

DETAILED CONSERVATION COMMISSION AGENDA

Date: Thursday, February 17, 2022

Time: 7:00pm

Place: This meeting will be held as a virtual meeting via Zoom.

The Conservation Commission will hold this meeting as a virtual meeting; no in-person meeting will take place at City Hall.

Zoom access information for the meeting will be posted 48 hours in advance of the meeting at: <https://www.newtonma.gov/government/planning/boards-commissions/conservation-commission>

Please contact jsteel@newtonma.gov or 617-796-1134 with any questions.

NOTE: In addition to the documents presented in the Commission's packet (available on the Commission's website), full application plans and narratives are available on [the Commission's website](#).

NOTE: Times listed are estimates. Items may be taken out of order at the Chair's discretion. Discussion may be limited by the Chair.

DECISIONS

I. WETLANDS DECISIONS – none at this time

II. CONSERVATION AREA DECISIONS

1. (7:00-7:20) Review and approval of Eagle Scout Boulton Yanhs' Flowed Meadow Boardwalk Project

- Owner: Conservation Commission
- Request: approve completed Eagle Scout project – construction of boardwalks
- Documents in packets: none
- Documents presented at meeting: Scout's PowerPoint presentation
- Jurisdiction: Flood Zone
- Staff Notes: Boardwalks are very robust, wide, and well-installed
- Staff Recommendation: Vote to have staff sign in approval of Eagle Scout project.

2. (7:20-7:30) Commemorative plaque for Ira Wallach

- Owner: Conservation Commission
- Request: Install plaque on granite post rather than wood
- Documents in packets: none
- Documents presented at meeting: plaque rendering and cost estimate
- Staff Notes:
 - Staff feel that a policy should be established to ensure equality moving forward with regard to the thresholds for and the nature and scale of commemorations.
 - Staff is not aware of the Commission having commemorated any other Commissioners with named trails or plaques. Helen Heyn (Agent) was commemorated with the Helen Heyn Conservation Area.
 - The plaque is currently due to say: "The Ira Wallach Deer Park Trail is named for Ira Wallach, member of the Conservation Commission for 28 years from 1991-2019 and its Chair for 23 years. Mr. Wallach was passionate about preserving Newton's natural environment and loved the Deer Park, in particular. This trail is named in his memory so that all may know our deep appreciation for his contributions to the City of Newton and the Conservation Commission."
 - The Commission must decide on the plaque and the post
- Staff Recommendation: Vote on plaque, post, etc.

III. ADMINISTRATIVE DECISIONS

3. (7:30-7:35) Minutes of 1/27/22 to be approved

- Documents in packets: Draft 1/27/22 minutes as edited by Kathy Cade
- Documents presented at meeting: none
- Staff Recommendation: Vote to approve the 1/27/22 minutes.
- Who will volunteer to review/edit the draft 2/17/22 minutes?



Mayor
Ruthanne Fuller

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Development**
Barney Heath

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Jennifer Steel

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**Conservation
Commission
Members**
Kathy Cade
Dan Green
Judy Hepburn
Ellen Katz
Susan Lunin
Jeff Zabel
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IV. ISSUES AROUND TOWN DECISIONS

4. (7:35-7:50) Upper Falls Riverwalk Connector Stairs to Upper Falls Greenway

- Owner: Parks, Recreation & Culture and Conservation Restriction
- Request: Provide feedback on project and consensus on next steps
- Documents in packets: none
- Documents presented at meeting: none
- Staff Notes:
 - The first design/build bid was for \$147,000.
 - BETA engineering has provided an \$18,000 estimate for geotechnical borings and assessment and design work and 100% construction plans for stairs (steel).
 - Construction costs are unknown.
 - The Mayor's office has asked that we proceed.
- Staff Recommendation: Consensus to allow staff to proceed.

5. (7:50-8:10) Stream name signs

- Owner: DPW
- Request: Provide feedback on project and consensus on next steps
- Documents in packets: sample Newton mock-up, road crossing database
- Documents presented at meeting: Natick photo, road crossing photo log
- Staff Notes:
 - Staff have identified 27 high priority stream crossings as most appropriate for signage (see database). Commission should discuss their priority criteria and locations.
 - Staff have identified a sign design that meets DPW standards (see Natick photo and Newton mock-ups)
 - Staff have received from DPW estimates of costs (\$100/sign and post) and installation (overtime).
- Staff Recommendation:
 - Vote on the sign design
 - Vote to have staff follow up with DPW to order and install X stream signs.

6. (8:10-8:30) Native species lists for applicants and residents

- Request: Provide feedback on project and consensus on next steps
- Documents in packets: Draft native plant list
- Documents presented at meeting: none
- Staff Notes: Staff would like to share with Commissioners a new version of the native plant list, based on: nativeness, availability, ease of maintenance
- Staff Recommendation: Provide feedback on draft native plant list.

UPDATES

V. WETLANDS UPDATES

7. (8:30-8:45) The Conservation Office – an overview

- Documents in packets: none
- Documents presented at meeting: A sample weekly planner
- Staff Notes: Staff would like to share with Commissioners the many arenas and projects with which they are involved

8. (8:45-9:10) "Newton's Buried streams" PowerPoint Presentation

- Documents in packets: none
- Documents presented at meeting: PowerPoint presentation
- Staff Notes: The presentation will look at the history and the regulatory implications of Newton's drainage system

9. (9:10-9:15) "no dumping" sign at South Meadow Brook (Oak Street)

- MassDOT will install "South Meadow Brook. No Dumping" sign for the duration of construction.

VI. CONSERVATION AREA UPDATES/DISCUSSION

10. (9:15-9:35) Land Management – spring 2022 and looking ahead to FY2023

- Documents in packets: none
- Documents presented at meeting: Pending projects, CRs held by ConCom, Conservation parcels (w/ CRs)
- Staff Notes:
 - Priority projects
 - Pending priority infrastructure projects for Conservation parcels AND
 - New trailhead signs
 - Consistent trail marking protocol
 - Monitoring Conservation Restrictions Held by ConCom
 - Placing CRs on Conservation parcels

- Improving communication and coordination
 - Stewards -- Recon
 - Conservators -- CRs
 - Eagle Scouts -- Infrastructure
 - Annual Contractor – Maintenance (w/ equipment)
- Staff are creating a new bid request for our land management contractor for FY23

VII. ISSUES AROUND TOWN UPDATES

VIII. ADMINISTRATIVE UPDATES

- MACC’s virtual annual conference is coming (March 1-12, 2022). Commissioners should have received an email. Go to this link for details: https://www.maccweb.org/page/EDVirtualAEC-Conf_2022. \$25 per workshop or \$150 for a bundle of workshops. Fundamentals Units are offered and priced separately. Scott Jackson will give the Keynote address on Sat. March 5 at 9:30am: “Looking Ahead: How Conservation will Need to Change to Cope with Climate Change.” Please let Ellen know if you would like to register, so that payment by the City can be arranged.

