

#### **Proposed Hammond Pond Access Improvements**



#### **DCR Public Meeting #1** 6:30 pm – 8:00 pm March 10, 2011 Newton City Hall Newton, Massachusetts





#### **Commonwealth of Massachusetts**

Governor Deval L. Patrick

Lieutenant Governor Timothy Murray

Energy and Environmental Secretary Richard K. Sullivan, Jr.

Department of Conservation and Recreation Commissioner Edward M. Lambert, Jr.



## **DCR Mission Statement**

To protect, promote and enhance our common wealth of natural, cultural and recreational resources.



## **Purpose of Meeting**

- To discuss and obtain public input on a proposal to enhance public access around Hammond Pond and to identify solutions for its improved ecological function
- To present information about a recently-awarded DCR Partnerships Matching Funds Program grant to the Michael Rudyak Memorial Fund for a study of the technical and environmental feasibility of constructing the enhancements



## **Goals and Objectives**

- 1. Identify potential solutions to enhance the ecological function and biodiversity of the Pond and shoreline area
- 2. Identify methods for water quality remediation
- 3. Use sound ecological decisions to promote Low Impact Design stormwater management
- 4. Improve access to water for fishing, passive boating, and viewing of Hammond Pond
- 5. Enhance accessibility on existing trails surrounding the Pond
- 6. Maximize public enjoyment of the Pond

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#### **Background/History of Hammond Pond Reservation**



- •1600 Thomas Hammond purchased land around pond
- •**1835** Worcester Turnpike (Route9) constructed
- •1874 Chadbourne Ice Co. located on SE shore, later replaced by Boston Ice Co.
- •1917 The Commonwealth acquired a portion of the Hammond Pond shoreline for parkland
- •1950s Chestnut Hill Shopping Center developed
- •1970s Chestnut Hill Mall developed
- •1971 Pond depth was measured; decreased 81% from 1954
- •1972 Richard Primack catalogued flora of area identifying 374 plant species
- •1988 Pond water sampled; a high level of eutrophication found
- •1999 Ruth Balser and Friends of Hammond Pond formed Hammond Pond Task Force, comprised of community members, stakeholders, and representatives of the City of Newton
- and Chestnut Hill Shopping Center. Developed grant strategy that resulted in federal 391 grant.•1997 Pond Management Plan prepared
- •2007 Bio-retention facilities with catch basins, inlet swales, and sand filters installed



### **DCR Context Map**



![](_page_7_Picture_0.jpeg)

## **City Context Location**

![](_page_7_Picture_2.jpeg)

![](_page_8_Figure_0.jpeg)

![](_page_8_Figure_1.jpeg)

#### Webster Conservation Area & Hammond Pond Reservation

Map Copyright © 2003-2010 Newton Conservators, Inc.

![](_page_9_Picture_0.jpeg)

#### Hammond Pond Neighborhood Location

![](_page_9_Picture_2.jpeg)

![](_page_10_Picture_0.jpeg)

#### **Project Area**

![](_page_10_Picture_2.jpeg)

## **Project History - Public Private Partnership**

• **Early 2010** – Michael Rudyak Memorial Fund approached DCR with a vision to improve access to Hammond Pond by funding the installation of a continuous path along the shoreline

• **Spring 2010** – DCR recommended that the Memorial Fund retain the services of a design professional to refine concept and commence with outreach to the City of Newton and community stakeholders

• **Fall/Winter 2010-2011** – Building on the foundation of conceptual work done by Bioengineering Group Inc., DCR's Partnership Matching Funds Program joined with the Memorial Fund to support a feasibility study to erect the framework for a final scope

![](_page_12_Picture_0.jpeg)

## **Partnership Matching Funds Project Support**

![](_page_12_Figure_2.jpeg)

Michael Rudyak Memorial Fund <u>\$22,500</u>

Feasibility Study Total Funding \$45,000

![](_page_13_Picture_0.jpeg)

## **Public Process – Goals**

- To provide the public and stakeholders with opportunities to learn about a project and express preliminary ideas and concerns about the project
- To collaborate with public officials, stakeholders, and citizens on project planning and development
- Generally consists of two phases: Idea generation phase Comment phase

## **DCR Public Process for Hammond Pond Proposal**

#### **Public Meeting #1 - March 10**

- Discuss and obtain public input on proposal to enhance public access around Hammond Pond and to identify solutions for its improved ecological function
- Present information about public private partnership
- Public Comment Period March 11 April 1
- **Public Meeting # 2 Late May**
- Present results of feasibility Study
- Present conceptual design plan, factoring in comments received
- Obtain comments on conceptual design plans and collaborate on components of preliminary design
- Review permitting process

#### Public Comment Period - Extending three weeks after Public Meeting #2 Public Meeting # 3 - Summer

• Present final design

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#### Michael Rudyak Memorial Fund Hammond Pond Proposal Consultant/Design Team

#### • Bioengineering Group –

Lead consultant. Award-winning multidisciplinary firm hired by the Fund to ensure design is sensitive to its environmental location.

#### • Carol R. Johnson Associates –

Nationally-acclaimed landscape architecture firm that has designed many trails adjacent to rivers and ponds.

#### • Bourne Consulting Engineering –

Professional engineering service firm specializing in waterfront engineering projects.

