



State Appraisal Raises Stakes at the Uplands

Value Set at \$13.5 Million

By Anne-Marie Lambert

Could the Silver Maple Forest, also known as the Belmont Uplands, become state parkland instead of a building site?

For more than a decade, O'Neill Properties Group of Pennsylvania has been planning to develop this property on the Belmont/Cambridge/Arlington border, most recently for 299 apartments. The Acorn Park Drive property adjoins the state's Alewife Reservation.

Last month, the Massachusetts Department of Conservation and Recreation (DCR) appraised the property at \$13.5 million, a bit more than the current assessed value of about \$12.8 million—\$12.4 million for the 12.9 acres in Belmont and about \$400,000 for the 2.7 acres in Cambridge. With the appraisal in hand, a consortium of private and public stakeholders can approach the landowner regarding a purchase and start the daunting process of raising funds in earnest.

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The DCR ordered the appraisal as a result of state Representative Will Brownsberger's efforts. Brownsberger twice pushed through the state Legislature a bill to have DCR value the property and participate in its purchase. The first time, Governor Deval Patrick vetoed the bill; in January, Patrick declined to sign it. As a compromise, DCR agreed to get the land

appraised. Whether O'Neill is willing to sell for that price could not be determined at press time. (The appraisal is posted on Brownsberger's web site: willbrownsberger.com/wp-content/uploads/2011/04/Belmont-Uplands.pdf.)

The appraisal makes the unusual assumption that the pending litigation will be resolved soon and that a building permit is close to being issued. O'Neill applied for a building permit last September, which has not yet been issued. The application is still being evaluated, pending O'Neill's fulfilling conditions mandated by Belmont's Zoning Board of Appeals.

Meanwhile, from a conservation perspective, the stakes are rising as both the litigation and the building permit approach resolution.

The Belmont Conservation Commission and the Coalition to Preserve the Belmont Uplands are still pursuing legal action to prevent construction.

Uplands Appeal Underway

On March 2, Middlesex Superior Court Judge Jane Haggerty heard arguments in the appeal by the two groups to prevent construction. The groups argued that there were unlawful procedures and errors of law when the Department of Environmental Protection (DEP) granted a superseding order of conditions to allow development on the Uplands. According to Thomas Bracken, attorney for the Coalition, a ruling for this type of case typically arrives two to three months after the hearing.

A successful appeal would likely re-open the DEP review of the case, and by a different DEP officer than the one who granted the superseding order in May, 2010. Specifically, the DEP would review any Belmont Conservation Committee testimony legally determined to have been ignored in the previous DEP review.

FAR Collects 1,000 Signatures

Soon after the appeal hearing, Friends of Alewife Reservation (FAR) presented state officials with more than 1,000 signatures on a petition to save the Silver Maple Forest at the Uplands. The petition called it “a rare wildlife refuge gem, easily accessible for education and recreation via the Alewife T.” The signatures were presented on March 14 to Representatives Alice Wolf of Cambridge, Will Brownsberger of Belmont, and Sean Garbally of Arlington; Senators Kenneth J. Donnelly of Arlington and Patricia Jehlen of Somerville; and later to Bob O’Connor of the Executive Office of Energy and Environmental Affairs (EOEEA).

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Belmont Citizens Forum Inc. is a not-for-profit organization that strives to maintain the small-town atmosphere of Belmont, Massachusetts, by preserving its natural and historical resources, limiting traffic growth, and enhancing pedestrian safety. We do this by keeping residents informed about planning and zoning issues, by participating actively in public hearings, and by organizing forums. Our **Newsletter** is published six times a year, in January, March, May, July, September, and November. Published material represents the views of the authors and not necessarily those of the Belmont Citizens Forum. Letters to the editor may be sent to P. O. Box 609, Belmont MA 02478 or to info@belmontcitizensforum.org.

Permit Requires Payments, Restrictions

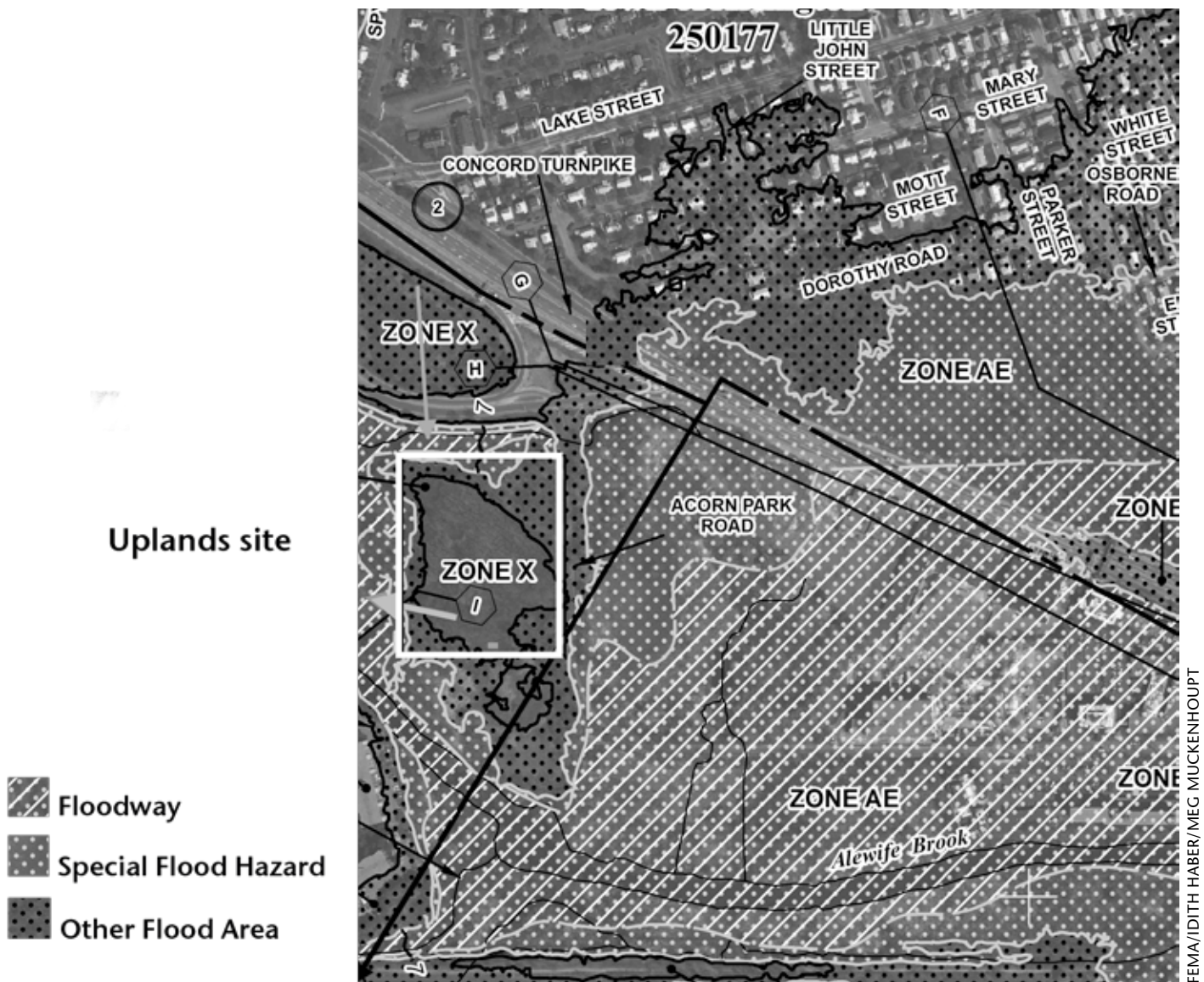
The building permit application originally submitted on September 28, 2010, is still being assembled by the developer and processed by the town. Before the building permit is issued, O’Neill Properties Group must meet many of the 42 conditions stipulated by the Belmont Zoning Board of Appeals in its 2007 Comprehensive Permit under Chapter 40B of the Massachusetts General Laws, a law intended to increase the amount of affordable housing by making it easier to get permits.

