

# CONSERVATION COMMISSION MINUTES

The Conservation Commission held this meeting as a virtual "Zoom" meeting on Thursday, April 2, 2020 at 7:00 pm. No in-person meeting took place at City Hall.

Date: April 2, 2020  
Time: 7:00pm  
Place: City Hall, Room 204

**With a quorum present**, the meeting opened at 7:01 with Dan Green presiding as Chair.

**Members Present:** Leigh Gilligan, Kathy Cade, Jeff Zabel, Judy Hepburn, Ellen Katz, and Susan Lunin

**Members Absent:**

**Staff Present:** Jennifer Steel and Claire Rundelli

**Members of the Public:** not known due to remote nature of the meeting

## **OTHER TOPICS NOT REASONABLY ANTICIPATED BY THE CHAIR 48 HOURS BEFORE THE MEETING**

In light of the coronavirus/COVID-19 pandemic and the requirements for social distancing, the Commission decided to allow Jennifer Steel to sign/execute determinations of applicability, orders of condition, and certificates of compliance on behalf of the Commission Conservation. Since applicants must record orders of conditions and certificates of compliance at the Registry of Deeds and since the Registry requires "wet signatures," this decision will obviate the need for Commissioners to leave their homes to sign a permit/certificate or staff to drive a permit/certificate around the City for Commissioner signatures.

- Motion by Kathy Cade: I move that the Commission authorize Chief Environmental Planner, Jennifer Steel, to sign on behalf of the Conservation Commission all Determinations of Applicability, Orders of Condition, and Certificates of Compliance voted on by the Conservation Commission.
- Second: Susan Lunin
- Vote: 7:0:0

Note: The Registry confirmed that as long as the Conservation Commission's vote is recorded at the Registry (on the Recorded side) and as long as each permit that Jennifer Steel signs on behalf of the Commission references that recorded vote, the Registry will accept the documents for recording. The Registry asked that the Newton Legal Department write up the vote on City letterhead and record it (for \$105). Jennifer Steel will then be able to sign documents for the Commission.

## **DECISIONS**

### **I. WETLANDS DECISIONS**

#### **1. 30 Rogers St – NOI – treatment of Crystal Lake to prevent algal blooms – DEP File #239-861**

- Owner: City of Newton Applicant: Maria Rose, Newton Public Works Representative: Ken Wagner, Water Resource Services
- Request: Issue OOC.
- Documents Presented: aerial plan, photos, draft OOC
- Jurisdiction:
  - Land Under Wetlands and Waterways (LUWW)
  - Limited Project: 10.53(4)(e)(5) Other Ecological Restoration project
- Project Summary
  - Crystal Lake is 27.5 acres with a maximum depth of just over 30 feet. Total watershed is 55-acres (this is a low watershed-to-lake ratio).
  - Crystal Lake suffers toxic algal blooms in the summer.
  - Crystal lake is suffering from excessive internal loading and has enough ongoing watershed loading to warrant both in-lake and watershed action.
  - The average annual dissolved and available phosphorus load is estimated at 17.3 kg/yr (50.14 lbs/yr), resulting in an average phosphorus concentration of 17-20 ug/L, high enough to allow summer cyanobacteria blooms.
  - The suburban watershed generates significant nutrient and organic loads. "...runoff from the watershed and internal loading supply more than 86% of the phosphorus in the lake. The watershed load (53%) is larger than the



**Mayor**  
Ruthanne Fuller

**Director  
Planning &  
Development**  
Barney Heath

**Senior  
Environmental  
Planner**  
Jennifer Steel

**Assistant  
Environmental  
Planner**  
Claire Rundelli

**Conservation  
Commission  
Members**  
Kathy Cade  
Dan Green  
Judy Hepburn  
Ellen Katz  
Susan Lunin  
Jeff Zabel  
Leigh Gilligan

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internal load (34%) but the internal load occurs almost entirely in summer and is a greater contributor to cyanobacteria blooms.”

