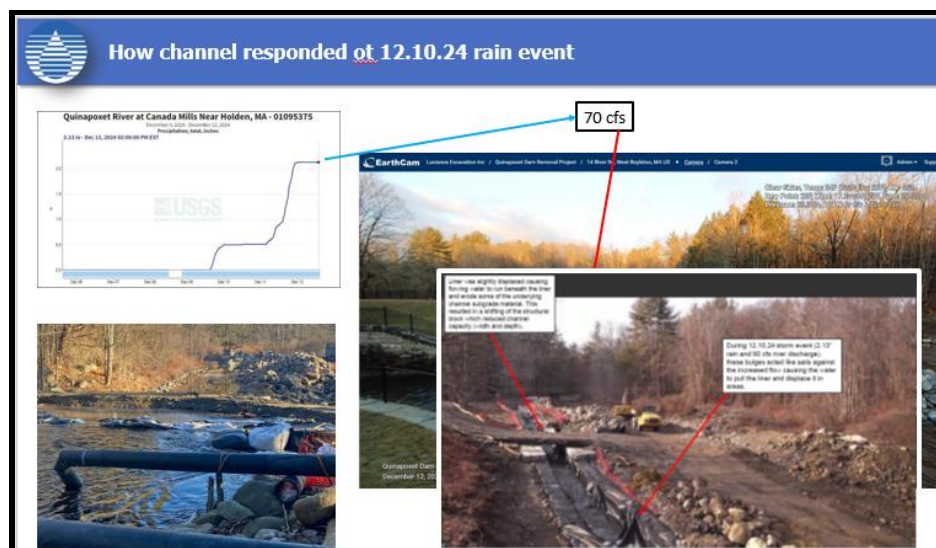


✚ **Accelerated Tailrace Berm Extension due to critical drought, Nov. 2024 (see slides for images)**

- The two major rivers feeding Wachusett were at a very low flow.
- Demand went up, and the reservoir elevation went down fairly quickly.
- Provision in the contract to be able to turn the Quabbin transfer back on in an emergency.
- Necessity to accelerate the Phase 3 component, the Quabbin tailrace extension berm, in order to urgently bring more water into the reservoir to meet demand.

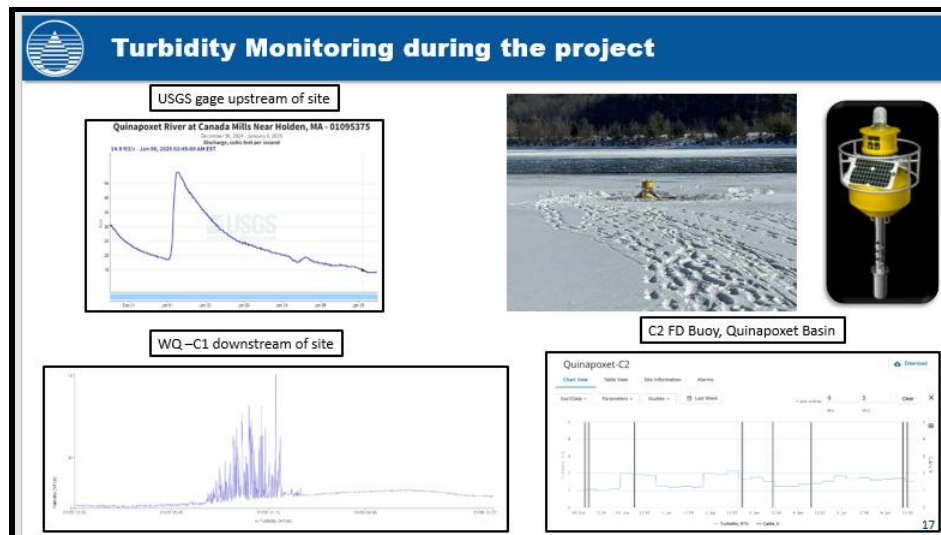
✚ **Channel responded to 12.10.24 rain event.**

- Open channel, tested during a December rain event over 2”.
- The channel was able to bypass the high flow in the river.
- But the open channel suffered some damage



✚ Turbidity Monitoring during the project

- Clear big pulse of high flow across the site.
- The turbidity increased downstream (substantial earthwork and channel disruption, so we expected fines to wash out over time)
- The river flow travels across two turbidity curtains, and then the MWRA FD Buoy, upper right in the first reservoir basin.
- The readings were nearly always under 2 NTU, most times just above 1.