Since January, many steps have been taken. A regulatory agreement and an escrow agreement have been drafted and await O’Neill’s signature. A structural peer review of the final engineered plans and supporting documentation is complete. O’Neill has provided \$14,500 to the town of Belmont to fund an engineering review of the proposed stormwater mitigation plan and other site requirements. The preliminary version of this report is under review.

According to Glenn Clancy, director of Belmont’s Office of Community Development, the engineering review’s purpose is to “verify that the permit application is consistent with what has been approved by the DEP.” If the outcome of the court appeal results in re-opening the DEP’s review of the case, the DEP may decide to change the calculations for the property’s pre-development stormwater runoff to those from the original 2003 stormwater study for O’Neill’s commercial R&D building proposal. Those stormwater figures differ from the pre-development figures that O’Neill supplied in the 2007 building permit application. If the DEP decides to use the 2003 figures, O’Neill may need to fund a new stormwater runoff study.

The two principal barriers to granting a building permit appear to be the payment of about \$300,000 in fees for sewer and stormwater mitigation as part of Condition 28 and the execution of a conservation restriction as part of Condition 13 (Cambridge) and Condition 37 (Belmont).

A conservation restriction is a legal block to future building on that portion of the site. Condition 13 requires compliance with “applicable local bylaws”, as long O’Neill is not specifically exempt. Condition 37 requires a



Map of the Uplands site and FEMA flood zones. The Uplands building site (not the entire property) is marked by a white rectangle; the border between Cambridge and Belmont is indicated by a thick black line. Special flood hazard areas are flooded by 100-year floods; other flood areas either have a .2 percent chance of flooding in a given year, or are flooded by up to less than one foot during 100-year floods.

conservation restriction on portions of the lot in another city or town if they are to be included in the lot and other dimensional calculations.

As Belmont has learned from the McLean development, the process of defining and obtaining a conservation restriction is regulated by the state and can be quite complex. Unlike the McLean development, which has a conservation restriction held by a third party (the Trustees of Reservations), it appears that Cambridge and Belmont would hold the respective Uplands conservation restrictions.

Both municipalities' portions of the property include a road. The road appears to be legally a private way in Belmont and a public street in Cambridge; those different designations affect how many acres require a conservation restriction. From Clancy's perspective, obtaining an executed conservation restriction is the applicant's problem.

FEMA Conditions May Apply

Citizens in Cambridge are also concerned about flooding downstream from the proposed development. If the development were



determined to encroach on Cambridge's regulatory floodway, then Federal Emergency Management Agency (FEMA) rules for certification would likely apply, requiring no rise in base flood elevations. (These FEMA requirements on flood elevations are independent of the Zoning Board of Appeals' permit conditions for stormwater management.)

June 2010 FEMA flood maps of the Alewife area designate a previously "intermittent" stream in Cambridge as a floodway rather than just a part of a 100-year flood zone. This stream is north of the proposed development but south of Frontage Road. Cambridge and Arlington citizens are working with FEMA to review this issue and determine whether the submission and approval of a "no rise" analysis certification is required in order for development to be approved at the Uplands site.

Condition 28 requires the payment of \$382,500 in infiltration and inflow fees for sewers, minus the cost of any holding tank for storm water runoff. In addition to the fee payment, Clancy is also awaiting a more detailed design for a Belmont sewer connection, as well as a written statement from the city of Cambridge's engineer that O'Neill has made a "good faith application" (Condition 27b) to obtain a sewer permit in Cambridge. The Cambridge City

Council has voted to defer a decision on a sewer permit until there is a decision on the appeal, so O'Neill's application would not be considered before then.

According to Jay Szklut, Belmont's planning and economic development manager, meeting Condition 28 may not require a formal application and rejection. Instead, O'Neill could submit written verification from the city engineer in Cambridge that conversations on inflow and infiltration to mitigate storm water and sewage overflows have taken place.

Clancy also considers the application incomplete until he receives certification of all required permits and approvals. Obtaining these is unlikely to create much additional delay. Once the application is complete, Clancy expects to take a few days to review and recheck the details before issuing a building permit. Should building begin, Clancy does not anticipate much financial burden to the town during construction. The developer is required to pay for inspections and certifications.

Commercial Development?

The history of this project has alternated between residential and commercial intent. In 2002, O'Neill Properties Group succeeded in getting the Silver Maple Forest rezoned for development of a 245,000-square-foot office or research and development complex. That also involved a wetlands appeal, in which O'Neill was eventually successful. If O'Neill decides to return to its plans for commercial construction, the application process would have to start over, since Clancy has said that so much time has elapsed that the previous conditions have expired.

O'Neill may or may not proceed to develop the Residences at Acorn Park. This decision will presumably be based on his assessment of the likely outcome of the DEP appeals case, of the economic climate for residential property when it is complete, and of the relative appeal of the appraisal and any offers.

Anne-Marie Lambert is a Director of the Belmont Citizens Forum.

Floodplain Forum Details Uplands Challenges

By Meg Muckenhoupt

"Every acre of open space that can absorb water is extremely valuable," said EkOngKar Singh Khalsa, executive director of the Mystic River Watershed Association. Khalsa spoke at an April 28 forum on the Silver Maple Forest (also known as the Belmont Uplands) and the surrounding area. Titled "Floodplain Forest and Floodway Development: Implications for Nearby Residents, Communities and Wildlife," the forum was sponsored by 12 groups including the Belmont Citizens Forum and Friends of Alewife Reservation.

The forum's speakers described the Uplands' role in flood control, current Federal Emergency Management Agency (FEMA) standards, potential new flooding in the area, and the legal case against Uplands developers brought by the Coalition to Preserve the Belmont Uplands and the Belmont Conservation Commission.

Uplands FEMA Map Changes

Anne Thompson, an East Arlington activist and MIT-trained real estate analyst, began by discussing the current FEMA flood map of the area, updated in 2010 for the first time in 28 years. (See map on page 3.) The previous map, published in 1982, showed the Uplands site and the land abutting Acorn Park Drive as part of the 100-year floodplain, or land that had a 1 percent chance of being flooded in any given year.

Now, portions of the Uplands site and the majority of the land between the Alewife Brook and Route 2 are classified as a floodway. FEMA defines a floodway as an area of land where development is likely to increase the elevation of a 100-year flood in two ways: by displacing water, and by preventing water from soaking into the ground.

In other words, the new FEMA map likely bars development on portions of the Uplands as well as on the site of the former Faces nightclub and two other planned developments along Route 2. "The whole Discovery Park is in a floodway," Thompson said.