- A target total phosphorus load of about 10 kg/yr is suggested, yielding an average phosphorus concentration <11 µg/L, acceptable levels with regards to algae during the primary use season.
- It will not be possible to reach a target phosphorus loading goal of 10 kg/yr and may be hard to reach 15 kg/yr with watershed management alone; the internal load is too large and occurs mainly in summer.
- Whenever oxygen drops below 2 mg/L, iron and phosphorus dissociate and both move from the lake sediments into the water column. Phosphorus acts as a fertilizer, and algae bloom.
- Phosphorus inactivation (achieved by the application of alum) would be the most viable and cost-effective approach to management of internal nutrient cycling and would achieve a 90% internal load reduction and prevent cyanobacteria blooms.
- This is a tried and true method that will provide ~20 years of phosphorus inactivation.
- Dredging, oxygenation and phosphorus inactivation were options evaluated for internal nutrient management.
- Woodard & Curran and Dr. Ken Wagner of WRS have reviewed all existing data including the data collected by Crystal Lake Conservancy. They augmented existing data with the collection of sediment, algae and zooplankton samples, several rounds of outfall sampling and lake measurements to model the internal and external nutrient loads to the Lake. The low oxygen in the target treatment zone does not support an advantageous habitat for aquatic biota. Aquatic biota like zooplankton and benthic invertebrates may be negatively impacted by the floc formed during the actual aluminum application, but populations in the target zone are minimal and will recover within 2 years if impacts occur.
- This project will treat 9 acres of Crystal Lake deeper than 16 feet (Figure 1) with two aluminum compounds to strip phosphorus from the water column and inactivate phosphorus in surficial sediment. A total of 60 g/m<sup>2</sup> will be applied over 9 acres of the lake. The first application, to be completed by late April or early May 2020, will be 35 g/m<sup>2</sup>, requiring 2423 gallons of aluminum sulfate and 1262 gallons of sodium aluminate. The second treatment will occur 1 to 3 years later, depending on conditions in the pond as determined by monitoring. The dose for the second treatment will be 25 g/m<sup>2</sup>, requiring 1801 gallons of aluminum sulfate and 901 gallons of sodium aluminate. Application will be from a small boat equipped with holding tanks, pumps and a manifold for delivering each of the aluminum compounds simultaneously and guided by GPS for accurate delivery of the inactivators. The boat will be launched from the bath house beach area.
- Notes: Existing and Proposed Stormwater BMPs with enhanced street sweeping will achieve 32% load reduction
  - Several viable structural stormwater controls have been identified for the watershed that will provide long-term nutrient reduction benefit, e.g., the Trowbridge Street Focal Point system
- Presentation (Maria Rose and Ken Wagner) and Discussion
  - Water quality monitoring was done in March of 2019.
  - Late April to mid-May is the ideal time for phosphorus inactivation, proposed w/ alum.
  - A total of 60 g/m<sup>2</sup> will need to be applied to inactivate the optimal amount of phosphorus. Two treatments (of 35 g/m<sup>2</sup> and 25 g/m<sup>2</sup>) will be used to get optimal and lasting results with limited impacts.
  - The primary concern during treatment application is possible swings in pH. Over the past two decades of treatments, applicators have balanced the two aluminum compounds at ratios near 2:1 by volume (alum:aluminate) to keep pH between 6 and 8, which is the recommended range for fish and other aquatic biota and avoids aluminum toxicity.
  - The long-term benefits of an aluminum treatment include improved water quality and enhanced food web dynamics, which are known to last up to 20 years, possibly longer if watershed inputs are controlled.
  - Additional watershed improvement efforts have been underway and will continue (e.g., bioswales and catchbasin filters).
  - Abutters will be notified of the application and signs will be posted to alert swimmers of the application, but there is no adverse health effect associated with the alum.
  - CRWA asked why they are proposing 2 larger treatments rather than 3 smaller treatments. The answer is that doing 2 is cheaper, just as effective, and not harmful to the environment.

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*The location of this meeting is wheelchair accessible and reasonable accommodations will be provided to persons with disabilities who require assistance. If you need a reasonable accommodation, please contact the city of Newton's ADA/Sec. 504 Coordinator, Jini Fairley, at least two business days in advance of the meeting: [jfairley@newtonma.gov](mailto:jfairley@newtonma.gov) or (617) 796-1253. The city's TTY/TDD direct line is: 617-796-1089. For the Telecommunications Relay Service (TRS), please dial 711.*

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- Monitoring will be conducted in June, July, and August before, during, and after treatment to monitor among other things pH, zoo- and phytoplankton, oxygen, and aluminum, and will be shared with the Conservation Commission and interested groups.
- Vote to close the hearing and issue an Order of Conditions with the following special conditions [Motion: Kathy Cade; Second: Jeff Zabel; Vote 7:0:0].
  - The “before, during, and after” monitoring for algae, zooplankton, total phosphorus, and other factors must occur in accordance with the approved monitoring plan memo. Monitoring during application must ensure, among other things, that the pH of the Lake remains between 6 and 8 standard units. Annual treatment and monitoring reports shall be prepared and submitted to the Conservation Commission and Office, by November 15th. Reports shall continue through the summer season following the second treatment.

