



**CITY OF SOMERVILLE, MASSACHUSETTS  
CONSERVATION COMMISSION  
JOSEPH A. CURTATONE  
MAYOR**

APRIL 25, 2017

**MINUTES**

MEETING AT SOMERVILLE CITY HALL  
93 HIGHLAND AVENUE  
3<sup>RD</sup> FLOOR CONFERENCE ROOM  
7:00 PM

*Meeting notes prepared by Vanessa Boukili, based on a recording of the meeting.*

**Commission Members in attendance:** Mathias Neuber, Owen Wartella, David Turin, Jamie Lefkowitz

**Commission Members absent:** Michael Fager, Rachel Borgatti

**Others in Attendance:** Holly Palmgren (MBTA), Dominic Kelly (SGH), Russell Adams (C&C Consulting Engineers), Sean Donlon (SGH), Jack Vaccaro (Epsilon Associates), David Barlow (Mystic River Watershed Association), Marc Bellaud (Solitude Lake Management), Patrick Herron (Mystic River Watershed Association), Aladdine Joroff, Claudia Murrow, Matt Devlin (AECOM), and Thomas Valton (DCR).

**Staff:** Vanessa Boukili (Conservation Agent)

Mathias Neuber brought the meeting to order at 7:05 followed by introductions.

**Unfinished Business (7:06 pm):**

**1) Public Hearing continuation: Notice of Intent for Charlestown Bus Facility – Shoreline Stabilization and Yard Improvements Project.**

Applicant: Holly Palmgren (MBTA Environmental)

Representative: Maria Hartnett (Epsilon Associates)

Project Location: MBTA Charlestown Bus Yard, 80 Alford St., Boston

DEP file #287-0058

- Request: Stabilize shoreline and improve coastal resiliency at MTBA Charlestown Bus Facility to ensure that this important facility is protected.
- Jurisdiction: Coastal Beaches, Coastal Banks, Land Subject to Coastal Storm Flowage
- Documents Presented: (1) More detailed stormwater analysis and model reports, (2) Emails and documents regarding stormwater questions and answers, exchanged between MBTA, Conservation Commission (Agent), and City of Somerville Engineering Department.

- Presentation (Holly Palmgren, Dominic Kelly, Russell Adams, Sean Donlong, Jack Vaccaro) and Discussion:
  - Following up on comments from last meeting, MBTA consultants have met with City of Somerville Engineering Department (Assistant Director of Engineering Bryan Manter) multiple times. They also provided the Commission with written responses to Commissioner Wartella's concerns about the stormwater analysis.
  - Commissioner Wartella asked how this project meets the "maximum extent practical application" under the stormwater standards. Specifically standards 2, 5, 7, 8.
    - Should be able to meet TSS removal based on calculations. Attachment 5 (2017-04-24\_Response\_to\_Comments\_COMBINED\_ATTACHMENTS.pdf) contains an explanation of how the project is meeting the standards.
  - Standards 4, 5, 6 to remove 80% TSS based on rain garden, but rain garden does not have appropriate pre-treatment so cannot take the 90%.
    - Have added detail to rain garden in effort to meet pre-treatment, but still need to adjust length of flow path.
  - Standard 7 states that project is a redevelopment, so meets the maximum extent practical application. Although project is redevelopment on Boston side and Somerville side, because the land in Somerville is being converted from parking lot to gravel lot, it *is* possible to meet all of the standards.
  - In addition, project design should be contingent on contaminated soil. Need to test soil for contamination, and modify design based on what is found.
  - Project must meet City standards. Project subject to recommendations from City of Somerville Engineering Department.
  - New outfall being constructed Somerville side. Future projects that tie-into this outfall must come before the Commission.
  - For coastal resource areas that have a fish run, any coastal bank resource area should also be counted as a fish run resource. The NOI form should have "fish run" checked with the area equal to the coastal bank area. Order of Conditions form will include this area fish run area.
  - Re-iterated the time of year restriction recommended by the Mass Division of Fisheries (Feb 15 – July 15).
  - Discussion regarding MassDEP comments on NOI proposal:
    - Proposed project alters 51,600 sq ft of Land Under Ocean and 14,620 sq ft of coastal beach. Existing fill and rubble will be removed to create 11,800 sq ft of "reclaimed beach". This mitigation does not appear commensurate with the amount of alteration.
      - Reclaimed as much area as could on site. Location of reclamation was suggested by Marine Fisheries staff. MBTA will do In-Lieu-Fee mitigation for remainder.
    - There is insufficient information on how this reclaimed beach area will be formed. Will compatible materials be brought on site? What is the composition of the existing substrate beneath the reclaimed area? Have you considered establishing a salt marsh instead of reclaimed beach?
      - Did consider establishing salt marsh, but is unlikely to be successful in this location. Steep slope, resulting in narrow window of opportunity in intertidal area. The location is very exposed on that side of river (north facing fetch); concerned about scour due to the force of wave action along that shoreline.