Thompson quoted a Boston FEMA flood mitigation specialist's e-mail: "The only way a

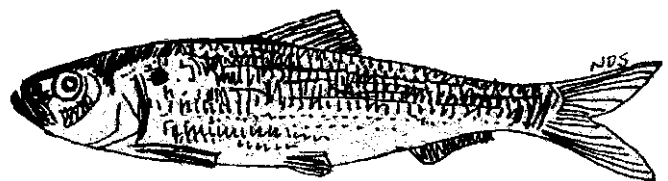
community can permit encroachment in the regulatory floodway is if a hydraulic analysis is conducted and a professional engineer can certify that there is no increase (0.000') to base flood elevations. The no-rise standard is very difficult to meet."

Still, thousands of square feet of new building are planned for the Faces site, which is co-owned by Criterion Development Partners and the McKinnon Company. In March, the Cambridge Planning Board approved a special building permit for the "Residences at Alewife," a four-story, 227-unit, 254,000 square foot apartment complex.

The planned apartments at the Silver Maple Forest at the Belmont Uplands, to be known as the Residences at Acorn Park, would add 300,000 square feet of development. A 2004 plan submitted to the Cambridge Planning Board also shows two additional buildings of about 100,000 square feet each abutting Route 2; both would be located in the floodway. An additional 540,000 square feet have already been built in the floodway: the Smithsonian building and the Forrester building, both on Acorn Park Drive.

Uplands Case Hinges on Technicalities

"I feel confident of winning the [Uplands] case on technicalities," said Thomas Bracken, the attorney representing the plaintiffs opposing development on the Uplands. According to Bracken, the DEP lost the tapes of the hearing on the Uplands case. The DEP's hearing officer's decision relied solely on the written testimony submitted before the hearing, in violation of



Blueback Herring

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Massachusetts law: a DEP hearing officer must consider evidence from the cross-examination.

Unfortunately, winning a case against the DEP may not save the Silver Maple Forest. If a building permit is issued by Belmont before the judge rules on the case, Bracken said, O'Neill has said that the company will start work right away—cutting down the forest.

Normally, building permits are issued within 20 days of filing; in the Uplands case, O'Neill must fulfill conditions imposed by Belmont's Zoning Board of Appeals before the permit can be issued. Those conditions have delayed the permit; O'Neill first filed for a building permit last September, and it has still not been granted.

The race now is to get a judge to issue an injunction to stop construction due to the potential for irreparable harm. "You can't re-establish the silver maple forest, the wetlands, and everything else," Bracken said.

Groundwater Makes Building Difficult

Scott Horsley, a hydrologist who has testified before the Belmont Conservation Commission and the DEP about the Uplands, described the Uplands site as a floodplain with wetlands nearby, a "challenging" site to build on. "It requires an innovative site design. I don't see that here," said Horsley.

One of the biggest problems with the site, though, isn't flooding; it's groundwater. The groundwater is very close to the surface at the Uplands, Horsley said. Massachusetts stormwater management standards state that development cannot produce more runoff than before building and must ensure the same amount of recharge water is reaching the ground as before.

The Uplands developers plan to put water back into the ground—but with such a high water table, there isn't any room for it to seep in once buildings are put up. Any water that is put into the ground is likely to come back up to the surface and run off the site, Horsley said, adding "I'm not sure this was paid attention to at the adjudicatory hearing."

Pavement Destroys Water Quality

EkOngKar Singh Khalsa, executive director of the Mystic River Watershed Association (MyRWA), focused on water quality in the

Mystic. Khalsa said a recent study of eastern Massachusetts rivers by the Massachusetts DEP and the Department of Conservation and Recreation found that the more impervious surface drains into a river, the more the decrease in such species as brook trout. Even a small increase in impervious surface had an impact on fish.

"We've done a good job of creating an impervious seal over the entire landmass of the Mystic Watershed," Khalsa said.

The sites in the study varied from .29 to 46 percent impervious surface. Belmont's land is 34 percent impervious surface; Arlington, 41 percent; Cambridge, 58 percent. "We've done a good job of creating an impervious seal over the entire landmass of the Mystic watershed," Khalsa said.

Paving Makes Floods Deeper, Longer

Tino Lichauco, a member of the Belmont Conservation Commission, brought the discussion back to Belmont with observations about floods. Little Pond gets water from rain and stormwater runoff, and releases that water via the Little River to Alewife Brook, or it floods, Lichauco said. During storms, there's usually a lag between the time the rain arrives at Little Pond and the time when the stormwater runoff arrives. Pavement makes stormwater come into Little Pond faster, so it's more likely to get there before the initial rain water has drained off.

The Uplands development, Lichauco said, would make three pulses of water come into Little Pond during storms: the initial rain, the stormwater runoff from the Residences at Acorn Park, and the general stormwater runoff. This new runoff will make floods either deeper or longer, Lichauco said, "And they're not supposed to do either."

Meg Muckenhoupt is Editor of the Belmont Citizens Forum *Newsletter*.

MAPC Releases Belmont Bike Path Study

By John Dieckmann

How should the Mass Central Rail Trail get through Belmont en route from Boston to Northampton? The Metropolitan Area Planning Council (MAPC) has completed a study of on-road and off-road options. The next step is public input at a meeting in the Town Hall Auditorium on Thursday, May 19, at 7 p.m.

The MAPC's report, titled "Belmont/Waltham Community Trail Alignment Study," was released April 20. East and west of Belmont, the Mass Central Rail Trail (MCRT) will largely follow the abandoned right of way of the defunct Central Massachusetts Railroad; but in much of Belmont, the former right of way is not available. In one place where the old right of way is available, behind the high school, some abutters on Channing Road object to that route.

The study covers the missing link from Brighton Street in Belmont, just north of the Fitchburg commuter rail line crossing, where construction of the Belmont end of the new bike path to Alewife Station has been largely completed, to Beaver Street in Waltham, just north of the commuter rail crossing. Construction from Beaver Street west to Berlin will be overseen by the Massachusetts Department of Conservation and Recreation, which has a 99-year-lease on that 26-mile stretch.

The draft report is posted at www.mapc.org/smart-growth/transportation/bike-ped-projects. A map showing the alternatives is a companion piece to the study and is posted next to it.

The MAPC study breaks the Belmont segment of the MCRT into five sections and identifies

alternate routes for each. In each section, one option is entirely or mostly off-road; other options involve significant amounts of on-road travel.

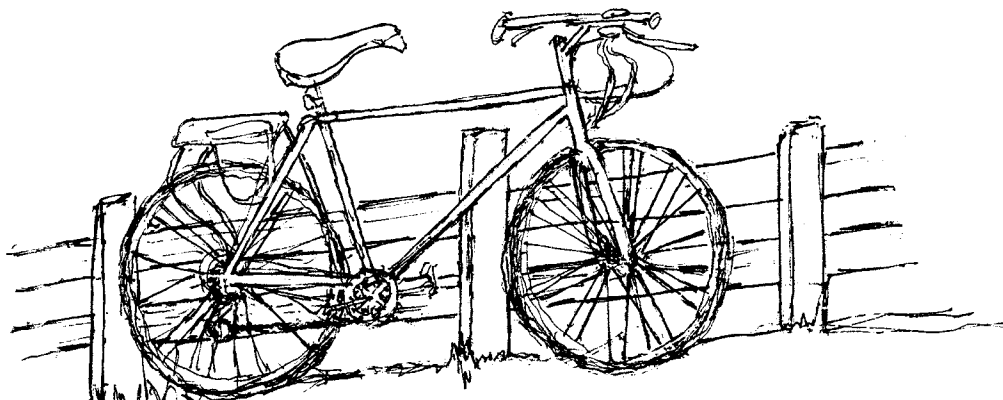
Starting at Beaver Street in Waltham, the predominately off-road route runs along the north side of the commuter rail tracks toward Waverley Square, then turns through the Beaver Brook Reservation. It would cross Trapelo Road in a new tunnel that would also connect the two segments of Beaver Brook Reservation, then cross Mill Street at the existing crosswalk. Continuing eastward, it passes through the town conservation land at McLean Hospital along Trapelo Road and Pleasant Street to Snake Hill Road, then crosses Pleasant Street and the commuter rail line at the Clark Street footbridge.

