

**Mystic River Watershed Steering Committee
Meeting Focus: Brownfields Redevelopment
September 12, 2019**
Encore Boston Harbor, Everett

Meeting Summary

Meeting in Brief

The Mystic River Steering Committee's September meeting focused on brownfields redevelopment in the Mystic. Jim Byrne from the EPA Brownfields Program described the program, Adi Nochur from Groundwork USA described their partnering and technical assistance programs, and Natalie Brown from Wynn Design & Development described the extensive site remediation and living shoreline. Presentation slides from the meeting are available at <https://mysticriver.org/epa-steering-committee> and <https://www.epa.gov/mysticriver/mystic-river-watershed-initiative#MeetingsEvents>. A list of meeting participants can be found at the end of this document. For more information about the steering committee and current efforts to restore the Mystic River watershed, please visit www.epa.gov/mysticriver.

Next Meeting

The next committee meeting is scheduled for December 5, 2019 at Winchester Town Hall.

Welcome & Overview

Mel Cote (EPA) and Patrick Herron (Mystic River Watershed Association) are the Mystic River Watershed Steering Committee co-chairs. They welcomed participants, introduced Encore's community liaison Windy Pham and thanked her for her extensive outreach efforts, and thanked Encore Boston Harbor and Everett for welcoming everyone. Natalie Brown, Project Manager (Wynn Design & Development) welcomed participants to Encore Boston Harbor.

Steering Committee Business

Ona Ferguson (the Consensus Building Institute) shared the high level findings from check-in calls CBI staff held this summer with 16 people affiliated with municipalities, agencies, and other entities that participate in the steering committee. The purpose was to do a quick, light-touch check in to hear any feedback on how this committee is serving those in the Mystic River watershed and gather input on how it can continue to serve a useful function.

The overall themes were that people who participate find these quarterly meetings a great forum. They say they have built relationships, and value especially having MassDEP, EPA and other agency participation. They recommended shifting meeting agendas to be more interactive and less presentation-heavy, like especially meeting in the watershed (not downtown), and said the quarterly meeting and 10am-noon timing and frequency are appropriate. Some suggested reaching out to municipalities and agencies that are not attending occasionally to see if there's a way to make this network useful to them. People also named

topics that are at the front of mind for them on open space and water quality, including climate change and – across many interviews – community engagement.

Updates and Announcements

- Mel Cote (EPA) welcomed Darya Mattes, who is going to be the new Mystic urban waters ambassador. She starts next week and will be housed at Groundwork Somerville. Darya spoke briefly and looks forward to working with everyone.
- Mel Cote also noted that EPA Region 1 has a new Regional Administrator: Dennis Dezil. He's from New Hampshire and shares our concerns for clean air and water. An announcement of his appointment can be found [here](#).

EPA Brownfields Program

Jim Byrne, EPA Brownfields Program, presented an overview of EPA's Brownfield Grants Programs. See slides for detail.

The annual appropriation is \$150-\$160M for the Brownfields program, of which about \$50-60M is used for grants. Guidelines for the upcoming funding cycle should be released in early October. Proposals will be due in early December. Winners are announced in the spring, and grants are awarded in the summer.

\$444 million in EPA brownfields grants have been awarded to New England communities since the program's inception. 424 sites have been cleaned up, and it has leveraged over \$3.2B in cleanup, construction and redevelopment. \$9M have been allocated to the Mystic watershed in assessment and cleanup funding. The only current project is an assessment grant with the city of Everett. The BUILD Act, March 2018 (the Brownfields Utilization, Investment and Local Development Act) expands and clarifies liability protections to municipalities that want to address brownfields.

To deal with brownfields, do an AAI before acquiring the land. Doing this indicates that you knew about the contamination when you got the land and you aren't responsible for it. You need to do it a year before acquiring the land and update it occasionally. Then, once you acquire the property, you need to stop any continuing releases. Many are eligible for EPA grants, including states, tribes, councils of governments, non-profits and more.

The major EPA programs are: (a) assessment grants of \$200-\$600K, (b) cleanup grants of \$500k, (c) multi-purpose grants up to \$1M for assessment and clean up, (d) revolving loan funds of up to \$1M for clean ups, and (e) targeted brownfields assessments for technical assistance.

In Jim's experience, brownfield programs are most successful when a municipality is aggressive and, with EPA support, cleans up a property and then hands it off to a developer. States get cleanup funding from EPA (MA gets ~\$900K annually to run the brownfields program).

Opportunity zones are state-nominated and IRS certified census tracts in or near low income communities. Investors can receive favorable tax treatments for investing in qualified opportunity zones. Those include: Cambridge, Chelsea, Everett, Malden, Medford, Somerville, Winthrop. Jim invited people to contact him any time (Byrne.james@epa.gov).