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

ADJOURN

CONSERVATION COMMISSION MINUTES

Date: Thursday, January 27, 2022

Time: 7:00pm

Place: This meeting was held as a virtual meeting via Zoom.

With a quorum present, the meeting opened at 7:04 pm with Dan Green presiding as Chair.

Members Present: Dan Green, Susan Lunin, Judy Hepburn, Leigh Gilligan, Kathy Cade, Jeff Zabel, Ellen Katz, and Associate Member Sonya McKnight

Staff present: Jennifer Steel, Ellen Menounos

Members of the Public: not recorded due to remote nature of the meeting

DECISIONS

I. WETLANDS DECISIONS

1. 152 Suffolk Rd – NOI – backyard pool, sports court, patio, and greenhouse – DEP #239-911

- **Owner/Applicant:** Yelena Dudochkin
- **Representative:** Tim McGuire, Goddard Consulting
- **Request:** Continue to the 3/10/22 hearing to incorporate Staff comments
- **Documents Presented:** None
- **Jurisdiction:** Riverfront Area, BVW, Buffer Zone
- **Vote:** to accept the applicant's request to continue the hearing to 3/10/22, with revised materials due 2/22/2022. [Motion: Zabel; Second: Lunin; Roll-call vote: Green (aye), Lunin (aye), Hepburn (aye), Gilligan(aye), Cade (aye); Zabel (aye); Katz (aye); Vote: 7:0:0]

2. 56 Roosevelt Rd – NOI Continued – rebuilding and expansion of sunroom -- DEP #239-913

- **Owner/Applicant:** Jordan Schwartz
- **Representative:** none present
- **Request:** Issue OOC for proposed work.
- **Documents Presented:** Civil plan
- **Jurisdiction:** BLSF (122' CNVD), City Floodplain
- **Project Summary:** Remove 7'x12' sunroom on pilings. Replace it with a 7'x 15.2' sunroom on piers with lattice screening
- **Presentation and Discussion:** A DEP file number has been issued, so the permit can now be issued, as that was only outstanding issue noted at the end of the previous hearing. The Commission reviewed and edited the draft Order of Conditions.
- **Vote:** to close the hearing and issue an OOC with the special conditions listed below. [Motion: Zabel; Second: Hepburn; Roll-call vote: Green (aye), Lunin (aye), Hepburn (aye), Gilligan(aye), Cade (aye); Zabel (abstain); Katz (abstain); Vote: 5:0:2]
 - Compensatory flood storage must be provided by removing 8-10 cubic feet of soil from under and around the new sunroom.
 - To maintain the flood storage capacity of the site, to uphold DEP requirements for "unrestricted hydraulic connection", and to maintain compliance with the Conservation Commission's guidelines for Construction in Flood Zone (approved 10/8/20), there shall be no enclosure of the pilings under the structure other than the minimal skirting identified in the approved plans.

3. 326 Fuller St – Minor Plan Change Request – 10' x 85' expand viewing deck – DEP file #239-813

- **Owner/Applicant:** Sean McLaughlin/Braeburn Country Club
- **Representative:** Sarah Stearns, Beals and Thomas
- **Request:** Approve the proposed plan changes as Minor Plan Changes.
- **Documents Presented:** modified plans, site photos
- **Jurisdiction:** Buffer Zone to Bank to an Intermittent Stream
- **Project (Modification) Summary:**
 - Expand the approved viewing deck by 10' in width (from 6' to 16'), resulting in: 850 sf of additional "developed" area; and
 - Shift of one of the new paddle courts 10' to the east and 5' to the south



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- To balance the proposed deck expansion, the applicants have proposed: increasing the size of the mitigation planting area a bit, moving proposed plants to accommodate the new layout, adding:
 - 6 native shrubs (4 additional Red Chokeberry, 2 additional Witch Hazel),
 - ground cover (92 wild ginger and 104 bunchberry), and
 - a 4' no-mow strip along the banks of the streams that surround the paddle court area.
- Presentation and Discussion: The proposed mitigation enhancements seem to offer appropriately robust enhancement of the buffer zone and increased protection of the adjacent intermittent streams. Sarah Stearns will send a stamped plan for referencing in the memo and for the Commission's files.
- Vote: to approve the proposed changes as Minor Plan Changes, to be documented in a memo and reflected in the required as-built plans. [Motion: Zabel; Second: Gilligan; Roll-call vote: Green (aye), Lunin (aye), Hepburn (aye), Gilligan(aye), Cade (aye); Zabel (aye); Katz (aye); Vote: 7:0:0]

4. 135 Selwyn Rd – NOI Continued – single story addition and two decks -- DEP #239-912

- Owner/Applicant: Barbara Chandra
- Representative: Andrew Thibault, Goddard Consulting; Barbara and Laura Chandra
- Request: Issue OOC for proposed work.
- Documents Presented: revised mitigation planting plan, civil plan, site photos, draft OOC
- Jurisdiction: Riverfront area, BLSF (120.2 CNVD or 113.8 NAVD88), City Floodplain
- Project Summary
 - Construct a single-story addition (in place of an existing deck) and an associated landing and deck. This will add 360 sf of impervious area and fill 5 cubic feet of flood storage.
 - Remove and replace a solid stone exterior stair with an open wood stair to provide the bulk of 41 cf of compensatory flood storage.
 - Install mitigation plantings along the southern property boundary / stream side.