The off-road route reaches Belmont Center through the town-owned woods along Royal Road, then uses the existing pedestrian tunnel to cross under the commuter rail tracks. From there it crosses the stone MBTA bridge and continues east on the north side of the commuter rail tracks to reach Brighton Street and connect to the new bike path.

While the report identifies and discusses a number of challenges associated with this route, a strong case can be made for selecting a route that is as close to 100 percent off-road as possible, given that the rest of the Boston-Berlin trail is off-road.

MAPC's scheduled public meeting is a good opportunity to show support for an off-road, shared-use bike trail through Belmont.

John Dieckmann is a Director of the Belmont Citizens Forum.



Where Should the Bike Path Go?

Community Path Alignment Study Public Meeting

Thursday, May 19, 2011, 7 p.m.

Belmont Town Hall Auditorium

Tell the Metropolitan Area Planning Council (MAPC) how important an off-road bike path is to Belmont. The MAPC is seeking public input on its study of potential bike paths through Belmont connecting the Brighton Street Path with the Mass Central Rail Trail in Waltham. The study is available at www.mapc.org/smart-growth/transportation/bike-ped-projects.

After this meeting, the **MAPC will finalize its recommendations for a bicycle route.**

For more information, contact David Loutzenheiser, Transportation Planner, dloutzenheiser@mapc.org, 617-451-2770 x2061.



The newly constructed Alewife-to-Brighton-Street path, as seen from Brighton Street.

Western Greenway Gets New Trails, Map

Some Critical Parcels Remain Unprotected, Closed to Public

By Dan Lech

In the past year, new trails have been opened along the Western Greenway, a ring of connected green space that runs through Belmont, Lexington, and Waltham. Walkers will discover more trails than ever this spring, but large portions of the Greenway are still inaccessible, and several sections could still be sacrificed to development.

The Western Greenway is a six-mile ring of linked trails, parks, conservation land, and green space spanning more than 1,000 acres.

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It lies inside a triangle bounded on the north by Concord Avenue, on the west by Lexington Street, and the south by the MBTA Fitchburg commuter rail line. (See map on page 10.) Some parcels are permanently protected from development; others are publicly owned, but their future is uncertain; and some parcels are privately owned.

Habitat & Weeks Meadow

The easternmost segment of the Greenway trail is a new addition. In June 2010 the Massachusetts Audubon Society purchased the Weeks Meadow parcel adjoining the Habitat Sanctuary from the Weeks family. This 2.6-acre lot extends Habitat to the east and south and makes the sanctuary more accessible by foot from Belmont Center.

The meadow is now home to a small group of sheep and goats that keep the vegetation under control. Hikers can park in Belmont Center, walk up Concord Avenue, cross at a crosswalk, and access the meadow from a gravel driveway open only to pedestrians.

After crossing Weeks Meadow, the trail veers right at Weeks Pond and heads up the hill to

Somerset Street. Going left on Somerset and right on Juniper Road brings the hiker to the Habitat parking lot. From there the trail continues through Habitat, across Concord Avenue, and down a hillside trail to Mill Street.

Rock Meadow & Beaver Brook North

Across Mill Street the trail enters Rock Meadow, where it eventually crosses a footbridge over Beaver Brook and enters the Beaver Brook North (BBN) reservation.

The BBN trails lead to the Avalon Bay apartment complex. Hikers can bear right on the Avalon Bay access road and pick up the trail a few yards down on the other side of the road. The trail winds through the woods in the western part of BBN, across a boardwalk over wetlands, and out to Walnut Street in Lexington.