✚ Restored the river channel downstream

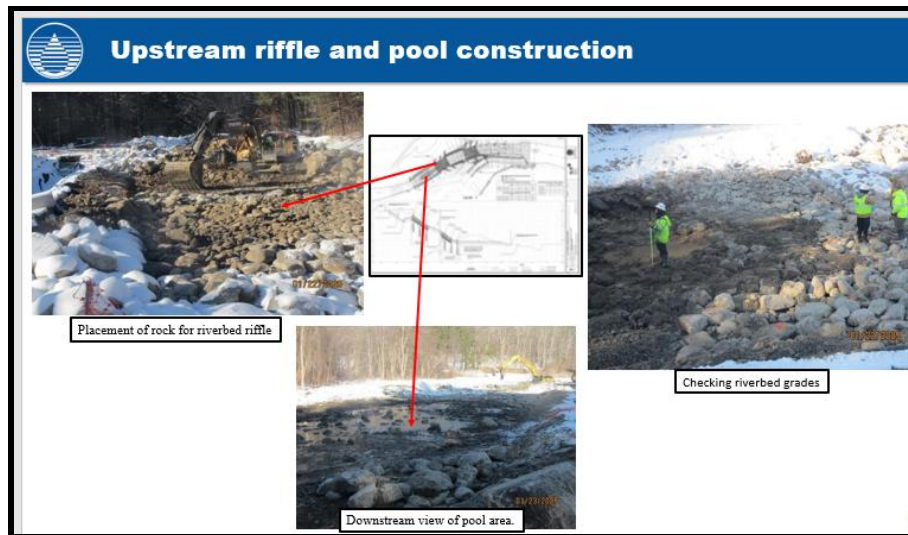
- The restored downstream channel,
- Note the restored floodplain bank on the river left.
- The roots exposed riverside— essentially mimicking natural fallen trees as a riverine embankment feature.



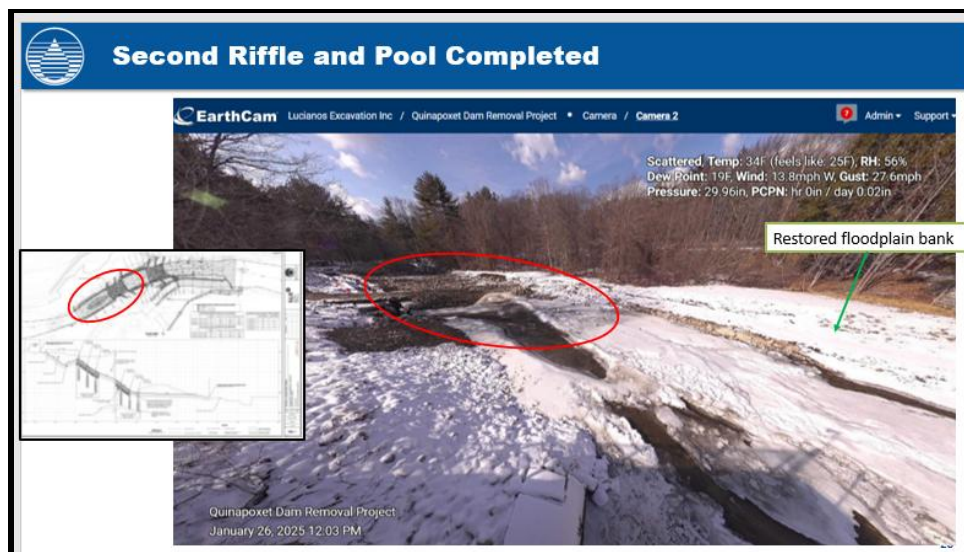
✚ Upstream riffle and pool construction

- Upstream to start the riffle and pool system there

- Periodically rest in a pool setting before resuming the fish journey through the next rapids.