**2. 125 Wells Avenue – NOI – parking expansion and stormwater management improvements – DEP File #239-863**

- Owner/Applicant: Ross Soraci, Solomon Schechter Day School    Representative: Timothy Power, PVI Site Design, LLC
- Request: Issue OOC.
- Documents Presented: revised plans, photos, draft OOC
- Jurisdiction: Buffer Zone to bank, Riverfront Area
- Project Summary
  - The school is consolidating campuses and so will be expanding at this location.
  - The school will be adding 11 parking spaces within RFA where there is currently lawn.
  - The school will be removing three trees (diameters to be determined at an upcoming site visit) and is proposing 2 Pin Oak saplings.
  - The school will be installing a sub-surface infiltration system for the roof drains and installing a water quality unit in the existing parking lot.
- Presentation (Tim Power) and Discussion
  - A DEP file number has been received.
  - Applicant has provided revised plans as requested, showing one on-site catch basin switched for a leaching catch basin, a flared end pipe rather than extensive rip-rap, and 2 mitigation planting trees within the Riverfront Area and two trees just outside the Riverfront Area. A modified O&M plan reflecting the drainage changes was also provided.
  - Applicant has clarified the amount of new pavement in Riverfront Area. The proposed pavement within outer riverfront area is 1703 s.f., no work is proposed within the inner 100’ of Riverfront Area.
  - The proposed stormwater system meets the City’s standards.
- Vote to close the hearing and issue an Order of Conditions with the following special conditions [Motion: Susan Lunin; Second: Jeff Zabel; Vote: 7:0:0].
  - Mitigation tree plantings for the two trees closest to the building that are to be removed must be installed in accordance with the approved plans [2 Pin Oak saplings of 2 caliper inches and 2 Red Maple saplings (just outside the Riverfront Area boundary)]. Any deviations from this plan must be approved by the Conservation Office prior to execution. If a third tree nearer the wetland boundary (shown on the approved plans) must be removed, an additional native canopy tree 2 caliper inches in size must be planted along the frontage on Wells Ave. All replacement trees must survive 2 growing seasons for a Certificate of Compliance to be granted.
  - The stormwater system must be installed as per the approved plans.
  - The O&M plan must be recorded and adhered to.

**3. 79 Staniford Street – OOC Amendment – lawn leveling, retaining wall replace, tree removal – DEP File #239-805**

- Owner: Alison and Nick Fisher    Applicant/Representative: Michelle Crowley, Crowley Cottrell, LLC
- Request: Amend Order of Conditions to reference new plans and condition proposed work.
- Documents Presented: colored amendment plans, photos, draft OOC
- Jurisdiction: Buffer Zone
- Project Summary
  - Lawn leveling, including pulling the existing lawn line back towards the approved lawn line under OOC 239-805, to reduce potential run-off causing erosion on Conservation Commission owned land.
  - Replacement of an existing wood retaining wall along the rear lawn line with a new stone retaining wall, with a maximum height of 3’6”. Applicant is also proposing to pull back the second existing retaining wall on-site so that it falls within the property boundaries and no longer encroaches onto neighboring properties.

- Remove 7 trees total. 4 of the proposed trees to be removed are Norway maples, 2 are dead, and 1 is a Black walnut. The walnut is proposed to be removed due to the hazard of falling walnuts currently dropping in the lawn area.
- Install a 3 canopy trees, 4 understory trees, and 17 shrubs within the 100' Buffer Zone.
- Install the fence required originally under OOC 239-805 to prevent future encroachments onto Conservation Commission owned land and install privacy fence along other property boundaries.
- Presentation (Michelle Crowley) and Discussion
  - This project will result in an expansion of the originally approved extent of lawn, and the removal of canopy trees (some native and some invasive species). Applicants have been very interested in creating an appropriately native and diverse plant palette. Con Com must determine whether the proposed 2 red maples, 1 nyssa, 3 amalanchier, and 1 magnolia are an appropriate balance of canopy and understory trees.
  - This project would result in a more robust vegetated shrub and fern buffer to the slope and wetland below.
  - Erosion controls will be added where fill is proposed. Staff recommend entrenched silt fence and compost sock.
- Vote to close the hearing and issue an Amended Order of Conditions, including the following new special conditions [Motion: Judy Hepburn; Second: Ellen Katz; Vote: 7:0:0].
  - The fence must be installed as proposed along the property line that is shared with the Flowed Meadow Conservation Area to ensure no further encroachment onto city property. This stretch of fence must be elevated 4-6" to allow the passage of wildlife.
  - Any other sections of fence installed must be elevated 4-6" to allow the passage of wildlife.
  - Landscape plantings within Commission jurisdiction must:
    - a. Be installed in compliance with the approved plans BUT with the addition of 2 white oaks in the place of 2 of the proposed Amalanchiers.
    - b. Desired deviations from the approved plans must be approved by the Conservation office in advance.
    - c. 100% of planted trees and shrubs must survive for 2 growing seasons and 75% of all vegetative plantings must survive for 2 growing seasons for a Certificate of Compliance to be granted.
  - Once grading is complete, all disturbed slopes must be fully stabilized and vegetated immediately.
  - No brush, logs, chips or other debris from the tree removal (other than stacked fire wood) shall remain on site.