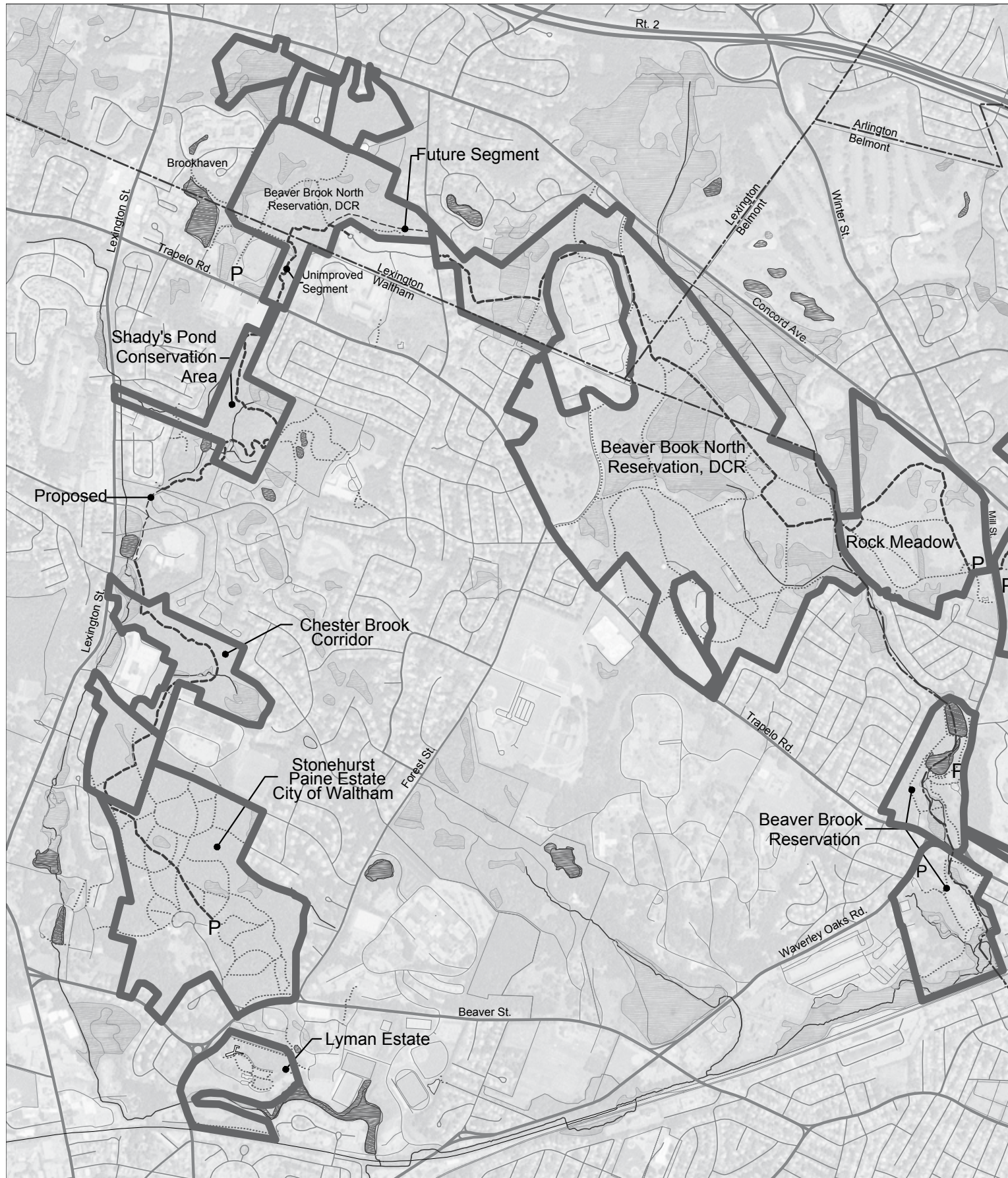
Middlesex County Hospital Campus

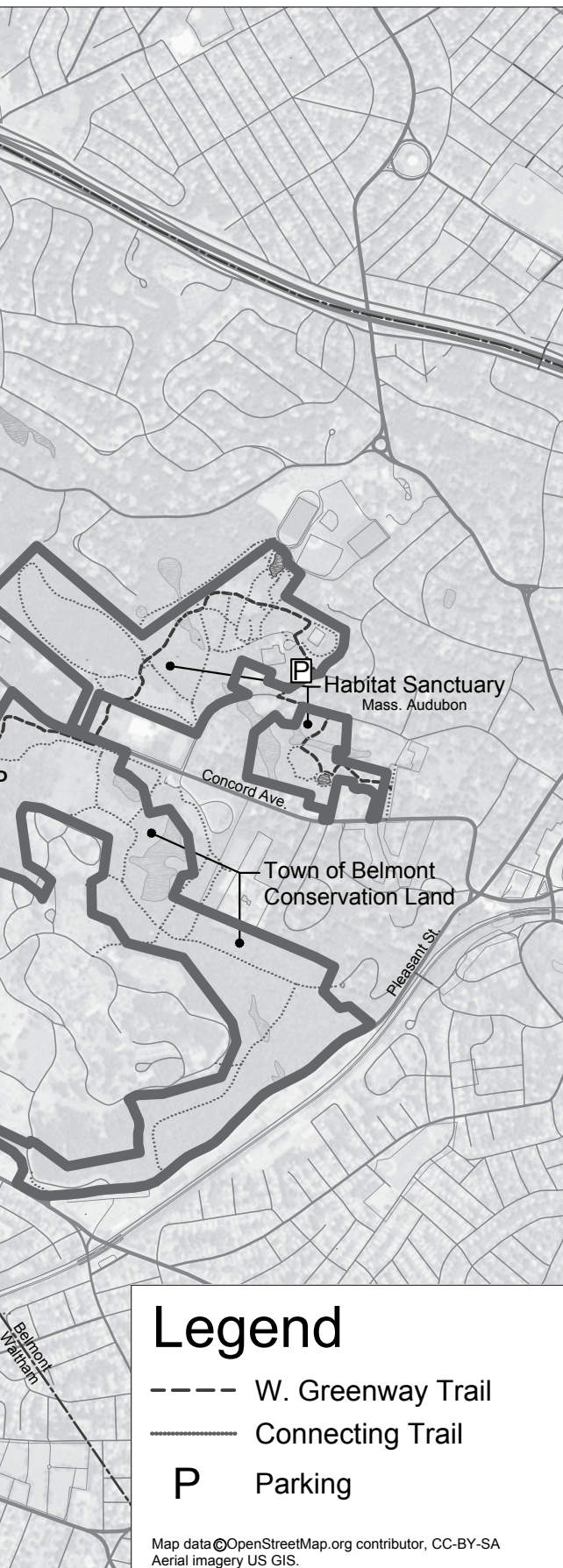
Crossing Walnut Street, hikers come to the first “future segment” of the Greenway, also known as Lot 1. This 47.5-acre property was formerly part of the Middlesex County Hospital campus but is now under the control of the Department of Conservation and Recreation (DCR) and is officially part of BBN. There is no trail access to Lot 1 from Walnut Street at this time.

However, Roger Wrubel, director of Mass Audubon’s Habitat Sanctuary and a Western Greenway advocate, has submitted a proposal to the DCR’s district superintendent for a new trail segment to continue the BBN trail. This spring the district superintendent will visit the site, assess the trail plan, suggest adjustments, and hopefully give final approval for the proposed trail.

If approved, the new trail will run through woods and meadows uphill to a water tower belonging to the Massachusetts Water Resources Authority. Beyond the water tower and on the other side of the hill (beyond Lot 1) is more of the former Middlesex Hospital campus. There are trails here, but the property is unassigned state land and is “unimproved,” meaning that there

Map of the Western Greenway Map by Penn Edmonds





are no official trails or trail markers. Wrubel hopes to bring this area officially into the Western Greenway.

Shady Pond

The entrance to Waltham's Shady Pond Conservation Area lies along Trapelo Road to the south of the hospital campus. Volunteers completed Greenway trails in October 2010.

Bishops Forest Condominium Property

The Shady Pond trails wind through varied brush and woods and across numerous boardwalks and footbridges, eventually ending at the Bishops Forest condominiums complex. Friends of the Western Greenway are still seeking permission from the condominium association to allow hikers to use the property to connect to other Greenway trails.

YMCA Camp Cabot

If approved, hikers would have a brief walk through an unused stretch of wooded land on the edge of the Bishops Forest condominium complex (about 300 feet) to where the trail picks up again at Camp Cabot, a property belonging to the Massachusetts YMCA.

How the Map was Made

Working with Habitat director and Greenway advocate Roger Wrubel, Penn Edmonds, a resident of Belmont, has created an excellent detailed map of the Western Greenway.

Edmonds used Open Street Maps, a program and web site that he says is "kind of like Wikipedia for maps," enabling registered users to input and edit mapping information.

Edmonds hiked the Greenway trails with a global positioning system unit in hand, creating a GPS trace as he walked. The trace was then superimposed over an existing map on Open Street Maps.

The Camp Cabot property is still not part of the Western Greenway. At issue is the point where the trail crosses the camp's driveway: the YMCA is concerned about liability for hikers crossing the driveway and possibly being injured. Last fall the Waltham Land Trust, a Greenway advocate, hired a traffic engineer to assess the risk of the intersection and design a crosswalk and signage, but there is as yet no resolution.

History of the Western Greenway

In the early 1990s, during discussions on the reuse of the former Metropolitan State Hospital property, open space advocates formed a group called the Friends of Beaver Brook. One proposal of the group was creating a trail system through the Met State land to connect to other green spaces.

"The Friends of Beaver Brook spread the idea (of the Greenway) among advocates such as Waltham's Marie Daly and Belmont's Roger Wrubel," recalls Marc Rudnick of the Waltham Land Trust. "When the Waltham Land Trust was formed in 1999, establishing the Greenway was one of its initial priorities. By 2001 we were working with Roger at Habitat, John Dieckmann at the Belmont Citizens Forum and Keith Ohmart from Citizens for Lexington Conservation to advocate for the establishment of the Greenway."

In 2002 the Waltham Land Trust received a grant for the initial brochure promoting the Greenway project. The brochure was released under the name of the Friends of the Western Greenway.