- How will scour not be a problem for the beach? Intertidal zone will be protected with stone along that face creating a rocky shoreline. Habitat value – fair amount of biota in interstitial space between the rocks, and also provides good cover for fish and other species.
- Details on Sheet 40 of plans. Will be removing fill material that has accumulated from the failed wood seawall, and thus going back to more natural conditions/ materials for the area. Will placed dumped stone onto slope and 1.5” stone in reclaimed tidal beach area.
- How well has this type of design worked in other projects? The stones will reduce the impact of scour to the beach and the bioengineered area above the reclaimed beach will help stabilize the shoreline above. This has worked well for inland rivers with steep slopes (at least 3 have been successful).
- Maintenance plan for plantings and coastal beach area?
  - Post-construction monitoring to ensure planting is successful and replace any dead plants. Contract species include monitoring and replacement of 1 year for parts and sod and 3 years for shrubs.
- Questions/Comments from MyWRA representatives Patrick Herron (Executive Director ) and David Barlow (volunteer) with responses from MBTA team:
  - Supportive of MBTAs efforts to stabilize shoreline and improve resiliency.
  - Regarding additional impact from fill on Land Under Ocean and work on Coastal Beach: if space on-site is not appropriate for salt marsh, have you explored whether nearby areas might have more favorable conditions?
    - Have not explored areas outside of MBTA property.
  - Concern that In-Lieu-Fee payment will not result in restored habitat on the Mystic River. There is other planned restoration work on the Mystic River, including salt marsh habitat. Benefits enhanced when salt marsh is restored in multiple areas.
    - MBTA does not decide where the In-Lieu-Fee payment funds are spent. Encourage MyWRA to approach Army Corps of Engineers and other agencies involved in program to recommend that mitigation is performed in area that the impact is occurring in.
  - What is the mitigation that is being performed by putting in the 1.5” gravel in the “reclaimed beach”? Do you have an obligation for habitat mitigation? If so, is that habitat mitigation? Could do other type of bioengineering for better habitat?
    - Division of Marine Fisheries requested that the mitigation take place at this location, and requested this type of habitat be formed. The “armoring” is necessary to prevent erosion, which is what has happened to the current beach.
    - Proposed plan and proposed mitigation has been out for comment and has been reviewed by the State and Federal Fisheries Departments. See attachment F of the NOI package.
  - Was there any additional mitigation prescribed by the Chapter 91 approval?
    - Have received written determination, which did not include any additional mitigation. Cannot issue permit until receive approval from Somerville Conservation Commission.
  - The amount of local mitigation does not commensurate with the scale and cost of the project. MyWRA supports the project for variety of reasons, but feels that more local mitigation can and should be done.
    - MBTA did look at bioengineering solutions and planting material in intertidal zone, but do not feel that this is a good site for this type of approach.
    - Wynn site across the river is taking this approach, but the site conditions differ.

- Would like MBTA to share documentation of the mitigation options that were assessed and why they were dismissed.
- There was a conversation between MBTA and MyWRA during MEPA process (prior to MEPA certificate being issued). However, the MEPA certificate expressly called for the evaluation of additional mitigation measures. MyWRA also commented on Chapter 91 application that there was insufficient detail on mitigation measures. MyWRA did not receive a reply to that comment, although MBTA did respond to DEP. MyWRA has been asking for information that they have not received.
  - This is outside of Conservation Commission jurisdiction, although would like to facilitate communication between the two groups.
- MBTA state that they have carefully developed plan, and there is opportunity for cooperation. But, argues that the project meets all of the performance standards, and feels that they are entitled to action by the Commission this evening.
- Prior to closing the hearing, MyWRA would like to see documentation detailing the various mitigation options for this site, and would like the chance to respond to this analysis.
- Suggest MBTA and MyWRA meet next week to share information and continue this discussion. Share all materials and meeting report with the Conservation Commission.
- Applicant agrees to a continuance if Commission will hold special meeting in two weeks.
- Motion: to continue hearing until special meeting at 7pm on May 9<sup>th</sup> unanimously approved at 8:49 pm [motion – Owen, second – Mathias].