**4. 15 Riverdale Avenue – NOI – multi-use 40B development – DEP File #239-860**

- Owner: Michael Price, Legacy the River, LLC Applicant: Jack Englert, CPC Land Acquisition Company, LLC Representative: Timothy Williams, Allen & Major Associates, Inc.
- Request: Accept a request to continue to April 23, 2020.
- Documents Presented: none
- Jurisdiction: Buffer Zone, Riverfront Area, BLSF, City Floodplain
- Project Summary
  - Demolish existing large commercial building.
  - Construct one large building (with a central open-air concourse) within Riverfront Area -- ~182 units, 62623 sf, and 5 stories with ground-level covered parking, and associated outdoor amenities.
  - Undertake associated site grading, install drainage and stormwater management systems, and landscape the site.
  - N.B. The project includes the construction of another smaller building, roadway, and parking outside of RFA.
- Vote to accept a request to continue to April 23, 2020 [Motion: Susan Lunin; Second: Ellen Katz; Vote: 7:0:0].

**5. 229 Cabot St – COC – Laundry Brook culvert replacement – DEP File #239-778**

- Owner: City of Newton Applicant: Ted Jerdee, Newton Public Works Representative: none
- Request: Issue COC.
- Documents Presented: photos, draft COC
- Jurisdiction: LUWW
- Staff Notes: Staff site confirmed that the site is in substantial compliance with the approved plans and Order.
- Vote to issue a complete Certificate of Compliance [Motion: Kathy Cade; Second: Jeff Zabel; Vote: 7:0:0].

**6. 7 Great Meadow Road – COC – addition and deck – DEP File #239-637**

- Owner: Theodore Selame Applicant/Representative: Brendan Sullivan, Cavanaro Consulting, Inc.

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- Request: Issue COC.
- Documents Presented: photos, draft COC
- Jurisdiction: Buffer Zone, Riverfront Area, BLSF, City Floodplain
- Staff Notes: Staff site visit confirmed that the site is in substantial compliance with the approved plans and Order.
- Vote to issue a complete Certificate of Compliance [Motion: Susan Lunin; Second: Judy Hepburn; Vote: 7:0:0].

## II. CONSERVATION AREA DECISIONS

- 7. New trail in the Old Deer Park**: Discussion will be postponed until the April 23, 2020 ConCom meeting to possibly better accommodate public discussion. If the April 23 meeting must also be remote, staff recommend that the discussion occur then so that the trail can be created and opened this spring.

## III. ADMINISTRATIVE DECISIONS

- 8. Minutes of 3/12/20 to be approved**
  - Documents Presented: draft minutes
  - Vote to accept the 3/12/20 minutes with one typo corrected [Motion: Susan Lunin; Second: Jeff Zabel; Vote: 7:0:0].

## IV. ISSUES AROUND TOWN DECISIONS – none at this time

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## UPDATES

### V. WETLANDS UPDATES

- Riverside: MEPA DEIR comment period will end on April 24th and the MEPA Certificate will be issued on May 1st

### VI. CONSERVATION AREA UPDATES

- Recent completions: Kennard stair replacement, Norumbega stair replacement.
- Pending projects: Woodchips at Norumbega, Stairs at CRP, boardwalk and bridge at Kessler, Houghton Pond improvements, Webster stairs and signs.
- Webster Woods Ribbon Cutting: On hold with COVID-19, but we are moving forward with application for stairs off mall entrance drive.

### VII. ISSUES AROUND TOWN UPDATES

- Open Space and Recreation Plan: The first full draft has been reviewed and sent back to the Conway team. Completion is expected in early June.
- Invasive pulls are being coordinated.
- Sudbury Aqueduct 8(m) license application: was submitted to MWRA
- Climate Action Plan: implementation continues
- Climate Resiliency: MVP grant application is in the works

### VIII. ADMINISTRATIVE MATTER UPDATES

- ConCom 101 and Social Evening: Indefinitely postponed
- EnviSci Summer Program may be affected by COVID-19

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**OTHER TOPICS NOT REASONABLY ANTICIPATED BY THE CHAIR 48 HOURS BEFORE THE MEETING**  
**ADJOURN**