Since then, the Friends of the Greenway have participated in successful campaigns to keep a significant part of the Met State land as open space and to preserve Lot 1 in Lexington on the former Middlesex County Hospital site. Many miles of trail are now blazed with the Western Greenway logo.

Chesterbrook Woods & Storer Conservation Area

On the other side of the Camp Cabot driveway, an established section of the Greenway climbs out of the Chester Brook corridor and into an eight-acre wood owned by the Waltham School Department. From here, the trail runs between the John F. Kennedy Middle School and Waltham High School into the trail network at Chesterbrook Woods, a 26-acre parcel recently acquired by Waltham for open-space preservation.

The Chesterbrook trails connect to the trail system of the Storer Conservation Area, which surrounds Stonehurst and the Robert Treat Paine Estate. The Paine Estate is where the Western Greenway ends, at least for now.

Future of the Greenway

"Our goal is to complete the 6.5-mile section (from Habitat to the Paine Estate) this summer and then start working from the south side of the Paine Estate down towards Beaver Street," said Greenway advocate Roger Wrubel.

One big issue is the former Fernald State School, now controlled by the state Division of Capital Assets Management (DCAM), which plans to close it. A reuse committee studying the land recommended preserving some as open space and continuing the Western Greenway trail across it, but DCAM rejected the committee's recommendations, and the group has now disbanded. "Planning for the future of the Fernald is in limbo at this point," commented Marc Rudnick, a board member of the Waltham Land Trust.

On other future segments, Rudnick said, "We had early positive discussions with the Lyman Estate, but no agreements have been discussed yet. The sections along the Wayside Rail Trail will have to be approved by DCR, but the use is obviously compatible with their plans for a community trail there. UMass Amherst has already voiced support for the Greenway across their land at the Waltham Field Station."

Dan Lech is a 12-year Belmont resident, wine professional, and musician who is trying to think globally and act locally.

Town Gets Sanitary Sewer Upgrades

By Sumner Brown

I contacted Glenn Clancy, our head of Community Development, to get an update on three sanitary sewer upgrades described in the November/December 2009 Belmont Citizens Forum *Newsletter*, "Expensive Leaks Persist in Belmont Sewers."

The first upgrade replaced two old pumps that moved sanitary sewage uphill from a low point at the northwest corner of Belmont to send it on its way toward Deer Island. The second upgrade is trying to stop sewage from getting into Wellington Brook. Wellington Brook has a heavy load of fecal coliform bacteria where it emerges from a culvert near the bottom of Common Street. (See "Wellington Brook Bacteria Exceed State Limits," Belmont Citizens Forum *Newsletter*, November/December 2010.

The third upgrade addresses the problem of sanitary sewer overflows into basements during heavy rains in the Winn Brook neighborhood. The town is building holding tanks to store sewage when heavy rains cause higher flow rates than the pipes leaving Belmont can handle.

Belmont Citizens Forum: I know the replacement of the two old pumps at Stony Brook and Birch Hill roads is complete. Any surprises? What did it cost?

Glenn Clancy: Other than relocating a section of water main on Birch Hill, things went as planned. The contract is still open and final restoration is still outstanding. We have not paid a final invoice, but I can tell you the bid price was \$590,360.30.

BCF: Do you have any information about the success of cleaning up Wellington Brook?

GC: The project is still ongoing with some lining work still remaining. I am aware that independent testing of stormwater in this watershed has occurred recently, and the results still show high levels of *E. coli*. This could be because our work is not yet complete, or it could mean there are

additional sources we haven't located yet. Either way we will continue to investigate and mitigate as necessary.

BCF: Are the holding facilities in the Winn Brook neighborhood complete? Have they been useful yet?

GC: The facilities will be activated in the next few weeks [from March 28]. DPW staff has been trained on the new systems including the new pump station at the end of Channing Road. DPW staff will be notified each time the pump station activates so we will be able to document when the system protects the Winn Brook neighborhood.

The system was designed based on the Mother's Day storm of 2006. It is possible a rain event is out there that exceeds the intensity duration rainfall of that storm. When that happens there could still be impacts to Winn Brook residents. The new system will mitigate many events but not all.

Sumner Brown is a Director of the Belmont Citizens Forum.



Wellington Brook

Rain Gardens Turn Stormwater into Flowers

By Meg Muckenhoupt

Picture your yard during a summer thunderstorm. When the rain hammers down on your driveway, the sidewalk, or your roof, where does it go? Does it rush off into a storm drain? Does it wash over a bald spot in your lawn, eroding the topsoil and deepening an ugly gully? Or does it flow directly into your basement? All of these scenarios are bad for the environment—and all of them could be improved by installing a rain garden.

Rain gardens are a low-tech way to keep stormwater runoff from going to the wrong place. Also known as bioretention cells, the basic rain garden is simply a shallow, saucer-shaped depression in the landscape, filled with native plants. Water flows into the rain garden and soaks into the ground slowly over a few hours—instead of flushing into storm drains and basements in seconds.

That slow soak through a rain garden has many benefits.

- Reduces runoff and flooding of storm drains—an important issue in Belmont, where some stormwater drains are still

connected to sewage pipes. Overflowing storm drains can carry raw sewage to Little Pond

- Filters the runoff water through the soil before it reaches local waterways
- Gives microbes time to break down some environmental contaminants, and
- Recharges groundwater, so local creeks and streams maintain their water level through dry spells.

The long, slow soak thoroughly waters the plants, making irrigation unnecessary. The native plants recommended for gardens also appeal to birds and butterflies, adding even more color to the landscape.

How to Make a Rain Garden

Creating rain gardens boils down to a few simple steps: calculate how big the rain garden should be, decide where to put it, test drainage to see if the soil needs amending, prepare the garden, and choose plants.

How Big should the Rain Garden Be?

Most experts say a rain garden area should equal at least 20 percent of the area that it is draining—typically an impervious area, like a driveway or roof that do not absorb water at all. For example, if your driveway or roof area is 500 square feet a rain garden should be at least 100 square feet. The New England Wild Flower Society recommends an even larger rain garden, as much as 30 to 50 percent of the impervious area. For a 500-square-foot roof, that garden would be 150 to 250 square feet. Remember, gardens don't have to be square—any shape will do, as long as it takes up enough surface area.

Where to Put the Garden

Where to put the rain garden should be fairly obvious: it should be where the water goes! Place it where rain runs off from a driveway or walk, or where a roof downspout



Black-eyed Susans, *Rudbeckia hirta*

Selected Rain Garden Plants

These native, low-maintenance perennial flowers and shrubs are adapted to New England climate.

Wet center

Ilex verticillata Winterberry

Iris virginica Blue flag iris

Lobelia cardinalis Cardinal flower

Cornus sericea Red twig dogwood

Asclepias incarnata Swamp milkweed

Clethra alnifolia Summersweet

Dry edge

Symphotrichum novae-angliae New England aster

Rudbeckia hirta Black-eyed Susan

Liatris spicata Blazing star

Monarda species Bee balm

Solidago specie Goldenrods

can be diverted. If the water comes from a downspout or drain pipe, make sure there's a one- to two-foot grass or gravel buffer between the end of the downspout and the rain garden, to keep soil from being washed away by the flow. The Massachusetts Greenscapes program states that rain gardens should be at least six to ten feet away from building foundations, underground utilities, or septic system drain fields. Avoid putting your rain garden in deep shade: plants that do best in rain gardens need at least partial sun.