Discussion, with Jim's responses in italics

- Is it possible to apply for smaller assessment grants? Would they be more likely to be approved? *You could apply for lower dollar amounts on any of these, but submitting for smaller projects doesn't make receiving funding more likely.*
- How much of the criteria for selecting projects is based on the site becoming economically viable later vs as a public park? *There's no difference officially, we support economic and greenway development. The greenspace projects that can link to related economic benefits can be a powerful case. We've built ball fields, added to national wildlife refuges, done river walks, etc.*

Advancing Equity through Brownfields Redevelopment

Adi Nochur, Deputy Director of Capacity Building at Groundwork USA, gave an overview of Groundwork USA's technical assistance offerings on brownfields and the need for equity in the brownfields redevelopment process. Groundwork USA focuses on place-based revitalization through environmental restoration. They also help lead the Urban Waters Learning Network.

Groundwork USA is a national organization with local affiliates, which are independent non-profits. The national organization supports those 20 local affiliates, which are also known as Groundwork Trusts. In New England, Groundwork has local Trusts in Somerville, Lawrence, New Bedford, Bridgeport CT, and Providence RI.

Groundwork USA partners with EPA's national brownfields program to provide free technical assistance for all types of organizations across the country, with the exception of for-profits. They provide three types of technical assistance:

1. Testing the feasibility of implementation strategies identified in a brownfield area-wide planning process
2. Designing and sequencing inclusive methods for engaging an array of local people in brownfields transformation projects
3. Coaching grassroots and municipal leaders in developing productive, cross sector coalitions and shaping projects to benefit all citizens.

Their approach is focused on correcting historic and systemic disparities to achieve more equitable outcomes in brownfields redevelopment. Environmental justice populations are burdened disproportionately by brownfields and often left out of planning processes. They include people of color, youth and the elderly, low and moderate income neighborhoods, and areas of concentrated poverty. Adi's slides feature how Groundwork describes equitable development, including that everyone should benefit from redevelopment investment, that

communities define the benefits, and that there is inclusive and meaningful engagement and planning. The Groundwork website has resources on community engagement.

Discussion, with Adi's responses in italics.

- Is your focus mostly on open space? Could you support housing projects for lower income populations? *A lot of our work is on open space, but we support brownfields reuse that realizes community benefits and revitalizes the community in a variety of ways.*
- Has Groundwork worked in the Mystic? *Somerville has a Groundwork Trust, and we've done brownfields projects in Chelsea and Cambridge.*

Encore Boston Harbor Environmental Improvements/Redevelopment

Natalie Brown, Project Manager for Wynn Design & Development at Encore Boston Harbor presented on the environmental aspects of the site remediation and design. Nathalie oversaw all the work done outside of the Encore buildings.

Context

The site where Encore Boston Harbor now sits was an old industrial site. At \$2.6B, it was the largest single-phase project in the history of the Commonwealth. They received a LEED gold certificate. Of that, \$68M went to clean up the site, plus the site was designed to factor in sea level rise and climate change. The site is just downstream of the Amelia Erheart dam with a 10' tidal swing.

The site was contaminated by three chemical companies producing dyes and acids over a century. There were acid leaks in the fifties, and by the 1980s the site was vacant. In the 1990s it was used as an equipment and materials staging yard for Deer Island / tunnel muck and Big Dig work. Wynn acquired the property in January 2015.

Environmental clean up

Phase 1 Remediation: Oct 2015 – March 2016

The objective of this phase was to remove the worst contaminants. Targeted areas of low pH, an area of high lead and arsenic, and an area with very high PCBs. 6,800 yards of material was excavated and removed, 23,000 yards were stabilized on site. The project removed soil and an underground storage tank.

Phase 2 Construction of landside remediation: June 2016 – June 2019

The team developed 11 types of soil classifications based on over 2400 soil samples initially collected. They had to contend with heavy metals (especially arsenic and lead), VOCs, VPH and more. They excavated 635,000 tons of material for the garage. Over 3000 samples were taken for asbestos in soil as required by DEP. The review and approval process for soil removal was extensive because there was so much data and a very tight schedule. This meant a huge excavation and disposal process. There were 18 excavators, 5 loaders, 3 rock trucks and more working simultaneously during the peak of the project. Mass excavation was completed in

March 2017. The company installed a rail spur for sediment disposal, which eliminated ~14000 trucks that would otherwise have been on the roads. Soils went to about 12 facilities in various states (from MA to as far away as Georgia). 52 rail cars of sediment were removed per day during the peak of the removal. Clean cover and fabric marker layers were then installed across the site. Each of the over 1000 trees planted on site has a liner under its clean soil.