**1) Public Hearing continuation: Notice of Intent for DCR Mystic River Outfall Maintenance (8:50 pm).**

Applicant: Nick Gove (DCR)

Representative: Matt Devlin (AECOM)

Project Location: Mystic River State Reservation, Somerville

DEP file #287-0059

- Request: System wide maintenance and repair program for outfalls within Mystic River Reservation. As outfalls are currently in state of disrepair, the proposed maintenance will attenuate flows prior to discharging into the Mystic River.
- Jurisdiction: Inland Bank, Land Under Waterbodies and Waterways, Riverfront Area
- Documents Presented: (1) Notice of Intent Document, (2) Photos from Vanessa K Boukili site visit on March 27<sup>th</sup>, 2017.
- Presentation (Matt Devlin and Tom Valton) and Discussion:
  - Stormwater outfall maintenance and improvement project (part of system wide maintenance project). Five outfalls in state of disrepair, including broken headwalls, cracked pipes, debris.
  - Scope of work: repair outfall pipes, slip line pipes, repair cracked headwalls with grout, installing flared end sections, installing rip-rap, removing broken pieces of pipe.
  - For three of outfalls will need to remove fallen headwalls from water (temporary impact).
  - Work will occur in banks of Mystic River, 100 foot buffer zone, 25 foot Riverfront Area, and Bordering Land Subject to Flooding.
  - Limited project: WPA 310 CMR 10.53(3)(k) – maintenance of culverts.
  - Impacts: 15 linear feet of bank (~3 feet per outfall), land under water (temporary – removing detached headwalls from water), 500 sq ft. in Riverfront area (temporarily disturbed to do work; will be restored to preexisting conditions).
  - Erosion control: sediment logs (straw wattles), floatation booms and silk curtains in water.

- Project will improve water quality conditions.
- During discussion, decided that unidentified outfall #9 was not owned by DCR and thus it will be removed from this maintenance project. TBD who owns this pipe; Devlin/Valton will report back on ownership at next meeting.
- Project estimated to take ½ - 1 day per outfall.
- NOI form should be updated to include any area of bordering land subject to flooding that will be impacted, even if the impact is temporary. This area would include work sites and location of tree removal and/or tree limbing.
- Project report should be updated to include information on what trees need to be removed as well as a replanting plan.
- Devlin/Valton request that the hearing be continued to give them time to amend the NOI form and project narrative.
- Motion: to continue hearing until the next regularly scheduled Conservation Commission meeting on May 23<sup>rd</sup> unanimously approved at 9:15 pm [motion – Owen, second – David].

### **New Business (9:16):**

- 1) **Public Hearing:** *OOA Amendment Request* for In-Water Control of Non-Native and Nuisance Vegetation in the Mystic River (DEP File #287-0054).  
Applicant: Patrick Herron (Mystic River Watershed Association)  
Representative: Matt Salem (Solitude Lake Management)  
Project Location: Mystic River (Somerville, Medford)
  - Request: Amendment for in-water control (herbicide treatment) of Eurasian milfoil project
  - Documents Presented: (1) Report on previous years' treatment (MysticRiver.17\_Affidavit of Service\_Somerville), (2) OOA Amendment Request (MysticRiver.17\_COMPLETE\_AmendmentRequest\_Somerville)
  - Presentation (Marc Bellaud and Patrick Herron) and Discussion:
    - After mechanical harvesting of water chestnut last June, Eurasian milfoil became very abundant. At that time, applied for milfoil control permits. Received permits and did treatment ~July 20<sup>th</sup>.
    - Used fast-acting, contact herbicide called Diquat, and initial results were positive, highly reducing milfoil cover and opening river back up. However, it was a temporary solution and there was recovery by the end of the season.
    - Now proposing to switch treatment from Diquat to Fluidone (trade name Sonar) to a longer-term systemic herbicide. Time-release pellet formulation used to keep low concentrations of product in water for a long period of time in order to exhaust starch reserves in the plant. Milfoil is highly susceptible to it at very low doses. Prevents carotenoids in the plant from forming, and then the chlorophyll in the plant gets bleached and broken down in the sunlight.
    - Need to start treatment early in growth cycle (i.e. May), and put low doses of product directly on the plant, and maintain concentration through series of booster treatments. Plants would not be able to grow to maturity. Note that initial treatment is spread in liquid form to get the concentration in the river high enough.
    - Product distributed via granular blower or spreader. Pellets sink to bottom and active ingredient is released.
    - Zero toxicity to animals. No drinking water threshold for product. Does not bioaccumulate.
    - Long-term plan for control of invasives in the Mystic?
    - MyWRA has had conversations with Commissioner and other staff from DCR to evaluate whether managing dam for limited tidal flow into Mystic could be an option for control vegetation (and other benefits). More conversations are needed.