Test the Drainage

Once you have located a site for your rain garden, dig a hole. If you'll be home all day, dig a hole eight inches deep and fill it with water. Check the hole every hour. If the drainage is slower than an inch per hour, you may have to add sand to your soil, or excavate the area and put in a layer of gravel under the garden to get good drainage. An alternative test is to dig a hole 18 inches deep, fill it with water, and check it a day later. If it has not drained, that soil will need amending. For details on how to improve rain garden drainage, see the "Rain Garden Resources" sidebar.

Prepare the Site

To prepare the garden site, grade the soil so that the center of the garden is about six inches below the edge. You may wish to add compost or other garden amendments, depending on the state of your soil.

Choose Your Plants

Then, it's time to plant. Plant water-tolerant flowers and shrubs near the wet center of the garden, drought-tolerant plants at the drier edge. The New England Wild Flower Society has a lengthy list of plants for sunny, part-sun, and shady rain gardens; search for "rain garden plant list" at www.newfs.org.

In the end, you will have a garden of flowers using rain water that would have otherwise run off into storm drains and polluted our rivers and lakes. Your garden will return rain to the water table. As the Massachusetts Audubon Society puts it, rain gardens are "a beautiful solution to water pollution."

Meg Muckenhoupt is Editor of the Belmont Citizens Forum *Newsletter*.

Rain Garden Resources

Massachusetts Executive Office of Energy and Environmental Affairs

<http://www.mass.gov/Eoea/docs/eea/water/raingarden.pdf>

Massachusetts Riverways

<http://www.mass.gov/dfwele/der/riverways/pdf/raingardenfactsheet.pdf>

Charles River Watershed Association

http://www.crwa.org/projects/bmpfactsheets/crwa_raingarden.pdf

New England Wild Flower Society

<http://www.newenglandwild.org/publications-and-media/articles/horticulture/rain-gardens.html/>

Massachusetts Greenscapes Program

<http://www.greenscapes.org/Page-198.html>

Hurricane Surge Maps May Predict Floods

By Meg Muckenhoupt

Last November, the Boston Harbor Association (BHA) unveiled new maps showing what parts of Boston, East Cambridge, and Charlestown would be flooded once the Boston Harbor rises by 2.5 feet—the current best guess of how much the harbor level will rise in the next 100 years due to climate change. Under the BHA's worst-case scenario, if a 100-year flood comes at spring high tide, the Charles River dam will be overtopped, and flood waters will swamp all of the Back Bay and East Cambridge.

That is where the BHA's analysis stops. It neglected to examine the effects of sea-level rise on another Boston river: the Mystic. Most of Belmont is in the Mystic River watershed. Little Pond and Little River are connected to the Mystic River via Alewife Brook.

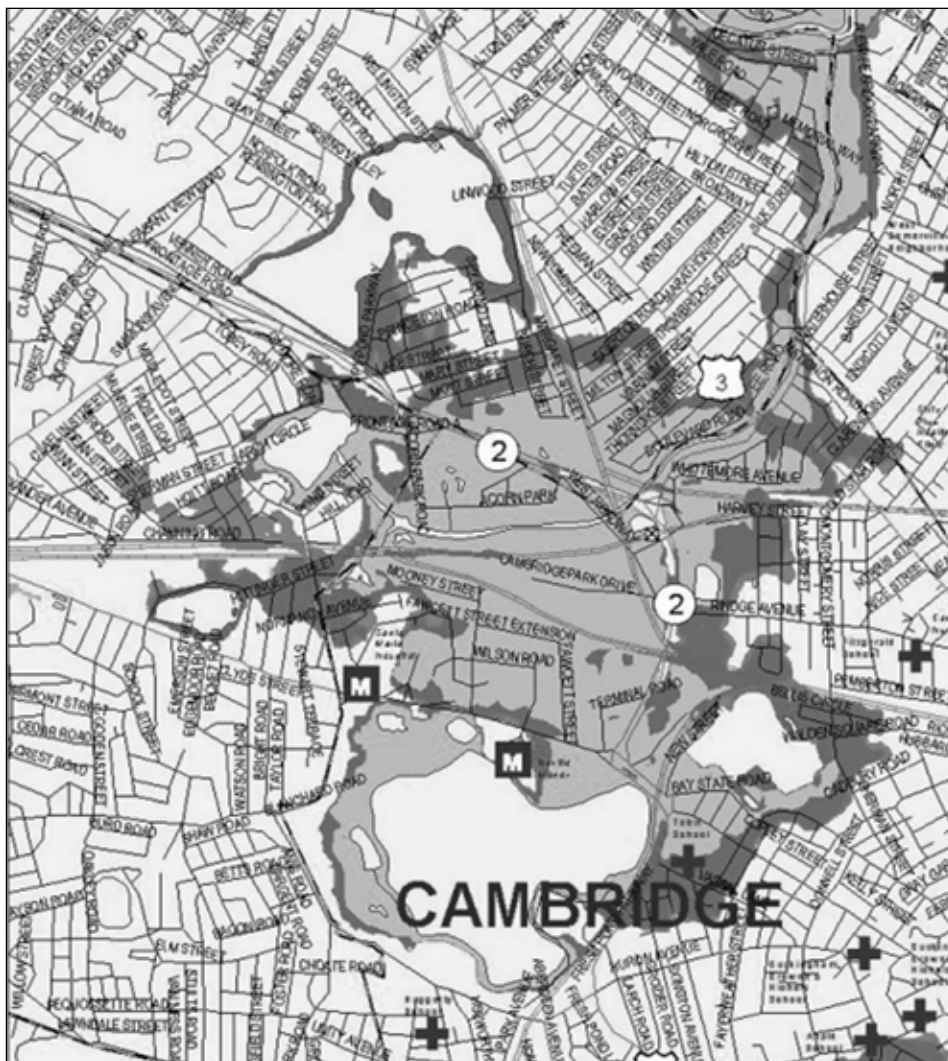
Like the Charles River, the Mystic River is protected from most coastal flooding by a dam. The Mystic's Amelia Earhart Dam, built in 1966, has a series of locks and pumps that prevent ocean tides from reaching upstream. They manage to control most coastal flooding from reaching upstream as well. (See "Alewife Floods Start with Mystic, Pavement," Belmont Citizens Forum Newsletter, May/June 2010.)

As it turns out, the Amelia Earhart Dam is at the same elevation as the Charles River Dam. In a scenario where the Charles River Dam would be overtopped, the Amelia Earhart Dam would be too.

Although the University of Massachusetts researchers who put together the BHA

flood map did not create a map of the Mystic watershed, another map shows how catastrophic flooding would affect the Mystic. In 2000, the Army Corps of Engineers put together a series of hurricane surge inundation maps, showing where the water will go when Massachusetts experiences its next hurricane.

The Army Corps maps show the effects of different categories of hurricanes. According to the National Centers for Environmental Prediction, a category 1 hurricane produces a



Detail of the Army Corps of Engineers' Eastern Massachusetts Hurricane Evacuation Study Hurricane Surge Inundation map of Boston showing the area between Spy Pond and Fresh Pond. Light gray areas would be flooded during a category 1 hurricane; dark gray areas would be flooded by a category 2 hurricane; the dark gray area southwest of Little Pond would flood during a category 4 hurricane.

four- to five-foot coastal storm surge; category 2, a six- to eight-foot surge; category 3, a nine- to 12-foot surge; category 4, a 13- to 18-foot surge. The ACOE used a modelling system called SLOSH to map exactly where the flood waters would go under each type of hurricane.