![](_page_15_Picture_8.jpeg)

Restored Planting - Fresh Pond

![](_page_15_Picture_10.jpeg)

Overlook - Upper Charles

![](_page_15_Picture_12.jpeg)

New Docks - Charles River

## **Consultant / Design Team Proposal Scope**

- Feasibility study
- Site inventory and public process
- Conceptual design
- Recommended plan
- Design development
- Permitting local, state and federal
- Construction documents
- Bidding and construction phase services

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## Hammond Pond Inventory Analysis

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![](_page_18_Picture_0.jpeg)

## **Existing Conditions Plan**

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![](_page_19_Picture_0.jpeg)

## **Existing Conditions**

![](_page_19_Picture_2.jpeg)

Ecology

![](_page_19_Picture_4.jpeg)

Public Access

![](_page_19_Picture_6.jpeg)

#### Vegetation and Wildlife

![](_page_19_Picture_8.jpeg)

Views

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# **Existing Ecology**

- Kettle pond with acidic water does not promote aquatic plant growth unless balance is upset
- Plant material falls and settles on bottom of pond and does not decompose due to acidity, thus creating build-up on floor

![](_page_20_Picture_4.jpeg)

- Unbalance in pond ecology created by: dead plant material and fertilizers
- High levels of heavy metal in Pond water and sediment at pond floor
- Water lilies are sign of increased sediment
- Invasive species identified in different areas of the Pond: Purple Loosestrife, Garlic Mustard and Japanese Knotweed (in upland areas)

![](_page_21_Picture_0.jpeg)

# **Existing Ecology** - Rt. 9 Drainage

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![](_page_22_Picture_0.jpeg)

# **Existing Ecology** – Stormwater Mitigation

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![](_page_22_Picture_3.jpeg)

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## **Existing Vegetation and Wildlife**

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# **Existing Plant Species**

#### **Trees**

Red Maple (Acer rubrum) Paper Birch (Betula papyrifera) Atlantic White Cedar ( Chamaecyparis thyoides) Atlantic White Water Lilies (Nymphaea odorata)

#### Shrubs

Button Bush (Cephalanthus occidentalis) Sweet Pepperbush (Clethra alnifolia) Highbush Blueberry (Vaccinium corymbosum)

#### **Perennials**

Swamp Loosestrife (Decodon verticillatus) Purple Loosestrife (Lythrum salicaria) Sensitive Fern (Onoclea sensibilis) Royal Fern (Osmunda regalis) Pickerel Weed (Pontederia cordata) Marsh Fern (Thelypteris paulustris)

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![](_page_24_Picture_9.jpeg)

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#### Existing Public Access – Trail Map

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# **Existing Public Access** – Trails

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# **Existing Public Access** - Pond

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## **Existing Views** - Four Seasons

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# **Inventory Analysis – Current Findings**

- Pond habitat/ecosystem in slow decline
- Invasive species are prevalent, requiring removal/ containment
- Heavy sediment flows into Hammond Pond from Route 9 and adjacent Chestnut Hill Mall
- Improved water quality is needed in pond to increase diversity of plant and fish species
- Opportunities exist to add trails, enhancing connections to the pond and other trails within the surrounding open space
- Opportunities exist to improve existing trails

## Recent Chestnut Hill Shopping Center Parking Area Upgrades

- Bioswales installed through federal EPA funds and awarded by MA DEP 319 Grant to the City of Newton
- Sand filters constructed in parking area through federal EPA EPA funds and awarded by MA DEP 319 Grant to the City of Newton to capture sand/snow melt
- Stormwater storage tanks installed under parking paving to reduce direct water flow to pond
- City of Newton DPW provides bioswale maintenance
- Chestnut Hill Garden Club assists with annual spring cleanup and planting.

# **Project Design Considerations**

#### **Sustainability**

- Apply principals of sustainability consistent with DCR sustainability plan
  Ecology
- Minimize impact on existing ecological conditions
- Encourage repair to negative influences on pond

#### Location

• Situate on land and water, in close proximity to Hammond Pond, to encourage public enjoyment of water views

#### **Public Access**

• Where possible, enhance trails accessibility

#### **Public Safety**

• Evaluate use of elements to ensure public safety – e.g., surface material, path/walkway widths, railings, and lighting

#### Miscellaneous Design Elements

- Include overlooks for public viewing
- Evaluate use of pile-supports for stationary or floating walkways.

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### Overlooks

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![](_page_32_Picture_3.jpeg)

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## **Walkway Examples** Floating Handrails

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![](_page_33_Picture_3.jpeg)

![](_page_34_Picture_0.jpeg)

Floating Handrails One side

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![](_page_35_Picture_0.jpeg)

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# No Handrails Narrow Wood

#### Floating Wood

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Floating No Handrails Fibergrate

![](_page_36_Picture_2.jpeg)

![](_page_36_Picture_3.jpeg)

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## **Public Benefits**

- Improved overall health and water quality of the pond
- Increased biodiversity of native vegetation to provide improved wildlife habitat along the pond shoreline
- Enhance public access, views, and enjoyment of Hammond Pond
- Improved linkages between local recreation and conservation areas
- Maintenance endowment
- Community engagement/resource for public conversation/reconvening of Friends of Hammond Pond

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#### **Questions & Answers**

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## **Public Input**

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## **Next Steps**

Late MayPublic Meeting #2

May & June

Summer

Design development and permitting

Construction documents and bidding: \*Pending outcome of feasibility study, DCR final project decision and permitting\*

#### Summer

Public Meeting #3

\*Wording added to this presentation slide for clarification purposes subsequent to the 3/10/11 Public Meeting #1

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## **Additional Information**

For more information:

-Web:

http://www.mass.gov/dcr/news/publicmeetings/parklandspast.htm

If you have comments or suggestions: Email: <u>dcr.updates@state.ma.us</u> Write: Department of Conservation and Recreation, 251 Causeway Street, Suite 600, Boston, MA 02114

Note: Public comments submitted to DCR by email or letter will be posted on the DCR website in their entirety.