*[Note: recorder ran out of batteries at this point – the remainder of minutes are from Boukili's notes]*

- Thinking about a broader solution for invasive species in the Mystic – current problems include:
  - There are unlimited nutrients in the sediments because of the amount of resident phosphorus;
  - The milfoil fragments during mechanical harvesting;
  - There are no good herbivores;
  - Current herbicide treatments are only so effective (but there is a new herbicide pending EPA approval that may be better results – it will probably be 1-2 years before it is registered in MA).
- One long-term solution would be to allow salt water into the Mystic periodically. But a feasibility study is needed.
- Sonar herbicide treatment would provide 2-3 years of good treatment. Milfoil is a perennial, and fluridone kills the leaves, but some root and seed stock would remain. So it will not be eradicated, but it will be controlled for a while.
- There is no need to use the copper-based algaecide when using the Sonar herbicide.
- Range of tolerance: milfoil is one of the most sensitive plants. There may be some impacts on native species during the treatment year, but most plants wouldn't be impacted.
- Other potential negative impacts: possible detriment for fish populations because of the alteration of food sources; reduction in wildlife habitat. No known species feed on milfoil, but milfoil does provide shelter for small fish, amphibians, and provides habitat for bass.
- Are there any treatments upstream? DCR treats Mystic lakes treats annually with Diquat and copper algaecide.
- Cost difference between Sonar and Diquat? Per acre, Sonar is about 4 times as expensive as Diquat.
- Why is it important to control invasive species in the Mystic River?
  - River has high recreational value. Promoting recreation leads to promoting the stewardship of the river.
  - Must balance the needs of the river with the needs of people.
  - Mechanical harvesting and chemical treatments do not provide a systemic solution to the problem, but cannot treat the whole river.
  - The success with water chestnut eradication has led to the milfoil problem. This prosed treatment will buy a couple of years of control.
- Applicant will monitor the amount of Sonar in the river with a fast test to make sure that the application is sufficient. The slow release pellets should help.
- Motion: to approved amendment for this OOC unanimously approved at 10:01 pm [motion – Owen, second – Jamie].

#### **Updates (10:02):**

- 1) Ongoing projects – looked at spreadsheet

#### **Approval of minutes:**

1. Unanimously approved February 28, 2017 minutes and March 28, 2017 minutes with one amendment at 10:03 [motion – Owen, second – Mathias]

#### **Other Business: (10:04)**



- 1) MACC proposed new priority habitat map. Comments are due by June 3<sup>rd</sup>. Somerville does not have any priority habitat listed.

## Adjourn

1. Motion to adjourn meeting unanimously approved at 10:07 [motion – Owen, second – David]

### List of Meeting Documents:

- Agenda
- Minutes Feb 28<sup>th</sup> meeting
- Minutes Mar 28<sup>th</sup> meeting
- MBTA Stormwater information, reports, email exchanges between Commission, MBTA, City of Somerville Engineering Department:
  - Charlestown\_Somerville\_App B-HydroCAD Analyses.pdf
  - 5-5\_DrainageSystemImprovementsReportFinal\_170226\_2sided.pdf
  - 044PMSchuman-MM-131327.11.kri BDM review.docx
  - 2017-04-24\_Response\_to\_Comments.pdf
  - 2017-04-24\_Response\_to\_Comments\_COMBINED\_ATTACHMENTS.pdf
  - Email exchanges located here: K:\OHCD\Shared\Conservation Commission\Agenda + Minutes + Legal Notices 2017\2017\_04\_25\_Meeting\_Documents\2017\_2 - Charlestown Bus Facility - Shoreline Stabilization and Yard Improvements Project\Stormwater Q&A
- DCR Somerville NOI
- Site Visit March 27, 2017 Photos DCR Property
- MysticRiver.17\_Affidavit of Service\_Somerville
- MysticRiver.17\_COMPLETE\_AmendmentRequest \_Somerville
- Ongoing Project Data Spreadsheet
- eMACC Advocacy Update – April 25