The Army Corps map covering eastern Belmont shows that under a category 1 hurricane, most of the area between Little Pond and Fresh Pond extending east to Route 3/Route 16 is flooded.

The Army Corps map covering eastern Belmont shows that under a category 1 hurricane, most of the area between Little Pond and Fresh Pond extending east to Route 3/Route 16 is flooded. This isn't surprising: There's only a foot difference in elevation between the Mystic River and Little Pond, and flood waters will tend to spread in the wide, flat floodplain around Alewife.

The surge's outline recalls the "Great Swamp" that formed the Fresh Pond area at the time of European settlement (See "Great Swamp Survives in Little Pond," Belmont Citizens Forum *Newsletter*, November/December 2006.) A category 2 hurricane extends the flooding west to Clay Pit Pond and north to Spy Pond.

A 2008 University of Massachusetts Amherst Climate System Research Center study of sediments in the Lower Mystic Lake indicated that over the past 1,000 years, the Mystic watershed has experienced anywhere from two to eight hurricanes per century. Hurricane frequency increased in centuries when the sea surface temperature warmed—something that is also happening today.

Next fall may bring a hurricane, or there may not be one for 50 years; but sooner or later, we will find out just how accurate the Army Corps map is.

Meg Muckenhoupt is Editor of the Belmont Citizens Forum *Newsletter*.

Belmont Farmer's Market Opens

The Belmont Farmers' Market opens its sixth season on June 9, 1:30-7 pm, bringing just-harvested produce and locally made foods right to Belmont.

The Market will run every Thursday from June 9 to Oct 27 and is conveniently located in the municipal parking lot in Belmont Center, at the intersection of Cross Street and Channing Road behind the Leonard Street stores.

To keep tabs on Market events—guest vendors, kids' activities, recipes, musicians, and more, sign up for their weekly e-newsletter at www.belmontfarmersmarket.org.

Become a fan on Facebook and follow them on Twitter! Links are on the web site.

The Belmont Farmers' Market is a project of the Belmont Food Collaborative, Inc., a 501(c)(3) nonprofit organization.

Correction

In "Alewife Station Becomes Regional Bike Hub" (March/April 2011), it was stated that part of a proposed bike path through Watertown is blocked by a Lexus dealership near the Arsenal Mall.

In fact, a section of the path runs in front of the dealership.

The Belmont Citizens Forum *Newsletter* regrets the error.

BCF Welcomes Program Director

The Belmont Citizens Forum Board is grateful for the many thoughtful applications we received for Program Director. After careful deliberation, we welcome Karen Parmett as our first part-time Program Director. This position was created to enable the BCF to develop more public activities, improve communications with supporters and the general public, and provide fund-raising and general operations support to the Board of Directors.

Karen has experience leading program and development departments at several non-profit agencies and is a very active Belmont volunteer. She has been a leader of Safe Routes to School at all four elementary schools and Chenery Middle School, working with town officials and Sustainable Belmont to encourage walking and to develop safe routes to school.

She was a member of the Superintendent's Task Force for a New Wellington School and the Task Force on Full Day Kindergarten. She is currently a member of the Belmont School Committee.

Karen has a passion for pedestrian safety and environmental issues. She worked as Director of Program Development at non-profit agencies prior to moving to Belmont six years ago. She brings to the BCF an energetic and grounded approach certain to be noticed as we expand our outreach and programs in the community.

Whether you're interested in the bike path, preserving the Uplands, cleaning the Belmont Center bridge, or brand new programs, please join us in welcoming Karen to her new role and reach out to her with your ideas and availability for joining BCF volunteers. Karen can be contacted at info@belmontcitizensforum.org.



SUSAN JONES

BCF Program Director Karen Parmett

Environmental Events

By Sally Rifkin

David V. Herlihy Author Event

Thursday, May 12, 7:30 p.m.

Bicycle historian and author David V. Herlihy will talk about his book *The Lost Cyclist*. Free. Sponsored by Friends of the Belmont Public Library. (617) 489-2000, www.belmont.lib.ma.us. Assembly room, Belmont Public Library, 336 Concord Avenue, Belmont.

Bay State Bike Week 2011

May 14-20

This year, the Massachusetts Department of Transportation (MassDOT) and the Massachusetts Bicycle Coalition (MassBike) are collaborating to make Bay State Bike Week exciting. Help promote biking as a mode of transportation by attending one or more of the events. Sponsored by MassDOT, MassBike, MassRides, and the Federal Highway Administration. For specific event information, visit <http://www.baystatebikeweek.org>. baystatebikeweek@massbike.org.

10th Annual Herb Sale

Saturday, May 14, 9 a.m.-4 p.m.

The Habitat Intergenerational Program's Herb

Study Group is holding its annual herb sale with Massachusetts-grown, organic annual and perennial herbs from J. Gilson Greenhouses in Groton. Three-inch pots are \$3; 4 for \$10. Free. Sponsored by Habitat Education and Wildlife Sanctuary. habitat@massaudubon.org, www.massaudubon.org/Nature_Connection/Sanctuaries/Habitat. *Habitat Education and Wildlife Sanctuary, 10 Juniper Road, Belmont.*

Mystic River Herring Run and Paddle

Sunday, May 15, 8 a.m.-3 p.m.

Join the Mystic River Watershed Association for a fun day along the Mystic River. The day's events include a 5K run/walk race, three paddling races (3, 9, and 12 miles), educational booths, children's activities, and more. Registration required. Sponsored by the Mystic River Watershed Association. (781) 891-6575, HerringRun@gmail.com, www.mysticriver.org/herring-run. *Blessing of*

the Bay Boathouse, 32 Shore Drive, Somerville.

Bike Talk

Saturday, May 21, 9 a.m.-3 p.m.

Bicycles, bicycling, and bicycle maintenance at Belmont Town Day. Bring us your questions or even your bicycle. Talk with our resident bicycle experts. Look for us at the Belmont Citizens Forum canopy. Free. Sponsored by the Belmont Citizens Forum.

Forum Disconnects Phone

The Belmont Citizens Forum has discontinued its phone service. To contact the Forum, please e-mail: info@belmontcitizensforum.org.

We need you.

If you can volunteer even a few hours a month, you can make a difference. You do not need to be an expert—just a person who cares about our town.

I can devote time to:

- ____ Archaeology & Historic Preservation
- ____ Environmental Protection
- ____ Planning & Zoning
- ____ Community Path
- ____ Walking in Belmont
- ____ Mailings
- ____ Newsletter

I can help pay for this newsletter:

It costs about \$4,000 to publish each issue of our newsletter. Please donate for this purpose:

____\$25 ____\$50 ____\$100 ____\$250

Name _____

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If you have questions, please e-mail us at info@belmontcitizensforum.org. The Belmont Citizens Forum is a nonprofit 501(c)(3) organization. Your donation is deductible from federal taxes to the full extent provided by law.

Make checks payable to **Belmont Citizens Forum** and mail to Belmont Citizens Forum, P.O. Box 609, Belmont MA 02478.

Thank you.

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**PUBLIC MEETING ON BIKE PATH ROUTES
THROUGH BELMONT**

Thursday, May 19, 7 p.m.
Belmont Town Hall Auditorium

May/June 2011

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