Phase 3 Sediment Remediation: October 2017 – March 2018

In the cove of the Mystic River and on the shorelines, they demolished and removed five abandoned barges and 240 piles. They dredged slightly more than 5 acres for a combination of navigation and remediation. They wanted 15' of depth for navigation, so dredged to at least 16.5' of depth so they could cap with 1.5' of clean material. They tested for asbestos in sediment and found one elevated sample, requiring abatement for one cell. They capped about seven acres, more than were dredged. The turning basin now has a two layer cap (coarse sand on the bottom with stone on the top). The sediments were dewatered, processed at a facility down the river, then trucked to New Hampshire, Maine and by rail to Ohio. In the end, the project dredged 24,000 cubic yards of sediment.

The goal of all of this was to get to a “condition of no significant risk.”. In the end there will be multiple Activity Use Limitations (AULs) for the Landside and Sediment Remediation.

Living Shorelines

In collaboration with MyRWA, the project team designed a living shoreline. There's a rock roll at the toe of the slope – larger stones and a small berm to provide protection until the plantings get established. There are salt marsh plantings in the lower portion, then above high tide are native plantings. The casino has 600' of shore, and more than 10K plants. There was a coir rap meant to naturally break down which has also largely been removed because the plantings are more established. The first round of planting was in 2017. The plants are pretty established at this point, and there will be another round of planting in 2020.

Two challenges of the living shoreline work have been (1) working with the tide cycles for construction, and (2) The geese ate our plants, so the salt marsh plants had to be replanted several times.

Landscaping

The Encore site has 1000 trees (50% 20' or taller), more than 50K shrubs, 50K flowers, 1.8 miles of walkways including a 20-foot wide waterfront harborwalk. It has water transport and docking facilities, a Gateway park connector and a shared use path. It includes a public gathering area and gazebo. All in all, it provides 7.8 acres of publicly accessible open space.

Discussion, with Natalie's responses in italics:

- Did Encore seed the water with oysters to help with water quality? *The Division of Marine Fisheries did not support that approach.* Patrick Herron added that the concern was the potential creation of an attractive nuisance in which people might harvest

oysters from what has been a contaminated area, which could have a negative impact on the oyster business in the area. Mel Cote added that while EPA sees oysters as habitat restoration, in areas with potential contamination it is more complicated due to liability. Patrick mentioned some oyster restoration projects in other places.

- Where is the pedestrian bridge in process? *That is at 75% design and is awaiting approval from Somerville, Everett, MassDEP, USACE and the Coast Guard.*
- Why did Encore use turf and not regular grass? *It is synthetic for maintenance reasons. There's a lot of traffic and use. Natural turf wouldn't hold up. The synthetic turf is made specifically for Wynn -more durable, without the black pellets.*
- How does the site deal with stormwater? *It is discharged. Infiltration was not encouraged because of contamination in the soils. There are two outfalls, one on the east side, one on the north harborwalk.*
- Might the shuttle go across or up river? *There are not plans for that at this time. Encore may consider other stops. The connection to Assembly Row will be the pedestrian bridge. Encore operates a water shuttle, but the docks are also available for water taxis and other commercial operators.*

Site Tour - Encore Boston Harbor

After the meeting adjourned, Nathalie took meeting participants out to the grounds to see the plantings and the living shoreline.

Meeting Participants

Name	Affiliation
Erik Beck	USEPA
Todd Borci	USEPA
Natalie Brown	Wynn Design & Development
Karen Buck	Friends of the Malden River
Dave Butler	MassDEP
Jim Byrne	USEPA Region 1
Bill Capithorne	Town of Arlington
Wayne Chouinard	Town of Arlington
Mel Cote	USEPA
Ona Ferguson	The Consensus Building Institute
Joshua Giffings	Lexington, Engineering
Patrick Herron	MyRWA
Marcus Holme	USEPA Region 1 – Environmental Justice
Andrew Hrycyna	MyRWA
Alicia Hunt	Medford
Lou Mammolette	City of Chelsea
Darya Mattes	Groundwork Somerville
Denis MacDougall	City of Medford
Marian Miller	MyRWA
Hillary Monahan	MWRA
Adi Nochur	Groundwork USA
Steven Nutter	Green Cambridge
Catherine Pedemonti	MyRWA
Tom Philbin	City of Everett
Tony Rodolakis	Wood E+I
Alex Rozycki	Town of Reading
Jonathan Smith	City of Somerville, Engineering
Michael Sprague	Lexington, Engineering
Emily Sullivan	Town of Arlington
Kathleen Vandiver	MIT Center for Environmental Health Science + FOMR & MyRWA
Elaine Vreeland	Winchester Conservation Commission
Caitlyn Whittle	USEPA

For questions regarding this meeting summary, please contact Darya Mattes (darya@groundworksomerville.org), Caitlyn Whittle at EPA (whittle.caitlyn@epa.gov), or Ona Ferguson at the Consensus Building Institute (ona@cbi.org).