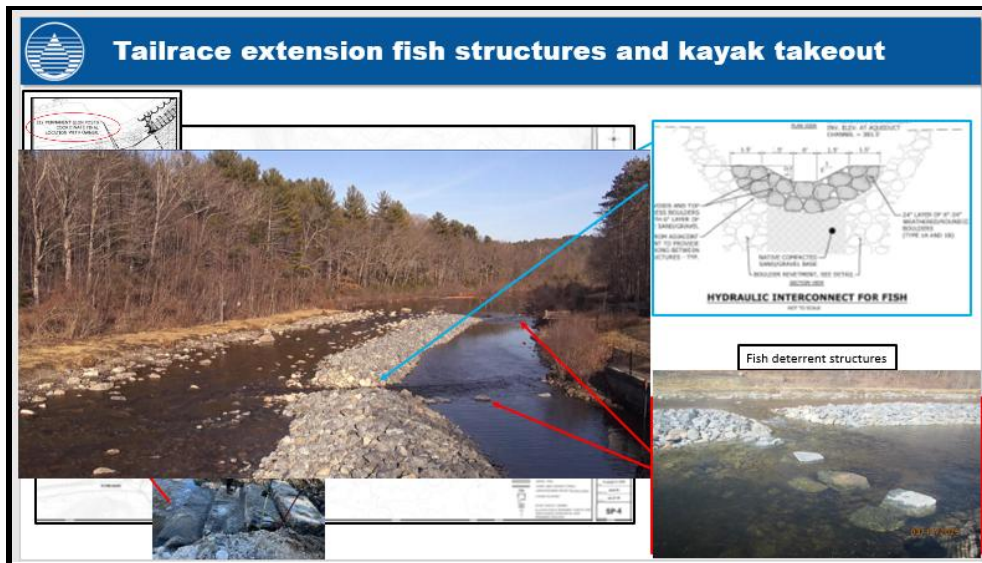


- The upstream riffle/pool system is completed, as well as the floodplain and bank

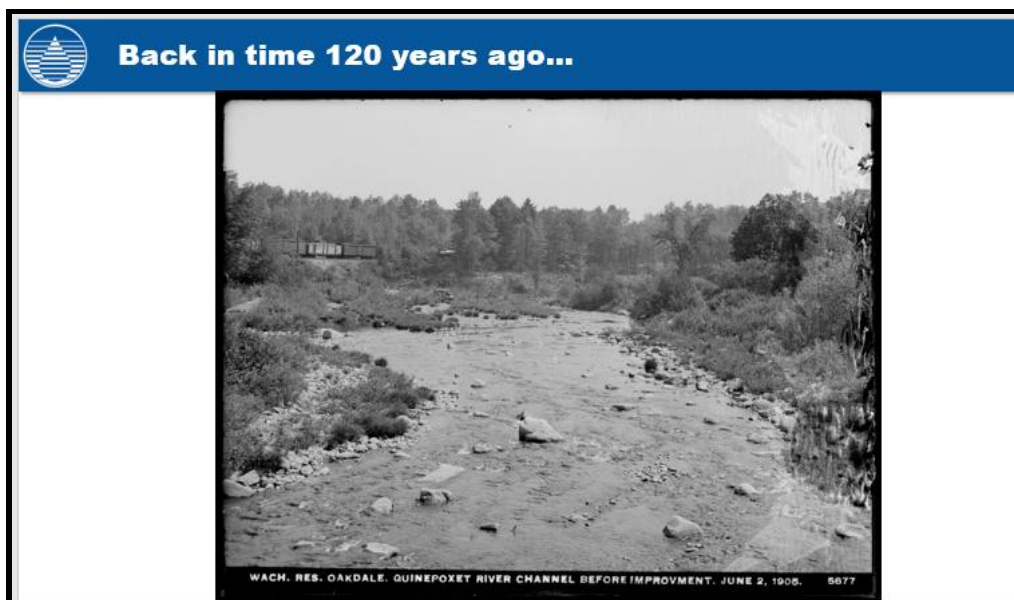


✚ Tailrace extension fish structures and kayak takeout

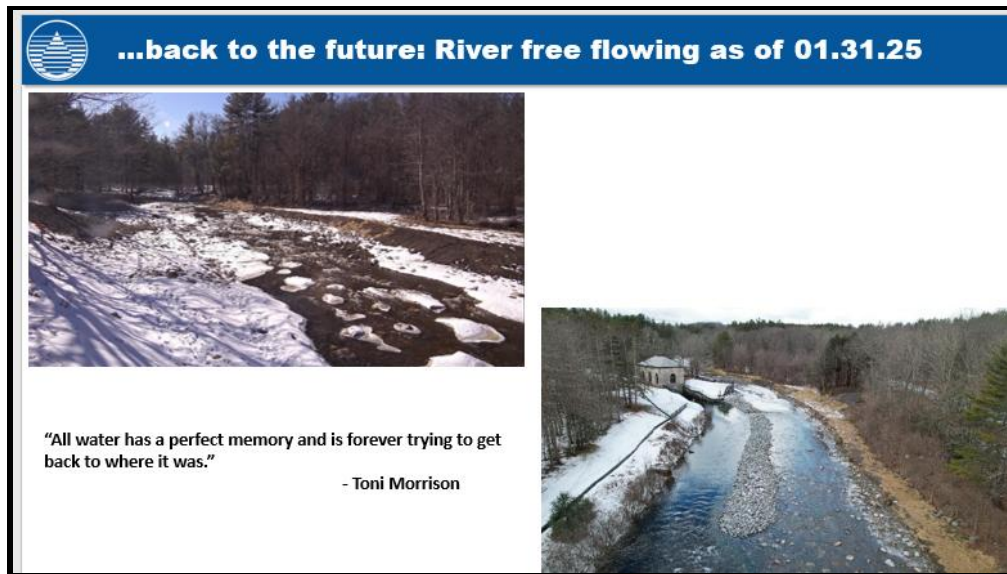
- The project also includes a kayak takeout
- Also includes the fish deterrent structures.