Common Name	Scientific Name	Quantity	Size
Flowering Dogwood	<i>Cornus florida</i>	4	3 gal. pot
Witch Hazel	<i>Hamamelis virginiana</i>	3	3 gal. pot
Sweet Pepperbush	<i>Clethra alnifolia</i>	4	3 gal. pot
Red Maple	<i>Acer rubrum</i>	4	3 gal. pot

- Presentation and Discussion:
 - Modified planting plans address most staff questions and concerns.
 - Locations of mitigation trees and shrubs have been modified and appear to be more-or-less appropriate.
 - 2 saplings are now proposed in the "adjacent lot" as requested. The City's Forester has noted that the "adjacent lot" does not appear on lists of City-owned land.
 - It was recommended that the applicant protect the new witch hazel shrubs (and other plants) from rabbit browsing with chicken wire or similar.
 - Eastern redbud was noted as an acceptable substitute for witch hazel, as possibly more rabbit-resistant.
- Vote: to close the hearing and issue an OOC with the special conditions listed below. [Motion: Zabel; Second: Cade; Roll-call vote: Green (aye), Lunin (aye), Hepburn (aye), Gilligan(aye), Cade (aye); Zabel (abstain); Katz (abstain); Vote: 5:0:2]
 - The new wood stairs may not be fully enclosed, per the Commission's Flood Storage policy. Deck slats shall be separated by 1/8 - 1/4 inch to ensure that the decks are and remain pervious.
 - Compensatory flood storage must be provided in its entirety as per the plans, by removing a net of 36 cubic feet of material from the existing decks and stone stairs.
 - Old mulch just beyond the fence must be removed to allow natural revegetation of the stream bank.
 - No new loam or sod may be brought on to the site to maintain flood storage. Scarification prior to (re)seeding is recommended.
 - Mitigation area will have any invasives removed and then be seeded with New England Wetland Plants Conservation Mix to stabilize the soils. Applicant should clarify what non-natives have been identified for removal, since there are Norway maples and some non-native shrubs in the area.
 - (3) permanent bounds must be set along the front edge of the mitigation area, either rebar with mushroom caps or granite or concrete posts. at least 2.5 feet deep, at least 6" above the finished surface grade, and must note words to the effect of "Conservation Area, Do Not Disturb".
 - The firepit near the patio must be removed to ensure that the restoration area remains natural.

5. 100 Boulder Rd – COC – replace non-native plants with native plants -- DEP #239-600

- Owner/Applicant: Amir Nashat
- Representative: Amir Nashat (not present)
- Request: Issue COC for addition, remedial grading, and mitigation plantings.
- Documents Presented: None
- Jurisdiction: Riverfront area, BLSF, City Floodplain
- Presentation and Discussion:
 - All paperwork was submitted confirming construction and grading complied with Commission requirements.
 - The required native plants along the fence did not survive, but the owner planted many other natives in other parts of the parcel. More native plantings will be installed as part of the new filling (DEP file #239-908) for a rear addition and deck.
- Vote: to issue a complete COC. [Motion: Cade; Second: Hepburn; Roll-call vote: Green (aye), Lunin (aye), Hepburn (aye), Gilligan(aye), Cade (aye); Zabel (aye); Katz (aye); Vote: 7:0:0]

6. 791 Walnut Street – COC -- Tree cutting, tree planting, streamside restoration planting -- DEP #239-874

- Owner/Applicant: Newton Cemetery
- Representative: Mary Ann Buras
- Request: Issue COC
- Documents Presented: none
- Jurisdiction: Buffer Zone
- Presentation and Discussion:
 - All paperwork was submitted confirming cutting and planting complied with Commission requirements.
 - Staff noted that mitigation planting was robust and documentation of cutting and planting was very detailed.
- Vote: to issue a complete COC. [Motion: Katz; Second: Lunin; Roll-call vote: Green (aye), Lunin (aye), Hepburn (aye), Gilligan(aye), Cade (aye); Zabel (aye); Katz (aye); Vote: 7:0:0]

7. Hammond Pond Parkway – NOI – roadway and corridor improvement -- DEP #239-???

- Owner/Applicant: Mass DCR/BSC Group
- Representative: Diana Walden, Peter Reed, and Kathryn Eagan, BSC Group; Dan Driscoll, DCR
- Request: Issue OOC for proposed work
- Documents Presented: Colored construction & landscape plans, revised construction & landscape plans, site photos
- Jurisdiction: RFA, Buffer Zone to BVW, Certified Vernal Pools, City Floodplain
- Proposed Project Summary
 - This roadway and corridor improvement project will reconfigure a one-mile-long stretch of Hammond Pond Parkway, between Beacon St and Rte 9, converting it from 4 lanes to 2 lanes and adding: a 12' wide shared use (bike/ped) path constructed on the western side, a 15' wide landscape buffer with native plants, stormwater improvements, and a 5' wide sidewalk on the eastern side. The shared use path will be graded so that the majority of stormwater run-off is directed to the buffer for attenuation and infiltration
- Presentation and Discussion:
 - Staff sought and received revised plans with improved legibility, and received further revised plans one day ago.
 - DCR noted that this “road diet” project would be much like that on Nonatum Road when the road was narrowed and the Paul White Shared Use Pathway was installed. DCR also noted that there are plans to do the same on Quinobequin Road, another DCR parkway in Newton.
 - The majority of the proposed alterations within jurisdictional wetland areas are within degraded and disturbed areas (i.e., within the existing roadway and grass/dirt shoulder – “inboard of the existing guardrail”). Overall “paved” area will be reduced.
 - Minimal trimming will occur as needed to free the shared use path and sidewalk from encroaching branches.
 - Islands of native trees and shrubs and seed mix will be installed in 15' buffer strip between the road and the shared-use path. Seed mix will be installed “beyond” the shared-use path to create open shoulders.
 - The existing guardrail between the shared use path and the woods will be maintained and repaired throughout the project site, but not extended.
 - The proposed guardrail between the shared use path and the road will be minimized the extent possible.
 - The only significant alterations to non-degraded or non-disturbed areas of Conservation jurisdiction are:
 - 2 new stormwater outfalls near Hammond Brook crossing (clear, trench, new outfall)
 - 1 new stormwater outfall near western wetland (clear, trench, new outfall)

- 1 new stormwater outfall near eastern intermittent stream and wetland (clear, trench, new outfall)
 - Stormwater currently collects in catchbasins and discharges to wetlands. Stormwater will be routed through 6 new Stormceptor units improving stormwater quality.
 - DCR indicated that the blocked culvert near WQU-3 would be cleared by DCR stormwater crews.
 - Discussion ensued about the size and stability of the splash pads. BSC indicated that the ones on the plan were sized for the 10-year storm. BSC agreed to explore expanding them to accommodate larger storms and pulling them back from the steepest slopes.
- Slight expansion of parking area on eastern side (grading, paving, catch basin)
 - BSC clarified that the parking lot expansion would be stabilized with soil and slopes of 2:1 that would be seeded (with jute matting to ensure stability during establishment of the seed).
- Minor tree cutting to accommodate expansion of the right-turn lane onto Beacon Street
- Invasives control will not be part of this project; it will be considered after the completion of construction.
- Dan Green asked whether emergency access to the Old Deer Park would necessitate any modification of the design of the curb. Dan Driscoll thought not, and noted that many of DCR's open space parcels were only accessible by foot or ATV.
- Possible project phasing was discussed: (1) open 2 western lanes, undertake construction on the east, (2) open 2 center lanes, undertake construction on the west, (3) open 2 eastern lanes. Much of the details of phasing, stockpiling, erosion controls, etc. will be up to the selected contractor's methods and means. Conditioning will have to reflect that.
- Lighting is due to be "historic" acorn top lights designed to be close to the road to light the road and spill onto the shared use path. Staff noted their concern for dark sky conditions and spectrum considerations. Commissioners were particularly concerned about lighting near the vernal pools.
- Minimal (4-5' wide) snow removal is likely to take place on the shared use path. Magnesium chloride will be used if icing occurs.
- The "PS&E" (Plans, Specifications, and Estimates) bid set is due in late spring 2022. Bid requests will go out summer/fall of 2022. Construction will commence summer 2023 and last 1.5-2 years.
- Next Steps -- The applicant team will:
 - Clarify the extent of alterations in RFA and BZ based on the revised limits of work.
 - Identify, if/as possible, stockpiling areas and appropriate erosion controls for them
 - Note to contractors that a construction management/phasing plan may be required.
 - Modify erosion controls on the plan, since compost sock will not provide sufficient erosion controls around the new stormwater discharge points (excavation in steep slopes) and the parking lot construction area (where significant fill is being brought in on an existing steep slope).
 - Modify the details of the stormwater discharge points to accommodate larger storms (25-year storm) and mesh better with the steep slopes?
 - Enhance the details of how the stormwater outfall cuts will be stabilized/vegetated?
 - Enhance the details of how of the parking lot corner will be constructed and stabilized.
 - Address lighting to ensure dark sky conditions and maximal protection of the vernal pools and other natural areas.
 - Address invasive species at the existing fence line and/or limit of work.
- Vote: to accept the applicant's request to continue to the hearing to 3/10/22, with revised materials due Monday, 2/28/22. [Motion: Gilligan; Second: Zabel; Roll-call vote: Green (aye), Lunin (aye), Hepburn (aye), Gilligan(aye), Cade (aye); Zabel (aye); Katz (aye); Vote: 7:0:0]

II. CONSERVATION AREA DECISIONS – none at this time

III. ADMINISTRATIVE DECISIONS

8. Minutes of 1/6/22 to be approved

- Documents Presented: Draft 1/6/22 minutes as edited by Leigh Gilligan.
- Vote: to approve the 1/6/22 minutes. [Motion: Cade; Second: Katz; Roll-call vote: Green (aye), Lunin (aye), Hepburn (aye), Gilligan(aye), Cade (aye); Zabel (abstain); Katz (abstain); Vote: 5:0:2]
- Note: Kathy Cade has volunteered to review/edit the draft 1/27/22 minutes.

IV. ISSUES AROUND TOWN DECISIONS – none at this time

UPDATES

V. WETLANDS UPDATES – none at this time

VI. CONSERVATION AREA UPDATES

- Old Deer Park - Ira Wallach Memorial Trail
 - 11 posts are needed. Start with PT 2"x2"x4' with plastic trail markers. Install in the spring. See how they look and how they hold up over time.
 - Bollards or a gate will be needed to keep vehicles from entering the opened southern gate.
 - Dan Green will arrange a site visit with staff to determine an appropriate location for a trail access to Hammond Pond Parkway.
 - Ira's family will be given a copy of the commemorative plaque.
- Parks, Rec & Culture Orienteering in Flowed Meadows – PRC will partner with New England Orienteering Club to offer an orienteering event on Saturday March 26, 2022 and will leave the QR codes up for a week for people to do the course on their own. 5 control points will be in Flowed Meadows; 4 of the 5 controls will be in the same locations as last year; 1 new control point will be near the trail, as well. Last year's event had 93 starts; some of the starts were groups of 2-3 people, so roughly 125-150 people engaged throughout the week.
- The Commission's annual land management contract will need to be re-bid for FY2023. Steel and Menounos are working to craft bid language and identify potential contractors to ensure solid responses.

VII. ISSUES AROUND TOWN UPDATES

- Parks, Recreation, and Culture will be submitting a Mass Trails grant application for the construction of a boardwalk along the "Marty Sender Trail" (behind Lyons Field). The project is being designed in coordination with the Sewer Force Main Replacement project and will have to get an OOC for construction.

VIII. ADMINISTRATIVE UPDATES

OTHER TOPICS NOT REASONABLY ANTICIPATED BY THE CHAIR 48 HOURS BEFORE THE MEETING – none at this time

ADJOURN Vote: to adjourn at 9:35 [Motion: Katz; Second: Lunin; Roll-call vote: Green (aye), Lunin (aye), Hepburn (aye), Gilligan(aye), Cade (aye); Zabel (aye); Katz (aye); Vote: 7:0:0]

18"

Cheese Cake Brook

12"



18"

South Meadow Brook

12"



18"

S. Meadow Brook

12"



18"

Charles
River

12"



Quadrant	Street Crossing	Stream Name	Other Owner	Peren vs. Interm	# Signs needed	Priority	Usage/ Visibility
NN WW	Pine Street	Brunnen		intermittent	1	L	M
NN C	Watertown St	Cheescake		perennial	1	H	H
NN C	Watertown St	Cheescake		perennial	2	H	H
NN C	Crafts St	Cheescake		perennial	2	H	H
NN C	North St	Cheescake		perennial	2	H	H
N EE	Montrose	Edmands		perennial	1	L	L
N E	Centre St	Edmands		intermittent	1	L	H
N E	Cotton St	Edmands		intermittent	1	L	L
N C	Walnut St	Laundry		perennial	2	H	H
N C	Hull St	Laundry		perennial	1	L	L
N C	Pulsifer	Laundry		perennial	1	L	L
N C	Gay	Laundry		perennial	1	L	L
N WW	Comm Ave	Cheescake		intermittent	1	L	M
N WW	CD road	Charles	Mass DOT	perennial		later	H
N WW	Concord	Charles		perennial	1	H	H
N WW	Comm Ave	Charles	Mass DOT	perennial	1	H	H
N WW	Washington	Charles	Mass DOT	perennial	1	H	H
C WW	Grove	Runaway		intermittent	1	L	n.a.
C C	Centre St	Hammond Brook		perennial	1	H	H
C C	Sumner	Hammond Brook		perennial	1	L	L
C EE	HPP	Hammond Brook	DCR	perennial	2	later	H
C EE	Old England	Hammond Brook		perennial	1	L	L
C EE	Suffolk	Woodman		perennial	1	H	H
C WW	Boylston	Charles	Mass DOT	perennial	2	H	H
C WW	Eliot	Charles		perennial	1	H	H
S EE	HPP		DCR	intermittent	2	later	H
S WW	Neeham St	Charles	Mass DOT	perennial	1	later	H
S WW	Oak	South Meadow Brook		perennial	1	H	H
S WW	Neeham St	South Meadow Brook	Mass DOT	perennial	1	later	H
S C	Winchester	South Meadow Brook		perennial	2	H	H
S C	Upland Ave.	South Meadow Brook		perennial	1	H	M
S C	Dedham	South Meadow Brook		perennial	2	H	H
S E	Mildred	Paul Brook		perennial	2	H	M
S E	Parker	Paul Brook		perennial	1	H	H