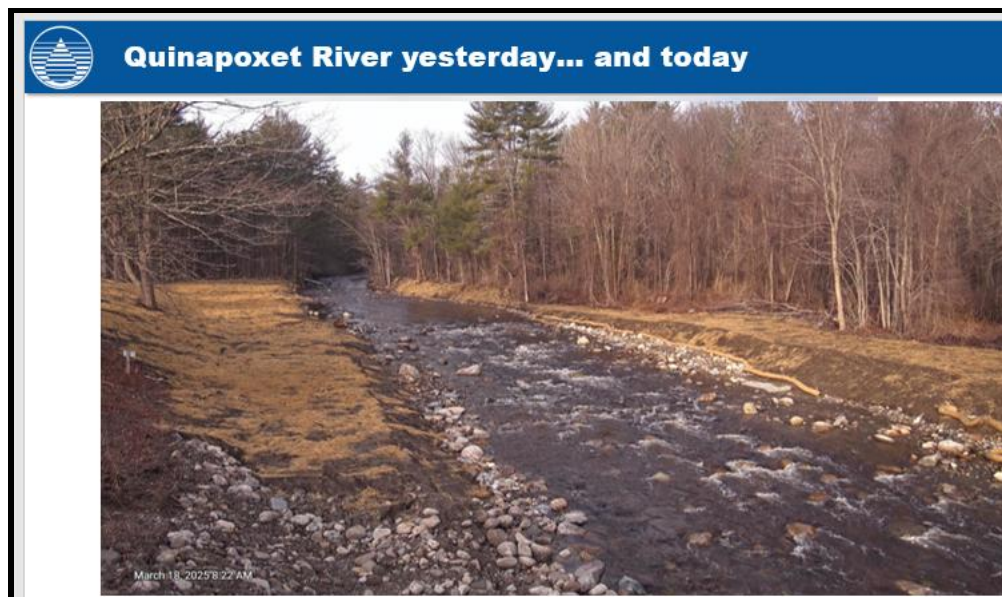
✚ Quinapoxet River, then (before the dam construction)



✚ Quinapoxet River on January 31st, 2025



✚ Quinapoxet River on April 7 and 8, 2025



Note: For the project time lapse video, see slides from the link provided at the end.

✚ Next up: Bioengineering work

- The river bank bioengineering and plantings are going in to mimic what the river would do naturally over decades.
- The river floods its bank, deposits silt and organic debris, sticks, and vegetation.
- Creation of a lasagna with layers of organics and sediment

Next up: Bioengineering

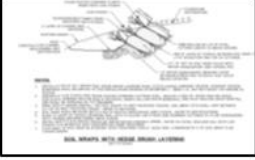
April:

- Soil wraps




Live Stakes






- Ribbon Cutting Ceremony for restored Quinapoxet River

- Public access amenities**
- DCR a new ADA-accessible fishing platform just downstream of the project site.
 - The new platform is modeled on structures that the National Park Service has built at other DCR state parks.
 - A spur path off the rail trail as an amenity to the Town of West Boylston for their support in allowing us to use the RT for construction access.
 - Ribbon cutting April 23.
 - Will do 2-year post-construction monitoring

Cheers for attending this presentation!



Big thanks to:

- Designer: SLR International
- Contractor: Lucianos Excavation, Inc.
- RE: Kleinfelder
- MWRA Water Quality, Operations, Permitting and Construction Teams
- Town of West Boylston
- MA DCR Watershed Division
- MA DER

... and many more who influenced and touched this project

John.Gregoire@mwra.com

Link to presentations: <https://www.mwra.com/about-mwra/advisory-groups/water-supply-citizens-advisory-committee-wscac/wscac-presentations-0>

V. Field Tour (Led by John Gregoire, MWRA)

✚ Here are some pictures of the field tour.







✚ **Adjourn at 1:00 PM**

After taking some group photos of attendees and receiving some positive feedback about the tour, the field tour ended around 1 pm.