S E	Great Meadow	Paul Brook		perennial	2	H	M
S E	Olde Field	Paul Brook		intermittent	2	H	M
S E	Haynes	Paul Brook		intermittent	2	H	M
S E	Hagen	Paul Brook		intermittent	1	H	M
S E	Rt 9	Paul Brook	Mass DOT	intermittent	1	M	H
S EE	Dudley	Hahn		intermittent	1	L	H
S EE	Dudley	South Meadow Brook		perennial	1	L	H
SS EE	Vine St	Saw Mill Brook		perennial	1	H	H
SS EE	Marla Cir	Saw Mill Brook		perennial	2	H	L
SS WW	Nahanton	Lacy		intermittent	1	L	H
SS WW	Wells	Country Club		perennial	1	H	H
SS WW	Wells	Country Club		perennial	1	H	H
SS WW	Nahanton	Charles		perennial	1	H	H
				total peren	35		
				total interm	12		
					tot H prior	27	
					tot M prior	1	
					tot L prior	14	
					tot later	5	
						tot H vis	30
						tot M vis	8
						tot L vis	8
						total n.a.	1

Native Plants Recommended for Newton

Table of Contents

Pg. 1 Introduction

Pgs. 1-6 Recommended Plants (Grey highlighted species are relatively easily found at local nurseries and relatively easy to get established)

- Evergreen Trees
- Deciduous Canopy Trees
- Smaller Deciduous Trees
- Evergreen Shrubs
- Deciduous Shrubs
- Vines
- Woody Groundcovers
- Ferns
- Perennial Wildflowers

Pg. 6 Planting Area Site Design

Pg. 7 Planting Area Shapes

Pg. 7 Plant Layout

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Introduction

These Guidelines have been developed to assist applicants in developing appropriate plans for mitigation and/or restoration planting areas. These Guidelines reflect the interests of the Wetlands Protection Act and Regulations, the Newton Conservation Commission's interest in promoting healthy native ecosystems, and best practices for plant installation and maintenance. Every site is unique; applicants should take site characteristics into consideration in the development of a mitigation and/or restoration planting plan; the Newton Conservation Commission will assess each plan in this context.

Recommended Plants

Evergreen Trees

Common Name	Botanical Name	Sun	Moisture	Height	Comments
Balsam Fir	<i>Abies balsamea</i>	Full-Part	Average	75'	
Atlantic White Cedar	<i>Chamaecyparis thyoides</i>	Full-Part	Wet		
American Holly	<i>Ilex opaca</i>	Full-Part			

Eastern Red Cedar	<i>Juniperus virginiana</i>	Full-Part	Dry		
Black Spruce	<i>Picea mariana</i>	Full-Part	Average	40'	Tolerates wet sites; evergreen
Pitch Pine	<i>Pinus rigida</i>				
White Pine	<i>Pinus strobus</i>	Full	Average-Dry	80'	Handsome specimen; not salt-tolerant
Eastern Arborvitae	<i>Thuja occidentalis</i>	Full-Part			
Eastern Hemlock	<i>Tsuga canadensis</i>	Full-Shade	Average	70'	Does not tolerate drought or wind

Deciduous Canopy Trees

Common Name	Botanical Name	Sun	Moisture	Height	Comments
Maple-Red	<i>Acer rubrum</i>	Full-Part	Average	60'	Excellent fall color; tolerates wet spring soil
Maple-Silver	<i>Acer saccharinum</i>				
Maple-Sugar	<i>Acer saccharum</i>	Full-Part	Average	75'	Excellent fall color, beautiful large shade tree
Birch-Yellow	<i>Betula alleghaniensis</i>	Full-Part	Average	100'	Does best in cool soils, beautiful bark
Birch-Black	<i>Betula lenta</i>				
Birch-Paper	<i>Betula papyrifera</i>	Full	Average	70'	White bark year-round, tolerates poor, dry soil
Birch-Gray	<i>Betula populifolia</i>	Full	Average	40'	Does well in poor soils; good for naturalizing
American Hornbeam	<i>Carpinus caroliniana</i>	Full	Average	30'	Use for naturalizing; tolerates periodic flooding
Hickory-Pignut	<i>Carya glabra</i>				
Hickory-Shagbark	<i>Carya ovata</i>				
Hickory-Mockernut	<i>Carya tomentosa</i>				
American Beech	<i>Fagus grandifolia</i>				
Green Ash	<i>Fraxinus pensylvanica</i>	Full-Part	Average	60'	Grows fast; tolerates salt, drought, alkaline soil
Tamarack	<i>Larix laricina</i>	Full	Wet-Ave.	80'	Good for moist-wet sites & well drained sites
Tulip Poplar	<i>Liriodendron tulipifera</i>				
Tupelo	<i>Nyssa sylvatica</i>	Full-Shade	Wet-Ave.	100'	Lovely reddish fall color and blue fruit
Sycamore	<i>Platanus occidentalis</i>				
Black Cherry	<i>Prunus serotina</i>	Full	Average	60'	White flowers (spring); wildlife food source
Oak-White	<i>Quercus alba</i>	Full	Average	80'	Large tree; transplant when young
Oak-Swamp White	<i>Quercus bicolor</i>				
Oak-Scarlet	<i>Quercus coccinea</i>	Full	Average	80'	
Oak-Red	<i>Quercus rubra</i>	Full	Average	75'	Transplants readily; good fall red leaf color
Sassafras	<i>Sassafras albidum</i>	Full-Part	Average		
American Linden	<i>Tilia americana</i>	Full-Part	Average	80'	Tolerates alkaline soil; use in urban landscape

Smaller Deciduous Trees

Common Name	Botanical Name	Sun	Moisture	Height	Comments
Downy Serviceberry	<i>Amelanchier arborea</i>	Full-Part	Average	25'	Edible/wildlife landscapes; orange fall color
Shadblow Serviceberry	<i>Amelanchier canadensis</i>	Full-Part	Average	20'	Edible/wildlife landscapes; yellow/gold fall color
Alleghany Serviceberry	<i>Amelanchier laevis</i>	Full-Part	Average	25'	Edible/wildlife landscapes; spring leaves bronze
Eastern Redbud	<i>Cercis canadensis</i>	Full-Part	Average	20'	Beautiful pink flowers in spring
Pagoda Dogwood	<i>Cornus alternifolia</i>	Full-Part	Average	25'	Moist soil is important, white flowers in June
Flowering Dogwood	<i>Cornus florida</i>				
Hawthorne	<i>Crataegus sp</i>	Full	Average	30'	Red fruits in fall attract birds
American hophornbeam	<i>Ostrya virginiana</i>	Full-Part	Average-Dry	40'	Slow to establish after transplanting
Pin Cherry	<i>Prunus pensylvanica</i>				
Black Willow	<i>Salix nigra</i>	Full	Wet-Ave	35'	Tolerates wet soils
American Mountain-ash	<i>Sorbus americana</i>	Full	Average	30'	Fruits good in wildlife landscape

Evergreen Shrubs

Common Name	Botanical Name	Sun	Moisture	Height	Comments
Inkberry	<i>Ilex glabra</i>	Full-Part	Wet	7'	Slow-growing medium sized evergreen shrub
Common Juniper	<i>Juniperus communis</i>	Full	Average-Dry	3'	Takes drought, wind, sterile or alkaline soils
Sheep Laurel	<i>Kalmia angustifolia</i>	Part	Average-Dry	3'	small, mat-forming shrub with flower clusters
Mountain Laurel	<i>Kalmia latifolia</i>	Full-Part	Average	8'	Adaptable to many soils; best in acidic soil
Canadian Yew	<i>Taxus canadensis</i>	Full	Average	6'	Hardest yew; good for shady landscape

Deciduous Shrubs

Common Name	Botanical Name	Sun	Moisture	Height	Comments
Speckled Alder	<i>Alnus incana</i>				
Red Chokeberry	<i>Aronia arbutifolia</i>				
Black Chokeberry	<i>Aronia melanocarpa</i>	Full-Part	Wet-Ave.	6'	Tolerates wet or dry soils; wine-red fall color
Buttonbush	<i>Cephalanthus occidentalis</i>	Full	Wet	6'	Good for wetland plantings
Sweet Pepperbush	<i>Clethra alnifolia</i>	Full-Shade	Wet-Ave.	8'	Aromatic flowers; dark green foliage
Gray Dogwood	<i>Cornus racemosa</i>	Full-Shade	Average	15'	Suckering; white fall fruits eaten by many birds
Red-osier Dogwood	<i>Cornus sericea</i>	Full	Wet-Ave.	6'	Red stems attractive in winter; tolerates wet soil
American Filbert	<i>Corylus americana</i>	Full-Part	Average	15'	Wildlife eats fruit; tolerates alkaline soil

Beaked Filbert	<i>Corylus cornuta</i>				
Leatherwood	<i>Dirca palustris</i>	Shade	Average	4'	Yellow fall color; thrives in moist, shady sites
Black huckleberry	<i>Gaylussacia baccata</i>	Part	Average	3'	purple-black berries ripen in late summer
Common Witchhazel	<i>Hamamelis virginiana</i>	Full-Part	Average	15'	Avoid drought; yellow flowers/leaves in fall
Winterberry	<i>Ilex verticillata</i>	Full-Part	Wet-Ave.	10'	Bright red fruits persist into midwinter
Spicebush	<i>Lindera benzoin</i>	Part-Shade	Wet	15'	Aromatic leaves and berries (need male & female)
Sweetgale	<i>Myrica gale</i>	Full	Average-Dry	4'	Bushy plant; dark green, aromatic foliage
Northern Bayberry	<i>Myrica pensylvanica</i>	Full-Part	Average-Dry	6'	Good for massing; useful in poor soil sites
Shrubby Cinquefoil	<i>Potentilla fruticosa</i>	Full	Average-Dry	4'	Summer-flowering shrub; tolerates alkaline soil
Chokecherry	<i>Prunus virginiana</i>	Full	Average	30'	White flowers in spring; wildlife food source
Swamp Azalea	<i>Rhododendron viscosum</i>	Part	Wet	10'	sweet-scented flowers
Fragrant Sumac	<i>Rhus aromatica</i>				
Smooth Sumac	<i>Rhus glabra</i>				
Staghorn Sumac	<i>Rhus typhina</i>	Part	Average-Dry	25'	Suckering; good mass plant for dry slopes
Carolina Rose	<i>Rosa carolina</i>	Full	Average	5'	Pink single flowers midsummer
Swamp Rose	<i>Rosa palustris</i>				
Virginia Rose	<i>Rosa virginiana</i>				
American Elder	<i>Sambucus canadensis</i>	Full	Average	12'	Edible landscapes; tolerates alkaline soil
Highbush Blueberry	<i>Vaccinium corymbosum</i>	Part-Shade	Wet	8'	Edible/wildlife landscapes; best in acidic soil
Mapleleaf Viburnum	<i>Viburnum acerifolium</i>	Part-Shade	Average	6'	Good for mass plantings in shady sites
Arrowwood Viburnum	<i>Viburnum dentatum</i>	Full-Part	Average	15'	Durable; good hedge; tolerates alkaline soil
Hobblebush	<i>Viburnum lantanoides</i>	Shade			
Nannyberry	<i>Viburnum lentago</i>	Full-Part	Average	15'	Good for wildlife and naturalized landscapes
Highbush Cranberry	<i>Viburnum opulus var. trilobum</i>	Full	Average	12'	Use for screening; good for wildlife landscapes

Vines

Common Name	Botanical Name	Sun	Moisture	Height	Comments
Virginbower	<i>Clematis virginiana</i>	Full	Average		Climbing vine; best in alkaline soil
Trumpet Honeysuckle	<i>Lonicera sempervirens</i>	Full-Part	Average		
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	Full-Shade	Average-Dry		Hardy vine; maroon in fall; takes alkaline soil
Fox Grape	<i>Vitis labruscas</i>	Full	Average		Handsome foliage; good vine for arbors

Woody Groundcovers

Common Name	Botanical Name	Sun	Moisture	Height	Comments
Running Serviceberry	<i>Amelanchier stolonifera</i>	Full-Part	Average	2'	Stoloniferous groundcover; forms thickets
Bog Rosemary	<i>Andromeda polifolia</i>	Full-Part	Wet	1'	Evergreen leaves; requires moist acidic soil
Bearberry	<i>Arctostaphylos uva-ursi</i>	Full-Part	Average-Dry	6"	Best in poor, sandy, acidic soils; salt-tolerant
Sweetfern	<i>Comptonia peregrina</i>	Full-Part	Average-Dry	3'	Aromatic foliage; good in dry and sandy soil
Wintergreen	<i>Gaultheria procumbens</i>	Part-Shade	Average	6"	Evergreen groundcover; leaves reddish in fall
Creeping Juniper	<i>Juniperus horizontalis</i>	Full	Average-Dry	1'	Tolerates hot, dry, alkaline soil; evergreen
Partridgeberry	<i>Mitchella repens</i>	Part-Shade	Average	2"	Delicate plant; red fruits persist into winter
Lowbush Blueberry	<i>Vaccinium angustifolium</i>	Full	Average	2'	Edible/wildlife landscapes; acidic soil
Cranberry	<i>Vaccinium macrocarpon</i>	Full	Wet-Ave.	6"	Edible/wildlife landscapes; acidic soil

Ferns

Common Name	Botanical Name	Sun	Moisture	Height	Comments
Maidenhair Fern	<i>Adiantum pedatum</i>	Part-Shade	Average	18"	Delicate black stem, fronds almost circular
Lady Fern	<i>Athyrium filix-femina</i>	Part-Shade	Wet-Ave.	18"	Lacey Fronds; reddish in spring
Hay-scented Fern	<i>Dennstaedtia punctilobula</i>	Full-Part	Average-Dry	12"	Fragrant lacy fronds; tolerates hot, dry sites
Spinulose Wood Fern	<i>Dryopteris carthusiana</i>	Part-Shade	Average	24"	Lacey fronds; reddish in spring
Marginal Wood Fern	<i>Dryopteris marginalis</i>	Full-Part	Average-Dry	24"	Fronds blue-green; tolerates rocky sites
Ostrich Fern	<i>Mattuccia struthiopteris</i>	Part-Shade	Average	36"	Beautiful fronds; fiddleheads edible
Sensitive Fern	<i>Onoclea sensibilis</i>	Full-Part	Wet-Ave.	12"	Easy to grow; spreads
Cinnamon Fern	<i>Osmunda cinnamomea</i>	Part-Shade	Wet-Ave.	36"	Attractive cinnamon color fertile frond (spring)
Interrupted Fern	<i>Osmunda claytoniana</i>	Full-Shade	Wet-Dry	36"	Spreads well; luxuriant spring growth
Royal Fern	<i>Osmunda regalis</i>	Full-Shade	Wet-Ave.	36"	Vase-shaped; sterile fronds finely dissected
Christmas Fern	<i>Polystichum acrostichoides</i>	Part-Shade	Average	12"	Leathery, evergreen fronds

Perennial Wildflowers

Common Name	Botanical Name	Sun	Moisture	Height	Comments
Baneberry	<i>Actaea pachypoda</i>	Part-Shade	Average	24"	Attractive, but poisonous fruit
Columbine	<i>Aquilegia canadensis</i>	Full-Shade	Average-Dry	12"	Early spring flowers
Spikenard	<i>Aralia racemosa</i>	Part-Shade	Average-Dry	36"	Good for back of border
Jack-in-the-Pulpit	<i>Arisaema triphyllum</i>	Part-Shade	Wet-Ave.	12"	Flower green and brown; bright red fruit

Milkweed	<i>Asclepias syriaca</i>	Full	Dry	36"	Attracts butterflies
New England Aster	<i>Aster novae-angliae</i>	Full-Part	Average-Dry	24"	Fall flowering; deep purple
New York Aster	<i>Aster novi-belgii</i>	Full-Part	Average-Dry	24"	Fall flowering; purple
Marsh Marigold	<i>Caltha palustris</i>	Full-Part	Wet-Ave.	12"	Showy yellow flowers in early spring
Harebell	<i>Campanula rotundifolia</i>	Full-Part	Average-Dry	12"	Delicate blue-purple flowers
Blue Cohosh	<i>Caulophyllum thalictroides</i>	Part-Shade	Average-Dry	36"	Blue fruits; back of border
Turtlehead	<i>Chelone glabra</i>	Part-Shade	Wet-Ave.	24"	Interesting white flowers in midsummer
Bluebead Lily	<i>Clintonia borealis</i>	Part-Shade	Average	12"	Yellow ball-shaped flowers, poison fruit
Trout-lily	<i>Eupatorium americanum</i>	Part-Shade	Average	6"	Flowers early-spring
Joe-pye Weed	<i>Eupatorium maculatum</i>	Full	Wet-Ave.	48"	Purple flowers in fall; attracts butterflies
Boneset	<i>Eupatorium perfoliatum</i>	Full	Wet-Ave.	24"	Green flowers; good for drying
Blue Flag	<i>Iris versicolor</i>	Full-Part	Wet-Ave.	24"	Elegant form; blue-purple flowers
Indian Cucumber-root	<i>Medeola virginica</i>	Part-Shade	Average	12"	Interesting magenta floral bracts
Obedient Plant	<i>Physostegia virginiana</i>	Full-Shade	Average-Dry	24"	flowers pink; leaves dark green; cut flowers
Solomon's Seal	<i>Polygonatum pubescens</i>	Part-Shade	Average	18"	Arching stems w/ white flowers (spring)
Silvery Cinquefoil	<i>Potentilla anserina</i>	Full	Dry	6"	Yellow flowers, silvery leaves
Bloodroot	<i>Sanguinaria canadensis</i>	Part-Shade	Average	12"	Showy white flowers in early spring
Foam Flower	<i>Tiarella cordifolia</i>	Part	Average	6"	Delicate white flowers in early spring
Wild-oats	<i>Uvularia sessilifolia</i>	Part-Shade	Average	6"	Cream, bell-shaped flowers in early spring
Sweet White Violet	<i>Viola blanda</i>	Part-Shade	Average	2"	Small white flowers, ground cover, self-sows
Marsh Blue Violet	<i>Viola cucullata</i>	Part-Shade	Average	6"	Blue flowers, spreading; self-sows
Labrador Violet	<i>Viola labradorica</i>	Full-Part	Average-Dry	6"	Magenta flowers; reddish foliage; self-sows
Downy Yellow Violet	<i>Viola pubescens</i>	Part-Shade	Average-Dry	6"	Yellow flowers
Round-leaved Violet	<i>Viola rotundifolia</i>	Part	Average-Dry	3"	Yellow flowers, leaves large, round & leathery

Planting Area Design

- Walls and fences can diminish the habitat value of mitigation/restoration areas. Walls and fences so should be avoided when possible.
- Buildings and roadways can diminish the habitat value of planting areas. Mitigation/restoration areas should be sited away from buildings and/or roads when possible.
- Planting areas adjacent to other natural areas can help augment those natural areas and/or created connections to them. Mitigation/restoration areas should be sited to optimize connectivity with adjacent natural areas when possible.
- Small, isolated planting areas have limited habitat value and should be avoided when possible.
- Narrow strips of planting areas have limited habitat value. Bed should be shaped to be as “consolidated” (i.e., non-linear) as possible.

Plant Layout

- A clear planting plan/map is important. A plan helps create appropriate “clumping” of plant material, identify (and avoid) potential conflicts, and clearly illustrate final/proposed conditions. Plans showing intended layouts should be provided to the Commission.
- Modifications to approved plans may be approved by Conservation staff.

Plant Density and Sizes at time of installation

- In addition to the species of plants to be included in a mitigation/restoration area, it is important to consider the density and sizes of plants to be installed. Very small plants may struggle to take hold. Very large plants may suffer excessive stress and struggle to establish. Plans should show sizes at the time of installation.

Type of Plant	Planting distance	Planting density	Size at time of installation
Groundcover	2' on center	25.0 per 100 sf	4"-1 gallon, 10" plugs, or seed mix
Groundcover w/ shrubs	4' on center	6.3 per 100 sf	4" container, plugs,
Shrubs	5' on center	4.0 per 100 sf	1'-3' tall = 1 gal.; 2'-4' tall = 2 gal.
Shrubs w/ trees	6' on center	3.0 per 100 sf	1'-3' tall = 1 gal.; 2'-4' tall = 2 gal.
Saplings/small trees	10' on center	1.0 per 100 sf	1 caliper inch / 6-8 feet tall
Canopy trees	15' on center	0.4 per 100 sf	2 caliper inches / 8-10 feet tall

Planting Area Examples to aid Planning and Visualization						
KEY: GC = ground cover, Shr = shrub, UTr = understory tree, CTr = canopy tree						
			<i>Mostly low plants</i>	<i>Low & mid-sized plants only</i>	<i>Some trees & low & mid-sized</i>	<i>More trees & low & mid-sized</i>
Planting Area	Square Layout	Narrow Layout	GC/Shr/-/-	GC/Shr/UTr/-	GC/Shr/UTr/CTr	GC/Shr/UTr/CTr
100 sf	10 x 10	n.a.	25 / 0 / 0 / 0	6 / 4 / 0 / 0	6 / 2 / 1 / 0	0 / 2 / 0 / 1
200 sf	14 x 14	10 x 20	50 / 0 / 0 / 0	12 / 8 / 0 / 0	12 / 6 / 2 / 0	10 / 5 / 1 / 1
300 sf	17 x 17	10 x 30	19 / 12 / 0 / 0	100 / 3 / 3 / 0	100 / 4 / 1 / 1	50 / 3 / 1 / 1
400 sf	20 x 20	10 x 40	25 / 16 / 0 / 0	25 / 12 / 4 / 0	25 / 10 / 2 / 1	25 / 8 / 2 / 2
500 sf	22 x 22	15 x 33	n.a.	31 / 15 / 5 / 0	31 / 12 / 3 / 1	31 / 12 / 2 / 2
600 sf	25 x 25	15 x 40	n.a.	38 / 18 / 6 / 0	38 / 15 / 4 / 1	37 / 15 / 2 / 2
700 sf	26 x 26	15 x 47	n.a.	44 / 21 / 7 / 0	44 / 18 / 4 / 1	44 / 18 / 3 / 2
800 sf	28 x 28	15 x 53	n.a.	n.a.	50 / 24 / 5 / 1	50 / 24 / 3 / 3
900 sf	30 x 30	20 x 45	n.a.	n.a.	57 / 27 / 5 / 2	57 / 27 / 4 / 3
1000 sf	32 x 32	20 x 50	n.a.	n.a.	63 / 30 / 6 / 3	63 / 30 / 5 / 4

Site Preparation and Correct Planting Practices

1. Mix compost or other organic amendments into the back-fill soil to increase water-holding capacity where appropriate.
2. Dig planting hole for trees only as deep as measured from the trunk flare to the bottom of the root ball or to the same depth as the container.
3. Dig planting hole a minimum of three times the diameter of the root ball.
4. Removed all (or at least top third) of burlap and wire baskets from the root ball.
5. Stake large trees for stability for one growing season.
6. Water all plants thoroughly at the time of planting (15-20 gal. per plant).
7. Mulch root zones with 2 inches of mulch.
8. No fertilization is necessary at planting time.

Maintenance from Planting through Establishment

Water: All newly planted areas should receive approximately 1" of water per week during the growing season from April through October. Temporary irrigation may include drip tubing on a timer to be removed after establishment or TreeGators™.

Mulch: Root zones of newly planted trees and shrubs should be mulched to a depth of 2" to 2 ½" to the drip-line, except for the area directly adjacent to the trunk. Mulching materials may include shredded leaves, aged wood chips, bark mulch, or other conservation commission approved material; or may be a hydro-seeded mixture of grasses and forbs. If hydro-seeding, a minimum of 4" of topsoil should be put down prior to seeding. On steep slopes, biodegradable erosion fabric may be used. Efforts will be made to prevent erosion and sedimentation in the planted areas.

Weeding: Hand removal of weeds is to be conducted where appropriate.

Fertilizer: No fertilizer should be applied at planting. In subsequent years, slow-release fertilizers may be appropriate based on plant growth.

Removal of invasive species: Consideration shall be given to the removal of those species of plants listed by the Mass. Dept. of Agricultural Resources Division of Regulatory Services.

Nurseries

Below is a non-comprehensive list of nurseries that have a good selection of native plants. Within this list there is a lot of variability. Some are local to Newton and some are not; some that carry only trees and shrubs, others carry only perennials; some do mail order and some that do not; some are retail and some are wholesale-only; some may be by appointment only; some may be once a year sales. Do your homework and call ahead for accurate info on open hours, inventory, pricing, etc.

- Grow Native Massachusetts native plant sale (1x/yr May/June)
- Rhode Island Wild Plant Society native plant sales (twice a year)
- New England Wetland Plants in South Hadley, MA
- Bigelow Nurseries in Southborough, MA
- Sylvan Nurseries in Westport, MA
- Bluestem Natives in Norwell, MA
- Oakhaven Sanctuary in North Reading, MA
- Native Plant Trust/Garden In The Woods in Framingham, MA
- Russell's Garden Center – several locations in MA
- Mahoney's Garden Center – several locations in MA
- Weston Nurseries – several locations in MA
- Earth Tones Nursery in CT
- Van Berkum Nursery in NH
- Mail order nurseries – many have terrific websites for learning about plants! Prairie Moon; North Creek; New Moon; Ernst Seed